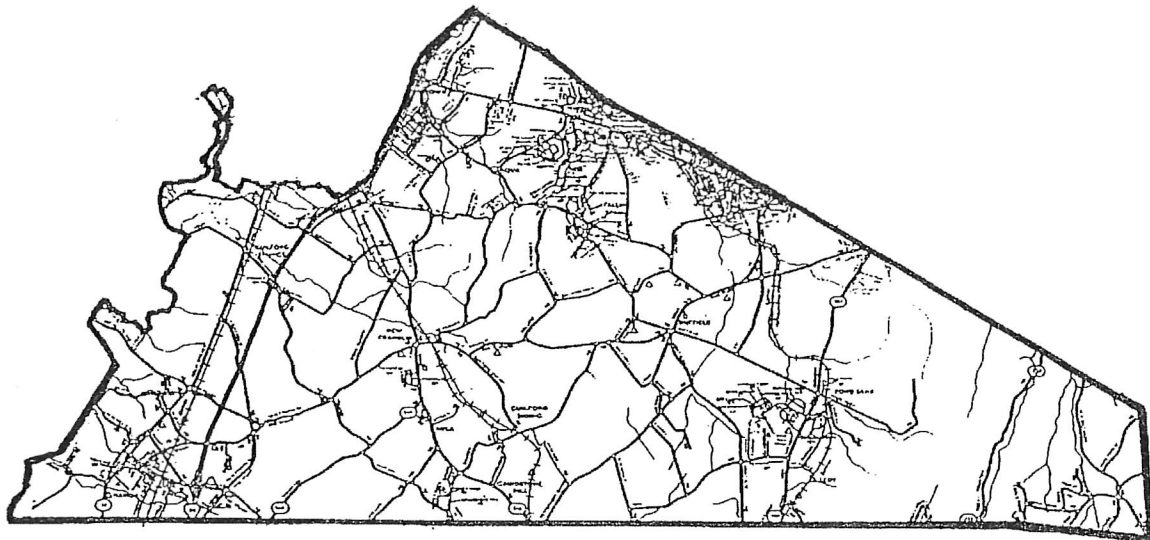


GUILFORD TOWNSHIP

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE



**GUILFORD TOWNSHIP
FRANKLIN COUNTY
PENNSYLVANIA**

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE

**GUILFORD TOWNSHIP
FRANKLIN COUNTY
PENNSYLVANIA**

**115 SPRING VALLEY ROAD
CHAMBERSBURG, PENNSYLVANIA 17201**

BOARD OF SUPERVISORS

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LAWRENCE J. LAHR, PLANNER**

ENACTED: JANUARY 7, 1999

AMENDED: AUGUST 2, 2001

AMENDED: JULY 1, 2004

AMENDED: JULY 7, 2005

AMENDED: DECEMBER 18, 2008

AMENDED: JULY 15, 2010

AMENDED: DECEMBER 15, 2011

AMENDED: AUGUST 07, 2014

AMENDED: DECEMBER 20, 2018

GUILFORD TOWNSHIP
FRANKLIN COUNTY, PENNSYLVANIA
SUBDIVISION AND LAND DEVELOPMENT ORDINANCE

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GUILFORD TOWNSHIP

FRANKLIN COUNTY, PENNSYLVANIA

ORDINANCE NO. 99-1, ENACTED JANUARY 7, 1999

AMENDED BY ORDINANCE NO. 2001-02, ENACTED AUGUST 02, 2001

AMENDED BY ORDINANCE NO. 2004-02, ENACTED JULY 01, 2004

AMENDED BY ORDINANCES NO. 2005-16, 2005-17, 2005-18, ENACTED
JULY 7, 2005

AMENDED BY ORDINANCE NO.'s 2008-09, 2008-10, ENACTED DECEMBER 18,
2008

AMENDED BY ORDINANCE NO. 2010-02, ENACTED JULY 15, 2010

AMENDED BY ORDINANCE NO. 2011-11, ENACTED DECEMBER 15, 2011

AMENDED BY ORDINANCE NO. 2014-06, ENACTED AUGUST 07, 2014

AMENDED BY ORDINANCE NO. 2018-15, ENACTED DECEMBER 20, 2018

Providing an Ordinance, regulating the subdivision and development of land including mobile home parks within the Township of Guilford, Franklin County, Pennsylvania, providing for the preparation of preliminary and final plats for such purpose; requiring certain improvements to be made or guaranteed to be made by the subdivider and developer; regulating sales of lots, erection of buildings, laying out, construction, opening and dedication of streets, sewers, other facilities, and public improvements in connection with subdivisions and land developments and prescribing penalties for the violation thereof.

ARTICLE I

GENERAL PROVISIONS

101 TITLE

These regulations shall be known and may be cited as "**The Guilford Township Subdivision and Land Development Ordinance**".

102 PURPOSE

This Ordinance has been adopted by the Guilford Township Board of Supervisors to protect the health, safety, morals and general welfare of the citizens of the Township; to provide for the harmonious development of the Township by insuring equitable handling of all subdivisions or land development plans by providing uniform standards and procedures; to provide for the general welfare by providing and protecting cultural facilities and environmental features; by guiding the development and growth of structures, types and locations of streets, open spaces and public grounds, recreation, proper traffic flows, light and air, and the proper distribution of population to insure conditions favorable to the health, safety, morals, and general welfare of the citizens of the Township.

103 AUTHORITY

The Board of Supervisors is hereby designated as the approval body for all applications, plans, and related matters as governed by this Ordinance.

104 COUNTY REVIEW

Applications for review of subdivision and land development within the Municipality must be forwarded upon receipt by the Municipality to the County Planning Commission along with the required fee for review and report, and the Municipality shall not approve such applications until the county report is received, or until the expiration of forty-five (45) days from date the application was forwarded to the County.

105 APPLICATION OF REGULATIONS

- A. No subdivision or land development of any lot, tract, or parcel of land located in the Municipality shall be effected; no street, sanitary sewer, storm sewer, water main, or other facility in connection therewith shall be laid out, constructed, opened or dedicated for public use or travel, or for the common use of occupants of the buildings thereon unless and until a final subdivision plat has been approved by the Governing Body and publicly recorded in the manner

prescribed herein; nor otherwise except in strict accordance with the provisions of this Ordinance.

- B. No lot in a subdivision may be sold; no permit to erect or alter any building upon land in a subdivision or land development may be issued; and no building may be erected or altered in a subdivision or land development, unless and until a final subdivision plan has been approved by the Governing Body and recorded, and until construction of the improvements required in connection therewith has been guaranteed in the manner prescribed herein.
- C. No subdivision or land development shall be approved in final form unless and until the applicable plans are in full compliance with the prevailing regulations of the Guilford Township Zoning Ordinance.

106 INTERPRETATION

In interpreting and applying the provisions of This Ordinance, they shall be held to be minimum requirements for the promotion of public health, environmental, safety, comfort, convenience, and general welfare. Where provisions of a statute, other ordinance, resolution, or regulation imposes greater restrictions than This Ordinance, the provisions of such statute, resolution, ordinance, or regulation shall be controlling.

107 EFFECTIVE DATE

This Ordinance shall become effective immediately, and shall apply to all subdivision and land development applications filed after the effective date.

108 REPEALER

All ordinances or parts of ordinances of Guilford Township in conflict with this Ordinance, to the extent of such conflict and no further, are hereby repealed.

ARTICLE II

DEFINITION OF TERMS

201 GENERAL USAGE

It is intended that the definitions set forth herein are consistent with the definitions of Commonwealth statutes and regulations affecting the subdivision and land development process including but not limited to, Pennsylvania Municipalities Planning Code, Pennsylvania Sewage Facilities Act, Second Class Township Code and associated statutes and regulations.

- A. Words in the singular include the plural and those in the plural include the singular.
- B. Words used in the present tense include the future tense.
- C. The words "person," "Subdivider," "Developer," and "owner" include a corporation, unincorporated association and a partnership, or other legal entity, as well as an individual engaged in the subdivision of land and/or land development.
- D. The word "building" includes structure and shall be construed as if followed by the phrase "or part thereof."
- E. The word "watercourse" includes channel, creek, ditch, dry run, spring, stream and river.
- F. The words "should" and "may" are permissive; the words "shall" and "will" are mandatory and directive.
- G. The terms mobile home and manufactured home are used interchangeably, and for purposes of this ordinance have the same meaning, unless specifically stated otherwise in the text.

202 SPECIFIC DEFINITIONS

Other terms or words used herein shall be interpreted or defined as follows:

Accessory Use or Structure: A use or structure on the same lot with, and of a nature customarily incidental and subordinate to, the principal use or structure.

Alley, Private: A private right-of-way affording access to one or more parcels of land in private ownership and maintained by the property owners over which the right-of-way passes. Also private service alley.

Animal Equivalent Unit: One thousand pounds live weight of livestock or poultry animals, regardless of the actual number of individual animals comprising the unit.

Annual Population Concentration: The annual average of the monthly sums of the highest population concentrations of any and all species of livestock and poultry being raised by a livestock or poultry operation for all months of a calendar year, excluding those months in which no such species are raised as a result of normal seasonal changes or business practices, or as a result of disease or threat of disease.

Applicant: A landowner or developer, as hereinafter defined, who has filed an application for development including his heirs, successors and assigns.

Application for Development: Every application, whether preliminary, tentative or final, required to be filed and approved prior to start of construction or development including but not limited to an application for a building permit, for the approval of a subdivision plat or plan or for the approval of a development plan.

Block: An area bounded by streets.

Board of Supervisors: (Supervisors): The Board of Supervisors of the Township of Guilford.

BUFFER YARD (See also SCREENING): A landscaped area intended to separate and partially obstruct the view of two adjacent land uses or properties from one another. A strip of land,

identified on a site plan or by a zoning ordinance, established to separate visually one type of land use from another land use that is incompatible. Normally, the area is landscaped and kept in open space use. Required plantings, fences and/or mounds shall be six (6) foot (minimum) height at planting or installation. Existing trees and shrubs, on the subject property may be accounted for in the required landscaped area.

Building: A combination of materials to form a structure having walls and a roof, including but not limited to all manufactured homes and trailers used for human habitation.

Building Setback Line (setback): The line within a property defining the required minimum distance between any structure and the adjacent right-of-way, and the line defining side and rear yards, where required.

Cartway: That portion of a street which is improved, designated or intended for vehicular use excluding the shoulders.

Clear Sight Triangle: An area of unobstructed vision at street intersections. It is defined by lines of sight between points at a given distance from the intersection of the street center lines.

Completely Dry Space: A space which will remain totally dry during flooding; the structure is designed and constructed to prevent the passage of water and water vapor.

Construction: The construction, reconstruction, renovation, repair, extension, expansion, alteration, or relocation of a building or structure, including the placement of manufactured homes.

County: Franklin County, Pennsylvania

Cul-de-sac: A street with access closed at one end and with a vehicular turn-around at the closed end.

Cut: An excavation. The difference between a point on the original ground and designated point of lower elevation on the final grade. Also, the material removed in excavation.

Designated Flood Plain Area: A relatively flat or low land area adjoining a river, stream or watercourse which is

subject to partial or complete inundation in a 100-year flood, as designated.

Detention Structure: A vegetated pond, swale, or other structure designed to drain completely after storing surface water runoff only for a given storm event and release it at a predetermined rate.

Developer: Any landowner, agent of such landowner or tenant with the permission of such landowner, who makes or causes to be made a subdivision of land or a land development.

Development: Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, the placement of manufactured homes, streets and other paving, utilities, mining, dredging, fillings, grading, excavation or drilling operations, and the subdivision of land.

Development Plan: The provisions for the development of a tract of land, including a subdivision plat, all covenants relating to use, location and bulk of buildings and other structures, intensity of use or density of development, streets, ways and parking facilities, common open-space and public facilities. The phrase "Provisions of the development plan" when used in This Ordinance shall mean written and graphic materials referred to in this definition. Includes all plans for all land developments.

Drainage: The flow of water or liquid waste and the methods of directing such flow.

Driveway: A minor vehicular right-of-way providing access between a street and a parking area or garage within a lot or property, owned and maintained by the private property owner; or, a minor vehicular right-of-way providing access between two properties, owned and maintained by the private property owner.

Dwelling: A building designed for residential purposes and used as living quarters for one or more persons as further defined by the Guilford Township Zoning Ordinance.

Dwelling Unit: One or more rooms used for living and sleeping purposes and having a kitchen with fixed cooking facilities arranged for occupancy by one (1) family or a single person.

Easement: A right granted for the use of private land for certain public or quasi-public purposes; also the land to which such right pertains.

Engineer, Township: The Township Engineer or any consultant designated by the Board of Supervisors to review a subdivision plan and perform the duties of engineer in behalf of the Township.

Engineering Specifications: The Engineering Specifications of the municipality regulating the installation of any required improvement or for any facility installed by any owner, subject to public use.

Essentially Dry Space: A space which will remain dry during flooding, except for the passage of some water vapor or minor seepage; the structure is substantially impermeable to the passage of water.

Flood: A temporary inundation of normally dry land areas.

Flood Plain: See definition of "Flood-Prone Area" below.

Floodproofing: Any combination of structural and nonstructural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water or sanitary facilities, structures and their contents.

Flood-Prone Area: A relatively flat or low land area which is subject to partial or complete inundation from an adjoining or nearby stream, river or watercourse; and/or any area subject to the unusual and rapid accumulation of surface waters from any source.

Floodway: The channel of a river or other watercourse and the adjacent land areas required to carry and discharge a flood of the 100-year magnitude without increasing the water surface elevation of that flood more than one foot (1'0") at any point. The floodway will be as established by the latest mapping made available by the Federal Emergency Management Agency or as otherwise adopted by the Township.

Identified Flood-Prone Area: The flood plain area specifically identified as being inundated by the 100- year flood. Included would be areas identified as Floodway (FW), Flood Fringe (FF), Special Flood Plain (FE), and General

Flood Plain (FA).

Landowner: The legal or beneficial owner or owners of land including the holder of an option or contract to purchase (whether or not such option or contract is subject to any condition), a lessee if he is authorized under the lease to exercise the rights of the landowner, or other person having a proprietary interest in land, shall be deemed to be a landowner for the purposes of this act.

Land development: any of the following activities:

(i) the improvement of one lot or two or more contiguous lots, tracts or parcels of land for any purpose involving (a) a group of two or more residential or nonresidential buildings, whether proposed initially or cumulatively, or a single nonresidential building on a lot or lots regardless of the number of occupants or tenure; or (b) the division or allocation of land or space, whether initially or cumulatively, between or among two or more existing or prospective occupants by means of, or for the purpose of streets, common areas, leaseholds, condominiums, building groups or other features; (ii) a subdivision of land; (iii) excluding (a) the conversion of an existing single-family detached dwelling or single-family semi-detached dwelling into not more than three residential units, unless such units are intended to be a condominium; (b) the addition of an accessory building, including farm buildings, on a lot or lots subordinate to an existing principal building; or (c) the addition or conversion of buildings or rides within the confines of an enterprise which would be considered an amusement park. For purposes of this subclause, an amusement park is defined as a tract or area used principally as a location for permanent amusement structures or rides. This exclusion shall not apply to newly acquired acreage by an amusement park until initial plans for the expanded area have been approved by proper authorities; (iv) any improvement that creates an area of impervious material on the parcel of five thousand (5,000) square feet or more.

LANDSCAPING: For the purpose of this Ordinance, landscaping is composed primarily of trees, shrubs and other plantings which serve to provide aesthetic appeal and to safeguard public health, safety and welfare, by serving as a buffer between uses, controlling erosion, reducing glare, lowering temperature, softening sound, diverting wind and reducing pollutants. A landscaping layout may contain other elements

including water, timber, rocks, grass and street furniture.

Lot: A designated parcel, tract or area of land established by a plat or otherwise as permitted by law and to be used, developed or built upon as a unit.

Lot Area: The area contained within the property lines of a lot as shown on a subdivision or land development plan excluding space within any existing public right-of-way, but including areas of easement.

Marginal Access Street: Minor streets, parallel and adjacent to Township or State streets, providing access to abutting properties and control of intersections with the Township or State street, and maintained by the owners of property over which the marginal access street passes.

Mobile Home or Manufactured Home: A transportable, single family dwelling intended for permanent occupancy, office, or place of assembly, contained in one or more sections, built on a permanent chassis, which arrives at a site complete and ready for occupancy except for minor and incidental unpacking and assembly operation, and utility hookup, and constructed so that it may be used with or without a permanent foundation. Although the terms mobile home and manufactured home are used interchangeably in this ordinance, manufactured homes are those built after the enactment of the Federal Manufactured Housing Construction and Safety Standards Act of 1974, which became effective June 15, 1976. The terms manufactured home or mobile home do not include recreational vehicles or travel trailers, except for floodplain management purposes, when the term shall include such vehicles or trailers or similar vehicles parked on a site for greater than one hundred-eighty (180) days.

Mobile Home/Manufactured Home Development: A general category of development that includes mobile home/manufactured home subdivisions and mobile home/manufactured home parks.

Mobile Home/Manufactured Home Lot: A parcel of land in a mobile home/manufactured home park, improved with the necessary utility connections and other appurtenances necessary for the erection thereon of a single mobile home/manufactured home.

Mobile Home/Manufactured Home Park: A parcel or contiguous parcels of land under single ownership, which has been so designated and/or improved that it contains two or more mobile homes, or manufactured home lots for the placement thereon of mobile homes.

Mobile Home/Manufactured Home Subdivision: A subdivision designed and/or intended for the sale of lots for siting mobile homes/manufactured homes.

Minor Repair: The replacement of existing work with equivalent materials for the purpose of its routine maintenance and upkeep, but not including the cutting away of any wall, partition or portion thereof, the removal or cutting of any structural beam or bearing support, or the removal or change of any required means of egress, or rearrangement of parts of a structure affecting the exitway requirements; nor shall minor repairs include addition to, alteration of, replacement or relocation of any standpipe, water supply, sewer, drainage, drain leader, gas, soil, waste, vent, or similar piping, electric wiring or mechanical or other work affecting public health or general safety.

Municipality: Guilford Township, Franklin County, Pennsylvania.

Non-point Source Pollution: Pollution which is generated by diffuse land use activities rather than from an identifiable or discrete facility, and is conveyed to waterways through natural processes, such as rainfall, storm runoff, or ground water seepage rather than by direct discharge.

Obstruction: Any wall, dam, wharf, embankment, levee, dike, pile abutment, projection, excavation, channel, rectification, culvert, building, fence, stockpile, refuse, fill, structure, or matter in, along, across, or projecting into, any channel, watercourse, or flood-prone area, which may impede, retard, or change the direction of the flow of water either in itself or by catching or collecting debris carried by such water or is placed where the flow of water might carry the same downstream to the damage of life and property.

Official Map: A map adopted by the Guilford Township Board of Supervisors pursuant to Article IV of the Pennsylvania Municipalities Planning Code.

On-Site Storm Water Management: The control of runoff to allow water falling on a given site to be absorbed or retained on site to the extent that after development the peak rate of discharge leaving the site is not significantly different than if the site had remained undeveloped.

One Hundred Year Flood: A flood that, on the average, is likely to occur once every hundred (100) years. (i.e. that has one (1) percent chance of occurring each year, although the flood may occur in any year.)

Panhandle Lot: A lot that it is connected to a public street by a twenty (20') foot wide strip of land that is a part of the lot but that is not used in determining the applicable minimum lot area requirement. The minimum lot area of a Panhandle Lot shall be calculated by using only that portion of the lot that satisfies the minimum lot width dimension.

Pavement: That portion of the street, including the cartway and the shoulders, which is improved with base, binder and wearing courses.

Pennsylvania Department of Environmental Protection: (D.E.P.)

Pennsylvania Department of Transportation: (PA D.O.T.)

Pennsylvania Municipalities Planning Code: Act of 1968, P.L. 805, No. 247 as amended (P.M.P.C.).

Person: An individual, partnership, public or private association or corporation, firm, trust, estate, municipality, governmental unit, public utility or any other legal entity whatsoever which is recognized by law as the subject of rights and duties.

PLANTING STRIP: An area landscaped with ground cover and plant material that does not include any impervious cover except for the crossing of approved entrance/exit driveways.

Pollution (water): Any contamination or other alteration of the physical, chemical, or biological properties of any waters, including a change in temperature, taste, color, turbidity, or odor of the waters or the discharge or deposit of any organic matter, harmful organism, or liquid, gaseous, solid, radioactive, or other substance into any waters that will render the waters harmful, or detrimental to; public

health, safety or welfare; domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses; livestock, wild animals, birds, fish or other aquatic life.

Public Water System: A system which provides water to the public for human consumption owned by the Guilford Water Authority or another municipal entity providing public water service within Guilford Township.

Regulatory Flood Elevation: The 100-year flood elevation plus a freeboard safety factor of one and one-half feet (1-1/2').

Retention Structure: A pond, swale, or other structure containing a permanent pool of water designed to store runoff for a given storm event.

Reverse Frontage Lot: A lot extending between and having frontage on two generally parallel streets with vehicular access restricted to the lesser traveled street.

Right-of-Way, Private: A strip of land designed for use as a means of vehicular or pedestrian access to a lot not intended for use by the public at large, or a significant segment thereof, and not intended for dedication to the Township.

Runoff: The surface water discharge or rate of discharge of a given watershed after a fall of rain or snow that does not enter the soil but runs off the surface of the land.

SCREENING (See also BUFFER YARD): The method by which a view or element of one site is partially shielded, concealed, or hidden from an adjacent site or adjacent element. Screening may include one or a combination of materials such as walls, berms, mounds, and plantings provided such materials are sufficiently dense within 12 months of installation. Plantings, fences, walls, and/or mounds shall be a minimum height of six (6) feet upon planting or installation.

Sewer Authority: The Guilford Township Authority, established under the Municipalities Authorities Act of 1945, which provides, maintains, owns or operates sewage facilities.

Sewage Facilities: A system of sewage collection, conveyance, treatment and disposal which will prevent the discharge of untreated or inadequately treated sewage or

other waste into waters of this Commonwealth or otherwise provide for the safe and sanitary treatment and disposal of sewage or other wastes consistent with the Sewage Management Program of Guilford Township.

The term includes:

- (i) On-Lot Sewage Disposal System - A system of piping, tanks or other facilities serving a single lot and collecting and disposing of sewage in whole or in part into the soil or into waters of this Commonwealth or by means of conveyance to another site for final disposal.
- (ii) Public Sewage System - A sewage facility owned by the Sewer Authority for the collection of sewage from two or more lots, or two or more equivalent dwelling units and the treatment or disposal, or both, of the sewage on one or more of the lots or at another site.

Sewage Management Program: A program authorized by the official action of Guilford Township for the administration, management and regulation of the disposal of sewage.

Special Permit: A special approval which is required for hospitals, nursing homes, jails, and new manufactured home parks and subdivisions and substantial improvements to such existing parks, when such development is located in all, or a designated portion of a flood plain.

Storm Water Management: The control of runoff to allow water falling on a given site to be absorbed or retained on site to the extent that after development the peak rate of discharge leaving the site is not significantly different than if the site had remained undeveloped.

Street, Public: A strip of land, including the entire right-of-way, to be dedicated for use as means of vehicular and pedestrian circulation by the public at large and accordingly ordained by the Board of Supervisors.

Structure: Any man-made object having an ascertainable stationary location on or in land or water, including swimming pools, whether or not affixed to the land.

Subdivider: See Applicant and Developer.

Subdivision: The division or re-division of a lot, tract or parcel of land by any means into two (2) or more lots, tracts, parcels or other divisions of land including changes in existing lot lines for the purpose, whether immediate or future, of lease, partition by the court for distribution to heirs or devisees, transfer of ownership or building or lot development: provided, however, that the subdivision by lease of land for agricultural purposes into parcels of more than ten acres, not involving any new street or easement of access or any residential dwelling, shall be exempted.

Substantial Improvement: Any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds 50 (fifty) percent of the market value of the structure either, (a) before the improvement or repair is started, or (b) if the structure has been damaged, and is being restored, before the damage occurred.

Substantially Completed: Where, in the judgement of the Township Engineer, at least ninety percent (based on the cost of the required improvements for which financial security was posted) of those improvements required as a condition for final approval have been completed in accordance with the approved plan, so that the project will be able to be used, occupied or operated for its intended use.

Township: The Township of Guilford, Franklin County, Pennsylvania.

Utility Lines: Utility lines shall include the trench necessary for installation of the line, lateral or lead.

Water Survey: An inventory of the source, quantity, yield and use of groundwater and surface-water resources within a municipality.

Wetlands: Areas that have a predominance of hydric soils and that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of hydrophylic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Zoning Ordinance: The Guilford Township Zoning Ordinance.

ARTICLE III

GENERAL PROCEDURES, SKETCH PLANS, MASTER PLANS, PRELIMINARY PLANS, FINAL PLANS, AND FEE SCHEDULES

301 GENERAL PROCEDURES

All plans are to be submitted to the Township Secretary who shall distribute plans to the necessary reviewing agencies. The Board of Supervisors shall act upon a submission within 90 days of the date of acceptance of a complete subdivision or land development plan application by the Township Secretary.

302 SKETCH PLANS

Prior to the submission of a plan for official township approval, the developer at his option may submit a sketch plan. This will enable the township to review conceptually the developer's intentions and to provide suggestions and comments regarding the project. A sketch plan shall not constitute an official submission to the Township.

303 MASTER PLANS

A. When the total of all lots subdivided or space occupied from a parcel or tract of land exceeds five (5) lots or occupants within the last five (5) years, it shall be incumbent upon the subdivider to submit to the Township an Overall Master Plan of the parcel or tract of land before any further subdividing or land development plans may be approved by the Township. Such Overall Master Plans shall illustrate the following features in general terms without the necessity of detailed engineering design.

- (1) The property lines of the host parcel and of all lots previously subdivided or space occupied.
- (2) Generalized lot layout with intended considerations for sewer, water, roadway, and storm drainage control.
- (3) Generalized location of major topographic features such as swales, watercourses, rock outcroppings, and related characteristics.

