

ARTICLE VIII

DESIGN STANDARDS

SECTION 801 APPLICABILITY

Any application for development shall conform to the standards set forth in this Article. The standards specified in this Article are minimum design requirements.

SECTION 802 REVIEW BY TOWNSHIP ENGINEER

In reviewing any application for development, the Planning Commission and the Board of Supervisors shall refer the application for development to the Township Engineer for a recommendation concerning technical compliance with these Design Standards and the Township Construction Standards.

SECTION 803 SITE DEVELOPMENT

803.1 Grading, Filling, Removal of Topsoil, Erosion and Sedimentation Control

All grading, filling, removal of topsoil and erosion and sedimentation control shall be performed in accordance with the requirements of the Township Grading Ordinance No. 72, as now or hereafter amended, and the requirements of the Pennsylvania Clean Streams Law and Chapter 102 of the Rules and Regulations of the Pennsylvania Department of Environmental Protection governing Erosion Control.

803.2 Planting and Cutting of Trees; Removal of Debris

Large shade trees shall be adequately protected from injury and preserved to the extent practical.

All lot areas which slope towards streets or adjacent lots shall be required to be seeded with grass or planted with ground cover so as to prevent washing and erosion.

During construction, the developer shall remove and dispose of all uprooted trees, stumps, brush, rubbish, unused building materials and debris promptly in the interest of public safety.

803.3 **Flood Prone Areas**

Land identified as flood prone on maps issued by the Federal Insurance Administration shall be subject to the regulations of the National Flood Insurance Program and shall comply with the provisions of the Township Flood Plain Management Ordinance No.53, as now or hereafter amended.

SECTION 804 **PUBLIC STREETS**

804.1 **Layout**

Streets shall be planned to conform with the layout of existing and planned streets and so located as to allow proper development of surrounding properties. Local streets shall be laid out so as to discourage through traffic. Collector streets should be designed to provide adequate flow of traffic from local streets to major community facilities and to arterial streets.

For all subdivisions which propose forty (40) lots or more, provisions shall be made for two (2) points of vehicular access to the plan. Where a second vehicular entrance and/or exit is not provided within the boundaries of the plan, a right-of-way for the future extension of a street or streets in the plan through adjoining vacant developable property shall be provided.

804.2 **Topography**

Proposed streets shall be planned to conform to the contour of the land, to the fullest extent possible to provide buildable lots, to have a suitable alignment and grade and to allow proper drainage.

804.3 **Street Grades**

Minimum and maximum grades shall be provided on all streets in accordance with the Design Standards specified in Appendix II. Grades shall be measured along the centerline of the street. Vertical curves shall be used in changes of grade exceeding one percent (1%) and should be designed in accordance with the Design Standards specified in Appendix II. Intersections shall be approached on all sides by leveling grades for a distance of twenty-five (25) feet within which no grades shall exceed the Design Standards specified in Appendix II. The grade of actual intersections shall not exceed six percent (6%) in any direction.

804.4 **Right-Of-Way and Paving Widths**

Minimum widths of rights of way and minimum widths of paving shall be provided in accordance with the Design Standards specified in Appendix II. All streets shall be paved in accordance with Township Construction Standards.

804.5 **Cul-De-Sacs**

A cul-de-sac shall not be approved when a through street is practical and shall not be more than twelve hundred (1,200) feet in length, unless an intermediate turnaround is provided at a distance of every twelve hundred (1,200) feet and a modification or exception to the maximum twelve hundred (1,200) foot length of cul-de-sac is granted in accordance with the requirements of Article IX of this Ordinance. A cul-de-sac shall have a minimum right of way radius and an outer minimum paving radius as specified in the Design Standards in Appendix II.

804.6 **Temporary Turnarounds**

A temporary turnaround may be required where a road is constructed to an adjoining property line or where the terminus of a road adjoins property in a future phase of the plan. The temporary turnaround shall be paved. The right of way width required for a temporary turnaround shall be a minimum of one hundred (100) feet and the outer paving radius of the temporary turnaround shall be forty (40) feet.

804.7 **Visibility**

No fence, hedges, shrubbery, walls, planting (other than trees and grass) or similar obstructions shall be located within the right of way and no such obstruction shall obscure visibility at any intersection. The location of fences and walls shall be further subject to the requirements of the Township Zoning Ordinance.

