

Pennsylvania Standards for Residential Site Development



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First Printing April 2007
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Pennsylvania Housing Research/ Resource Center

The research on which this report is based was funded in part by the United States Environmental Protection Agency through Cooperative Agreement number 04-DEC-12SG with the Water Environment Research Foundation (WERF). Funds awarded under the Cooperative Agreement cited above were not used for editorial services, reproduction, printing, or distribution.

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Acknowledgements

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The Pennsylvania Housing Finance Agency
 The Water Environment Research Foundation (with support from the Pennsylvania Department of Environmental Protection)
 The Commonwealth of Pennsylvania;
 The members of the PHRC; and
 The Pennsylvania Builders Association.

The PHRC and the Hamer Center would like to thank the following members of the Land Development Consortium who provided oversight for the development of this document. The members met numerous times over a two year period to review technical and policy issues related to the standards. Their input helped developed a consensus based document that represents the diverse views from all groups involved in the land development process in the Commonwealth. The inclusion of a participant in the Consortium does not indicate that the organization or the individual has formally approved this document.

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Pennsylvania Fire and Emergency Services Institute

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Acknowledgements

Pennsylvania Builders Association

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PREAMBLE



Over the past decade, the trend in land planning has been towards design techniques that encourage a more sustainable¹, low-impact² form of development. These innovative planning and design techniques are intended to reduce the impact that development has on the land by minimizing impervious area, and conserving natural resources and open space. In recent years, Commonwealth agencies (PaDEP and DCED, for example) have been promoting these planning and design techniques, suggesting that their implementation will reduce infrastructure costs associated with land development. However, there is a wide gap between the desire to effect these changes and the ability of local municipal officials to efficiently implement them through revisions to local codes and ordinances.

Project Objectives:

- **To develop residential site development standards, tailored to Pennsylvania, that can be used to assist municipalities in updating their land development standards.**
- **To promote responsible and affordable development.**
- **To base standards on current science and engineering.**

Obstacles to Sustainable Residential Development

Many, if not most, residential development ordinances which exist at the time of this writing include obstacles to the implementation of sound design practices. In a 1999 study³, the Pennsylvania Housing Resource/Research Center (PHRC) reviewed residential land development practices in the Commonwealth to assess local regulatory practices. The PHRC found two issues that frequently emerged in commentary on local subdivision and land development regulatory policy.

The first, noted most often by conservationists and design professionals, was the general lack of creativity in the design and development of residential land. This shortcoming was widely considered to be a result of the lack of flexibility within individual zoning and subdivision ordinances. While this inflexibility results in consistency within a municipality, it does not permit the design creativity necessary to effect sustainable development.

The second issue, raised by builders and developers, was the lack of consistency among site improvement design standards from one municipality to another. This results in awkward inconsistencies in lot size and building coverage characteristics, road widths, sidewalk locations, and other infrastructure configurations at municipal boundaries. In turn, these inconsistencies frequently result in confusion and unnecessary costs due to plan and construction changes.

Inflexibility and lack of regulatory consistency among municipalities was also identified as an issue in a report by the Governor's Center for Local Government Services published in 2001. Many of the design standards targeted in that report, titled *Reducing Land Use Barriers to Affordable Housing*, are the same as those identified in the PHRC report. Significant issues are identified as barriers to affordable housing in this report:

- Zoning standards favor conventional site design rather than creative design techniques that may reduce infrastructure costs.
- Lot dimensions, such as frontage width, front setbacks, side yard requirements, etc., can be excessive, adding unnecessarily to costs.
- Lot size and coverage are typically rigid standards that do not permit flexibility in design.
- Street widths and standards are excessive and are unrelated to expected uses and traffic.
- Stormwater management design standards are rigid and do not encourage or allow for thoughtful low-impact development concepts.
- Parking standards are often excessive and inflexible, resulting in the creation of unnecessarily large impervious areas.

It has also been observed that state regulatory policy and existing local land-use ordinances are sometimes at odds. This was evidenced in 2003 when the Commonwealth introduced a new stormwater management policy. Many of the design elements required to implement creative stormwater solutions under that policy—such as the use of permeable surface materials, reductions in road widths use of roadside swales, elimination of curbs where possible, etc.—are currently not permitted under many local subdivision ordinances.

Based on these findings ordinances there is a clear need to provide new tools and standards to assist local governments in updating their to facilitate and promote sustainable and economically responsible residential development.

The Challenge

With over 2,500 units of local government in Pennsylvania, updating residential development ordinances poses a challenge. Many municipalities do not have the professional planning or engineering staff needed to coordinate this effort. Recognizing this reality and in response to the need for regulatory improvement to promote responsible and affordable development within the Commonwealth, an effort was undertaken to create recommended standards for residential site development that could be easily understood, and efficiently implemented by municipalities. This document is the product of that effort. It is intended to assist municipalities and other stakeholders by providing a set of model standards on which to base improvements to local ordinances.

Early in the planning process for this document it was recognized that, for this document to succeed, it would need broad-based assistance from all stakeholder groups involved in the residential development process. For this reason, a stakeholder consortium was brought together to oversee and provide input to the document's development. This group included representatives from a cross section of the residential development industry including builders, developers, site contractors, local municipal officials, state agency representatives, design professionals, planners, and environmental groups. The efforts of this consortium have contributed significantly to the creation of this document.

Goal of This Document

The underlying goals of this effort are to provide site development standards that are:

- easily understood and can be efficiently implemented by municipalities;
- supported by key regulatory agencies, environmental organizations, and design professionals;
- optimize life cycle costs considering initial costs and maintenance;
- based on current engineering knowledge and science;
- embrace low-impact, sustainable development methodologies;
- reduce regulatory inconsistency that currently exists; and

- improve opportunities for non-vehicular movements for mobility, and for pedestrian health and safety.

This document includes development standards for subdivision roads, parking, trails and sidewalks, stormwater management, potable water systems, sanitary sewer systems, and grading. Guidelines for subdivision planning and zoning issues such as community character (residential vs. mixed use, etc.), lot density, open space, etc. are not included, however, Chapter 1 provides commentary on planning and site design considerations.

Application and Use

This document is presented in a recommended standards and related commentary format. The regulatory provisions of the document are located in the center of each pair of pages with commentary on the edges, in a gray box. The purpose of this format is to enhance understanding of the recommended standards by providing illustrated and written explanations that demonstrate the intent of regulations.

The document format also facilitates ease of municipal adoption and implementation. It is intended that this document be used as a tool to update municipal land development and subdivision ordinances within the Commonwealth.

Adopting the model standards set out in this document will help achieve the following:

- Create more consistency among the many municipal standards for residential subdivisions and site improvement that currently exist in Pennsylvania.
- Eliminate unnecessary construction and maintenance costs.
- Minimize impervious coverage to the extent practical, consistent with the Commonwealth's stormwater management policy.
- Provide design flexibility and promote diversity through performance-oriented site improvement standards.
- Facilitate development review by providing a solid basis for technical determinations.

It is recognized that residential development standards are not fixed for all time. Some of the model standards in this document will be affected by population trends, census data, and other factors that change with time. It

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is recommended that standards adopted by municipalities be re-visited at least every five years to ensure continued appropriateness.

- ¹ Development which strives to balance economic and social needs and pressures with resource conservation.
- ² An approach to land development that uses various design and impact mitigation practices to conserve and protect natural resource systems while reducing infrastructure cost.
- ³ Residential Site Improvement and Subdivision Design Standards: A Review, PHRC, Penn State University, July 1999.