(4) Generalized indication of the use or uses of the property.

(5) The Overall Master Plan shall be submitted at a scale of not smaller than 1" = 200'.

B. Effect of Overall Master Plan. The Overall Master Plan will be used by the Township to assist in evaluating further subdivision or land development submittals of the applicant. When on the action of the Board of Supervisors, it is deemed that the proposed subdivisions or land developments depart substantially from the concepts presented in the Master Plan, a revised Master Plan shall be required prior to approval of any future plans of the affected property.

304 PRELIMINARY PLANS

If in the opinion of the Board of Supervisors the magnitude of a proposed project involves any of the following conditions, the Board may designate the submission as a preliminary plan:

- A. The proposed subdivision involves site and related improvements to the extent that a detailed review by jurisdictions other than the Township cannot be completed within the time period set forth in this Ordinance.
- B. The plan proposes development in sections or stages and the applicant requests initial approval to be preliminary.
- C. The plan does not comply with all applicable provisions of this Ordinance and preliminary approval with conditions to be met upon Final Plan submission is directed by the Board of Supervisors.

305 FINAL PLANS

Excepting the regulations outlined above, the Board of Supervisors, will automatically treat an application as a Final Plan.

306 FEES

The Board of Supervisors shall establish by resolution a fee schedule setting forth those fees to be paid by the applicant for review of plans which schedule may be revised from time-to-time. For engineering fees for the actual review of plans and inspection of construction, the applicant shall pay the actual engineering fees for such tasks. In the event an applicant desires to dispute the review fees, such dispute shall be resolved in accordance with the procedures set forth in Section 503.(1). and 510.(g.) of the Pennsylvania Municipalities Planning Code.

ARTICLE IV

PLAN REQUIREMENTS

401 PLAN REQUIREMENTS

Not less than fourteen (14) days prior to a regularly scheduled meeting of the Board of Supervisors, the subdivider shall submit seven (7) copies of the Plan and more upon request, and supporting documentation which shall be drawn by a registered surveyor or a registered professional engineer. The submittal shall contain the following:

- A. Plans shall be on sheet sizes no larger than 24" x 36" and drawn to a scale not smaller than 1" =100'.
- B. The designation, Preliminary Plat or Final Plat as determined in Article III.
- C. Proposed project name and municipality or municipalities in which located.
- D. North point, graphic scale, written scale, and date, including the month, day, and year that the original drawing was completed, and the month, day and year that the original drawing was revised, for each revision, if any.
- E. Name of record owner (and subdivider) with notarization stating it is hereby certified that the undersigned has legal or equitable title in the land shown on the respective plan. Said notarization should also include a dedicatory statement to the Township for proposed Township streets, public sewer and/or public water easements and/or lines, or other proposed Township improvements. An original owner's signature and notary seal should be included on each plan copy submitted to the Township.

In cases of lot additions to specific contiguous properties, the person(s) to whom the lot addition will be transferred shall sign and have properly notarized a statement on the plan affirming his intent to acquire the property.

- F. Name and address of registered Engineer or Surveyor

responsible for preparation of the Plan, including his seal and signature.

- G. Names of all abutting property owners, respective deed references, and the UPI number of the tract being subdivided and/or developed as assigned by the Franklin County Assessment Office.
- H. A notation which identifies and references any previous subdivisions of the same "parent" tract of land, or which created the tract now being subdivided.
- I. A location map, for the purpose of locating the property being subdivided, showing the relationship of adjoining property to all streets, roads and municipal boundaries.
- J. Boundaries of the property being subdivided including all residual property showing bearings and distances, a statement of total acreage of the property, and the area of each lot established including the residual which shall be counted as one lot. Accurate dimensions of each lot to be established with a minimum error of closure of not less than one part in five-thousand (5000).
- K. Purpose for which sites other than buildable lots are dedicated or reserved.
- L. Zoning data, including applicable district, lot size, setbacks and related standards. Each and every variance granted shall be noted on the plan and the date such variances were granted. Sign location and details shall be provided. A Lighting Plan and/or Landscaping Plan shall be provided as required.
- M. Existing and proposed buildings and other topography and the approximate location of all tree masses, within the proposed project and easements, rights-of-way, streams and other features.
- N. Existing and proposed contours of the proposed project at vertical intervals of two (2) feet in those areas where construction is proposed. The undeveloped portion to be contoured at ten (10) foot intervals, and may be taken from the USGS maps. Supplementary final contours may be required in areas where improvements or

final grading is concentrated.

- O. The layout of lots and lot additions showing dimensions, lot numbers, area of each lot, and building set-back lines.
- P. The typical cross section, profiles including existing and proposed grades, names, and widths of right-of-way, cartway and paving of proposed streets, and easements with appropriate dedicatory statements.
- Q. Existing and proposed streets, including the name, widths of rights-of-way and cartways.
- R. A notation shall be placed on the plan requiring the owner/developer to purchase and install all necessary stop signs or other traffic control pavement markings or signage, including street name and speed limit signs. Such signs or pavement markings shall be shown on the plan.
- S. Plans and profiles of all proposed sanitary and storm sewer systems, water supply systems, and any other utilities and facilities; and the location, course and dimensions of existing stormwater facilities, public water supply facilities and public sewerage facilities.
- T. The location and dimensions of proposed easements, existing property lines, rights-of-way, and land reserved for public purposes.
- U. Parcels of land intended to be dedicated or reserved for schools, parks, playgrounds, parking areas, common open space, or other public, semi-public or community purposes.
- V. Such other certificates or endorsements as may be required in the enforcement of these regulations.
- W. If land is subject to flooding applicant shall submit information as set forth in Article VII of this ordinance relative to Flood Plain Area Regulations.
- X. Proposed location of well and/or septic system for every lot or parcel requiring such, if applicable. The plan must also show compliance with minimum well/septic isolation distance established by the Department of

Environmental Resources.

402 SUPPORTING DOCUMENTATION

- A. Conformance With Design Standards and Ordinances. The applicant shall demonstrate that all proposed development conforms to the design standards set forth in this Ordinance as well as other regulations as referenced herein by providing such designs together with calculations, specifications, plans, and agreements as may be required to verify compliance.
- B. Conformance With Utility Services. The applicant shall provide suitable documentation that the plans are in conformity with ordinance and regulations governing the provision of utility services.
- C. Planning Module Approval. The applicant shall provide approval of the method of liquid waste disposal as regulated by the Department of Environmental Protection and complete soils investigations and percolation tests for on-site sewage disposal. For any subdivision or land development plan the applicant, when proposing on-lot sewage disposal, shall prepare and submit for approval a preliminary hydrogeologic study in accordance with prevailing D.E.P. planning module criteria.
- D. Other Documentation. The applicant shall provide such other certificates, affidavits, endorsements or dedications as may be required by the Board of Supervisors in the enforcement of these regulations.
- E. Improvement Guarantees. The applicant shall provide adequate documentation to establish guarantees for completion of required improvements prior to the release of approved Final Plans.
- F. Documentation of Wetlands. The applicant shall provide adequate documentation and certification as to the existence or nonexistence of wetlands on the site, and shall delineate any known or suspected wetlands on the plan. Where designated wetland areas exist either wholly, partially, or bordering any proposed subdivision or land development, all necessary permits required by Federal and State

agencies for the disturbance of such wetlands, including but not limited to filling, draining or building activities, shall be obtained prior to approval of the Final Plan.

G. Nutrient Management Plan. The applicant shall provide a nutrient management plan, approved by the local office of the Soil Conservation Service, to be included with the submittal of any subdivision or land development plan that:

- (1) Includes the construction of an animal waste storage facility; or
- (2) Involves the expansion of existing livestock or poultry operations which result in an increase in the annual population concentration, or number of animal equivalent units, as defined by this ordinance; or
- (3) Results in a change in the type of animal(s) being bred or raised on the site, or a change in the ratio of one type of animal to another.

The nutrient management plan shall be prepared in accordance with applicable standards that are contained in the most recent text and technical supplements to the Commonwealth of Pennsylvania, Department of Environmental Resources publication entitled "Manure Management for Environmental Protection", and in accordance with such laws and regulations as may exist at such time of preparation.

Animal waste storage facilities shall be designed in compliance with engineering standards and specifications comparable to Soil Conservation Service Technical Manuals.

All nutrient management plans and designs for animal waste storage facilities shall be approved by the local office of the Soil Conservation Service prior to, or as a condition of, Final Plan Approval.

H. Where deed restrictions or land covenants are proposed by the subdivider/developer or required by This Ordinance, copies of such restrictions and/or covenants shall be submitted to the Township for

review with the Final Subdivision or Final Land Development Plan, and the plan note contained in Section 403.E. shall be placed on the plan.

- I. Where the developer/applicant proposes the construction and dedication of recreational facilities or payment of fee in lieu thereof as set forth herein, plan notations shall be provided clearly identifying the selected alternative to comply with the applicable recreational requirements.

403 REQUIRED PLAN NOTATIONS

The following notations shall be required on all subdivision or land development plans, as applicable.

- A. No trees, shrubbery, fences, structures or walls or fill shall be placed within the right-of-way of any street or within any easement.
- B. Where lots are designed with frontage on both a circular turn-around and the street leading to it, a note shall be placed on the plan restricting access to the street portion of the frontage and prohibiting access from the turn-around.
- C. The developer is responsible for the mowing of any lots that he owns, and individual lot owners will be responsible for the mowing of their respective lots upon transfer by the developer.
- D. Driveway entrances or aprons within the street right-of-way shall be improved in accordance with applicable road specifications to their full width and toward the lot to the dedicated right-of-way line prior to occupancy of the structure.
- E. The subdivider/developer of this subdivision/land development plan has established deed restrictions and/or land covenants on the lot(s)/parcel(s) depicted on this plan. Copies of these restrictions and/or covenants are recommended to be obtained and reviewed by any prospective purchaser(s) prior to closure of sale or preparation for construction.
- F. All traffic control signage, pavement markings and street lighting shown on this plan shall be purchased and installed by the owner/developer.

- G. Notice of PennDOT Highway Occupancy Permit requirements as per P.M.P.C.
- H. All drainage facilities shall be owned and maintained by the developer until land on which the facility is located, is developed and sold. The ownership of all storm drainage channels located within drainage easements occupying any lot or tract will be transferred with the lot or tract. The responsibility for normal operation and maintenance of the channel surface will be that of the respective lot or tract owner, their heirs, and assigns. All such drainage facilities shall remain unobstructed and shall be maintained by the lot or tract owner relative to shape, alignment, gradient, cover, and hydraulic capacity as constructed by the developer.
- I. Guilford Township Supervisors and their employees shall have access to any and all drainage easements and/or drainage facilities and shall have the right at their discretion to maintain or repair the facilities as necessary to restore them to the design conditions. The costs incurred by the Township to maintain or repair the facilities are to be paid by the property owner.
- J. No building or obstruction higher than thirty (30) inches above the grade of the centerline of the streets shall be permitted in the clear sight triangle at street intersections and driveways. Utility poles and municipal or state traffic control signage are exceptions to this requirement.
- K. Guilford Township hereby acknowledges that the storm water management plan as proposed herein meets and is consistent with the Township's ordinances relating to storm water management. Developer/Applicant and Township acknowledge that this Plan may require a National Pollutant Discharge Elimination System (NPDES) permit from the Department of Environmental Protection, Commonwealth of Pennsylvania. As a result of the NPDES permit program, the storm water management plan as proposed may be changed and/or altered. If the NPDES permit program requirements result in changes and/or alterations, the Applicant/Developer shall submit the changes and/or alterations from the storm water management plan to the Township and Township's engineer for review and approval. Similarly, if the storm water

management plan is changed and/or altered as a result of PennDOT requirements, the Applicant/Developer shall submit the changes and/or alterations from the storm water management plan to the Township and Township's engineer for review and approval.

- L. By approval of this Plan including the storm water management plan as proposed, the Township takes no position on the legality of the effect of the storm water management plan regarding the adjacent property owners.
- M. Where landscaping is required as provided for in Section 513 of this Ordinance, such landscaping shall be installed and continuously maintained in accordance with the applicable regulations. The initial and on-going responsibility of the owner/developer to comply with the landscaping regulations is a continuous condition of the Subdivision and Land Development approval.
- N. Each stormwater detention basin, including rain gardens, shall be designed so that it is completely within the boundary of one property, or is within the jurisdiction of an identified and defined homeowners association, or other entity approved by the Township.
- O. The lot addition shown hereon (Lot _____) does not meet the minimum requirements for a building lot in Guilford Township and, therefore, cannot by itself be sold or transferred, except to an adjoining property owner.
- P. When a lot addition is necessary to construct proposed improvements or to comply with minimum lot requirements, the following note shall be included on the plans, "The lot addition shown hereon (Lot _____) shall be incorporated with receiving property by a consolidation deed so that the lot addition is no longer a separate tract of land. The consolidation deed shall include a perimeter description of the combined lots prior to recording. A copy of the recorded consolidation deed shall be provided to the Township prior to starting construction of any improvements shown hereon."

404 · REVIEW PROCEDURE

- A. Copies of the plans and supporting documentation shall be distributed to the appropriate reviewing and advisory bodies for comment and report including the County Planning Commission.
- B. Upon receipt of comments and reports, the Board of Supervisors shall within the ninety (90) day period as provided by The Pennsylvania Municipalities Planning Code either approve or disapprove the submission.
- C. Upon rendering its decision, the Township shall inform the applicant in writing communicated to the applicant personally or mailed to him at the address on the application not later than fifteen (15) days following the decision. When the application is not approved as filed, the decision shall specify the defects found in the application and describe the requirements which have not been met and shall, in each case, cite to the provisions of the ordinance relied upon.

ARTICLE V

DESIGN STANDARDS

501 APPLICATION

The standards of design in This Article shall be used to judge the adequacy of development proposals and shall be considered to be the desired criteria in achieving the purpose and objectives of This Ordinance. Where questions should arise regarding the interpretation of these design standards, the determination of the Board of Supervisors shall prevail.

502 COORDINATED DEVELOPMENT and OFFICIAL MAP CONSISTENCY

Proposed projects shall be coordinated with existing nearby neighborhoods so that the community as a whole may develop harmoniously. Proposed projects shall be consistent with the applicable features and elements set forth on the Official Map of Guilford Township.

503 STREETS

- A. Street Pattern. The proposed street pattern shall be integrated with existing and /or officially planned streets including streets set forth on the Official Map of Guilford Township and it shall be related to topography to produce usable lots and reasonable street grades.
- B. Where adjoining areas are not subdivided, the arrangement of streets in new subdivisions shall make provision for the proper projection of streets to the boundaries of the tract to be subdivided.
- C. Streets shall be designed according to their principle use and according to the zoning district within which they are located.
 - (1) Streets shall be laid out according to the following minimum schedule; however, additional street width may be required as determined by the Board to insure public safety and convenience in accordance with the purpose of This Ordinance and the Official Map of Guilford Township.

	Residential	Commercial and Industrial
Right-of-way	50 feet	60 feet
Cartway	22 feet	24 feet
Shoulders (each side)	3 feet	6 feet

(2) Lots proposed to front on existing township streets shall provide a minimum dedicated right-of-way of 25 feet from the street centerline for residential streets and 30 feet from the street centerline for commercial and industrial streets which shall be available for future road widening, utility placement and related municipal functions. No trees, shrubbery, fences, or structures, walls or fill shall be placed in the right-of-way and a note shall be placed on the approved plan prohibiting such placement.

(3) Wherever possible, all underground utilities, such as water, sewer, natural gas, electric, telephone, TV cable, etc. which are designed to be placed within the public street right-of-way, shall be placed outside of the pavement - meaning between the edge of shoulder and the right-of-way line. Subject to the review and approval of the Township Engineer, underground utilities may be located within the pavement for short lengths. The maximum encroachment into the pavement shall be eight (8) feet measured from the edge of pavement. All required underground utility lines, service laterals and leads which are located within the pavement shall be installed prior to the construction of the pavement and backfilled with 2RC stone or its equivalent to the top of the subgrade, mechanically tamped at one (1) foot intervals with equipment designed to adequately compact backfill material placed in one foot layers. Every effort should be made to locate manholes, valve boxes, etc. outside of the paved portion of the street.

D. Cul-de-sacs or Dead End Streets shall only be permitted where it is demonstrated by the applicant that either the installation or provision for the future installation of connecting street(s) as required by Sections 503.A. and B. and 504.A. cannot be reasonably met because of such factors as unique physical or

topographic characteristics or an exception is granted in accordance with Section 512. Cul-de-sacs or dead-end streets shall comply with the following:

- (1) Permanent cul-de-sac or dead-end streets, shall terminate with a circular turn around, having a minimum right-of-way diameter of one hundred feet (100') and a minimum pavement diameter of ninety feet (90') for residential streets and a minimum right-of-way diameter of one hundred thirty feet (130') and a minimum pavement diameter of one hundred twelve feet (112') for commercial and industrial streets. The entire diameter of the circular turn around shall be paved as required by Section 503.P. No landscaping or planting islands shall be permitted in the circular turn around.
- (2) The length of such streets shall not exceed eight hundred feet (800'), nor be less than two hundred fifty feet (250'). Cul-de-sac length shall be measured from the centerline of the last intersecting Township street, proposed Township street, or road maintained by Penn DOT, along the cul-de-sac centerline, and shall include the full diameter of the turn around.
- (3) There shall be no more than three (3) driveways off the circular turn around. Any lots designed with frontage on both the circular turn around and the street leading to it shall be allowed driveway access only to the street portion of the frontage and not to the circular turn around. Mailboxes for the three lots on the circular turn-around shall be located together at one location on a single pedestal. A notation shall be made on the plan regarding any such lots, mailbox and driveway locations shall be shown on the plan drawing for any such lots.

No panhandle lots shall be accessed from the circular turn around. A "Snow Removal Easement", free of obstructions including above-ground utility cabinets, driveways, etc., shall be provided on the circular turn-around and have a minimum area of 600 sq.ft.

- (4) Temporary "cul-de-sacs" or circular turn-arounds

shall be required at the end of streets that are partially constructed or constructed in phases. The circular turn-arounds shall have a minimum right-of-way diameter of one hundred feet (100') and a minimum pavement diameter of ninety feet (90') for residential streets and a minimum right-of-way diameter of one hundred thirty feet (130') and a minimum pavement diameter of one hundred twelve feet (112') for commercial and industrial streets. The entire diameter of the circular turnaround shall be constructed of a stone base and binder pavement as required by Section 503.S. No wearing pavement shall be required.

- E. Street Grades. The minimum for all streets shall be 0.5% and the maximum grade shall not exceed 10%. Steeper grades may be permitted for short distances, if no gentler slope is possible.
- F. Crown. The slope of the crown on all streets shall be not less than one-eighth inch (1/8") per foot nor more than one-third inch (1/3") per foot.
- G. Intersections.
 - (1) Intersections involving the junction of more than two (2) streets are prohibited. Right-angle intersections must be used wherever possible; however, in no case shall streets intersect at less than seventy (70) degrees (measured on the center lines of the streets).
 - (2) Curb Radii. At intersections of residential streets, the radius of the curb or edge of shoulder shall not be less than twenty-five (25') feet. For commercial and industrial streets the radius shall be thirty-five (35) feet.
 - (3) Clear Sight Triangle. Proper sight lines must be maintained at all street intersections and driveways. Measured along the center line, there must be a clear sight triangle of seventy-five (75') from the point of intersection, and no building or obstruction higher than thirty 30" inches above the grade of the center line of the streets shall be permitted in this area and shall be depicted on the Final Plan with a statement.

- (4) Maximum grade within any intersection where no vertical curve exists or is proposed shall not exceed five (5%) percent in any direction, and approaches to any intersection shall follow a straight course within one-hundred (100'0") feet of the intersection.
 - (5) The minimum radius of intersecting right-of-way lines shall be forty (40) feet.
- H. Streets Not In Alignment. If streets are not in alignment, the distance between the center lines of streets opening on opposite sides of an existing or proposed street shall be no less than one-hundred twenty-five (125') feet.
- I. Sight Distance.
 - (1) Crest Vertical Curves - A minimum of 200 feet of clear sight distance shall be required and maintained using standards of 3.75 feet to height of eye and 0.5 feet to height of object.
 - (2) Roadway and Driveway Intersection - For intersecting streets and/or driveways, the required minimum safe stopping sight distance shall be based upon data and specifications found in the most recent edition of PA Code 67; Chapter 441; Section 1.8, "Driveway Design Requirements"; Subsection (h), "Sight Distance"; using the applicable criteria including speed limit, road grade, ... etc. A driveway location diagram shall be shown on the subdivision or land development plan for all lots or parcels on which driveway placement would be restricted due to application of proper criteria referred to above.
- J. Curves -(Horizontal). Where connecting street lines deflect from each other at any one point by more than five (5) degrees, the line must be connected with a true, circular curve having a minimum centerline radius of 150 feet.
- K. Curves - (Vertical). Vertical curves shall be used in changes of grade when the algebraic difference exceeds one (1%) percent, and shall be designed for maximum

visibility. Intersections shall be approached on all sides by leveling areas. Where the grade exceeds seven (7%) percent, such leveling areas shall have a minimum length of one-hundred (100') feet (measured from the intersection of the center lines) within which no grade shall exceed a maximum of four (4%) percent. The maximum rate of change of grade shall be (7%) percent per hundred (100') feet of road, provided that the clear sight distances specified above are maintained at all points.

- L. Slope of Banks Along Streets. The slope of banks along streets measured perpendicular to the street center line shall be no steeper than the following:
 - (1) One (1') foot of vertical measurement for three (3') feet of horizontal measurement for fills.
 - (2) One (1') foot of vertical measurement for two (2') feet of horizontal measurement for cuts.
- M. Partial and Half-Streets. The dedication of half-streets at the perimeter of a new subdivision is prohibited.
- N. Names of Streets. Names of new streets shall not duplicate or approximate existing or platted street names, within the postal delivery district served by the local Post Office, or approximate such names by the use of suffixes as "land", "way", "drive", "court", "avenue". New streets shall bear the same name or number of any continuation or alignment with an existing or platted street. Street signs shall be installed by the developer upon completion of street construction.
- O. Traffic Control Signage, Markings and Street Lighting. The developer shall be responsible for the purchase and installation of all necessary stop signs, one-way signs, speed limit signs, or other traffic control signs and/or pavement markings, including travel lane/shoulder separation striping, within the subdivision. Either permanent or temporary stop signs shall be installed at street intersections as soon as the road surface is improved to a mud-free condition. When deemed appropriate by the Township, the developer shall engage a qualified traffic consultant to prepare

necessary analyses and reports supporting signage, street lighting or pavement marking locations, or that support the position that signage, street lighting or pavement markings are not needed.

- P. Street Specifications. Streets shall be surfaced to the grades and dimensions drawn on the plans, profiles and cross-sections submitted by the applicant and approved by the Board of Supervisors. Before paving the street surface, the Applicant must install all required utilities and service laterals and provide storm drainage facilities as were approved by the Board of Supervisors. All subgrade and paving work must be supervised by the Township Supervisors or their representative. All subgrade, stone subbase, and base pavement (which may include an interim wearing course) must lay over the winter months through May 1, before being paved with the final wearing course. The final wearing course shall only be placed between May 1 and October 31. Prior to the commencement of paving, the Township shall be contacted to determine the suitability of compaction. The subgrade, stone subbase, binder and wearing surface, and shoulders shall be constructed in accordance with PA. Department of Transportation specifications and as follows.

(1) Residential Streets

- (a) Subgrade. All topsoil shall be removed to the natural subsoil and the proposed roadway brought up to subgrade level with approved slate a minimum of thirty-four (34) feet wide.
- (b) Stone Subbase. A minimum of six (6) inches of PA D.O.T. 2A coarse aggregate, rolled and compacted, shall be placed a minimum of thirty (30) feet wide for cartway and shoulder construction. As an alternative, a minimum of four (4) inches of approved slate, rolled and compacted, and then a minimum of four (4) inches of PA D.O.T. 2A coarse aggregate, rolled and compacted, shall be placed a minimum of thirty (30) feet wide for cartway and shoulder construction.
- (c) Binder. A minimum of three and one-half (3.5) inches of 25 mm Hot or Warm Superpave Mix, rolled and compacted, shall be placed a

minimum of twenty-eight (28) feet wide for cartway and shoulder construction.

- (d) Interim Wearing Alternative. Placement of an interim wearing surface is not required, however, if an interim wearing surface is to be placed, then it must be included on the standard pavement section in the approved land development plans. The interim wearing course shall be a minimum of one and one-half (1.5) inches of 9.5 mm Hot or Warm Superpave Mix, rolled and compacted and shall be placed a minimum of twenty-eight (28) feet wide for cartway and shoulder construction.
- (e) Final Wearing Course. A minimum of two (2.0) inches of 9.5 mm Hot or Warm Superpave Mix, rolled and compacted shall be placed a minimum of twenty-eight (28) feet wide for cartway and shoulder construction.
- (f) RESERVED

(2) Commercial and Industrial Streets

- (a) Subgrade. All topsoil shall be removed to the natural subsoil and the proposed roadway brought up to subgrade level with approved slate a minimum of forty-two (42) feet wide.
- (b) Stone Subbase. A minimum of eight (8) inches of PA D.O.T. 2A coarse aggregate, rolled and compacted, shall be placed a minimum of thirty-eight (38) feet wide for cartway and shoulder construction. As an alternative, a minimum of six (6) inches of approved slate, rolled and compacted, and then a minimum of four (4) inches of PA D.O.T. 2A coarse aggregate, rolled and compacted, shall be placed a minimum of thirty-eight (38) feet wide for cartway and shoulder construction.
- (c) Base Pavement. A minimum of six (6) inches of 37.5 mm Hot or Warm Superpave Mix, rolled and compacted, shall be placed a minimum of thirty-six (36) feet wide for cartway and shoulder construction. 37.5 mm Hot or Warm Superpave Mix shall be placed and compacted in lifts with a maximum depth of three (3)

inches.