A clear sight triangle, as defined by this Ordinance and illustrated in Appendix I, shall be maintained free of any obstructions at intersections so that there shall be a minimum clear sight triangle measured along the centerline from the points of intersection in accordance with the requirements specified in Appendix II. The clear sight triangle shall be shown on the final plat for recording.

804.8 **Street Names**

All new street names shall be approved by the Township and the Post Office. Names of new streets shall be sufficiently different in sound and spelling from existing names of streets in the Township so as not to cause confusion. A street which is planned as a continuation of an existing street shall bear the same name. Street signs shall be provided in accordance with Section 706 of this Ordinance.

804.9 **Intersections**

Streets shall be laid out to intersect at right angles as nearly as possible and no street shall intersect another at an angle of less than 60°. Multiple intersections involving the junction of more than two (2) streets shall be prohibited. Intersections with major traffic streets shall be located not less than eight hundred (800) feet apart measured from centerline to centerline, wherever possible. Streets entering opposite sides of another street shall be laid out either directly opposite to one another or with a minimum off-set of one hundred fifty (150) feet between their centerlines.

804.10 **Crosswalks**

Crosswalks may be required wherever necessary to facilitate pedestrian circulation and to give access to community facilities such as parks, playgrounds, schools or public buildings.

SECTION 805 **PRIVATE STREETS**

Private streets, as defined herein, may be authorized in a Minor Subdivision only if all of the following requirements are met.

805.1 **Creating a New Private Street**

A new private street may be created which serves no more than three (3) lots, provided all of the following requirements shall be met:

- a. The proposed lot or lots have no other access to a public street. If the original parcel from which the subdivision is created has its principal vehicular access from the private street, it shall be counted as a lot on the private street, even though it has legal frontage on a public street.

- b. In the case where a new private street is proposed, the property from which the new lots are subdivided and over which the private street is proposed shall have frontage on an improved public street.
- c. The private street shall meet all of the following requirements:
 - 1. The minimum width of the right-of-way required for a private street shall be twenty (20) feet, unless there is the possibility that the property fronting on the private street or property at the terminus of the private street can be further subdivided, then the minimum width of the right-of-way required for the private street shall be fifty (50) feet.
 - 2. The minimum width of the cartway required for a private street serving no more than three (3) lots shall be sixteen (16) feet.
 - 3. The cartway for a private street shall be improved to meet the Township Construction Standards for a private street.
- d. A notation shall be placed on the plat for recording indicating that the Township has no maintenance responsibilities for the private street.
- e. The plat for recording shall contain a notation and the deeds for each lot shall contain a reference to an executed and recorded agreement obligating the property owners to maintain the private street.
- f. The plat for recording and the deeds for each lot shall contain a statement that any future request by the lot owners to have the street accepted by the Township as a public street shall be subject to the owners assuming the total cost of improving the private street to the current Township Construction Standards for a public street.
- g. House numbers for dwellings located on private streets shall be placed at the intersection of the private street and the public street and shall be visible from the public street.
- h. The owners of the lots shall provide signage approved and installed by the Township in the public right-of-way to indicate the name of the street, that the street is private and that there is no outlet.
- i. If the Township Supervisors grant a modification to this §805.1 to permit more than three (3) lots along the frontage of a new private street in accordance with all the requirements of Article X of this Ordinance, such approval shall be subject to the requirement to

increase the right-of-way for the private street to fifty (50) feet. In granting such modification, the Township Supervisors shall consider whether an increase in the width of the cartway is warranted.