- (d) Interim Wearing Alternative. Placement of an interim wearing surface is not required, however, if an interim wearing surface is to be placed, then it must be included on the standard pavement section in the approved land development plans. The interim wearing course shall be a minimum of one and one-half inches of 9.5 mm Hot or Warm Superpave Mix, rolled and compacted and shall be placed a minimum of thirty-six (36) feet wide for cartway and shoulder construction.
- (e) Final Wearing Course. A minimum of one and one-half (1.5) inches of 9.5 mm Hot or Warm Superpave Mix, rolled and compacted shall be placed a minimum of thirty-six (36) feet wide for cartway and shoulder construction.
- (3) Shoulder Area. The outermost three (3) feet on either side of the twenty-eight (28) foot pavement for residential streets and the outermost six (6) feet on either side of the thirty-six (36) foot pavement for commercial and industrial streets shall be designated as the shoulder area. Shoulder areas on all streets shall be constructed with full depth cartway construction materials.

504 ACCESS

- A. Streets shall be laid out to provide for access to all lots and to adjacent undeveloped areas, and the subdivider or developer shall improve or reserve access streets to the limits of the subdivision or land development.
- B. The Board of Supervisors may grant a modification of the requirement that lots or other units of occupancy be accessed by a street, if the literal enforcement of said requirement will exact undue hardship because of peculiar conditions pertaining to the land in question, provided that the modification shall not be contrary to the public interest and that the purpose and intent of the ordinance is observed, and further provided that each lot or development is sufficiently accessed by a private right-of-way which shall be adequately designed to safely accommodate the traffic expected from the proposed and foreseeable development, and provided

further that the proposed private right-of-way shall not be required to carry significant traffic. Private rights-of-way serving no more than 2 lots shall have a width of 20 feet. No private right-of-way shall be approved which adjoins an existing right-of-way resulting in an aggregate private right-of-way in excess of fifty (50) feet in width. Fifty (50) foot private rights-of-way shall have a minimum separation of eighty (80) feet. Fifty (50) feet shall be the width for a private right-of-way serving 3 lots, dwelling units or other units of occupancy.

Where a fifty (50) feet wide private right-of-way intersects a public street, or proposed public street, the private right-of-way's intersecting lines shall have a radii of not less than forty (40) feet. Private rights-of-way shall not be approved if:

- (1) A bridge or other structure is located on the private right-of-way which is not in conformity with standards determined appropriate by the Township Engineer.
- (2) Access to the properties serviced by the private right-of-way by emergency vehicles shall be inhibited;
- (3) The private right-of-way would service more than three dwelling units, lots, or other units of occupancy.
- (4) The private right-of-way is to be located on the turn-around portion of the cul-de-sac.

- C. Access by Panhandle Design. Panhandle lots may be utilized to provide access provided that the topography of the land to be developed shall safely accommodate the number of proposed access areas. Where traffic safety would be promoted, the township may require adjacent panhandled lots to share one access drive and the township may require a formal written covenant to run with the land to establish rights and responsibilities of the panhandle lot owners. All panhandle lots shall have a twenty (20) foot width with a minimum length of 110 feet measured from the edge of the right-of-way to the rear of the panhandle, connected to the public street, however no panhandle lot shall be located on the turn-around portion of the

cul-de-sac.

- D. Driveway Access. Driveways providing access to individual residential properties must be a minimum of twelve (12) feet in width. Commercial and industrial driveways must be a minimum of twenty-four (24) feet wide.

All driveways must be improved to a mud-free surface prior to the start of construction.

Driveway entrances or aprons within the street right-of-way shall be paved in accordance with Township specifications for streets to their full width and toward the lot to the dedicated right-of-way line prior to occupancy of the structure. Where sidewalks are installed, the required driveway surfacing shall end at the street side of the sidewalk.

Proper sight lines must be maintained at all intersections. Measured along the center line, there must be a clear sight triangle of seventy-five feet (75') from the point of intersection, and no building or obstruction higher than thirty inches (30") above the grade of the center line of the street or driveway shall be permitted in this area and shall be depicted on the Final Plan with a statement.

- E. Where a commercial or industrial subdivision abuts or contains an existing or proposed Township or State street and where two or more commercial or industrial lots share a common lot line the Township may require marginal access streets, private service alleys, reverse frontage lots or such other treatment as will provide reduction of the number of intersections with the Township or State street and separation of local and through traffic. It is the intent of the Township to provide, where feasible, that two commercial and/or industrial tracts abutting each other be connected to one another in such a manner that traffic can flow between the tracts rather than being required to enter the Township or state street to accomplish the same traffic flow. Marginal access streets and private service alleys may have reduced right-of-ways and construction standards at the discretion of the Township, but not less than an eighteen (18) foot cartway with two (2) foot shoulders on each side

constructed with a six (6) inch stone base, a two and one-half (2 1/2) inch 25 mm hot or warm Superpave mix, rolled and compacted, and a one and one-half (1 1/2) inch 9.5 mm hot or warm Superpave mix, rolled and compacted.

505 LOTS

All lots shall comply with the applicable provisions of the Guilford Township Zoning Ordinance.

506 LOT WIDTH AND SETBACK DISTANCES

- A. The minimum lot width shall be in accordance with the Guilford Township Zoning Ordinance.
- B. Building Setback Lines shall be in accordance with the Guilford Township Zoning Ordinance.
- C. No structure may be located closer than 50 feet from the top of bank of any watercourse located within any floodplain area, as set forth in the Guilford Township Floodplain Management Ordinance.

507 EASEMENTS

- A. The minimum width of easements shall be twenty (20') feet for underground public utility facilities and drainage facilities. Wherever possible, easements shall be located entirely on one lot and not centered on a side or rear lot line. Additional width may be required by the Supervisors on recommendation of the Engineer or Authority depending on the purpose and use of the easement. Ownership and maintenance shall be identified by plan note in accordance with Section 403.H. and I.

No trees or shrubbery shall be planted in any easement and no fences, walls, fill or structures shall be placed within an easement. Final plans shall contain a notation restricting the occupancy of any easement in accordance with Section 403.A. and 403.H. herein.

- B. Where a subdivision is traversed by a water course, drainage way, channel or stream, there shall be provided a drainage easement conforming substantially with the line of such water course, drainage way,

channel or stream, and of such width as will be adequate to preserve the unimpeded flow of natural drainage or for the purpose of widening, deepening, relocating, improving or protecting such drainage facilities, or for the purpose of installing a storm water sewer.

508 STANDARDS FOR SEWER AND WATER SYSTEMS

A. Public Sewer and/or Public Water Systems.

- (1) Within the context of this Ordinance, the public sewer or water systems shall not be extended into, nor within, the Agricultural-Residential (AR) zoning district.
- (2) If a public sanitary sewer system or public water system is available or planned to be available within one-thousand (1000') feet of any part of the proposed subdivision or land development, the subdivider or developer shall design and install a complete sewer and/or water system, including lateral connections, which shall serve every lot, dwelling unit, or other unit of occupancy within the proposed project, except if the property is within the Agricultural-Residential (AR) zoning district. All plans and specifications shall be subject to the approval of the authority having jurisdiction.
- (3) Where a main line sewer or water is adjacent to the subdivision or land development and no main line extension is required, in any zoning district other than the Agricultural-Residential (AR) zoning district, the subdivider or developer shall install sewer and/or water laterals to each lot, dwelling unit or other unit of occupancy within the subdivision.
- (4) A public sanitary sewer system or public water system shall be considered to be planned when it is within the 5-year programmed service area as set forth in the Township's Official Plan of Liquid Waste Disposal, including all revisions thereto as approved by the Department of Environmental Protection, or when engineering studies have been authorized to service a

designated area.

- (5) All public sewer and public water lines designed to provide service to subdivision or land development plans, which are to be located within the right-of-way of an existing or proposed public street, shall whenever possible, be situated in the portion of the right-of-way between the curb or edge of pavement and the right-of-way line, except as allowed by Section 503.C.(3) herein.
- (6) Whenever public sewer and/or public water lines and/or service laterals must traverse an existing or proposed public street, such crossing shall be made perpendicular to the pavement, if possible. Likewise, when public sewer and public water lines must cross one another, such crossings shall be at right angles or as close to right angles as possible. Public sewer and water lines shall be designed to avoid congestion with one another, unnecessary crossings of other utility lines and unnecessary street crossings.
- (7) In all locations where public water and/or public sewer lines are located within existing or proposed public street pavement, trenches shall be backfilled with 2RC stone or its equivalent to the top of the subgrade, mechanically tamped at one (1) foot intervals with equipment designed to adequately compact backfill material placed in one (1) foot layers.

B. On-Lot Sewage Disposal Systems.

Where the installation of a sanitary sewer system is not required, the subdivider or owner of the lot shall provide for each lot, at the time improvements are erected thereon, a private sewage disposal system consisting of a septic tank and tile absorption field or other approved sewage disposal system. All such individual sewage disposal systems shall be constructed in accordance with the "Rules and Regulations of the Pennsylvania Department of Environmental Protection."

C. Proof of Provision of Water and Sewer Service.

If water or sewerage is to be provided by means

other than by private wells or individual on-lot systems owned and maintained by the individual owners of lots within the subdivision or development, applicants shall present evidence to the governing body or planning agency, as the case may be, that the subdivision or development is to be serviced by the applicable public utility or Authority.

509 PROTECTION OF THE FALLING SPRING CREEK AND DRAINAGE BASIN

The provisions of this section of the Subdivision and Land Development Ordinance are designed to preserve and protect the waters of the Falling Spring Creek and the drainage basin of the creek, from damage to riparian and aquatic ecosystems, and degradation of water quality. More specifically, the following regulations will:

- Help maintain the chemical, physical and biological integrity of the water resources;
- Help reduce erosion and control sedimentation;
- Preserve existing vegetation along stream banks, and encourage the planting of trees and other vegetation in areas along the Falling Spring Creek that are currently deficient;
- Require the stabilization of stream banks;

The Falling Spring Creek, from its source to the Chambersburg/Guilford Township border, has been identified by the Pennsylvania Department of Environmental Protection (PA DEP) as having High Quality Waters which require special water quality protection. It is also protected under PA DEP regulations as a cold water fish habitat.

A. Application. These regulations shall apply to all proposed development, including subdivisions, and land developments of any type. The regulations shall not apply to development which, prior to the effective date of these regulations, is covered by an approved subdivision or land development plan, or by a valid, unexpired building permit.

B. Prohibition, Abatement & Correction of Water Pollution.

- (1) From the effective date of this ordinance, no person, partnership, association or corporation, proposing a subdivision or land development plan

of any type located wholly or partially within the drainage basin of the Falling Spring Creek, shall pollute, cause to be polluted, or contribute to the pollution of any waters of the Falling Spring Creek drainage basin. Specifically, the waters of the Falling Spring Creek drainage basin may not be polluted by:

- Substances attributable to sewage, industrial waste or other waste that will settle to form sludge deposits that are unsightly, putrescent or odorous, that create a nuisance or that interfere directly or indirectly with water uses;
 - Any material, including floating debris, oil, grease, scum, sludge and other floating materials, which are attributable to sewage, industrial waste or other waste in sufficient amounts to be unsightly, create a nuisance, produce taste or odor, change the existing color, change other chemical or physical conditions in the surface waters, or interfere directly or indirectly with water uses;
 - High temperature, toxic, corrosive or other deleterious substances attributable to sewage, industrial waste or other waste in concentrations or combinations which interfere directly or indirectly with water uses or are harmful to human, animal, plant or aquatic life.
- (2) The Township of Guilford, through the Township Secretary or other officer or employee of the township, as may be charged with enforcement of this ordinance, may order the abatement and correction of any pollution, including non-point pollution, of the waters of the Falling Spring Creek and drainage basin, involving or related to property proposed for subdivision or land development of any type, which exists at the time such subdivision or land development is proposed or which occurs at any time after a subdivision or land development is approved in accordance with this ordinance.
- (3) The Township of Guilford may also order the abatement and correction of any erosion and/or sedimentation of stream channels, including the

abatement of run-off which contributes to erosion and sedimentation of stream channels, within the Falling Spring Creek drainage basin, involving or related to property proposed for subdivision or land development of any type, which exists at the time such subdivision or land development is proposed or which occurs at any time after a subdivision or land development is approved in accordance with this ordinance.

- (4) The Township of Guilford may also order the abatement and correction of any degradation of aquatic and riparian habitat within the Falling Spring Creek drainage basin, involving or related to property proposed for subdivision or land development of any type, which exists at the time such subdivision or land development is proposed or which occurs at any time after a subdivision or land development is approved in accordance with this ordinance.

- C. Creation of Conservation Buffer. All development, including subdivisions and land developments, which occurs after the effective date of this ordinance, and which includes or abuts any portion of the Falling Spring Creek shall provide a Conservation Buffer, to the extent possible, in accordance with the provisions below. The Conservation Buffer is a vegetated strip of land extending along both sides of the Creek, normally including the adjacent wetland and floodplain.

It is preferable that the Conservation Buffer contain forest vegetation. On sites where forest vegetation does not exist, it is desirable to allow the existing vegetation to naturally succeed to a wooded state. However, if channel erosion, stream pollution or habitat degradation exists on the site, the township may require planting of all, or a portion of the Conservation Buffer, which may include the planting of trees, and may also require additional water quality protection measures.

In creating the Conservation Buffer, the following shall be observed:

- (1) The Conservation Buffer shall be measured from

the top of bank (point of bank-full flow).

(2) The distance required for the Conservation Buffer shall be the greater of the following:

1. 75 feet
2. the outer wetland boundary, or
3. the boundary of the 100-year floodplain.

(3) If there are average slopes equal to or greater than 18 percent which are within 150 feet of the Creek and drain into the Creek, the Conservation Buffer shall be increased to 100 feet. If there are average slopes greater than 25 percent which are within 150 feet of the Creek, and drain into the Creek, the Conservation Buffer shall be increased to 150 feet.

D. Creation of Public Easement. The developer may be required to establish a Limited Public Access Easement, measured from the top-of-bank landward, a distance of thirty-five (35) feet. This easement shall be in conformance with the Conservation and Preservation Easement Act. The purpose of the public easement is to allow enjoyment of the scenic and recreational amenities of the Falling Spring Creek by providing unrestricted pedestrian access at reasonable times to areas immediately adjacent to the Creek for the sole purpose of recreational fishing.

E. Building Setbacks. The primary or principal structure on a parcel or lot shall be setback from the outer edge of the Conservation Buffer a minimum of 25 feet. Accessory structures, roads, driveways, patios, and recreational facilities are permitted within the setback area.

The above setback requirement shall not supersede or waive the provisions of the Guilford Township Zoning Ordinance.

F. Prohibited Activities. The following activities are prohibited within the Conservation Buffer, or restricted as noted:

- (1) Existing vegetation within the Conservation Buffer shall not be disturbed except as provided

for in F. below. This includes, but is not limited to, tree removal, shrub removal, clearing, burning, spraying and grazing.

- (2) Disturbance of the soil, including grading, stripping of topsoil, plowing, cultivating, or other practices.
- (3) Filling or dumping.
- (4) Pesticides shall not be stored, used or applied within the Conservation Buffer.
- (5) Animals shall not be housed, grazed or otherwise maintained within the Conservation Buffer.
- (6) Motorized vehicles shall not be stored or operated within the Conservation Buffer, except for maintenance and emergency use.
- (7) Building materials or other materials of any kind shall not be stored within the Conservation Buffer.

G. Permitted Activities. The following activities are permitted in the Conservation Buffer area, or are permitted with restrictions as noted:

- (1) Roads, bridges, stormwater management facilities and utilities approved by the township, provided that it is clearly demonstrated that no other feasible alternative exists and that minimal disturbance takes place. These structures shall be located, designed, constructed and maintained to provide maximum erosion protection, to minimize adverse effects on wildlife, aquatic life and their habitats, and to maintain hydrologic processes and water quality. Following any disturbance, the impacted area shall be restored.
- (2) Stream restoration projects, facilities and activities approved by the Department of Environmental Resources and the township.
- (3) Stream gauging and water quality monitoring.

- (4) Horticultural practices to maintain the health of individual trees within the Conservation Buffer.
- (5) Individual trees in the Conservation Buffer may be removed which are in danger of falling and causing damage to structures or property, or blockage of the stream.

H. Impact Assessment Required. Whenever a subdivision or land development plan is proposed which is located within or partially within the Falling Spring Creek drainage basin, the plan submission package shall contain detailed information regarding the impact of the proposed development on the basin hydrology. The erosion and sedimentation control plan and the stormwater management plan shall make specific reference to measures designed to minimize impacts on the Falling Spring Creek. Where the plan includes or abuts a portion of the Falling Spring Creek, Conservation Buffer areas shall be shown and a description of the existing vegetation within the buffer area included.

A **narrative** shall be included which describes the impact of the proposed subdivision or land development on the hydrology of the drainage basin and the Falling Spring Creek, and on water quality. As was stated, the Falling Spring Creek is protected by the Commonwealth of Pennsylvania because it is a cold water fish habitat, and also because of its high quality waters. Criteria for water quality for the Falling Spring Creek can be found under Title 25, Rules and Regulations; Part I, Department of Environmental Resources; Article II, Water Resources; Chapter 93, Water Quality Standards. These regulations should be consulted when making an assessment of environmental effects that development may have on the Creek.

- I. Improvement Plan Required. The subdivider or developer shall provide improvements to the Conservation Buffer area and stream system in order to abate and correct:
- Water pollution,
 - Erosion and sedimentation of the stream channel, and
 - Degradation of aquatic and riparian habitat.

The improvements may be necessary to improve existing conditions, or to prevent the above problems from occurring, or both.

Proposed improvements shall be made a part of the overall erosion and sedimentation/stormwater management plan submitted for approval. The cost of the improvements shall be borne by the developer, and shall be included in the improvement guarantee estimate, or completed prior to final plan approval.

- J. Conflict With Other Regulations. Where the provisions of this Section 509 are in conflict with other laws, regulations and policies regarding, streams, steep slopes, erodible soils, wetlands, floodplains, land disturbance activities, or other environmental protection measures, the more restrictive shall apply.

510 EROSION CONTROL AND STORMWATER MANAGEMENT

- A. Scope. A Stormwater Management Plan (SWMP) prepared in accordance with the hereinafter provisions, shall be required for each subdivision or land development plan at both the Preliminary and Final Plan submittal stage.

As an integral part of the SWMP, Erosion and Sedimentation Control measures shall be included. A SWMP must be approved prior to the construction of any improvements.

All SWMPs shall be prepared and certified by a professional engineer or a professional land surveyor, in accordance with the Professional Engineers Registration Law, Act of 1945, P.L. 913, as amended.

For the purposes of stormwater management planning, the definition of "land development" shall also include any subdivision or new construction or expansion of any residential, commercial, industrial, accessory or other improvement that creates an area of impervious material on the parcel of five thousand (5000) square feet or more.

For the purposes of Stormwater Management, Guilford Township is hereby divided into the following

Stormwater Management Districts:

- (1) Antietam Creek Storm Water District-All land development occurring in Guilford Township located within the Antietam Creek Watershed shall comply with the requirements of the Antietam Creek Watershed Storm Water Management Plan (Appendix A) and all other applicable provisions of this Ordinance. Where there is an apparent conflict in requirements the requirements used will be subject to the review and recommendation of the Township Engineer.
- (2) Conococheague Creek Storm Water District-All land development occurring in Guilford Township located within the Conococheague Creek Watershed shall comply with the Conococheague Creek Storm Water Management Plan (Appendix B) and all other applicable provisions of this Ordinance. Where there is an apparent conflict in requirements the requirements used will be subject to the review and recommendation of the Township Engineer.

Statutory Authority is granted by the Storm Water Management Act (Act 167) of October 1978.

- B. Township Liability. The degree of stormwater management sought by the provisions of this Section is considered reasonable for regulatory purposes. This Section shall not create liability on the part of the Township, any appointed or elected official of the Township, the Franklin County Conservation District, or any officer engineer or employee thereof, for any erosion, sediment pollution or flood damages that result from reliance on this Section or any administrative decision lawfully made thereunder.
- C. Content. The SWMP shall be a separate document and shall contain the following:
 - (1) A general description of the proposed project.
 - (2) Project location on a 7.5 minute USGS map.
 - (3) Topographic features of the project site and adjacent lands that may impact upon the stormwater management design.

- (4) The existing and proposed use of the tract.
- (5) The total number of lots and the total acreage of the site.
- (6) Tract boundaries.
- (7) Runoff calculations and related design computations of the total drainage basin necessary to substantiate the proposed temporary and permanent stormwater management facilities.
- (8) Design and specifications of temporary and permanent stormwater management facilities.
- (9) Storm sewer and channel profiles and design cross-sections, management facility designs, profiles and cross-sections.
- (10) Staging or implementation schedule for constructing the proposed stormwater control system.
- (11) Provisions to ensure adequate maintenance of stormwater management facilities for both during-construction and post construction conditions.
- (12) Signature of the licensed professional who performs the work, certifying the accuracy of the plan and all calculations associated therewith.

D. Standards. Computations for determining stormwater runoff and for the design of stormwater management facilities shall be based upon either the Soil-Cover-Complex method or the Rational method. Runoff from sites with drainage areas with less than ten (10) acres may be calculated by the Rational method. Sites with drainage areas of ten (10) to twenty (20) acres may be calculated by the Rational method or by the Soil-Cover Complex method. Drainage areas in excess of twenty (20) acres shall be calculated by the Soil-Cover-Complex method. Computations based upon an alternative method may be accepted upon recommendation of the Township Engineer. The following standards shall apply:

- (1) Permanent control measures/facilities shall be designed to assure that the maximum rate of stormwater runoff is no greater after development

than prior to development at all points of discharge from the subject site, for design storms of the 2, 5, 10, and 25 year storm events.

In those cases however, where existing storm drainage facilities and/or road embankments control pre-development discharge from the site, pre-development conditions shall be simulated in the post-development design for all of the above referenced storm events.

- (2) Using Tables B-2 or B-3 in the attached Conococheague Watershed Study (Appendix B), all pre-development calculations shall be based upon existing land use features, excepting however, that agricultural uses shall be categorized by the following descriptions:

Cultivated land uses with contouring, terracing and crop residue in good condition.

- Pasture, grassland or range, in good condition.
- Meadow, in good condition.
- Woods, in good condition.
- Farmstead.

- (3) All stormwater detention ponds shall be designed in accordance with the above criteria. Calculations shall be accompanied by the following supporting data:

- Either singular or composite inflow and outflow hydrographs.
- Stage-storage data.
- Stage-discharge data.
- Stage-routing calculations.
- Other data as required by the Township Engineer.

Emergency spillways as a minimum shall be set at

an elevation to allow discharge from the pond during the 25-year storm. In no case, however, shall the composite outflow from the primary release device(s) and the emergency spillway exceed pre-development rates.

Spillways shall be provided structural stability. As such, locating spillways within the embankment is prohibited unless adequate reinforcing or lining is provided. A minimum one (1) foot freeboard shall be maintained.

Each stormwater detention basin, including rain gardens, shall be designed so that it is completely within the boundary of one property, or is completely within the jurisdiction of an identified and defined homeowners association.

- (4) Culverts, pipes and storm sewers shall be designed for a ten (10) year storm with a five (5) minute time of concentration (T_c). Designs based upon calculation of actual T_c will be allowed if pipe size exceeds 36" in diameter based upon said five (5) minute T_c . Supporting documentation verifying the same is required. In the event however, that a culvert passes beneath a public roadway, it shall be designed in such a manner to prevent the roadway from being inundated during a twenty-five (25) year storm.
- (5) The SWMP shall include calculations indicating velocities of flow, grades, sizes and capacities of water carrying structures, debris or sedimentation basins, and retention and detention ponds and sufficient design information to construct such facilities.
- (6) All natural drainage ways and existing contouring of pre-development drainage patterns shall be preserved to the maximum extent possible. Post-development drainage patterns shall simulate pre-development patterns. All outlet structures shall be controlled by a riser assembly or other device as approved by the Engineer.
- (7) Storm water runoff calculations in both the Antietam Creek Storm Water District (Appendix A)

and the Conococheague Creek Storm Water District (Appendix B) shall be based upon the following:

The design storm precipitation depth and intensity estimates to be used in the analysis of peak rates of discharge should be obtained from the Precipitation-Frequency Atlas of the United States, Atlas 14, Volume 2, U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), National Weather Service, Hydrometeorological Design Studies Center, Silver Spring, Maryland, 20910. NOAA's 14⁵ can be accessed at Internet address: <http://hdsc.nws.noaa.gov/hdsc/pfds/>.

- (8) Piping. A minimum pipe size of eighteen (18) inches in diameter shall be used in all roadway systems proposed for dedication to the Township. A minimum pipe size of twelve (12) inches in diameter is permitted on private facilities which receive no off-site drainage. Pipes shall be designed so as to provide a minimum velocity of two and one-half (2.5) feet per second when flowing full. Arch pipe may be used in lieu of round pipe where cover or utility conflict conditions exist. All storm drainage piping discharging to the ground surface shall be provided with either reinforced concrete headwalls or metal pipe end sections compatible with the pipe size involved.
- (9) The placement of soil amendments shall be limited to the unimproved area of the required front yard (as designated on the approved plans) of the building lots when the placement of soil amendments is required by a Post Construction Stormwater Management Plan. The location of the soil amendments must be shown and adequately dimensioned, and the related restrictions noted on the subdivision plan sheet(s) that are to be recorded.

E. Compliance with the Department of Environmental Protection, Chapter 105 Regulations. Design criteria contained in this section are intended for usage in conjunction with Chapter 105 regulations of the Department of Environmental Protection, Water

Obstructions and Encroachments. All information and regulations contained in Chapter 105 shall be considered to be incorporated into this section of the ordinance as if reproduced in full. It will be the developer's responsibility to review Chapter 105 regulations for his project and insure compliance with the same. Neither the Township Engineer nor any other official of the Township shall be called upon to interpret, determine necessity or waive requirements of Chapter 105.