805.2 Subdivisions on an Existing Private Street

Subdivisions may be approved on an existing private street, provided all of the following requirements are met:

- a. The proposed private street shall not be extended.
- b. The proposed lot or lots have no other feasible access to a public street. If the original parcel from which the subdivision is created has its principal vehicular access from the private street, it shall be counted as a lot on the private street, even though it has legal frontage on a public street.
- c. On an existing private street which has a right of way which is less than fifty (50) feet wide, the total number of lots fronting on the private street shall not exceed three (3) lots, unless the right-of-way is increased to at least fifty (50) feet. If the right-of-way for the entire existing private street is increased to at least fifty (50) feet, then the subdivision on the private street shall be subject to §805.2(d) below.
- d. On an existing private street which has a right-of-way width of at least fifty (50) feet, the total number of lots along the private street right-of-way shall not exceed six (6) lots, unless the entire street is dedicated to the public and the cartway of the entire street is improved at the lot owners expense to current Township Construction Standards for public streets.
- e. No improvements shall be required to the cartway for lots which are recorded on an existing private street right-of-way, unless the number of lots mandates the dedication and construction of a public street.
- f. A notation shall be placed on the plat for recording indicating that the Township has no maintenance responsibilities for the private street.
- g. The plat for recording shall contain a notation and the deeds for each lot shall contain a reference to an executed and recorded agreement obligating the property owners to maintain the private street.

- h. The plat for recording and the deeds for each lot shall contain a statement that any future request by the lot owners to have the street accepted by the Township as a public street shall be subject to the owners assuming the total cost of improving the private street to the current Township Construction Standards for a public street.
- i. House numbers for dwellings located on private streets shall be placed at the intersection of the private street and the public street and shall be visible from the public street.
- j. If signage does not exist already, all owners along the existing private street and any extension of the private street shall provide signage approved and installed by the Township in the public right-of-way to indicate the name of the street, that the street is private and that there is no outlet.

SECTION 806 SERVICE STREETS

Service streets, as defined by this Ordinance, may be permitted in residential, commercial and industrial developments where needed for loading, unloading or secondary access. Service streets shall be constructed in accordance with Township Construction Standards and shall meet the minimum design standards shown in Appendix II for local streets, except that the minimum right of way width may be reduced to thirty (30) feet and the minimum cartway width may be reduced to twenty (20) feet.

SECTION 807 EASEMENTS

Easements for sanitary sewers, water lines and stormwater management facilities shall be required to have a minimum width of twenty (20) feet. Where a subdivision or land development is, or will be, traversed by a watercourse, there shall be provided a stormwater easement or drainage right of way of a width sufficient for the purpose, but not less than twenty (20) feet.

SECTION 808 LOTS

The following standards shall apply to all lots proposed to be subdivided or developed in accordance with this Ordinance.

808.1 Area

Minimum lot areas shall conform to the requirements of the Township Zoning Ordinance.

808.2 **Frontage**

All lots created by a subdivision shall have frontage along the right of way of a public street, unless a private street is approved in accordance with the requirements of Section 805 of this Ordinance, and the width of the frontage shall conform to the requirements of the Township Zoning Ordinance.

Flag lots shall be permitted only in a Minor Subdivision unless a modification is granted in accordance with Article X of this Ordinance. The minimum frontage on a public street shall be fifty (50) feet if the flag lot has sufficient lot area so that it has the potential to be further subdivided into three (3) or more lots which meet the minimum requirements of the Township Zoning Ordinance. The minimum frontage on a public street shall be twenty (20) feet, if the flag lot does not have sufficient lot area to be further subdivided into more than two (2) lots which meet the minimum requirements of the Township Zoning Ordinance.

808.3 **Double Frontage**

Double frontage lots shall be avoided; however, where a double frontage lot is the only practical alternative, vehicular access shall be limited to only one (1) street and that street shall be the street with the lower volume of traffic, if physically feasible. The final plan shall contain a notation restricting vehicular access to one (1) frontage.

808.4 **Side Lines**

Whenever practical, the side lines of a lot shall be at right angles or radial to the right of way lines of streets.

808.5 **Front Building Lines**

Front building lines of lots shall conform to the minimum requirements of the Township Zoning Ordinance and shall be shown on the Final Plat.

808.6 **Grading**

Lots shall be graded to provide drainage away from buildings and water shall be drained to the street, rather than to adjoining property. The developer shall be required to provide drains or other drainage facilities, as approved by the Township Engineer, to drain off surface water within the development.