A Department of Environmental Protection permit, in accordance with Chapter 105, shall be required for any obstruction or encroachment in the waters of the Commonwealth prior to the approval of the Final Plan. All areas of the Township shall be classified suburban or urban for bridge and culvert designs. In the event any question arises between this ordinance and the Department of Environmental Protection regulations, the design criteria contained in the Department of Environmental Protection regulations shall govern.

F. Erosion and Sedimentation. In those areas involving residential development where there are no new improvements being proposed (i.e. no new streets, drainage ways, detention ponds, etc.) and/or other stormwater management facilities, a typical individual lot Erosion and Sedimentation Control Plan or notation shall be placed on the subdivision or land development plan. In all other instances, the Erosion and Sedimentation Control Plan shall be submitted to the Franklin County Conservation District for their review and approval prior to Final Plan approval. In those cases involving major land development or subdivision plans, said approval must be obtained at the Preliminary Plan stage as well as the Final Plan stage.

G. Ownership and Maintenance Program. Each SWMP shall contain provisions which clearly set forth the ownership and maintenance responsibility of all permanent stormwater management facilities, including:

- (1) Description of temporary and permanent maintenance requirements.
- (2) Establishment of suitable easements for access to

all facilities by County and Township officials.

- (3) Identification of the responsible party or entity for ownership and maintenance of both temporary and permanent stormwater management and erosion control facilities.
- (4) A note shall be placed on the plan indicating that the developer is responsible for the mowing of any lots that he owns, and that individual lot owners will be responsible for the mowing of their respective lots upon transfer by the developer.
- (5) All proposed facilities shall be secured in accordance with Section 801.

H. Stormwater Management Construction Standards.

Construction standards of stormwater management and erosion control facilities shall be in accordance with the approved plans and accompanying specifications, if any. The construction details and standards of the following publications in their most recent revision shall control.

- (1) Erosion and Sediment Pollution Control Manual, Bureau of Soil and Water Conservation, Pennsylvania Department of Environmental Protection.
- (2) Form 408, Specifications, Pennsylvania Department of Transportation.
- (3) RC Series, Roadway Construction Standards, Pennsylvania Department of Transportation.

511 Traffic Impact Studies

The Board of Supervisors requires that all driveways and roadways be designed to accommodate the amount and type of traffic they will serve considering the type and character of the roadway that the driveway or roadway will access.

A. Purpose

These guidelines detail the procedures to be utilized

when conducting a traffic impact study for a proposed site development which is expected to impact traffic operations on a Township Roadway. Such studies are necessary to define the possible magnitude of the impact(s) of the proposed development on the traffic operations of affected Township roadway(s) and determine improvements necessary to provide for accommodation of the traffic due to the proposed development.

Studies to be conducted under these guidelines are separate from any other requirements which the municipality may have in regards to traffic impact analysis or Act 209/1990 requirements.

B. Determining the Need for a Traffic Impact Study

Traffic impact studies are conducted to enable the Board of Supervisors to identify the potential impacts of a proposed development and determine any roadway improvements necessary to provide an acceptable level of service. These studies are to be conducted during the initial stages of the site development review and approval process in order to adequately consider the impacts the development will have on the local transportation network.

Not all developments will have a significant enough impact to require a traffic impact study. The use of engineering judgement is necessary in making this determination and consideration should be given not only to changes in projected traffic volume but also safety or capacity deficiencies which could impact the roadway system.

In all cases, a traffic impact study will be conducted when, in the opinion of the Board, the site development is expected to have a significant impact on the safety and/or traffic flow of the affected roadway(s).

A traffic impact study shall be submitted along with subdivision or land development plans when any one of the following conditions exist or are created by the proposed subdivision or land

development.

- (1) The proposed development is expected to generate 750 or more vehicle trips per day (total inbound and outbound development traffic).
- (2) The proposed development is expected to generate traffic flow which will be comprised of greater than fifteen (15) percent by aggregate, of trucks, buses and RV vehicles. This maximum percentage of trucks, buses and RV's will apply whether or not the development is expected to generate 750 vehicle trips per day (total inbound and outbound).
- (3) The total traffic flow on the adjoining roadway will exceed 250 vehicles per hour during the adjoining roadway's peak hour, and 25 or more of the vehicles are newly generated peak direction trips to or from the site.

Residential, Commercial and Industrial subdivisions shall estimate the expected vehicle trips based upon complete build-out of the subdivision, including all existing and future phases of the development.

C. Preparation of the Study

When it has been determined that a traffic impact study is required for a proposed site development, it shall be the responsibility of the developer to ensure the study is conducted and a final report submitted in accordance with these guidelines. The traffic impact study and final report shall be prepared under the supervision of a registered Professional Engineer who possesses a current license issued by the Pennsylvania State Registration Board for Professional Engineers. The final traffic impact study report must have the seal and signature of the supervising engineer on it when submitted. The conduct of the traffic impact study must be in cooperation with and coordinated with the appropriate State and local officials. Of special importance is the need to work closely

with the involved municipal officials in determining the improvements which are to be implemented on the affected roadway(s). Where the recommended improvements will require a commitment from the municipality for continued maintenance and/or operation, such as with traffic signals, the report should indicate a commitment from the developer to accept these responsibilities.

D. Study Procedures

(1) General Requirements.

The traffic impact study will be conducted using currently accepted traffic engineering practices and procedures. The use of computer programs to conduct the required analyses is acceptable; provided, the programs reflect the most current provisions of the analysis procedures upon which they are based. Recommended geometric or traffic operations improvements must meet or exceed all applicable State and/or Local minimum design criteria.

The study engineer will be responsible for the collection of all information and data required to support the study effort. When traffic counts are required for the study, the study engineer shall collect such data to include peak hour turning movements on an average day as defined in the PA Department of Transportation's Publication 201.

The procedures and requirements outlined in these guidelines are intended to provide a basic framework for the conduct of a traffic impact study. Additions or modifications to this framework may be made provided such changes are approved by the Township.

(2) Study Area Characteristics.

The limits for the study area should be based upon engineering judgement and a knowledge of the existing traffic conditions

in the vicinity of the proposed site development. The area must be of sufficient size to include the key roadway corridors and critical intersections which may be impacted by the proposed site traffic.

Existing and proposed land uses in the study area must be considered in the study. This consideration must include not only the current/proposed zoning of the various tracts within the study area but also the specific use for the development site. Where the current/proposed land use of the site is being modified, and analysis of the proposed changes should be made to determine the extent to which traffic volumes for the site must be modified.

Characteristics of the study area roadway network, intersections and the proposed site access point(s) to include geometrics and traffic control need to be identified as part of the study. Included in this identification will be all driveways adjacent to or across from the proposed site access point(s).

(3) Traffic Analysis.

The study area roadway network is to be analyzed for safety and capacity sufficiency for three separate conditions: Existing network conditions, future network conditions without the proposed development and future network conditions with the proposed development. For each of the three conditions the following analyses shall be completed:

- (a) Mainline ADT volumes and turning movement volumes for all critical intersections within the study area will be determined for the A.M. peak hour, P.M. peak hour and the proposed development peak hour if other than either the A.M. or P.M. peak hour of the network.

- (b) The effectiveness of the traffic signal control at all critical intersections will be evaluated by approach in terms of vehicle stops and delays.
- (c) Gap studies will be conducted at the proposed site access points to evaluate the need for signal control, turn prohibitions or additional site access points to reduce the left turn volume from the site driveway(s).
- (d) Queue length studies will be completed to evaluate the potential for a backup of traffic from controlled intersections which could impact other intersections including access points to the proposed development.
- (e) An analysis of the volume and capacity of the network and all critical intersections will be conducted utilizing the most current Highway Capacity Manual procedures. Levels of service will be determined and documented.

The analysis of the existing roadway and intersection conditions in the study area will be based upon the current geometric conditions and traffic control operations. This analysis will serve as a basis for determining the current adequacy of the roadway network and to document any deficiencies.

The analysis of the future conditions without the proposed development will document the adequacy of the study area network to accommodate traffic in the design year(s) without the proposed development. This analysis must include a full consideration of all committed roadway improvements to the study area network when determining the expected levels of service. For the analysis of the future conditions with the proposed development, one of the

key factors will be the development of the projected site generated traffic and its distribution on the study area network. The study preparer must fully document the methodology which was used to complete this effort and provide sufficient information such that the Board can verify the results.

In addition, care must be taken to ensure that adequate consideration is given to that portion of the already projected future network traffic which will utilize the proposed development access points.

Failure to account for this "captured" traffic will result in a "double counting" of a portion of the future traffic.

(4) Improvement Recommendations.

The overall goal of this section will be to detail necessary improvements to the study area roadway network which will provide for a level of service for the design year(s) with the development which is at least equivalent to the projected level of service for the design year(s) without the proposed development. Based upon a comparison of the traffic analysis for the future conditions with and without the proposed development, roadway and traffic operational improvements which will support this goal are to be identified and analyzed. These improvements may include both on-site and off-site roadway and traffic operational changes as determined by the preceding analyses. In developing the proposed improvements, the study preparer is to consider the following:

- (a) All roadway capacity evaluations shall consider not only the overall intersection level of service and delay but also evaluate each approach and movement to identify any substandard values which need to be improved.
- (b) For locations where the level of

service of the design year without the proposed development is F, the improvements shall provide an estimated delay which will be no worse than the delay for the design year without the proposed development.

- (c) Where new intersections are being established to serve as access to the proposed development, these intersections must be designed to at least operate at Level of Service C or better (rural conditions) or Level of Service D or better (urban conditions).
- (d) For access points to the proposed development, which are not proposed to be controlled by a traffic signal, an analysis will be completed to determine the design details for a separate left turn lane on the adjoining highway.
- (e) For access points to the proposed development where traffic signal control is being proposed, a traffic signal warrant analysis shall be performed in accordance with the requirements of the PA Department of Transportation's Publication 201. Although a left turn lane shall be provided, an analysis shall be completed to determine the type of signal phasing required.

The final recommended study area network with proposed improvements will also be subjected to all the traffic analyses which are required under the previous section of these guidelines. These analyses will serve to document the "adequacy" of the improvements.

E. Final Report

(1) General.

A final report must be prepared to document the results of the traffic impact study and the recommended improvements to accommodate the projected traffic due to the proposed

development. Since this report will be reviewed by officials with varying levels of technical expertise, the report must be presented in a format and context which can be understood by both technical and non-technical parties.

The presentation of data and analyzes results should, preferably, be accomplished on either schematic diagrams of the study area, or through the use of charts and/or tables. All sources of data and methodologies which were used in the study (including computer programs) must be properly referenced and documented. Any modifications to the referenced procedures must be properly documented to enable a review of the appropriateness of the modification.

(2) Contents.

The final report will include the following:

- (a) Executive summary which provides a concise description of the study area, results of the traffic analyses and any recommended improvements.
- (b) Description of the proposed development site to include a map showing the site's location in regards to the region and the area roadway network.
- (c) Schematic diagram/map of the designated study area showing all major roadways and critical intersections.
- (d) Results of the traffic analyses for the three traffic conditions. At a minimum, the following data must be shown for each of the three conditions:
 - (i) Mainline ADT and intersection turning movement counts.
 - (ii) Levels of service.
 - (iii) Projected traffic distribution and

network assignment for the proposed site.

- (e) Recommended improvements to the study area network to include preliminary cost estimates, proposed implementation schedule and expected levels of service for the recommended network.

512 RECREATIONAL REQUIREMENTS

Each subdivision and land development shall construct and dedicate recreational facilities and land or pay a fee-in-lieu of such construction and dedication to the Township for the purpose of providing, acquiring, operating, or maintaining park or recreational facilities that are reasonably accessible to the property, in accordance with the following requirements:

A. Construction and Dedication of Recreational Facilities

- 1. Recreation Study: Where a sub-divider/developer proposes to construct and dedicate recreational facilities and land to the Township, a Recreation Study shall be submitted along with the Plan Submission, prepared by a professional with demonstrated experience in the planning and design of recreational facilities and amenities which addresses the following:

- a.) Demographic Analysis: Identify the anticipated composition and characteristics of the occupants of the proposed subdivision or land development; the expected types of recreational amenities to be provided; and why the land where the recreational facilities are proposed adequately accommodates the recreational function including attendant off street parking facilities.

- b.) Land Area Requirements for Dedication:

- (1.) A minimum of 1,500 square feet of suitable recreation land shall be dedicated for each dwelling unit within a residential subdivision or land development.

(2.) A minimum of 10% of the net land area in any non-residential subdivision or land development shall be established for recreation.

(3.) Land offered for dedication shall be contiguous and shall not be less than ten (10) acres.

c.) Criteria for determining location and suitability.

(1.) The proposed recreation area to be dedicated shall comply with and be subject to the following criteria:

(a) Be easily and safely accessible, have good ingress and egress and have direct access to a public roadway.

(b) Be contiguous and regular in shape.

(c) Have suitable topography and soil conditions for use and development as a park or recreation area.

(d) A minimum of seventy-five percent (75%) of the required area shall not exceed a slope of seven percent (7%).

(e) No more than twenty-five (25%) of the required area may be within flood plain or wetland areas.

(f) Be served by all essential utilities, such as water, sewer and electric.

(g) Be compatible with the objectives, guidelines and recommendations as set forth in the Guilford Township Park and

Recreation Plan, as amended.

d.) Land that is subject to one or more of the following features will disqualify it for acceptance for dedication as recreational land:

1. Park land dedication sites abutted by existing residential where in the judgment of the Board of Supervisors the character of the proposed recreation facility would not be compatible with the existing residential neighborhood.
2. Areas encumbered by overhead utility lines or easements of any type that might limit the opportunity for park and recreation development.
3. Land used or otherwise encumbered by hazardous and/or municipal waste materials or dumpsites.
4. Land used for storm water management structures.

e.) **EXEMPTIONS:** The following subdivisions or land developments shall be exempt from the provisions of this Section:

- (1) Subdivision of land into two (2) or more lots appropriately restricted to agricultural purposes.
- (2) Subdivision of land into two (2) or more lots for the purpose of reconciling adjoining property lines or lot additions not involving additional development.
- (3) Subdivision or land development of the Township, municipal authority, or school district.
- (4) Expansion of an existing developed non-residential building and/or structures which is required to

prepare a Land Development Plan.

- (5) Land Development Plans appropriately restricted to agricultural purposes.

f.) Construction and Dedication of Recreational Facilities.

Where the sub-divider/developer proposes to construct and dedicate recreational facilities to the Township, the improvements shall be secured in accordance with the applicable provisions of Article VIII herein. Additionally, all land to be dedicated shall be free and clear of all liens, encumbrances and easements excepting however existing building restrictions, easements of roads; rights of public utility companies, if any. Otherwise the title to the land shall be good and marketable as will be insured by a reputable Title Insurance Company at the regular rates, in a manner deemed appropriate by the Solicitor.

B. Payment of fee in lieu of dedication.

1. As an alternative to dedication of land and upon agreement with the Board of Supervisors, the developer or subdivider may agree to pay a fee-in-lieu of dedication for the purpose of providing, acquiring, operating, or maintaining park or recreational facilities that are reasonably accessible to the property.
2. The cash payment in-lieu of land dedication shall be met by the payment as determined by resolution of the Board of Supervisors as duly amended from time to time based upon a per dwelling fee for residential units and a per acreage fee for non-residential subdivisions or land developments.
3. All fees paid hereunder shall be due and payable in full upon approval of the final subdivision or land development plan or phase or section thereof and shall be paid prior to the release of any plan for recording.

All monies paid to the Township pursuant to this section shall

be deposited and utilized in accordance with the provisions and requirements of the Pennsylvania Municipalities Planning Code.

513 LANDSCAPING

A. Purpose - The intent of these landscaping requirements is to promote compatible and attractive development within Guilford Township.

B. Exemptions -

(1) Those areas of a subdivision or land development plan that are restricted to single-family detached or single-family semi-detached residential structures are exempt from the landscaping requirements contained herein.

(2) Those areas of a subdivision or land development plan that are restricted to agricultural uses only are exempt from the landscaping requirements contained herein.

C. Scope and Requirements - A Landscaping Plan shall be required for all portions of subdivision or land development plans not meeting the requirements of Sections 513.B.1. and 513.B.2. above. In addition to the other requirements set forth in this Ordinance, the Plans must include the following:

(1) Any part or portion of a site which is not considered to be impervious or which is designated as storage area shall be landscaped according to a Subdivision or Land Development Plan that is reviewed and approved by the Township.

(2) A replacement program for non-surviving plants and/or trees.

(3) Screening, Buffer Yards and Planting Strips are required, but not limited to, the following conditions:

(a) Screening

(i) Service, delivery, loading, outdoor storage and refuse storage areas shall be screened from all

adjacent residential districts, and residential uses.

- (ii) Mechanical equipment and trash disposal areas not enclosed in a structure shall be completely screened.

(b) Buffer Yards, where required

- (i) Where a proposed commercial, industrial, or institutional use abuts an existing residential use or district.
- (ii) Where any proposed multi-family residential use abuts an existing single-family detached or single-family semi-detached residential use.

(c) Planting Strip, where required

- (i) All commercial, industrial, institutional, and non-residential uses shall be separated from all side and rear property lines and all street right-of-way lines by a planting strip having a minimum width of ten (10) feet measured from the property line or right-of-way line.
- (ii) Said planting strip shall only be broken by approved entrances or exits.

(d) Landscaping of Parking Lots

- (i) All parking lots with twenty (20) or more spaces shall be provided with interior landscaped areas equal to ten (10)square feet for each parking space, excluding those spaces located directly along the perimeter for which landscaping has been provided.

The intent of this Section is to Require landscaping within parking lots; therefore, landscaping screens, planting strips and landscaping

surrounding buildings shall not be considered as interior landscaping.

- (1) The interior landscaping shall be provided within island planters having a minimum area of one-hundred (100) square feet.
- (2) The interior parking lot landscaping shall be placed so as to delineate driving lanes, define rows of parking, and generally mitigate the visual impact of parking lots.
- (3) The interior parking lot landscaping shall be composed of a combination of shrubs and trees. At least one shade or ornamental tree shall be required for each twenty (20) parking spaces.

D. Specifications -

- (1) All plantings and maintenance thereof shall be performed in conformance with good nursery and landscape practices.
- (2) All trees at the time of planting shall have a minimum trunk diameter of one and one-half (1.5) inches at a height of six (6) inches above finished grade.
- (3) Species selection shall be based upon the existing site conditions including the site geology, hydrology, and soils as well as functional considerations of screening and buffer yards and architectural compatibility.
- (4) Trees and shrubs used for screening shall consist of at least fifty (50) percent evergreen trees and shrubs and shall be so arranged as to provide an immediate visual screen of fifty (50) percent. Evergreen trees shall be at least six (6) feet in height at the time of planting and shrubs shall have a minimum height of three (3) feet at the time of planting. Linear spacing of trees shall be fifteen (15) feet maximum. Parallel rows of

trees shall be staggered and separated by eight (8) feet maximum.

- (5) No plantings shall be placed with their center closer than five (5) feet from the property line of the tract, including road right-of-way's and utility easements.
- (6) Vegetative screens shall be perpetually maintained during the period the principal use causing the need for screening is in operation. Any plant material that does not survive shall be replaced within six (6) months.
- (7) Walls, ornamental structures, fences, and berms, or a combination of these, not less than six (6) feet in height may be used in combination with appropriate plant material.
- (8) In order for the Township to determine compliance with the requirements of this Section, a plan shall be submitted showing the proposed design of the landscape screen. Said plan shall include a plant schedule and sufficient information as required for the installation of the screen.

514 EXCEPTIONS

The general principles of design and the minimum requirements for the laying out of subdivisions and land developments stipulated in This Ordinance may be varied by the Board of Supervisors in the case of a project large enough to constitute self-contained neighborhood, industrial park or commercial center. Such a project shall be developed in accordance with a comprehensive plan which in the judgement of the Board has made adequate provisions for all essential requirements. Provided, however, that no modification shall be granted by the Board which would conflict with features of any adopted long-range plan of the Township or with the intent and purpose of the general principles of design of this Ordinance, or with the applicable provisions of the Guilford Township Zoning Ordinance.

Any request for an exception shall be in writing and shall satisfactorily set forth the reasons therein.

ARTICLE VI

MOBILE HOME/MANUFACTURED HOME PARK REGULATIONS AND MOBILE HOMES NOT LOCATED IN A MOBILE HOME PARK

600 PROCEDURE

No person, firm or corporation shall construct, maintain or operate a Mobile home/Manufactured Home Park within the Township without obtaining a Mobile home Park Permit from the Township. The procedures for reviewing mobile home park plans shall be the same as for subdivision and land development plans in accordance with this provisions of This Ordinance. Unless otherwise specified in this Article, the design standards and improvement requirements for mobile home parks shall be the same as for subdivision and land development projects in accordance with the provisions of this Ordinance, notably as Article VII, and in accordance with the definitions of "Manufactured Home" and "Manufactured Home Park or Subdivision". The terms "mobile home" and "manufactured home" used herein and throughout this ordinance have the same meaning and are used interchangeably, unless specifically stated otherwise in the text.

601 PLAN REQUIREMENTS

Prior to the issuance of a Mobile home Park/Manufactured Home Park Permit, plans shall be submitted to and approved by the Township in accordance with the requirements and procedures of this Ordinance. In addition to the site plan information required elsewhere in this Ordinance, the following information shall be provided on the plans:

- A. The location and use of proposed buildings or structural improvements.
- B. The location and design of all uses not requiring structures such as recreation areas and landscaping.

602 MOBILE HOME PARK/MANUFACTURED HOME PARK PERMIT

- A. License and Permit. It shall be unlawful for any person to construct, alter, extend, or operate any park unless he has been issued a valid annual license by the Township for proposed construction, alteration,

extension, or operation; and unless he has been issued a permit by Guilford Township hereunder; and unless he complies with provisions of this Ordinance and Regulations.

- B. Application to Guilford Township. Owner shall make application to Guilford Township on the form furnished by the Township for permit to operate a park in the Township, designating the person within the Township upon whom service of notices and proceedings hereunder can be served.
- C. Renewal Permits. Renewal permits for a like period shall be issued by the Guilford Township Board upon application and compliance with Ordinance and State requirements.

603 TRANSFER

Every person holding a permit shall file notice in writing to Guilford Township within ten (10) days after having sold, transferred, given away, or otherwise disposed of interest in or control of any park.

604 LOT REQUIREMENTS

- A. Individual mobile home lots located in a Mobile home Park shall contain at least ten thousand square feet (10,000 sq. ft.) of lot area exclusive of any street right-of-way and shall not be less than sixty feet (60'0") wide at the building set-back line exclusive of easements or rights-of-way.
- B. All mobile home lots shall be given street numbers and all park streets shall be given names.

605 YARD AND SETBACK REQUIREMENTS

- A. All mobile homes shall be located at least thirty-five feet (35'0") from any street right-of-way which abuts a mobile home park boundary and at least twenty-five feet (25'0") from any other boundary of the park.
- B. There shall be a minimum distance of twenty feet (20'0") between an individual mobile home and adjoining right-of-way of a park street. There shall be a minimum of fifty feet (50'0") between the common

parking area or other common area.

- C. All mobile homes and patios on a mobile home lot shall **not** be located closer than ten feet (10'0") to an interior lot line.

606 PARK STREET SYSTEM

- A. Park Access. Each Mobile home Park shall be provided with at least two points of ingress and egress and a distance of at least one-hundred and fifty feet (150'0") shall be maintained between centerlines of access streets.
- B. Lot Access. All Mobile home Parks shall be provided with safe and convenient paved access streets to and from each and every mobile home lot. Alignment and gradient shall be properly adapted to topography.
- C. All streets within a mobile home park shall be designed and constructed in accordance with the applicable standards of this Ordinance.

607 REQUIRED OFF-STREET PARKING

- A. Off-street parking areas shall be provided in all Mobile home Parks for the use of park occupants and guests. Such areas shall be furnished at the rate of at least two (2) vehicular parking spaces for each mobile home lot, to be located on the lot, and one (1) guest space for each three(3) mobile homes/manufactured homes in the park, to be located in designated off-street parking lots or areas distributed throughout the park so as to be usable and convenient to all lots.
- B. Each off-street parking space shall be at least ten feet (10'0") by twenty feet (20'0") in area and shall not exceed a distance of three hundred (300'0") feet from the mobile home lot that it is intended to serve.

608 UTILITY IMPROVEMENTS

- A. Sewer and Water. All mobile homes in mobile home parks shall be connected to public or centralized sewer and water systems approved by the Department of Environmental Resources.

- B. Electrical Distribution, Television and Telephone Service. All Mobile home Parks shall have underground electrical distribution systems and telephone and television service which shall be installed and maintained in accordance with the local company's specifications regulating such systems.
- C. Individual Electrical Connections.
- (1) Each mobile home lot shall be provided with an approved disconnecting device and over current protective equipment. The minimum service per outlet shall be 120/240 volts A.C. 100 amperes.
 - (2) All exposed non-current-carrying metal parts of mobile homes and all other equipment shall be grounded by means of an approved grounding connector run with branch circuit conductors or other approved methods of grounded metallic wiring. The neutral conductor shall not be used as an equipment ground for mobile homes or other equipment.
- D. Natural Gas Systems. Any natural gas system shall be installed and maintained in accordance with the regulations and specifications of the company supplying said natural gas.
- E. Liquified Petroleum Gas System. Liquified petroleum gas systems provided for mobile homes, service buildings or other structures shall include the following:
- (1) Systems shall be provided with safety devices to relieve excessive pressures and shall be arranged so that the discharge terminates at a safe location.
 - (2) Systems shall have at least one (1) accessible means for shutting off gas. Such means shall be located outside the mobile home and shall be maintained in effective operating condition.
 - (3) All LPG piping outside of the mobile homes shall be well supported and protected against mechanical injury. Undiluted liquified petroleum

gas shall not be conveyed through piping equipment and systems in mobile homes.

- (4) Any vessel containing liquified petroleum gas shall be secured but not permanently fastened to prevent accidental overturning. Vessels with a capacity greater than one hundred (100) gallons must be placed no nearer than ten feet (10') from any building. Vessels with a capacity greater than five hundred (500) gallons are prohibited, and no mobile home shall have a total capacity greater than 500 gallons.
- (5) No LPG vessel shall be stored or located inside or beneath any storage cabinet, carport, mobile home or any other structure unless such installations are specifically approved by the Guilford Board of Supervisors.

F. Fuel Oil Supply Systems. All fuel oil supply systems provided for mobile homes, service buildings and other structures shall be installed and maintained in conformity with the following regulations:

- (1) All piping from outside fuel storage tanks or cylinders to mobile homes shall be securely, but not permanently, fastened in place.
- (2) All fuel oil supply systems provided for mobile homes, service buildings and other structures shall have shut-off valves located within five inches (5") of storage tanks.
- (3) All fuel storage tanks or cylinders shall be securely placed and shall not be less than ten feet (10'0") from any mobile home exit.
- (4) Storage tanks located in areas subject to traffic shall be protected against physical damage.
- (5) Storage tanks shall not be located under mobile homes.

609 USABLE OPEN SPACE

- A. All Mobile home Parks shall provide not less than ten percent (10%) of the total land area for usable open

space purposes. Usable open space shall be so located as to be free of traffic hazards and should, where the topography permits, be centrally located and easily accessible to all park residents.

- B. Exposed ground surface in all parts of every park shall be protected with a vegetation growth that is capable of preventing soil erosion and the emanation of dust during dry weather.
- C. Park ground shall be maintained free of vegetation growth which is poisonous or which may harbor rodents, insects, or other pests harmful to man.

610 BUFFER STRIPS

A well maintained fence, wall, hedge or vegetative material at least five feet (5'0") in height and of a density to conceal the park from adjacent properties shall be provided along all lot lines of the park other than the street line.

611 WALKWAYS

- A. General Requirements. All parks shall be provided with safe, convenient, all season pedestrian walks of adequate width for intended use, durable and convenient to maintain, between individual mobile home lots, the park streets and all community facilities provided for park residents. Sudden change in alignment and gradient shall be avoided.
- B. Common Walk System. A common walk system shall be provided and maintained between locations where pedestrian traffic is concentrated. Such common walks shall have a width of four feet (4'0").
- C. Individual Walks. All mobile home lots shall be connected to common walks, to paved streets, or to paved driveways or parking spaces connecting to a paved street. Such individual walks shall have a minimum width of two feet (2'0").

612 OTHER SITE IMPROVEMENTS

- A. Mobile home Base Enclosures. Owner of mobile home park shall insure construction of an enclosure around the entire base of mobile home within thirty (30) days

of occupancy but by no means more than sixty (60) days after placement of a mobile home in the park. Such enclosure shall be of metal, wood, aluminum, galvanized, homesote or of weather resistant material and/or rigid construction. The enclosure may be of lattice construction with openings of no more than two inch (2") maximum opening. The enclosure shall provide sufficient ventilation to inhibit decay and deterioration of the mobile home.

- B. Removal of Hitch. The tongue and hitch assembly, used to tow the mobile home, shall be removed within thirty (30) days of occupancy.
- C. Storage, collection and disposal of waste in park shall be so conducted as to create no health hazards, rodent harborage, insect breeding areas, accident or fire hazards, or air pollution, and shall comply with Department and Board regulations governing parks, and Guilford Township Ordinances on waste disposal. Provisions shall be made by the park operator to have garbage and waste collected at least once every week.
- D. Each mobile home lot may be provided with a concrete slab which shall be at least four inches (4") thick on a stable surface no larger than ten feet (10'0") by eighteen feet (18'0") in size for use as a patio and so located so as to be adjoining and parallel to the mobile home. Such slab shall contain an electrical outlet to which the electrical system of the mobile home shall be connected.
- E. Individual tenants at the Mobile home Park may construct attached enclosures or covered patios to individual mobile homes, provided that such enclosure does not exceed the slab area noted in item C, above and is confined to same.
- F. Park Illumination Standards. All park streets, auxiliary parking lots and common walkways shall be illuminated during night time hour. Illumination shall be mounted at a minimum height of 14' spaced at intervals of not more than 150' or at 28' spaced at intervals of not more than 200'.
 - (1) Along park streets and walkways, luminaries shall be provided at maximum intervals of two hundred feet (200'), except within two hundred feet

(200') of intersections of park streets, where the maximum intervals shall be one hundred feet (100').

- (2) Park entrance ways, where the park street connects with the public street, shall have at least two (2) luminaries at the street intersection.
- (3) Auxiliary parking lots shall have one (1) luminary for each twenty (20) parking spaces, or fraction thereof, which shall be located to distribute the light as evenly as practicable.

- G. Each mobile home lot shall be improved to provide a permanent class "A" concrete foundation which shall be at least 6 inches (6") thick, and shall be adequate to support the weight of the mobile home placed thereon without damage to the foundation, and which shall be suitable for placement of the mobile home.
- H. Every parking space for travel trailers or mobile-homes shall be provided with devices for anchoring the unit to prevent overturning or uplift. Anchorage may be provided for by eyelets imbedded in the concrete platforms with adequate anchorage or hooks, or by other suitable means. The anchorage shall be adequate to withstand wind forces and uplift as required.

613 PARK AREAS FOR NON-RESIDENTIAL USES

- A. No part of any mobile home park shall be used for a non-residential purpose, except such uses that are required for the direct servicing and well being of park residents and for the management and maintenance of the park.
- B. Nothing contained in this section shall be deemed as prohibiting the sale of a mobile home located on an individual lot and connected to the pertinent utilities.

614 SERVICE BUILDINGS AND OTHER COMMUNITY SERVICE FACILITIES

When constructed, the following structures and any others shall conform to the applicable regulations of this

Ordinance and all other ordinances of Guilford Township.

- A. Management offices, repair shops and storage areas;
- B. Laundry facilities;
- C. Indoor recreation areas;

615 RESPONSIBILITIES OF OPERATOR

- A. Operator shall operate park in compliance with Ordinance and shall provide adequate supervision to maintain park, its facilities and equipment in good repair and in a clear and sanitary condition. Operator shall notify Guilford Township within five (5) days of placement of additional mobile homes and no less than five (5) days prior to the scheduled departure of any mobile home from the park.
- B. Operator shall provide to Guilford Township Board access at reasonable times to park and facilities to inspect to ensure compliance; and shall maintain a register containing names of all park occupants to be available to any authorized person inspecting park, for health, assessment, taxation and other purposes.

616 NOTICES, HEARINGS, AND ORDERS

- A. Whenever Board determines there are reasonable grounds to believe a violation of any provision of this Ordinance has occurred, Board shall give notice of alleged violation to Operator. Notice shall:
 - (1) Be in writing.
 - (2) Include statement of reasons for issuance.
 - (3) Allow reasonable time for performance of any act to correct violation.
 - (4) Be served upon owner or his designated agent, or upon any adult in charge of the premises, personally or by certified mail.
 - (5) State action required by mobile home park operator to comply with provisions of this Ordinance.
- B. Upon Operator's failure to comply with notice, Board shall hold a hearing with at least ten (10) days written notice to Operator. Operator and interested

parties shall have an opportunity to be heard and to show why the notice of violation should be modified or withdrawn.

- C. After hearing Board shall make findings as to compliance or non-compliance with Ordinance and shall have the power to suspend permit of Operator for non-compliance with provisions of Ordinance. During suspension, no mobile home may be placed, leased, sold or interest transferred in said Park without approval of Board. Penalty provisions for violation of Ordinance or Regulations may be imposed notwithstanding suspension of permits. Board shall also have the power to modify or withdraw notice.
- D. Proceedings at hearing, including findings and decisions of Board together with a copy of every notice and order related thereto shall be filed as part of the Guilford Township records. Transcript of proceedings need not be transcribed unless judicial review of decision is sought as provided by this Section. Any person aggrieved by decision of Board may seek relief therefrom in any Court of competent jurisdiction, as provided by laws of the Commonwealth.
- E. Whenever Board finds that an emergency exists which requires immediate action to protect public health, it may without notice or hearing issue an order reciting the existence of such an emergency and requiring such action be taken as Board may deem necessary to meet emergency, including the suspension of permit. Notwithstanding any other provisions of this Ordinance, such order shall be effective immediately. Any person to whom such an order is directed shall comply therewith immediately, but upon petition to Board shall be afforded a prompt hearing in accordance with Sections 616.A., B., C., and D.
- F. Reinstatement of Suspended Permit. A suspended permit shall not be reinstated until Operator complies with the order. Reinstatement shall require new application and showing by Operator that action has been taken to prevent reoccurrence of conditions resulting in the order.

617 FEES FOR MOBILE HOME PARK PERMITS

Fees for the Initial Permit Application and any renewal thereof as well as fees for individual mobile homes placed in the Park will be in accordance with a Resolution of the Board of Supervisors as amended from time to time.

618 ENFORCEMENT

- A. If any provisions of this Ordinance or Regulations and amendments thereto is deemed to be violated the Board in addition to other remedies including proceedings to suspend permit, may institute in the name of Guilford Township any appropriate action or proceeding for enforcement hereunder; and Board may institute in the name of Guilford Township any appropriate proceeding to prevent, restrain, correct, or abate any act, conduct, business or use constituting a violation, upon compliance with Notice and Hearing procedures in Section 616.A. through 616.F.
- B. Inspections shall be made as required for issuance of permit and may be made periodically by Guilford Township to insure continued compliance with Ordinance. Access to premises at reasonable times by Guilford Township officials shall be given by owner during processing of application.

619 MOBILE HOMES NOT LOCATED IN A MOBILE HOME PARK

Any mobile home not located in a mobile home park shall comply with all applicable requirements of the Subdivision and Land Development Ordinance, particularly Sections 505 and 506, and any other sections regulating single-family lots or access to such lots. In addition, such mobilehomes shall comply with the following.

- A. Skirting. The owner of the mobile home shall insure construction of an enclosure around the entire base of the mobile home within thirty (30) days of occupancy, but in no case more than sixty (60) days after placement of the mobile home on the lot. Such enclosure, or skirting, shall be of metal, wood, aluminum, galvanized steel, or other weather resistant material, and be of rigid construction. The enclosure may be of lattice construction with openings of no

more than two inches (2") maximum. The enclosure shall provide sufficient ventilation to inhibit decay and deterioration of the mobile home.

- B. Removal of Hitch. The tongue and hitch assembly, used to tow the mobile home, shall be removed within thirty (30) days of occupancy.
- C. Foundation or Base. All mobile homes shall be placed on a permanent Class 'A' concrete foundation. Such mobile home foundation or base shall have an area equal to the area of the mobile home to be placed on it. The foundation or base shall be a minimum of six inches (6") thick, with an adequate subbase of crushed aggregate material. A minimum of four (4) eyelets shall be embedded in the concrete and shall be strategically located for the purpose of securely affixing the mobile home to the foundation or base in a manner adequate to provide protection from the forces of wind.
- D. Utility Improvements. Mobile homes located outside of mobile home parks shall comply with the applicable regulations of Section 608 D, E, and F.

ARTICLE VII

FLOODPLAIN AREA REGULATIONS

701. Any subdivision or land development occurring within a flood plain as identified in Ordinance No. 2011-08, the Flood Plain Management Ordinance, as amended from time to time, shall be in strict conformity with the provisions of the Subdivision and Land Development Ordinance and the Flood Plain Management Ordinance.

702. MODIFICATIONS WITHIN FLOOD PLAIN DISTRICTS

1. General.

If literal compliance with any of this Article's requirements or the Subdivision and Land Development requirements contained within the Floodplain Management Ordinance would result in an excessive hardship upon any prospective builder, developer, or landowner, the Township Supervisors may, upon written request, grant relief from the requirement in question. Notwithstanding any of the following procedures, all structures shall be designed and constructed to withstand the one-hundred (100) year flood.

2. Procedures.

- A. Requests for modification of requirements of this Article or the Floodplain Management Ordinance shall be reviewed by the Township in accordance with Article IX, including the appeals procedures in Section 904, and in accordance with the special considerations of Section 7.01 of the Township Land Use Permit Ordinance.
- B. A complete record of all modification requests and subsequent actions shall be maintained by the Township. An annual report of all modifications granted with respect to this Article shall be forwarded to the Federal Emergency Management Agency.

ARTICLE VIII

IMPROVEMENT AND CONSTRUCTION REQUIREMENTS

801 COMPLETION OF IMPROVEMENTS OR GUARANTEE THEREOF
PREREQUISITE TO FINAL PLAT APPROVAL SHALL BE COMPLETED IN
ACCORDANCE WITH SECTION 509 OF THE PENNSYLVANIA
MUNICIPALITIES PLANNING CODE ACT OF 1968, P.L.805, No.247
AS REENACTED AND AMENDED.

802 RELEASE FROM IMPROVEMENT BOND SHALL BE COMPLETED IN
ACCORDANCE WITH SECTION 510 OF THE PENNSYLVANIA
MUNICIPALITIES PLANNING CODE ACT OF 1968, P.L.805, No.247
AS REENACTED AND AMENDED.

803 REMEDIES TO EFFECT COMPLETION OF IMPROVEMENTS SHALL BE
COMPLETED IN ACCORDANCE WITH SECTION 511 OF THE
PENNSYLVANIA MUNICIPALITIES PLANNING CODE ACT OF 1968,
P.L.805, No.247 AS REENACTED AND AMENDED.

804 DEDICATION OF IMPROVEMENTS

With any offer of dedication of municipal improvements, the
subdivider or developer shall furnish the Township or
appropriate Authority having jurisdiction a Deed of
Easement and/or dedication in accordance with the standards
of the Township or Authority, in a form acceptable to the
Solicitor.

ARTICLE IX

MODIFICATIONS AND APPEALS

901 PECULIAR CONDITIONS

The Board of Supervisors may grant a modification of the requirements of one or more provisions if the literal enforcement will exact undue hardship because of peculiar conditions pertaining to the land in question, provided that such modification will not be contrary to the public interest and that the purpose and intent of the ordinance is observed.

902 APPLICATIONS FOR MODIFICATIONS

All requests for a modification shall be in writing and shall accompany and be a part of the application for development. The request shall state in full the grounds and facts of unreasonableness or hardship on which the request is based, the provision or provisions of the ordinance involved and the minimum modification necessary. The request for modification may be referred to the Planning Commission for advisory comments. The Board of Supervisors or the Planning Commission, as the case may be, shall keep a written record of all action on all requests for modifications. All modifications approved by the Supervisors shall be appropriately listed with the date of such approval on the Final Plan.

903 REVIEW OF REQUESTS FOR MODIFICATION

Upon reviewing a request of modification, the Township shall consider the following:

- (1) That there is good and sufficient cause;
- (2) That failure to grant the modification would result in excessive hardship to the applicant;
- (3) That the granting of the modification will neither result in an unacceptable or prohibited increase in flood height, additional threat to public safety, or extraordinary public expense; nor create nuisances, cause fraud on, or victimize the public, or conflict with any other applicable state or local ordinances and regulations;

- (4) Any other pertinent information provided as part of the record prior to or at the time of review by any interested party.

904 APPEALS

Appeals of any action or decision of the Township Secretary or any other officer or employee of the Township authorized to administer this ordinance shall be filed in writing with the Township within thirty (30) days after the action or decision in question. Upon receipt of the appeal the Board of Supervisors shall designate a time and place for consideration of the appeal. This time will be set not less than ten (10) days nor more than thirty (30) days after receipt. Notice of the time and place shall be given to all interested parties. Should the decision of the Board of Supervisors aggrieve any person, they may seek relief by appeal to court, as provided by the laws of this Commonwealth including the Pennsylvania Flood Plain Management Act.

ARTICLE X

ENFORCEMENT, REMEDIES, SEVERABILITY, AMENDMENTS AND ENACTMENT

1001 ADMINISTRATION AND ENFORCEMENT

- A. The Board of Supervisors shall have the duty and authority for the administration and general enforcement of the provisions of This Ordinance, as specified or implied herein.

Officials of the Township having regulatory duties and authorities related to the subdivision, use or development of land shall have the duty and authority for the enforcement of the provisions of This Ordinance, as specified or implied herein or in other ordinances of the Township, or as designated by the Board of Supervisors.

- B. Permits required by the Township, for the erection or alteration of buildings, the installation of sewers or sewage disposal system, or for other appurtenant improvements, or use of the land shall not be issued by any Township official responsible for such issuance until he has ascertained that the site for such building, alteration, improvement or use is located in a subdivision approved and publicly recorded in accordance with the provisions of This Ordinance regulating the subdivision of land.

Permits shall be issued only after it has been determined that the site for the building, alteration, improvement or use conforms to the site description as indicated by the approved and recorded Final Plat or other land description acceptable in accordance with the provisions of This Ordinance, and that it is in compliance with all applicable provisions of This Ordinance. If a building permit is issued erroneously or prior to proper approval, it is void.

- C. The Sewage Enforcement Officer shall require that applications for Sewage Disposal System Permits contain all the information needed to demonstrate that the site for the proposed system is acceptable in accordance with the provisions of This Ordinance, and the Rules and Regulations of the Department of Environmental Resources and any requirements of the Township pertaining to the issuance of such permit.

1002 AMENDMENTS

Amendments to the subdivision and land development ordinance shall only become effective after such public hearings as may be required by the Pennsylvania Municipalities Planning Code.

1003 REMEDIES

- A. Preventive Remedies. In addition to other remedies, the Township may institute and maintain appropriate actions by law or in equity to restrain, correct or abate violations, to prevent unlawful construction, to recover damages and to prevent illegal occupancy of a building, structure or premises. The description by metes and bounds in the instrument of transfer or other documents used in the process of selling or transferring shall not exempt the seller or transferor from such penalties or from the remedies herein provided.

The Township may refuse to issue any permit or grant any approval necessary to further improve or develop any real property which has been developed or which has resulted from a subdivision of real property in violation of any ordinance adopted pursuant to this article. This authority to deny such a permit or approval shall apply to any of the following applicants:

- (1) The owner of record at the time of such violation.
- (2) The vendee or lessee of the owner of record at the time of such violation without regard as to whether such vendee or lessee had actual or constructive knowledge of the violation.

- (3) The current owner of record who acquired the property subsequent to the time of violation without regard as to whether such current owner has actual or constructive knowledge of the violation.
- (4) The vendee or lessee of the current owner of record who acquired the property subsequent to the time of violation without regard as to whether such vendee or lessee had actual or constructive knowledge of the violation. As an additional condition for issuance of a permit or the granting of an approval to any such owner, current owner, vendee or lessee for the development of any such real property, the Township may require compliance with the conditions that would have been applicable to the property at the time the applicant acquired an interest in such real property.

B. Enforcement Remedies. Any person, partnership or corporation who or which has violated the provisions of this subdivision and land development ordinance, or any provisions or special conditions of any finally approved plan, shall, upon being found liable therefor in a civil enforcement proceeding commenced by the Township, pay a judgment of not more than \$500.00 plus all court costs, including reasonable attorney fees incurred by the Township as a result thereof. No judgement shall commence or be imposed, levied or payable until the date of the determination of a violation by the district justice. If the defendant neither pays nor timely appeals the judgment, the Township may enforce the judgment pursuant to the applicable rules of civil procedure. Each day that a violation continues shall constitute a separate violation, unless the district justice determining that there has been a violation further determines that there was a good faith basis for the person, partnership or corporation violating the ordinance to have believed that there was no such violation, in which event there shall be deemed to have been only one such violation until the fifth day following the date of the determination of a violation by the district justice and thereafter each day that a violation continues shall constitute a separate violation.

The court of common pleas, upon petition, may grant an order of stay, upon cause shown, tolling the per diem judgment pending a final adjudication of the violation and judgment.

Nothing contained in this section shall be construed or interpreted to grant to any person or entity other than the Township the right to commence any action for enforcement pursuant to this section.

1004 SEVERABILITY

If any section, clause, provision, or portion of this ordinance shall be held to be invalid, or unconstitutional by any court of competent jurisdiction, such decision shall not affect any other section, clause, provision, or portion of this ordinance, which shall remain in full force and effect, and for this purpose the provisions of this Ordinance are hereby declared to be severable.

1005 ENACTMENT

Adopted this 7th day of JANUARY, 1999

BY: GUELDFORD TOWNSHIP
BOARD OF SUPERVISORS :

Cheryl J. Jank
Frank Hollis
John W. Rife

ATTEST:

Karen A. Kellon

APPENDIX A

ANTIETAM CREEK WATERSHED
ACT 167 STORMWATER MANAGEMENT ORDINANCE

ARTICLE I
GENERAL PROVISIONS

SECTION 101. STATEMENT OF FINDINGS

The Governing Body of the Municipality of _____ finds that:

- A. Inadequate management of accelerated stormwater runoff resulting from development throughout a watershed increases flood flows and velocities, contributes to erosion and sedimentation, overtakes the carrying capacity of existing streams and storm sewers, greatly increases the cost of public facilities to convey and manage stormwater, undermines floodplain management and flood reduction efforts in upstream and downstream communities, reduces groundwater recharges, and threatens public health and safety.
- B. A comprehensive program of stormwater management, including reasonable regulation of development and activities causing accelerated erosion, is fundamental to the public health, safety, welfare, and the protection of the people of the Municipality and of the Commonwealth, their resources, and the environment.

SECTION 102. PURPOSE

The purpose of this Ordinance is to promote health, safety, and welfare within that portion of the Antietam Creek Watershed which is within the political boundaries of The Municipality of _____, as such is depicted upon the attached map, which has been marked Plate "A", and is made a part hereof, by minimizing the damages described in Section 101.A of this Ordinance through provisions designed to:

- A. Manage accelerated runoff and erosion and sedimentation problems at their source by regulating activities that cause these problems.

- B. Utilize and preserve the existing natural drainage systems.
- C. Encourage recharge of groundwater where appropriate and prevent degradation of groundwater quality.
- D. Maintain existing flows and quality of streams and watercourses in the Municipality and the Commonwealth.
- E. Preserve and restore the flood-carrying capacity of streams.
- F. Provide proper maintenance of all permanent stormwater management facilities that are constructed in the Municipality.
- G. Provide performance standards and design criteria for watershed-wide stormwater management and planning.

SECTION 103. STATUTORY AUTHORITY

The Municipality is empowered to regulate land use activities that affect runoff by the Authority of the Act of October 4, 1978, P.L. 864 (Act 167), the "Stormwater Management Act," and the Act of May 1, 1933 (P.L. 103, No.69), Reenacted and Amended July 10, 1947 (P.L. 1481, No.567) As Amended, the "Second Class Township Code or the Act of February 1, 1966 (P.L. 1654, No. 581) As Amended, the "Borough Code."

SECTION 104. APPLICABILITY

This Ordinance shall only apply to those areas of the Municipality that are located within the Antietam Creek Watershed, as delineated on Plate "A" of this Ordinance.

This Ordinance shall only apply to permanent stormwater management facilities constructed as part of any of the Regulated Activities listed in this Section. Stormwater management and erosion and

sedimentation control during construction activities are specifically not regulated by this Ordinance, but shall continue to be regulated under existing laws and ordinances.

This Ordinance contains only the stormwater management performance standards and design criteria that are necessary or desirable from a watershed-wide perspective. Local stormwater management design criteria (e.g. inlet spacing, inlet type, collection system details, outlet structure design, etc.) shall continue to be regulated by the Municipality's Subdivision and Land Development Ordinance for those areas that are located outside of the Antietam Creek Watershed.

The following activities are defined as "Regulated Activities" and shall be regulated by this Ordinance:

- A. Land Development
- B. Subdivision
- C. Construction of new or additional impervious or semi-pervious surfaces (driveways, parking lots, etc.).
- D. Construction of new buildings or additions to existing buildings in excess of 5,000 sq. ft.
- E. Diversion or piping of any natural or man-made stream channel (see Section 303C.3).
- F. Installation of stormwater management facilities or appurtenances thereto.
- G. Forest Management Operations.
- H. Land disturbances in excess of 5,000 square feet but excluding those related to agricultural activities.

SECTION 105. REPEALER

Any Ordinance of the Municipality inconsistent with any of the provisions of this Ordinance is hereby repealed to the extent of the inconsistency only.

SECTION 106. SEVERABILITY

Should any section or provision of this Ordinance be declared invalid by a court of competent jurisdiction, such decision shall not affect the validity of any of the remaining provisions of this Ordinance.

SECTION 107. COMPATIBILITY WITH OTHER ORDINANCE REQUIREMENTS

Approvals issued pursuant to this Ordinance do not relieve the Applicant of the responsibility to secure required local, state and/or federal permits (such as DER Chapter 105, 106, NPDES, etc.), or approvals for activities regulated by any other applicable code, rule, act, or ordinance.

ARTICLE II
DEFINITIONS

For the purposes of this Chapter, certain terms and words used herein shall be interpreted as follows:

- A. Words used in present tense include the future tense; the singular number includes the plural number, and the plural number includes the singular; words of masculine gender include feminine gender; and words of feminine gender include masculine gender.
- B. The word "includes" or "including" shall not limit the term to the specific example but is intended to extend its meaning to all other instances of like kind and character.
- C. The word "person" includes as individual, firm, association, organization, partnership, trust, company, corporation, or any other similar entity.
- D. The words "shall" and "must" are mandatory; the words "may" and "should" are permissive.
- E. The words "used or occupied" include the words "intended, designed, maintained, or arranged to be used or occupied."

Agricultural Activities - Growing crops, rotating crops, tilling of soil and grazing animals.

Alteration - As applied to land, a change in topography as a result of the moving of soil and rock from one location or position to another; also the changing of surface conditions by causing the surface to be more or less impervious; land disturbance.

Applicant - A landowner or developer who has filed an application for approval to engage in any Regulated Activities as defined in Section 104 of this Ordinance.

Cistern - An underground reservoir or tank for storing rainwater.

Conservation District - The Franklin County Conservation District.

Culvert - A structure with appurtenant works which carries a stream under or through an embankment or fill.

Dam - An artificial barrier, together with its appurtenant works, constructed for the purpose of impounding or storing water or another fluid or semi-fluid, or a refuse bank, fill or structure for highway, railroad or other purposes which does or may impound water or another fluid or semi-fluid.