808.7 Driveways

No driveway shall have a slope of more than twelve percent (12%). Driveways may extend from the right of way line of the street to the cartway of the street, but shall not change the grade or contour of the street right of way, nor shall any person cut into, fill, or in any way alter any gutter, curbing, drainage ditch or storm sewer, within the right of way of a street or easement for the purpose of extending a driveway; or for any other purpose without first obtaining a permit therefor from the Township. All curb cuts shall conform to Township specifications. Paved driveways shall have a joint at the public street right of way. Driveways shall not be constructed in such a way that creates a drainage problem on adjoining property. No catch basin shall be placed where a driveway intersects a street.

Driveways shall be constructed in accordance with Township specifications and/or the Pennsylvania Department of Transportation Design Manual, Part 2, Chapter 18.

808.8 Accessibility

Every lot, building and structure shall be accessible to emergency and public safety vehicles.

808.9 House Numbers

House numbers shall be assigned by the developer, subject to the approval of the U. S. Postal Service, and shall be posted at each house so as to be easily visible and readable from the street.

SECTION 809 STORMWATER MANAGEMENT

Stormwater management facilities shall be provided for subdivisions and land developments as required by the Township Stormwater Management Ordinance No. 66 amending Ordinance No. 31, as now or hereafter amended.

SECTION 810 STORM SEWERS AND DRAINAGE FACILITIES

810.1 Size and Grade

Storm drains shall be adequate for the anticipated run-off when the area is fully developed. The minimum diameter of storm sewers shall be fifteen (15) inches, and the minimum grade shall be one percent (1%), unless approved by the Township Engineer.

810.2 **Manholes**

For pipe sizes of twenty-four (24) inches or less, manholes shall be spaced at a maximum of four hundred (400) feet and for larger pipe sizes, the maximum distances between manholes shall be six hundred (600) feet. In addition, manholes shall be installed at all points of abrupt changes in horizontal alignment and vertical grade. Inlets may be substituted for manholes where practical.

810.3 **Inlets**

Inlets of the type shown in the Township Construction Standards shall be installed. Inlets at street intersections shall be placed on the tangent and not on the curved portions.

810.4 **Castings**

Manholes and inlet castings shall be as indicated in the Township Construction Standards.

810.5 **Water Courses**

The stopping, filling up, confining or other interference with, or changing the course of, drains, ditches, streams and water courses in the Township rights-of-way shall not be permitted unless approval in writing is obtained from the Board of Supervisors. A permit shall be obtained from the Department of Environmental Protection (DEP) of the Commonwealth of Pennsylvania for construction or changes in a water course which is subject to the regulations of the Pennsylvania Department of Environmental Protection.

810.6 **Bridges and Culverts**

All bridges and culverts shall be designed to support expected loads and to carry expected flows and shall be designed to meet current standards of the Pennsylvania Department of Transportation. All bridges and culverts shall be subject to all permits required by the Pennsylvania Department of Environmental Protection, Bureau of Dams and Encroachments.

SECTION 811 SANITARY SEWERS

811.1 Installation

Installation of sanitary sewers and appurtenances shall be in accordance with the regulations of the Peters Creek Sanitary Authority or other applicable Municipal Authority, subject to the approval of the Township Engineer. All utility stubs shall be extended to the street right of way line. All sanitary sewers shall have the approval of the Pennsylvania Department of Environmental Protection (DEP) prior to initiating construction.

811.2 Minimum Size and Grade

The minimum diameter of sanitary sewers shall be eight (8) inches and the minimum grade shall be 1.0 percent.

811.3 Laterals

Lateral connections, where required, shall be installed to the right of way line of the street prior to road paving. Each building shall have a separate connection to the public sewer, except that garages accessory to dwellings may be connected to the dwelling line.

SECTION 812 HANDICAPPED ACCESSIBILITY

Where applicable, all subdivision and land development plans shall be designed to meet the current standards of the Commonwealth and Federal law with respect to handicapped accessibility.

SECTION 813 TESTING

All manholes shall be vacuum tested and all sanitary sewer lines shall be lamped and air tested by the developer in the presence of the Township Engineer or Inspector. Air tests shall be conducted in accordance with the specifications established by currently accepted engineering standards.

All construction materials used in sewers, streets, sidewalks and other required improvements shall be tested by a qualified testing laboratory, if required by the Township Engineer. The cost for such tests shall be borne by the developer.

Copies of the test reports shall be provided to the Township Engineer and to the developer.