Design Storm - The magnitude and temporal distribution of precipitation from a storm event measured in probability of occurrence (e.g. a 5-year storm) and duration (e.g. 24-hours), used in the design and evaluation of stormwater management systems.

Detention Basin - An impoundment structure designed to manage stormwater runoff by temporarily storing the runoff and releasing it at a predetermined rate.

Developer - A person, partnership, association, corporation, or other entity, or any responsible person therein or agent thereof, that undertakes any Regulated Activity of this Ordinance.

Development Site - The specific tract of land for which a Regulated Activity is proposed.

Drainage Easement - A right granted by a landowner to a grantee, allowing the use of private land for stormwater management purposes.

Erosion - The movement of soil particles by the action of water, wind, ice, or other natural forces.

Floodplain - Any land area susceptible to inundation by water from any natural source or delineated by applicable Department of Housing and Urban Development, Federal Insurance Administration Flood Hazard Boundary Maps as being a special flood hazard area. Also included are areas that comprise Group 13 Soils, as listed in Appendix A of the Pennsylvania Department of Environmental Resources (PaDER) Technical Manual for Sewage Enforcement Officers (as amended or replaced from time to time by PaDER).

Forest Management Operations - All activities connected with growing and harvesting of forest products including site preparation; cultivation and logging of trees and the construction and maintenance of roads.

Groundwater Recharge - Replenishment of existing natural underground water supplies.

Impervious Surface - A surface that prevents the percolation of water into the ground.

Infiltration Structures - A structure designed to direct runoff into the ground (e.g. french drains, seepage pits, seepage trench).

Land Development - (1) The improvement of one lot or two or more contiguous lots, tracts, or parcels of land for any purpose involving (a) a group of two or more residential or non-residential buildings, whether proposed initially or cumulatively, or a single non-residential building on a lot or lots regardless of the number of occupants or tenure; or (b) the division or allocation of land or space, whether initially or cumulatively, between or among two or more existing or prospective occupants by means of, or for the purpose of streets, common areas, leaseholds, condominiums, building groups or other features, and (2) a subdivision of land.

Land Disturbance - Any activity involving grading, tilling, digging, or filling of ground or stripping of vegetation or any other activity that causes an alteration to the natural condition of the land.

Municipal Engineer - The Municipal Engineer or any consultant designated by the Governing Body of the Municipality to review Drainage Plans.

Municipality - Guilford Township, Franklin County, Pennsylvania

Open Channel - A drainage element in which stormwater flows with an open surface. Open Channels include, but shall not be limited to, natural and manmade drainageways, swales, ditches, canals, and pipes flowing partly full.

Peak Discharge - The maximum rate of stormwater runoff from a specified storm event.

Pipe - A culvert, closed conduit, or similar structure (including appurtenances) that conveys stormwater.

PMF - Probable Maximum Flood - The flood that may be expected from the most severe combination of critical meteorologic and hydrologic conditions that are reasonably possible in an area. The PMF is derived from the probable maximum precipitation (PMP) as determined on the basis of data obtained from the National Oceanographic and Atmospheric Administration (NOAA).

Regulated Activities - Actions or proposed actions that have an impact on stormwater runoff and that are specified in Section 104 of this Ordinance.

Release Rate - The percentage of the pre-development peak rate of runoff from a subarea to which the post-development peak of runoff must be reduced to protect downstream areas.

Retention Basin - An impoundment in which stormwater is stored and not released during the storm event. Stored water may be released from the basin at some time after the end of the storm.

Return Period - The average interval, in years, within which a storm event of a given magnitude can be expected to recur. For example the 25-year return period rainfall would be expected to recur on the average once every twenty-five years.

Runoff - Any part of precipitation that flows over the land surface.

SCS - U.S. Department of Agriculture, Soil Conservation Service.

Sedimentation - The process by which mineral or organic matter is accumulated or deposited by the movement of water.

Sediment Basin - A barrier, dam, retention, or detention basin located and designed to retain rock, sand, gravel, silt, or other material transported by water.

Seepage Pit/Seepage Trench - An area of excavated earth filled with loose stone or similar coarse material, into which surface water is directed for infiltration into the ground.

Soil-Cover Complex Method - A method of runoff computation developed by the SCS that is based on relating soil type and land use/cover to a runoff parameter called a Curve Number (CN).

Storage Indication Method - A reservoir routing procedure based on solution of the continuity equation (inflow minus outflow equals the change in storage) with outflow defined as a function of storage volume and depth.

Storm Sewer - A system of pipes and/open channels that convey intercepted runoff and stormwater from other sources, but excludes domestic sewage and industrial wastes.

Stormwater - The total amount of precipitation reaching the ground surface.

Stormwater Management Facility - Any structure, natural or man-made, that, due to its condition, design, or construction, conveys, stores, or otherwise affects stormwater runoff. Typical stormwater management facilities include, but are not limited to, detention and retention basins, open channels, storm sewers, pipes, and infiltration structures.

Stormwater Management Plan - The plan for managing stormwater runoff in the Antietam Creek Watershed adopted by Franklin County as required by the Act October 4, 1978, P.L. 864 (Act 167), and known as the "Antietam Creek Watershed Act 167 Stormwater Management Plan."

Stream Enclosure - A bridge, culvert or other structure in excess of 100 feet in length upstream to downstream which encloses a regulated water of this Commonwealth.

Subarea - The smallest drainage unit of a watershed for which stormwater management criteria have been established in the Stormwater Management Plan.

Subdivision - The division or re-division of a lot, tract, or parcel of land by any means into two or more lots, tracts, parcels or other division of land including changes in existing lot lines for the purposes, whether immediate or future, of lease, partition by the court for distribution to heirs or devisees, transfer of ownership, or building or lot development: Provided, however, that

the subdivision by lease of land for agricultural purposes into parcels of more than ten acres, not involving any new street or easement of access or any residential dwelling, shall be excepted.

Wetland - Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, ferns, and similar areas. The term includes, but is not limited to, wetland areas listed in the State Water Plan, the United States Forest Service Wetlands Inventory of Pennsylvania, the Pennsylvania Coastal Zone Management Plan the United States Fish and Wildlife National Wetland Inventory and a wetland designated by a river basin commission.

ARTICLE III
STORMWATER MANAGEMENT

SECTION 301. GENERAL REQUIREMENTS

- A. Stormwater drainage systems shall be provided in order to permit unimpeded flow along natural watercourses, except as modified by stormwater management facilities or open channels consistent with this Ordinance.
- B. The existing points of concentrated drainage that discharge onto adjacent property shall not be relocated and shall be subject to any applicable release rate criteria specified in this Ordinance.
- C. Areas of existing diffused drainage shall be subject to any applicable release rate criteria in the general direction of existing discharge, whether proposed to be concentrated or maintained as diffused drainage areas.

If diffused flow is proposed to be concentrated and discharged onto adjacent property, the Developer must document that adequate conveyance facilities exist to safely transport the concentrated discharge, or otherwise prove that no erosion, sedimentation, flooding, or other harm will result from the concentrated discharge.

- D. Where a Development Site is traversed by watercourses other than permanent streams, a drainage easement shall be provided conforming substantially to the line of such watercourses. The terms of the easement shall prohibit excavation, the placing of fill or structures, and any alterations that may affect adversely the flow of stormwater within any portion of the easement. Also, maintenance and moving of vegetation within the easement shall be required.

- E. Any stormwater management facilities regulated by this Ordinance that would be located on State highway right-of-ways shall be subject to approval by the Pennsylvania Department of Transportation (PennDOT).
- F. Any stormwater management facilities regulated by this Ordinance that would be located in or adjacent to waters of the Commonwealth or potential wetlands shall be subject to approval by PaDER through the Joint Permit Application process, or, where deemed appropriate by PaDER, the General Permit process. When there is a question whether wetlands may be involved, it is the responsibility of the Developer to show that the land in question cannot be classified as wetlands, otherwise approval to work in the area must be obtained from PaDER.
- G. When it can be shown that, due to topographic conditions, natural drainageways on the site cannot adequately provide for drainage, open channels may be constructed conforming substantially to the line and grade of such natural drainageways. Work within natural drainageways shall be subject to approval by PaDER, through the General Permit process.
- H. Sinkholes shall be protected as follows:
 - 1. Stormwater from roadways, parking lots, storm sewers, roof drains, or other concentrated runoff paths shall not be discharged directly into sinkholes.
 - 2. If increased or concentrated runoff is to be discharged into a sinkhole, including filtered discharge, a geologic assessment of the effects of such runoff on increased land subsidence and groundwater quality shall be prepared and the results submitted with the Drainage Plan. Such discharge shall be prohibited if the Municipality determines that the discharge poses a hazard to life, property, or groundwater resources.

SECTION 302. STORMWATER MANAGEMENT PERFORMANCE STANDARDS

Pre-development runoff hydrographs shall be computed for both the 2 and 10-year storm events. Post-development runoff hydrographs for both the 2 and 10-year storm shall then be compared with the pre-development hydrographs. If the hydrographs for both these storm events correlate, then no controls are required.

Where site conditions are acceptable, infiltration practices shall be employed to control the increase in post-development hydrographs. Where infiltration practices are not practical or feasible, detention facilities shall be provided solely or in combination with the infiltration facilities to achieve the following standard:

Stormwater Management Control Facilities - The primary outlet shall be equal to the arithmetic product of the release rate percentage shown on plate B and the 2-year pre-development rate. Secondary outlet control shall be provided for the 10-year storm event level and shall be controlled at the arithmetic product of the release rate percentage shown on plate B and the 10-year pre-development rate.

SECTION 303. DESIGN CRITERIA FOR STORMWATER MANAGEMENT FACILITIES

- A. Any stormwater management facilities required or regulated by this Ordinance shall be designed to meet the performance standards presented on Plate 1 of the Ordinance. Compensatory stormwater management facilities shall not be permitted.
- B. Any stormwater management facilities required or regulated by this Ordinance shall be designed to provide a minimum 1.0 foot of free board above the maximum 25-year water surface elevation for post-development conditions. Where storage ponding is proposed, all ponds shall include in their design an emergency spillway capable of passing the 100-year post-development storm event. Should any stormwater management facilities qualify as a dam under PaDER Chapter 105, the facility shall

be designed in accordance with Chapter 105 and meet the regulations of Chapter 105 concerning dam safety.

- C. Any hydraulic capacity analysis conducted in accordance with this Ordinance shall use the following criteria to determine if adequate hydraulic capacity exists:
1. Open channels must be able to convey post-development runoff from a 10-year design storm within their banks at velocities that would not erode the channel bed or banks. Acceptable velocities shall be based on criteria included in the PaDER Soil Erosion and Sedimentation Control Manual (as amended or replaced from time to time by PaDER).
 2. Open channels must be able to convey post-development runoff from a 10-year design storm within their banks with a minimum 1.0 foot of freeboard and not create a hazard to any persons or property.
 3. Any regulated activity under PaDER Chapter 105 (e.g. culverts, bridges, outfalls, channel modifications or stream enclosures), and any work involving wetlands as described in PaDER Chapter 105 regulations (as amended or replaced from time to time by PaDER), shall be designed in accordance with Chapter 105 and will require a permit from PaDER. Any other drainage conveyance facility that doesn't fall under Chapter 105 regulations must be able to convey, without damage to the drainage structure or roadway, runoff from the 25-year design storm with a minimum 1.0 foot of freeboard measured below the lowest point along the top of the roadway. Any facility that requires a dam safety permit must be designed in accordance with PaDER Chapter 105 regulations. Any facility located within a PennDOT right-of-way must meet PennDOT minimum design standards and permit submission requirements.

4. Storm sewers must be able to convey post-development runoff from a 25-year design storm without surcharging inlets.
 5. Storm sewer inlet spacing and road cross-section design must ensure that post-development runoff resulting from a 10-year design storm does not flood more than one half of a driving lane.
- D. Easements along open channels shall be provided. The minimum width of the required easement shall be equal to the width of the 100-year water surface (for post-development conditions), including a minimum 1.0 foot of freeboard.
- E. In subareas where individual stormwater management facilities would be provided for each development site, the individual stormwater management facilities shall be designed to ensure that the post-development peak discharge at the mouth of the subarea does not exceed the arithmetic product of the applicable release rate, specified on Plate 1 of this Ordinance, and the pre-development peak discharge at the mouth of the subarea.
- F. For development sites, that would be located in two or more subareas, the applicable release rate for the portions of the site located in different subareas shall be based on natural subarea drainage boundaries. The natural drainage boundaries between subareas shall not be modified, nor shall drainage from a development site be diverted or otherwise conveyed from one subarea to another subarea, except where runoff naturally crosses subarea drainage boundaries.
- G. Regional or Sub-Regional Stormwater Management Facilities - For certain areas within the watershed, it may be more cost-effective to provide one stormwater management facility for an entire subarea, group of subareas, or portion of a subarea

incorporating more than one development site than to provide an individual stormwater management facility for each development site. The initiative and funding for any regional or sub-regional stormwater management alternatives are the responsibility of prospective developers. The design of any regional stormwater management facilities must assume development of the entire area that would drain to the regional facility. The type and amount of development that the developer(s) must consider shall be either based on current zoning or on projections established by the Franklin County Planning Commission, whichever results in a greater amount of imperviousness. The peak outflow from a regional stormwater management facility would be determined on a case-by-case basis using The Penn State Runoff Method (Ps Rm), as developed for the Antietam Creek Watershed Act 167 Stormwater Management Plan. When regional or sub-regional stormwater management facilities are utilized, the effect of phased growth on stormwater runoff flows must be corrected. At no time from the initial phase through ultimate development shall the peak runoff flows exceed the pre-development peak multiplied by the applicable release rate.

- H. Capacity Improvements - If the Developer could prove that it would be feasible to provide capacity improvements to relieve the capacity deficiency in the existing drainage network, then adequate capacity improvements could be provided by the Developer in lieu of stormwater management facilities on the development site. Any capacity improvements would be designed based on development of all areas tributary to the improvement and the capacity criteria specified in this Ordinance. The type and amount of development that the Developer must consider shall be either based on current zoning or on projections established by the Franklin County Planning Commission, whichever results in a greater amount of imperviousness.

It shall be assumed that all new development upstream of a proposed capacity improvement would implement applicable stormwater management techniques, consistent with this Ordinance.

- I. Adequate erosion protection shall be provided along all open channels, and at all points of discharge.
- J. Ponds and other similar water features that are not designed as stormwater management facilities shall be designed in accordance with U.S. Department of Agriculture, Soil Conservation Service (SCS), Ponds - Planning, Design, Construction (as amended or replaced from time to time by SCS), and shall be treated as impervious surfaces for stormwater runoff computations.
- K. The design of all stormwater management facilities shall incorporate sound engineering principles and practices. They shall reserve the right to disapprove any design that would result in the occurrence or perpetuation of an adverse hydrologic or hydraulic condition within the watershed.

SECTION 304. CALCULATION METHODOLOGY

- A. Any stormwater runoff calculations involving drainage areas greater than 20 acres, including on-and-off site areas, shall use any generally accepted calculation technique that is based on the SCS soil cover complex method. Table 1 below summarizes acceptable computation methods. All methods shall be selected by the design professional based on the individual limitations and suitability of each method for a particular site.

The Municipal Engineer may approve the use of the Rational Method to estimate peak discharges from drainage areas that contain less than 20 acres.

Table 1

**ACCEPTABLE COMPUTATION METHODOLOGIES FOR
STORMWATER MANAGEMENT PLANS**

METHOD	DEVELOPER	APPLICABILITY
TR-20 (or commercial package based on TR-20)	USDA SCS	Applicable where use of full hydrology computer model is desirable or necessary.
TR-55 (or commercial computer package based on TR-55)	USDA SCS	Applicable for land development plans within limitations described in TR-55.
HEC-1	US Army Corps of Engineers	Applicable where use of full hydrologic computer model is desirable or necessary.
PSRM	Penn State Univ.	Applicable where use of a hydrologic computer model is desirable or necessary; simpler than TR-20 or HEC-1.
Rational Method (or commercial computer package based on Rational Method)	Emil Kuichling (1889)	For sites less than 20 acres, or as approved by the Municipal Engineer.
Other Methods	Varies	Other computation methodologies approved by the Municipal Engineer.

- B. The design of any stormwater detention facilities intended to meet the performance standards of this Ordinance shall be verified by routing the design storm hydrograph using the Storage-Indication Method. For drainage areas greater than 20 acres in size, the design storm hydrograph shall be computed using a calculation method that produces a full hydrograph. The Municipal Engineer may approve the use of any generally accepted full hydrograph approximation technique which uses a total volume that is consistent with the volume from a method that produces a full hydrograph.

- C. All calculations consistent with this Ordinance using the soil cover complex methods shall use the appropriate design rainfall depths for the various return period storms presented in Table 2 of this Ordinance. If a hydrologic computer model such as PSRM or HEC-1 is used for stormwater runoff calculations, then the duration of rainfall shall be 24-hours.

TABLE 2

ANTIETAM CREEK WATERSHED
RAINFALL INTENSITY/DURATION - FREQUENCY
DEPTH IN INCHES

Storm Event (Years)	----- Duration (hours) -----					
	1	2	3	4	6	24
2	1.18					2.38
10			3.25	3.75		4.45
		3.25	3.85	4.60	5.20	
	2.79	3.50	3.75	4.40	5.15	5.78
100	3.08	3.70	4.10	4.75	5.55	6.32

- D. All calculations using the Rational Method shall use rainfall intensities consistent with appropriate times of concentration for overland flow and return periods from the Design Storm Curves in Figure 1 of this Ordinance. Times of concentration for overland flow shall be calculated using the methodology presented in Chapter 3 of Urban Hydrology for Small Watershed, SCS, TR-55 (as amended or replaced from PennDOT Design Manual #2, Region 4 for watershed tributary to the East Branch and Region 3 for watershed tributary to the West Branch. Times of concentration for channel and pipe flow shall be computed using Manning's equation.

- E. Runoff Curve Numbers (CN) for both existing and proposed conditions to be used in the soil cover method shall be obtained from Table 2-2 of the USDA SCS TR-55, except that all agricultural pre-development uses shall be considered good with the best conservation practices.
- F. Runoff coefficients (c) for both existing and proposed conditions for use in the Rational Method shall be obtained from Table 4.2 of the DER Erosion and Sediment Pollution Control Program Manual and shall be subject to the approval of the Municipal Engineer.
- G. Where uniform flow is anticipated, the Manning equation shall be used for hydraulic computations, and to determine the capacity of open channels, pipes, and storm sewers. Where non-uniform flow is anticipated, the hydraulic effects of "backwater" caused by hydraulic obstructions (e.g., culverts, bridges, dams, reservoirs, etc.) shall be evaluated using the standard step method for determining water surface profiles.
- H. Outlet structures for stormwater management facilities shall be designed to meet the performance standards of this Ordinance using any generally accepted hydraulic analysis technique or method.

ARTICLE IV

DRAINAGE PLAN REQUIREMENTS

SECTION 401. GENERAL REQUIREMENTS

For any of the activities regulated by this Ordinance, the final approval of subdivision and/or land development plans, the issuance of any building or occupancy permit, or the commencement of any land disturbance activity may not proceed until the Property Owner or Developer or his/her agent has received written approval of a Drainage Plan from the Municipality.

The drainage plan shall be designed and certified by individuals registered in the Commonwealth of Pennsylvania to perform such duties.

SECTION 402. EXEMPTIONS

- A. Any Regulated Activity that would create 5,000 square feet or less of impervious area is exempt from provisions of this Ordinance. This criteria shall apply to the total development even if development is to take place in phases. The developer shall be responsible to ensure that exempted activities shall maintain sound building and construction practices such that the quantity, velocity and direction of the resulting stormwater runoff will adequately protect health, safety, or other property from possible injury.
- B. Land disturbance associated with existing one and two family dwellings, subject to conditions described in A. of this Section.
- C. Use of land for gardening for home consumption.
- D. Agricultural activities when operated in accordance with a conservation plan or erosion and sedimentation control plan prepared by the conservation district are specifically exempt from complying with the requirements of this Ordinance. The

construction of buildings, parking lots or any activity that results in more than 5,000 square feet of impervious surface shall comply with the requirements of this Ordinance.

No exemption shall be provided for Regulated Activities as defined in Section 104.E and 104.F of this Ordinance.

SECTION 403. DRAINAGE PLAN CONTENTS

The Drainage Plan shall consist of all applicable calculations, maps, and plans. A note on the maps shall refer to the associated computations and erosion and sedimentation control plan by title and date. The cover sheet of the computations and erosion and sedimentation control plan shall refer to the associated maps by title and date. All Drainage Plan materials shall be submitted to the Municipality in a format that is clear, concise, legible, neat, and well organized; otherwise the Drainage Plan shall be disapproved and return to the Applicant.

The following items shall be included in the Drainage Plan:

A. General

1. General description of project.
2. General description of permanent stormwater management techniques, including construction specifications of the materials to be used for stormwater management facilities.
3. Complete hydrologic, hydraulic, and structural computations for all stormwater management facilities.

B. Map(s) of the project area shall be submitted on 24-inch x 36-inch or 30 inch x 42-inch sheets and shall be prepared in a form that meets the requirements for recording the offices of the Recorder of Deeds of Franklin County. The contents of the map(s) shall include, but not limited to:

1. The location of the project relative to highways, municipalities or other identifiable landmarks.

2. Existing contours at intervals of two feet. In areas of steep slopes (greater than 15 percent), five-foot contour intervals may be used.
3. Existing streams, lakes ponds, or other bodies of water within the project area.
4. Other physical features including flood hazard boundaries, sinkholes, streams, existing drainage courses, areas of natural vegetation to be preserved, and the total extent of the upstream area draining through the site.
5. The locations of all existing and proposed utilities, sanitary sewers, and water lines within 50 feet of property lines.
6. An overlay showing soil names and boundaries.
7. Proposed changes to the land surface and vegetative cover, including the type and amount of impervious area that would be added.
8. Proposed structures, roads, paved areas, and buildings.
9. Final contours at intervals of two feet. In areas of steep slopes (greater than 15 percent), five-foot contour intervals may be used.
10. The name of the development, the name and address of the owner of the property, and the name of the individual preparing the plan and a certification that the Drainage Plan meets all the design standards and criteria of the Antietam Creek Watershed Act 167 Stormwater Management Ordinance.
11. The date of submission.
12. A graphic and written scale of one (1) inch equals no more than fifty (50) feet; for tracts of twenty (20) acres or more, the scale shall be one (1) inch equals no more than one hundred (100) feet.
13. A North Arrow.
14. The total tract boundary and size with distances marked to the nearest foot and bearings to the nearest degree.

15. Existing and proposed land use(s).
16. A key map showing all existing man-made features beyond the property boundary that would be affected by the project.
17. Horizontal and vertical profiles of all open channels, including hydraulic capacity.
18. Overland drainage paths.
19. A twenty-foot access easement around all stormwater management facilities that would provide ingress from and egress to a public right-of-way.
20. A note on the plan indicating the location and responsibility for maintenance of stormwater management facilities that would be located off-site. All off-site facilities shall meet the performance standards and design criteria specified in this Ordinance.
21. A construction detail of any improvements made to sinkholes and the location of all notices to be posted, as specified in this Ordinance.
22. A statement, signed by the landowner, acknowledging the stormwater management system to be a permanent fixture that can be altered or removed only after approval of a revised plan by the Municipality.
23. The location of all erosion and sedimentation control facilities.

C. Supplemental Information

1. A written description of the following information shall be submitted.
 - a. The overall stormwater management concept for the project.
 - b. Stormwater runoff computations as specified in this Ordinance.
 - c. Stormwater management techniques to be applied both during and after development;
 - d. Expected project time schedule.

2. A soil erosion sedimentation control plan, including all reviews and approvals, as required by PaDER.
3. A geologic assessment of the effects of runoff on sinkholes as specified in this Ordinance.
4. The effect of the project (in terms of runoff volumes and peak flows) on adjacent properties and on any existing municipal stormwater collection system that may receive runoff from the project site.
5. A Declaration of Adequacy and Highway Occupancy Permit from the PennDOT District Office when utilization of a PennDOT storm drainage system is proposed.

D. Stormwater Management Facilities

1. All stormwater management facilities must be located on a map and described in detail.
2. When groundwater recharge methods such as seepage pits, beds or trenches are used, the locations of existing and proposed septic tank infiltration areas and wells must be shown.
3. All calculations, assumptions, and criteria used in the design of the stormwater management facilities must be shown.

SECTION 404. PLAN SUBMISSION

For all activities regulated by this Ordinance, the steps below shall be followed for submission. For any activities that require a PaDER Joint Permit Application and are regulated under Chapter 105 (Dam Safety and Waterway Management) or Chapter 106 (Floodplain Management) of PaDER's Rules and Regulations, require a PennDOT Highway Occupancy Permit, or require any other permit under applicable state or federal regulations, the permit(s) shall be part of the plan.

1. The Drainage Plan shall be submitted by the Developer as part of the Preliminary Plan submission for the Regulated Activity.

2. Four (4) copies of the Drainage Plan shall be submitted to the Municipality. The Municipality will distribute copies to the Municipal Engineer and the Franklin County Planning Commission.

SECTION 405. DRAINAGE PLAN REVIEW

- A. The Municipality shall review the Drainage Plan for consistency with the adopted Antietam Creek Watershed Act 167 Stormwater Management Plan. The Municipality shall require receipt of a complete plan, as specified in this Ordinance.
- B. The Municipal Engineer shall review the Drainage Plan for any subdivision or land development against the municipal subdivision and land development ordinance provisions not superseded by this Ordinance.
- C. For activities regulated by this Ordinance, the Municipal Engineer shall notify the Municipality in writing, within 90 calendar days, whether the drainage Plan is consistent with the Stormwater Management Plan. Should the Drainage Plan be determined to be consistent with the Stormwater Management Plan, the Municipal Engineer will forward an approval letter to the Municipal Secretary with a copy to the Developer.

Should the Drainage Plan be determined to be inconsistent with the Stormwater Plan, the Municipal Engineer will forward a disapproval letter to the Municipal Secretary and Developer citing the reason(s) for the disapproval. Any disapproval Drainage Plans may be revised by the Developer and resubmitted consistent with this Ordinance.

- D. For Regulated Activities specified in Section 104.C and 104.D of this Ordinance, the Municipal Engineer shall notify the Municipality's Building Permit Officer, in writing within a time frame consistent with the Municipality's Building Code,

whether the Drainage Plan is consistent with the Stormwater Management Plan and forward a copy of the approval/disapproval letter to the Developer. Any disapproval drainage plan may be revised by the Developer and resubmitted consistent with this Ordinance.

- E. For Regulated Activities requiring a PaDER Joint Permit Application, the Municipal Engineer shall notify PaDER whether the Drainage Plan is consistent with the Stormwater Management Plan and forward a copy of the review letter to the Municipality and the Developer. PaDER may consider the Municipal Engineer's review comments in determining whether to issue a permit.
- F. The Municipality shall not approve any subdivision or land development for Regulated Activities specified in Section 104.A and 104.B of this Ordinance if the Drainage Plan has been found to be inconsistent with the Stormwater Management Plan, as determined by the Municipal Engineer, or without considering the comments of the Franklin County Planning Commission. All required permits from PaDER must be obtained prior to approval.
- G. The Municipality Building Permit Office shall not issue a building permit for any Regulated Activity specified in Section 104.C and 104.D of this Ordinance if the Drainage Plan has been found to be inconsistent with the Stormwater Management Plan, as determined by the Municipal Engineer, or without considering the comments of the Franklin County Planning Commission. All required permits from PaDER must be obtained prior to issuance of a building permit.
- H. The Developer shall be responsible for completing an "As-Built Survey of all stormwater management facilities included in the approved Drainage Plan. The As-Built Survey and an explanation

of any discrepancies with the design plan shall be submitted to the Municipality for final approval. In no case shall the Municipality approve the As-Built Survey until the Municipality receives a copy of an approved Declaration of Adequacy, Highway Occupancy Permit from the PennDOT Office, and any applicable permits from PaDER.

- I. The Municipality's approval of a Drainage Plan shall be valid for a period not to exceed one (1) year. This one-year time period shall commence on the date that the Governing Body of the Municipality signs the approved Drainage Plan. If stormwater management facilities included in the approved Drainage Plan have not been constructed, or if an As-Built Survey of these facilities has not been approved within this one-year time period, then the Municipality may consider the Drainage Plan disapproved and may revoke any and all permits. Drainage Plans that are considered disapproved by the Municipality shall be resubmitted in accordance with Section 407 of this Ordinance.

SECTION 406. MODIFICATION OF PLANS

A modification to a submitted Drainage Plan for a development site that involves a change in stormwater management facilities or techniques, or that involves the relocation or re-design of stormwater management facilities, or that is necessary because soil or other conditions are not as stated on the Drainage Plan (as determined by the Municipal Engineer), shall require a resubmission of the modified Drainage Plan consistent with Section 404 of this Ordinance and be subject to review as specified in Section 405 of this Ordinance.

A modification to an already approved or disapproved Drainage Plan shall be submitted to the Municipality, accompanied by the applicable Municipality's Review Fee. A modification to a Drainage

Plan for which a formal action has not been taken by the Municipality shall be submitted to the Municipality, accomplished by the applicable Municipality's Review Fee.

SECTION 407. RESUBMISSION OF DISAPPROVED DRAINAGE PLANS

A disapproved Drainage Plan may be resubmitted, with the revisions addressing the Municipality's concerns documented in writing, to the Municipality in accordance with Section 404 of this Ordinance and be subject to review as specified in Section 405 of this Ordinance. The applicable Municipality's Review Fee must accompany a resubmission of a disapproved Drainage Plan.

ARTICLE V
INSPECTIONS

SECTION 501. SCHEDULE OF INSPECTIONS

- A. The Municipal Engineer or his assignee shall inspect all phases of the installation of the permanent stormwater management facilities.

- B. During any stage of the work, if the Municipal Engineer determines that the permanent stormwater management facilities are not being installed in accordance with the approved Stormwater Management Plan, the Municipality shall revoke any existing permits until a revised Drainage Plan is submitted and approved, as specified in this Ordinance.

ARTICLE VI
FEES AND EXPENSES

SECTION 601. GENERAL

The fees required by this Ordinance are the **Municipal** Review Fees. The **Municipal** Review fees shall be established by Resolution of the **Municipality** to defray and inspection review costs incurred by the **Municipality** and the **Municipal** Engineer. All fees shall be paid by the Applicant. Permits to begin any work on any project shall not be issued until the required fees have been paid.

SECTION 602. EXPENSES COVERED BY FEES

The fees required by this Ordinance shall at a minimum cover:

- A. The review of the Drainage Plan by the **Municipal** Engineer.
- B. The site inspection.
- C. The inspection of stormwater facilities and drainage improvements during construction.
- D. The final inspection upon completion of the stormwater management facilities and drainage improvements presented in the Drainage Plan.
- E. Any additional work required to enforce any permit provisions regulated by this Ordinance, correct violations, and assure proper completion of stipulated remedial actions.

ARTICLE VII
MAINTENANCE RESPONSIBILITIES

SECTION 701 MAINTENANCE RESPONSIBILITIES

- A. Following final approval of the As-Built Survey by the Municipal Engineer, the Developer shall dedicate the permanent stormwater management facilities to the specific entity responsible for the overall maintenance and control of the stormwater management facilities. Any such designated entity, other than the Municipality shall be approved by the Municipality as an acceptable and duly authorized organization to carry on the responsible and obligations of maintenance upkeep and be bound by this Ordinance. Such responsibilities entities shall be set up as legal organizations bound by the laws of the Commonwealth of Pennsylvania and the Municipality. In addition to the Municipality ownership, such entities can be Homeowner's Associations, corporations, or individual lot owners.
- B. In instances where the permanent control facilities are owned by a private entity (such as a homeowner's association) such entity shall be responsible for maintenance. A written agreement acceptable to the Municipality, for inspection by the Municipality of all such facilities shall be executed by the entity responsible for this maintenance and the Developer, and submitted by the Developer to the Municipality.
- C. In instances when stormwater management facilities are located on an individual lot, and when they are the responsibility of that landowner to maintain, a description of the facility or system and the terms of the required maintenance shall be incorporated as part of the deed to the property.

- D. In all instances, the Developer shall post financial security in an amount sufficient to cover the present worth of maintenance of the facilities for a ten year period. The financial security shall be based on the estimated annual maintenance cost for the facilities submitted by the Developer and prepared by a Professional Engineer licensed as such in this Commonwealth and certified by such Engineer to be a fair and reasonable estimate of such cost. The Municipality, upon the recommendation of the Municipal Engineer, may refuse to accept such estimate for good cause shown. If the Developer and the Municipality are unable to agree upon an estimate, then the estimate shall be recalculated and recertified by another Professional Engineer licensed as such in this Commonwealth and chosen mutually by the Municipality and the Developer. The estimate certified by the third Engineer shall be presumed fair and reasonable and shall be the final estimate. In the event that a third Engineer is so chosen, fees for the services of said Engineer shall be paid equally by the Municipality and the Developer.
- E. Financial security shall be posted with a Bonding Company or Federal or Commonwealth chartered lending institution chosen by the party posting the financial security, provided said Bonding Company or bonding institution is authorized to conduct said business within the Commonwealth. In lieu of a bond, the developer may deposit cash or securities with the Municipality or with a bank or trust company to guarantee performance of said contract and to secure completion of the improvements under an escrow agreement approved by the Municipality's Solicitor and Governing Body of the Municipality. The amount of the bond or other guarantee shall be sufficient to cover the cost of required improvements as estimated by the Engineer. The escrow agent for the deposits of such cash or securities shall be designated and selected by the Governing Body of the Municipality.

- F. Such bond or other security shall provide for and secure to the public, the maintenance cost of the facilities which may be required for a ten year period.
- G. Federal or Commonwealth chartered lending institutions irrevocable letters of credit and restrictive or escrow accounts in such lending institutions are acceptable forms of financial security which may be utilized by an Developer to comply with the requirements of This Article.

APPENDIX 2

ANTIETAM CREEK WATERSHED
EAST

PRE-DEVELOPMENT				POST-DEVELOPMENT		
ID NO.	Q-2 (CFS)	Q-10 (CFS)	Q-100 (CFS)	Q-2 (CFS)	Q-10 (CFS)	Q-100 (CFS)
1	7.4	45.5	129.0	9.5	62.3	165.6
2	12.8	47.7	107.3	14.3	57.1	129.2
3	26.7	96.5	214.5	29.9	115.4	252.9
4	34.9	139.4	334.6	40.0	173.2	415.6
5	42.6	202.8	501.4	53.0	259.0	620.9
6	8.6	58.2	150.9	12.6	77.0	189.2
7	67.5	208.0	651.7	67.5	314.0	812.3
8	67.5	208.0	651.6	67.6	313.9	812.2
9	70.9	212.7	667.0	73.4	322.1	830.1
10	11.0	59.3	148.2	14.8	75.9	184.1
11	20.0	111.6	283.9	26.4	146.1	354.8
12	90.0	301.4	919.7	99.8	451.4	1139.7
13	103.7	351.3	1057.4	120.5	526.0	1302.2
14	115.9	391.4	1151.7	140.6	582.2	1409.3
15	7.4	48.2	121.4	10.8	63.2	151.3
16	123.6	432.7	1245.5	151.7	633.2	1520.3
17	133.7	494.6	1336.4	167.9	685.8	1625.3
18	7.8	48.2	116.8	11.5	62.4	144.2
19	6.4	40.1	98.9	9.4	52.3	122.4
20	14.8	88.9	216.2	21.5	155.0	266.2
21	24.0	143.9	349.4	35.1	187.1	428.5
22	38.6	234.6	559.0	56.7	303.5	689.0
23	172.3	729.3	1808.4	224.6	944.8	2182.6
24	174.6	749.0	1838.2	228.0	961.2	2219.4
25	10.3	64.7	158.5	14.9	84.0	195.9

ANTIETAM CREEK WATERSHED
EAST
(continued)

PRE-DEVELOPMENT				POST-DEVELOPMENT		
ID NO.	Q-2 (CFS)	Q-10 (CFS)	Q-100 (CFS)	Q-2 (CFS)	Q-10 (CFS)	Q-100 (CFS)
26	20.9	127.8	313.3	30.4	165.7	386.0
27	195.0	876.8	2093.0	258.4	1112.4	2524.1
28	202.8	927.8	2172.5	270.0	1178.6	2624.4
29	10.6	70.2	181.1	14.9	92.9	226.5
30	19.2	121.1	307.5	26.8	159.3	381.6
31	220.9	1048.7	2459.5	296.8	1337.6	2983.8
32	229.5	1117.4	2645.3	309.0	1432.9	3219.1
33	229.5	1117.0	2645.3	308.9	1432.5	3219.1
34	237.4	1203.2	2844.3	326.8	1540.0	3480.1
35	9.3	61.6	162.1	12.8	82.2	203.6
36	17.4	111.4	283.2	24.3	146.7	351.8
37	23.9	160.9	408.8	34.5	211.9	507.9
38	260.0	1362.0	3241.7	359.4	1749.9	3972.2
39	259.9	1364.1	3243.0	360.1	1752.6	3973.4
40	23.9	160.8	398.0	36.1	210.3	487.9
41	30.0	167.7	400.1	42.9	216.3	467.3
42	285.7	1481.2	3465.4	393.3	1902.1	4228.6
43	293.6	1551.3	3599.8	411.8	1986.8	4386.5
44	293.5	1551.1	3597.9	411.8	1986.4	4383.8
45	306.9	1596.9	3736.5	427.1	2052.3	4546.4
46	4.2	27.7	73.4	5.7	37.0	92.5
47	4.5	30.3	80.3	6.2	40.4	101.5
48	9.3	58.6	153.9	12.6	77.9	194.0
49	57.0	199.8	424.9	64.1	236.1	500.5
50	352.6	1764.8	4068.7	479.5	2257.2	4939.7

ANTIETAM CREEK WATERSHED
EAST
(continued)

PRE-DEVELOPMENT				POST-DEVELOPMENT		
ID NO.	Q-2 (CFS)	Q-10 (CFS)	Q-100 (CFS)	Q-2 (CFS)	Q-10 (CFS)	Q-100 (CFS)
51	355.2	1770.6	4075.4	482.6	2262.7	4646.4
52	10.5	68.9	174.3	15.0	90.5	217.2
53	17.6	111.3	278.3	24.9	145.8	347.3
54	17.1	111.4	278.5	25.0	145.9	347.4
55	66.8	252.7	555.0	77.7	308.3	657.0
56	5.7	36.6	91.6	8.1	48.0	113.4
57	72.4	288.2	645.1	86.1	345.7	769.0
58	85.4	352.3	798.5	102.4	439.0	954.8
59	427.0	2096.1	4784.9	577.4	2674.1	5781.7
60	22.7	88.1	188.7	26.8	105.7	222.0
61	460.9	2239.8	5061.2	623.4	2844.5	6112.8
62	475.8	2284.7	5125.2	638.8	2876.8	6166.6
63	479.3	2298.6	5162.1	645.4	2900.9	6211.4
64	34.3	137.4	289.0	43.2	168.2	338.6
65	12.1	56.4	122.3	17.4	71.8	145.7
66	44.7	188.1	395.5	59.3	233.8	464.5
67	85.2	319.9	649.8	106.7	388.5	755.8
68	547.1	2533.7	5572.9	732.3	3182.6	6672.7
69	565.5	2577.2	5693.4	759.2	3241.6	6747.2
70	565.4	2576.1	5638.8	759.2	3241.1	6746.1
71	586.3	2630.8	5718.2	776.6	3296.4	6827.0
72	433.5	1002.4	1585.7	469.0	1037.2	1617.6
73	337.3	719.8	1079.6	372.1	754.5	1110.1
74	315.8	662.9	998.2	350.7	699.7	1035.8
75	57.0	176.2	344.7	59.9	192.9	384.3

ANTIETAM CREEK WATERSHED
EAST
(continued)

PRE-DEVELOPMENT				POST-DEVELOPMENT		
ID NO.	Q-2 (CFS)	Q-10 (CFS)	Q-100 (CFS)	Q-2 (CFS)	Q-10 (CFS)	Q-100 (CFS)
76	52.3	155.2	294.6	55.1	169.7	325.4
77	110.0	328.3	630.4	155.7	360.4	702.0
78	112.1	357.6	723.5	120.0	403.8	826.9
79	136.8	439.7	895.8	148.6	503.2	1032.9
80	29.0	88.8	168.0	30.6	96.7	184.4
81	164.1	519.7	1045.2	177.9	591.9	1199.4
82	164.5	538.5	1094.2	181.4	626.3	1270.2
83	61.6	174.9	318.5	64.3	187.6	344.2
84	91.3	269.6	510.7	97.2	298.3	569.2
85	91.3	269.5	510.4	97.2	298.3	568.7
86	95.7	297.5	592.7	105.3	341.5	679.1
87	5.7	35.9	88.5	8.2	46.9	108.7
88	12.9	78.8	192.1	18.5	102.2	236.2
89	108.6	372.6	780.6	123.0	439.6	912.2
90	116.8	426.7	912.6	134.5	510.9	1077.1
91	127.4	466.5	1015.0	145.6	565.3	1204.8
92	127.3	466.6	1015.0	145.7	565.3	1204.8
93	154.9	567.1	1208.4	181.3	682.6	1423.6
94	155.0	567.1	1208.0	181.4	682.5	1422.9
95	192.6	651.5	1337.6	218.5	775.9	1550.7
96	356.9	1187.8	2431.1	400.0	1402.1	2819.6
97	394.5	1341.3	2688.3	454.7	1577.1	3094.5
98	5.0	23.9	59.6	6.1	30.4	74.3
99	3.6	23.4	65.1	4.8	31.9	83.1
100	9.4	47.7	125.1	11.5	62.8	158.0

ANTIETAM CREEK WATERSHED
EAST
(continued)

PRE-DEVELOPMENT				POST-DEVELOPMENT		
ID NO.	Q-2 (CFS)	Q-10 (CFS)	Q-100 (CFS)	Q-2 (CFS)	Q-10 (CFS)	Q-100 (CFS)
101	17.4	91.3	217.0	23.5	117.7	265.4
102	16.0	67.0	157.7	18.6	82.5	191.9
103	34.5	145.9	328.4	42.7	180.7	387.9
104	49.8	228.3	515.3	65.0	288.2	623.0
105	71.4	328.5	717.6	95.1	414.4	858.5
106	465.8	1639.7	3341.1	548.0	1946.6	3899.2
107	472.6	1696.7	3498.8	567.9	2033.9	4056.5
108	1109.1	4198.9	8668.6	1384.0	5150.2	10218.7
109	1119.2	4257.9	8756.3	1392.7	5218.6	10301.2
110	1119.2	4255.1	8752.0	1392.7	5216.3	10293.8
111	10.4	52.4	177.4	15.1	67.1	141.5
112	1138.1	4300.6	8794.1	1418.7	5259.3	10366.3
113	13.1	70.5	160.1	19.3	90.0	194.1
114	9.9	54.6	125.1	14.6	69.8	152.0
115	23.9	126.1	285.7	34.8	160.5	345.9
116	26.2	133.8	301.1	37.7	170.1	363.5
117	1163.2	4416.8	9010.6	1455.5	5399.4	10612.4
118	1168.6	4435.2	9049.4	1463.8	5426.8	10613.6
119	755.8	1659.9	2589.1	668.2	1548.1	2491.2
120	621.7	1277.5	1875.6	534.0	1169.5	1779.6
121	506.3	1298.6	2010.6	426.9	1187.0	1955.6
122	1318.8	4652.9	9317.5	1567.5	5622.9	10881.0
123	1326.1	4670.6	9338.3	1573.8	5633.2	10931.2

ANTIETAM CREEK WATERSHED
WEST

PRE-DEVELOPMENT				POST-DEVELOPMENT		
ID NO.	Q-2 (CFS)	Q-10 (CFS)	Q-100 (CFS)	Q-2 (CFS)	Q-10 (CFS)	Q-100 (CFS)
124	13.2	83.8	208.4	19.4	109.5	258.8
125	24.9	151.5	369.8	36.0	196.6	457.4
126	10.8	67.7	166.3	15.5	88.5	203.7
127	36.5	218.7	529.9	52.3	282.5	652.2
128	45.4	271.5	655.8	65.3	351.2	802.6
129	45.4	271.5	655.7	65.3	351.1	802.6
130	100.1	397.8	878.6	122.7	499.2	1044.1
131	99.0	397.8	878.3	122.4	499.1	1043.7
132	101.0	405.4	889.1	122.8	506.9	1054.0
133	15.1	89.1	208.9	22.1	114.7	254.3
134	17.2	96.1	222.9	24.8	123.2	271.1
135	104.0	477.7	1068.7	134.4	601.3	1284.1
136	34.6	161.7	346.5	49.2	204.6	408.0
137	162.7	686.1	1469.3	209.7	854.9	1738.4
138	162.6	686.0	1469.0	209.5	854.8	1737.9
139	191.8	767.4	1608.8	243.2	949.2	1889.9
140	191.8	767.3	1608.4	243.0	949.1	1889.4
141	14.7	58.1	125.3	17.7	70.5	148.2
142	225.5	914.1	1891.7	291.7	1124.1	2221.3
143	225.4	912.9	1891.7	291.5	1122.4	2221.1
144	12.2	62.0	144.3	16.5	79.1	175.5
145	21.2	106.1	241.8	29.0	134.1	291.5
146	263.2	1086.2	2267.1	340.1	1340.9	2659.2
147	263.1	1085.9	2266.3	340.1	1340.5	2658.2
148	9.9	61.8	150.1	14.4	80.2	184.9
149	285.8	1204.3	2515.8	377.1	1486.2	2953.3
150	299.2	1251.8	2614.3	389.6	1545.9	3067.4

ANTIETAM CREEK WATERSHED
WEST
(continued)

PRE-DEVELOPMENT				POST-DEVELOPMENT		
ID NO.	Q-2 (CFS)	Q-10 (CFS)	Q-100 (CFS)	Q-2 (CFS)	Q-10 (CFS)	Q-100 (CFS)
151	299.0	1251.3	2612.6	389.6	1545.0	3065.3
152	335.4	1413.3	2921.3	448.3	1742.7	3413.6
153	335.4	1413.3	2921.1	448.1	1742.7	3413.4
154	367.4	1524.3	3109.4	458.1	1870.6	3621.5
155	384.4	1611.1	3282.7	514.8	1977.9	3820.1
156	6.7	39.3	92.1	9.8	50.5	112.3
157	5.4	34.9	87.6	7.7	45.7	108.8
158	12.6	74.8	180.3	18.0	96.9	221.5
159	21.7	113.3	264.0	29.8	144.9	320.6
160	27.8	130.0	281.9	40.2	165.5	336.0
161	73.9	336.8	731.3	100.6	423.8	868.9
162	85.1	388.3	827.2	117.3	485.8	997.6
163	464.2	1951.0	3965.4	625.3	2396.4	4608.7
164	474.7	1985.3	4013.3	637.3	2433.0	4660.9
165	474.7	1984.8	4012.0	637.0	2432.3	4659.5
166	493.2	2046.6	4111.9	661.7	2503.2	4770.3
167	18.2	85.9	188.7	25.4	108.4	225.6
168	17.6	90.1	198.4	26.0	144.2	237.7
169	22.1	108.4	236.3	32.5	137.3	282.3
170	87.1	381.0	793.4	121.0	474.8	932.9
171	86.9	380.1	791.8	120.8	473.8	931.3
172	102.8	449.6	923.4	143.6	557.8	1080.8
173	112.9	501.3	1029.3	159.1	622.0	1203.3
174	121.0	538.4	1101.8	170.9	667.5	1286.0
175	16.4	83.2	181.9	24.2	105.2	217.3

ANTIETAM CREEK WATERSHED
WEST
(continued)

PRE-DEVELOPMENT				POST-DEVELOPMENT		
ID NO.	Q-2 (CFS)	Q-10 (CFS)	Q-100 (CFS)	Q-2 (CFS)	Q-10 (CFS)	Q-100 (CFS)
176	138.1	622.0	1279.8	195.9	772.6	1520.7
177	142.8	635.9	1302.2	202.7	788.7	102.3
178	7.0	37.4	84.5	10.3	47.6	127.8
179	8.7	46.7	105.6	12.8	59.5	230.1
180	16.3	84.7	190.8	23.7	107.8	352.3
181	27.9	132.7	293.3	38.5	167.7	482.0
182	37.8	183.1	403.3	52.8	232.1	2908.9
183	177.7	800.5	1636.9	252.9	992.2	357.3
184	27.1	136.1	298.4	39.9	172.3	741.0
185	60.7	286.5	620.7	86.3	362.9	2837.4
186	262.6	1192.1	2434.3	377.0	1477.8	2837.3
187	262.6	1191.9	2434.1	377.0	1477.6	434.8
188	35.2	165.6	363.8	49.5	210.3	3298.7
189	314.4	1399.7	2835.7	450.3	1731.2	3298.4
190	314.3	1399.3	2835.3	450.2	1730.8	202.1
191	14.1	74.6	167.4	20.8	94.9	3631.0
192	347.7	1552.4	3127.9	499.9	1917.4	3631.1
193	347.6	1552.2	3127.8	499.9	1917.1	3715.7
194	358.4	1593.0	3201.8	515.4	1966.3	8419.2
195	826.5	3584.4	7243.7	1152.0	4413.2	8421.0
196	827.6	3583.5	7242.7	1150.8	4411.9	250.7
197	33.6	112.9	221.4	38.6	130.9	8540.2
198	844.6	3642.4	7349.1	1173.6	4481.9	8657.9
199	857.7	3699.6	7452.1	1194.8	4550.2	8657.7
200	229.2	553.1	890.1	244.8	583.1	926.4

ANTIETAM CREEK WATERSHED
WEST
(continued)

PRE-DEVELOPMENT				POST-DEVELOPMENT		
ID NO.	Q-2 (CFS)	Q-10 (CFS)	Q-100 (CFS)	Q-2 (CFS)	Q-10 (CFS)	Q-100 (CFS)
201	886.4	3747.4	7518.0	1225.2	4600.5	8725.7
202	896.4	3768.4	7543.7	1238.2	4621.9	8755.2
203	905.8	3783.8	7558.2	1249.2	4636.7	8771.8
204	905.0	3781.4	7553.0	1248.4	4633.6	8766.3
205	21.1	98.5	213.0	30.5	125.4	252.4
206	48.3	205.3	427.0	65.7	255.5	499.4
207	48.4	205.5	427.1	65.8	255.6	499.5
208	83.8	323.8	654.3	107.8	394.5	757.7
209	17.4	78.9	170.0	24.5	99.7	201.7
210	112.8	448.2	907.5	149.3	549.8	1051.9
211	1004.0	4115.9	8139.8	1382.6	5031.4	9412.0
212	1008.5	4135.7	8165.4	1391.7	5054.8	9433.9
213	39.5	172.0	368.8	53.3	215.1	436.1
214	58.0	251.6	534.4	80.0	314.4	631.1
215	1056.4	4316.4	8490.1	1460.2	5271.3	9797.2
216	1069.5	4371.8	8586.4	1479.1	5338.2	9903.9
217	1081.3	4395.2	8615.9	1496.4	5362.8	9939.1

APPENDIX 3

ANTIETAM CREEK EAST BRANCH WATERSHED

SUBAREA PROPERTIES AND DIMENSIONS

ID NO.	AREA (ACRES)	LENGTH (FEET)	SLOPE (FT/FT)	CN PERV.	ID NO.	AREA (ACRES)	LENGTH (FEET)	SLOPE (FT/FT)	CN PERV.
1	771.2	16,000	0.184	56.9	21	234.2	6,000	0.152	69.3
2	340.9	8,000	0.070	61.9	22	623.1	14,800	0.247	69.1
3	246.4	8,000	0.186	62.5	23	0.5	100	0.169	63.0
4	0.5	100	0.148	61.0	24	99.4	4,400	0.169	63.0
5	428.8	6,400	0.149	61.0	25	513.5	12,400	0.129	68.6
6	310.7	7,200	0.209	65.0	26	301.8	7,200	0.190	67.9
7	417.2	8,400	0.181	60.6	27	0.5	100	0.122	67.1
8	0.5	100	0.172	62.9	28	213.7	4,000	0.122	67.1
9	60.7	1,600	0.172	62.9	29	705.2	15,200	0.203	64.1
10	518.6	10,000	0.109	63.4	30	440.0	12,800	0.148	66.3
11	526.4	12,400	0.157	63.2	31	0.5	100	0.116	62.3
12	0.5	100	0.207	64.0	32	777.9	9,600	0.116	62.3
13	425.4	4,800	0.207	64.0	33	0.5	100	0.119	63.5
14	272.4	4,000	0.194	68.1	34	654.0	6,800	0.119	63.5
15	286.7	10,000	0.226	67.0	35	701.9	15,600	0.197	62.5
16	0.5	100	0.203	68.6	36	317.1	10,000	0.224	65.7
17	253.7	5,600	0.203	68.6	37	347.6	7,600	0.171	62.6
18	325.6	10,800	0.126	69.8	38	0.5	100	0.047	63.5
19	244.9	10,000	0.163	68.8	39	10.2	800	0.047	63.5
20	0.5	100	0.152	69.3	40	309.1	1,240	0.073	66.6

ANTIETAM CREEK EAST BRANCH WATERSHED

SUBAREA PROPERTIES AND DIMENSIONS (continued)

ID NO.	AREA (ACRES)	LENGTH (FEET)	SLOPE (FT/FT)	CN PERV.	ID NO.	AREA (ACRES)	LENGTH (FEET)	SLOPE (FT/FT)	CN PERV.
41	148.3	6,400	0.104	61.7	61	424.1	11,200	0.076	76.9
42	0.5	100	0.047	67.3	62	185.9	2,800	0.057	78.2
43	366.5	6,000	0.111	67.3	63	130.8	4,800	0.037	77.0
44	0.5	100	0.111	70.1	64	480.1	8,400	0.083	78.0
45	378.3	8,400	0.111	70.1	65	225.5	9,200	0.087	80.5
46	310.5	10,000	0.094	61.8	66	0.5	100	0.086	78.7
47	240.0	8,000	0.141	62.2	67	393.2	8,400	0.086	78.7
48	0.5	100	0.096	69.7	68	0.5	100	0.057	80.7
49	763.9	17,200	0.096	69.7	69	264.0	5,600	0.057	80.7
50	29.4	2,400	0.023	69.6	70	0.5	100	0.059	78.9
51	26.9	400	0.046	71.0	71	278.7	8,400	0.059	78.9
52	603.0	12,800	0.162	65.7	72	477.0	3,000	0.072	95.0
53	304.9	10,400	0.168	65.9	73	0.5	100	0.072	83.8
54	0.5	100	0.095	72.5	74	60.3	3,200	0.061	77.0
55	607.8	11,200	0.095	72.5	75	1,310.3	22,400	0.137	60.8
56	408.8	16,800	0.128	66.7	76	441.7	9,600	0.113	67.8
57	0.5	100	0.113	70.6	77	0.5	100	0.232	62.2
58	375.6	8,800	0.113	70.6	78	443.0	10,000	0.232	62.2
59	0.5	100	0.046	70.6	79	584.0	18,000	0.185	64.8
60	521.3	12,000	0.064	73.5	80	395.2	18,000	0.087	70.7

ANTIETAM CREEK EAST BRANCH WATERSHED

SUBAREA PROPERTIES AND DIMENSIONS
(continued)

ID NO.	AREA (ACRES)	LENGTH (FEET)	SLOPE (FT/FT)	CN PERV.	ID NO.	AREA (ACRES)	LENGTH (FEET)	SLOPE (FT/FT)	CN PERV.
81	0.5	100	0.053	77.3	103	456.1	11,200	0.059	77.3
82	192.1	5,600	0.053	77.3	104	0.5	100	0.065	78.3
83	363.4	7,600	0.069	70.6	105	679.6	14,000	0.065	78.3
84	504.8	7,600	0.057	68.7	106	0.5	100	0.064	77.3
85	0.5	100	0.057	68.7	107	456.3	11,200	0.064	77.3
86	419.2	12,000	0.078	66.8	109	0.5	100	0.064	78.8
87	440.6	16,000	0.071	68.5	109	399.6	14,000	0.092	78.8
88	303.6	10,000	0.129	67.7	110	0.5	100	0.108	78.8
89	0.5	100	0.167	62.0	111	230.0	8,000	0.074	77.7
90	414.3	7,200	0.167	62.0	112	112.8	5,200	0.108	81.0
91	418.3	12,000	0.151	61.5	113	485.9	12,000	0.067	75.7
92	0.5	100	0.126	70.0	114	308.5	12,800	0.083	74.8
93	481.9	10,400	0.126	70.0	115	0.5	100	0.047	81.2
94	0.5	100	0.126	70.0	116	23.1	2,800	0.047	81.2
95	243.7	6,000	0.079	75.4	117	0.5	100	0.062	74.8
96	0.5	100	0.079	75.4	118	196.4	4,400	0.062	74.8
97	498.6	4,400	0.054	77.5	119	798.0	4,500	0.067	99.0
98	263.5	14,400	0.151	61.7	120	0.5	100	0.093	77.0
99	309.3	12,400	0.170	58.2	121	306.7	10,400	0.093	77.0
100	0.5	100	0.070	75.8	122	0.5	100	0.082	77.3
101	274.2	10,800	0.070	75.8	123	242.5	8,000	0.082	33.3
102	584.4	12,800	0.127	63.2					

ANTIETAM CREEK WEST BRANCH WATERSHED

SUBAREA PROPERTIES AND DIMENSIONS

ID NO.	AREA (ACRES)	LENGTH (FEET)	SLOPE (FT/FT)	CN PERV.	ID NO.	AREA (ACRES)	LENGTH (FEET)	SLOPE (FT/FT)	CN PERV.
124	490.4	8,400	0.142	68.1	145	316.0	14,000	0.093	73.7
125	637.6	14,000	0.100	68.9	146	211.5	3,600	0.065	78.3
126	1,007.9	27,440	0.116	69.2	147	0.1	100	0.129	69.3
127	0.1	100	0.100	68.9	148	541.1	14,800	0.129	69.3
128	269.5	5,870	0.093	69.4	149	342.9	8,000	0.054	75.9
129	0.1	100	0.093	69.4	150	252.6	8,800	0.073	77.4
130	262.6	1,200	0.068	73.1	151	0.1	100	0.072	75.8
131	0.1	100	0.027	76.6	152	775.9	5,600	0.072	75.8
132	16.2	4,400	0.027	76.6	153	0.1	100	0.072	75.8
133	958.9	16,800	0.063	72.5	154	434.3	4,400	0.083	76.1
134	42.5	10,800	0.056	76.2	155	519.5	8,000	0.075	74.6
135	0.1	100	0.073	80.2	156	382.1	17,996	0.095	72.4
136	430.8	5,200	0.073	80.2	157	335.4	13,908	0.137	66.3
137	145.9	3,972	0.077	77.6	158	0.5	100	0.074	72.9
138	0.1	100	0.077	77.6	159	99.9	2,512	0.074	72.9
139	185.3	3,200	0.089	78.2	160	535.5	8,000	0.061	80.5
140	0.1	100	0.073	73.3	161	335.6	6,102	0.077	75.0
141	255.3	8,400	0.073	73.3	162	158.8	4,400	0.072	78.6
142	420.3	8,400	0.069	78.1	163	0.5	100	0.091	79.0
143	0.1	100	0.110	72.8	164	142.1	3,418	0.091	79.0
144	400.1	12,400	0.110	72.8	165	0.5	100	0.081	78.4

ANTIETAM CREEK WEST BRANCH WATERSHED

SUBAREA PROPERTIES AND DIMENSIONS
(continued)

ID NO.	AREA (ACRES)	LENGTH (FEET)	SLOPE (FT/FT)	CN PERV.	ID NO.	AREA (ACRES)	LENGTH (FEET)	SLOPE (FT/FT)	CN PERV.
166	338.0	6,400	0.081	78.4	187	0.5	100	0.083	78.9
167	629.1	15,654	0.065	78.1	188	727.0	9,200	0.076	78.9
168	780.6	19,246	0.070	78.1	189	439.7	10,400	0.079	80.1
169	760.1	16,000	0.072	79.3	190	0.5	100	0.090	76.6
170	252.6	2,400	0.063	80.1	191	557.8	16,400	0.090	76.6
171	0.5	100	0.069	77.1	192	414.5	7,200	0.092	78.3
172	270.0	5,200	0.069	77.1	193	0.5	100	0.074	76.1
173	313.6	9,600	0.062	76.9	194	253.5	5,200	0.074	76.1
174	191.9	8,000	0.071	77.7	195	0.5	100	0.074	76.1
175	771.2	22,000	0.072	78.6	196	30.5	2,200	0.075	72.3
176	0.5	100	0.066	80.2	197	329.2	10,000	0.091	78.5
177	58.7	2,800	0.066	80.2	198	0.5	100	0.075	77.3
178	267.5	12,000	0.059	75.9	199	374.7	9,000	0.080	77.3
179	343.1	14,000	0.075	75.9	200	263.5	2,100	0.063	87.0
180	0.5	100	0.060	76.6	201	0.5	100	0.083	79.0
181	156.3	4,400	0.060	76.6	202	165.6	3,200	0.089	80.5
182	230.8	6,800	0.060	76.1	203	170.4	4,400	0.122	78.4
183	0.5	100	0.083	76.1	204	0.5	100	0.122	78.4
184	1,032.3	16,000	0.064	78.6	205	297.1	6,000	0.072	80.9
185	596.2	6,800	0.069	78.2	206	467.5	12,000	0.073	81.0
186	729.7	9,200	0.083	76.0	207	0.5	100	0.080	81.1

ANTIETAM CREEK WEST BRANCH WATERSHED

SUBAREA PROPERTIES AND DIMENSIONS
(continued)

ID NO.	AREA (ACRES)	LENGTH (FEET)	SLOPE (FT/FT)	CN PERV.	ID NO.	AREA (ACRES)	LENGTH (FEET)	SLOPE (FT/FT)	CN PERV.
208	514.2	15,200	0.080	81.1	213	925.4	14,000	0.082	79.9
209	391.0	12,000	0.078	80.5	214	326.5	9,000	0.066	81.9
210	133.2	6,000	0.097	81.8	215	0.5	100	0.098	78.2
211	267.9	7,200	0.081	77.9	216	405.9	9,000	0.098	78.2
212	212.8	4,800	0.072	77.9	217	245.1	4,800	0.093	79.9



APPENDIX B

**Conococheague Creek
Storm Water Management Plan**

ARTICLE I- GENERAL PROVISIONS

Section 101. Statement of Findings

The governing body of the Municipality finds that:

- A. Inadequate management of accelerated stormwater runoff resulting from development throughout a watershed increases flood flows and velocities, contributes to erosion and sedimentation, overtakes the carrying capacity of existing streams and storm sewers, greatly increases the cost of public facilities to convey and manage stormwater, undermines floodplain management and flood reduction efforts in upstream and downstream communities, reduces groundwater recharge, and threatens public health and safety.
- B. A comprehensive program of stormwater management, including reasonable regulation of development and activities causing accelerated erosion, is fundamental to the public health, safety, welfare, and the protection of the people of the Municipality and all the people of the Commonwealth, their resources, and the environment.

Section 102. Purpose

The purpose of this Ordinance is to promote health, safety, and welfare within the Conococheague Creek Watershed by minimizing the damages described in Section 101.A of this Ordinance through provisions designed to:

- A. Manage accelerated runoff and erosion and sedimentation problems at their source by regulating activities that cause these problems.
- B. Utilize and preserve the existing natural drainage systems.
- C. Encourage recharge of groundwater where appropriate and prevent degradation of groundwater quality.
- D. Maintain existing flows and quality of streams and watercourses in the watershed.
- E. Preserve and restore the flood-carrying capacity of streams.
- F. Provide proper maintenance of all permanent stormwater management facilities that are constructed in the watershed.
- G. Provide performance standards and design criteria for watershed-wide stormwater management and planning.

Section 103. Statutory Authority

The Municipality is empowered to regulate land use activities that affect runoff by the authority of the Act of October 4, 1978 32 P.S., P.L. 864 (Act 167) Section 680.1 et seq., as amended, the "Stormwater Management Act", [and the applicable Municipal Code].

Section 104. Applicability

This Ordinance shall apply to those areas of the Municipality that are located within the Conococheague Creek Watershed, as delineated in Appendix D which is hereby adopted as part of this ordinance.

This Ordinance shall only apply to permanent stormwater management facilities constructed as part of any of the Regulated Activities listed in this Section. Stormwater management and erosion and sedimentation control during construction activities are specifically not regulated by this Ordinance, but shall continue to be regulated under existing laws and ordinances.

This Ordinance contains only the stormwater management performance standards and design criteria that are necessary or desirable from a watershed-wide perspective. Local stormwater management design criteria (e.g., inlet spacing, inlet type, collection system design and details, outlet structure design, etc.) shall continue to be regulated by the applicable Municipal Ordinances.

The following activities are defined as "Regulated Activities" and shall be regulated by this Ordinance:

- A. Land development.
- B. Subdivision.
- C. Construction of new or additional impervious or semi-pervious surfaces (driveways, parking lots, etc.).
- D. Construction of new buildings or additions to existing buildings.
- E. Diversion or piping of any natural or man-made stream channel.
- F. Installation of stormwater management facilities or appurtenances thereto.

Section 105. Repealer

Any ordinance or ordinance provision of the Municipality inconsistent with any of the provisions of this Ordinance is hereby repealed to the extent of the inconsistency only.

Section 106. Severability

Should any section or provision of this Ordinance be declared invalid by a court of competent jurisdiction, such decision shall not affect the validity of any of the remaining provisions of this Ordinance.

Section 107. Compatibility With Other Ordinance Requirements

Approvals issued pursuant to this Ordinance do not relieve the Applicant of the responsibility to secure required permits or approvals for activities regulated by any other applicable code, rule, act, or ordinance.

ARTICLE II-DEFINITIONS

For the purposes of this chapter, certain terms and words used herein shall be interpreted as follows:

- A. Words used in the present tense include the future tense; the singular number includes the plural, and the plural number includes the singular; words of masculine gender include feminine gender; and words of feminine gender include masculine gender.
- B. The word "includes" or "including" shall not limit the term to the specific example, but is intended to extend its meaning to all other instances of like kind and character.
- C. The word "person" includes an individual, firm, association, organization, partnership, trust, company, corporation, or any other similar entity.
- D. The words "shall" and "must" are mandatory; the words "may" and "should" are permissive.
- E. The words "used or occupied" include the words "intended, designed, maintained, or arranged to be used, occupied or maintained."

Accelerated Erosion - The removal of the surface of the land through the combined action of man's activity and the natural processes of a rate greater than would occur because of the natural process alone.

Agricultural Activities - The work of producing crops and raising livestock including tillage, plowing, disking, harrowing, pasturing and installation of conservation measures. Construction of new buildings or impervious area is not considered an agricultural activity.

Alteration - As applied to land, a change in topography as a result of the moving of soil and rock from one location or position to another; also the changing of surface conditions by causing the surface to be more or less impervious; land disturbance.

Applicant - A landowner or developer who has filed an application for approval to engage in any Regulated Activities as defined in Section 104 of this Ordinance.

BMP (Best Management Practice) - Stormwater structures, facilities and techniques to control, maintain or improve the quantity and quality of surface runoff.

Channel Erosion - The widening, deepening, and headward cutting of small channels and waterways, due to erosion caused by moderate to large floods.

Cistern - An underground reservoir or tank for storing rainwater.

Conservation District - The Franklin County Conservation District.

Culvert - A structure with appurtenant works which carries a stream under or through an embankment or fill.

Dam - An artificial barrier, together with its appurtenant works, constructed for the purpose of impounding or storing water or another fluid or semifluid, or a refuse bank, fill or structure for

highway, railroad or other purposes which does or may impound water or another fluid or semifluid.

Design Storm - The magnitude and temporal distribution of precipitation from a storm event measured in probability of occurrence (e.g., a 5-year storm) and duration (e.g., 24-hours), used in the design and evaluation of stormwater management systems.

Designee - The agent of the Guilford Township Supervisors involved with the administration, review or enforcement of any provisions of this ordinance by contract or memorandum of understanding.

Detention Basin - An impoundment structure designed to manage stormwater runoff by temporarily storing the runoff and releasing it at a predetermined rate.

Detention District - Those subareas in which some type of detention is required to meet the plan requirements and the goals of Act 167.

Developer - A person, partnership, association, corporation, or other entity, or any responsible person therein or agent thereof, that undertakes any Regulated Activity of this Ordinance.

Development Site - The specific tract of land for which a Regulated Activity is proposed.

Diffused Drainage Discharge - Drainage discharge not confined to a single point location or channel, such as sheet flow or shallow concentrated flow.

Downslope Property Line - That portion of the property line of the lot, tract, or parcels of land being developed located such that all overland or pipe flow from the site would be directed towards it.

Drainage Conveyance Facility - A Stormwater Management Facility designed to transmit stormwater runoff and shall include streams, channels, swales, pipes, conduits, culverts, storm sewers, etc.

Drainage Easement - A right granted by a landowner to a grantee, allowing the use of private land for stormwater management purposes.

Drainage Permit - A permit issued by the Municipal governing body after the drainage plan has been approved. Said permit is issued prior to or with the final Municipal approval.

Drainage Plan - The documentation of the stormwater management system, if any, to be used for a given development site, the contents of which are established in Section 403.

Earth Disturbance - Any activity including, but not limited to, construction, mining, timber harvesting and grubbing which alters, disturbs, and exposes the existing land surface.

Erosion - The movement of soil particles by the action of water, wind, ice, or other natural forces.

Erosion and Sediment Pollution Control Plan - A plan that is designed to minimize accelerated erosion and sedimentation.

Exceptional Value Waters – Surface waters of high quality which satisfy Pennsylvania Code Title 25 Environmental Protections, Chapter 93 Water Quality Standards, § 93.4b(b) (relating to anti-degradation).

Existing Conditions - The initial condition of a project site prior to the proposed construction. If the initial condition of the site is undeveloped land, the land use shall be considered as "meadow" unless the natural land cover is proven to generate lower curve numbers or Rational "C" value, such as forested lands.

Flood - A general but temporary condition of partial or complete inundation of normally dry land areas from the overflow of streams, rivers, and other waters of this Commonwealth.

Floodplain - Any land area susceptible to inundation by water from any natural source or delineated by applicable Department of Housing and Urban Development, Federal Insurance Administration Flood Hazard Boundary - Mapped as being a special flood hazard area. Also included are areas that comprise Group 13 Soils, as listed in Appendix A of the Pennsylvania Department of Environmental Protection (PaDEP) Technical Manual for Sewage Enforcement Officers (as amended or replaced from time to time by PaDEP).

Floodway - The channel of the watercourse and those portions of the adjoining floodplains, which are reasonably required to carry and discharge the 100-year frequency flood. Unless otherwise specified, the boundary of the floodway is as indicated on maps and flood insurance studies provided by FEMA. In an area where no FEMA maps or studies have defined the boundary of the 100-year frequency floodway, it is assumed - absent evidence to the contrary - that the floodway extends from the stream to 50 feet from the top of the bank of the stream.

Forest Management/Timber Operations - Planning and activities necessary for the management of forest land. These include timber inventory and preparation of forest management plans, silvicultural treatment, cutting budgets, logging road design and construction, timber harvesting, site preparation and reforestation.

Freeboard - A vertical distance between the elevation of the design high-water and the top of a dam, levee, tank, basin, or diversion ridge. The space is required as a safety margin in a pond or basin.

Grade - A slope, usually of a road, channel or natural ground specified in percent and shown on plans as specified herein. (To) Grade - to finish the surface of a roadbed, top of embankment or bottom of excavation.

Grassed Waterway - A natural or constructed waterway, usually broad and shallow, covered with erosion-resistant grasses, used to conduct surface water from cropland.

Groundwater Recharge - Replenishment of existing natural underground water supplies.

HEC-HMS – The U.S. Army Corps of Engineers, Hydrologic Engineering Center (HEC) – Hydrologic Modeling System (HMS)

High Quality Waters – Surface waters having quality which exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water by satisfying Pennsylvania Code Title 25 Environmental Protection, Chapter 93 Water Quality Standards, § 93.4b(a).

Impervious Surface - A surface that prevents the percolation of water into the ground.

Impoundment - A retention or detention basin designed to retain stormwater runoff and release it at a controlled rate.

Infiltration Structures - A structure designed to direct runoff into the ground (e.g., french drains, seepage pits, seepage trench).

Inlet - A surface connection to a closed drain. A structure at the diversion end of a conduit. The upstream end of any structure through which water may flow.

Land Development - (i) the improvement of one lot or two or more contiguous lots, tracts, or parcels of land for any purpose involving (a) a group of two or more buildings, or (b) the division or allocation of land or space between or among two or more existing or prospective occupants by means of, or for the purpose of streets, common areas, leaseholds, condominiums, building groups, or other features; (ii) any subdivision of land; (iii) development in accordance with Section 503(1.1) of the PA Municipalities Planning Code.

Land Earth Disturbance - Any activity involving grading, tilling, digging, or filling of ground or stripping of vegetation or any other activity that causes an alteration to the natural condition of the land.

Main Stem (Main Channel) - Any stream segment or other runoff conveyance facility used as a reach in the Conococheague Creek hydrologic model.

Manning Equation in (Manning formula) - A method for calculation of velocity of flow (e.g., feet per second) and flow rate (e.g., cubic feet per second) in open channels based upon channel shape, roughness, depth of flow and slope. "Open channels" may include closed conduits so long as the flow is not under pressure.

Municipality - Guilford Township, Franklin County, Pennsylvania

Nonpoint Source Pollution - Pollution that enters a watery body from diffuse origins in the watershed and does not result from discernible, confined, or discrete conveyances.

NRCS - Natural Resource Conservation Service (previously SCS).

Open Channel - A drainage element in which stormwater flows with an open surface. Open channels include, but shall not be limited to, natural and man-made drainageways, swales, streams, ditches, canals, and pipes flowing partly full.

Outfall - Point where water flows from a conduit, stream, or drain.

Outlet - Points of water disposal from a stream, river, lake, tidewater or artificial drain.

Parking Lot Storage - Involves the use of impervious parking areas as temporary impoundments with controlled release rates during rainstorms.

Peak Discharge - The maximum rate of stormwater runoff from a specific storm event.

Penn State Runoff Model (calibrated) - The computer-based hydrologic modeling technique adapted to the Conococheague Creek watershed for the Act 167 Plan. The model has been "calibrated" to reflect actual recorded flow values by adjoining key model input parameters.

Pipe - A culvert, closed conduit, or similar structure (including appurtenances) that conveys stormwater.

Planning Commission - The Planning Committee of Guilford Township

PMF - Probable Maximum Flood - The flood that may be expected from the most severe combination of critical meteorologic and hydrologic conditions that are reasonably possible in any area. The PMF is derived from the probable maximum precipitation (PMP) as determined based on data obtained from the National Oceanographic and Atmospheric Administration (NOAA).

Qualified Design Professional – A Pennsylvania Registered Professional Engineer, Registered Landscape Architect or a Registered Professional Land Surveyor trained and certified to develop stormwater management plans.

Rational Formula - A rainfall-runoff relation used to estimate peak flow.

Regulated Activities - Actions or proposed actions that have an impact on stormwater runoff and that are specified in Section 104 of this Ordinance.

Release Rate - The percentage of pre-development peak rate of runoff from a site or subarea to which the post development peak rate of runoff must be reduced to protect downstream areas.

Retention Basin - An impoundment in which stormwater is stored and not released during the storm event. Stored water may be released from the basin at some time after the end of the storm.

Return Period - The average interval, in years, within which a storm event of a given magnitude can be expected to recur. For example, the 25-year return period rainfall would be expected to recur on the average of once every twenty-five years.

Riser - A vertical pipe extending from the bottom of a pond that is used to control the discharge rate from the pond for a specified design storm.

Rooftop Detention - Temporary ponding and gradual release of stormwater falling directly onto flat roof surfaces by incorporating controlled-flow roof drains into building designs.

Runoff - Any part of precipitation that flows over the land surface.

Sediment Basin - A barrier, dam, retention or detention basin located and designed to retain rock, sand, gravel, silt, or other material transported by water.

Sediment Pollution - The placement, discharge or any other introduction of sediment into the waters of the Commonwealth occurring from the failure to design, construct, implement or maintain control measures and control facilities in accordance with the requirements of this Ordinance.

Sedimentation - The process by which mineral or organic matter is accumulated or deposited by the movement of water.

Seepage Pit/Seepage Trench - An area of excavated earth filled with loose stone or similar coarse material, into which surface water is directed for infiltration into the ground.

Sheet Flow - Runoff that flows over the ground surface as a thin, even layer, not concentrated in a channel.

Soil-Cover Complex Method - A method of runoff computation developed by the NRCS that is based on relating soil type and land use/cover to a runoff parameter called Curve Number (CN).

Soil Group, Hydrologic - A classification of soils by the Natural Resources Conservation Service, formerly the Soil Conservation Service, into four runoff potential groups. The groups range from A soils, which are very permeable and produce little runoff, to D soils, which are not very permeable and produce much more runoff.

Spillway - A depression in the embankment of a pond or basin which is used to pass peak discharge greater than the maximum design storm controlled by the pond.

Storage Indication Method - A reservoir routing procedure based on solution of the continuity equation (inflow minus outflow equals the change in storage) with outflow defined as a function of storage volume and depth.

Storm Frequency - The number of times that a given storm "event" occurs or is exceeded on the average in a stated period of years. See "Return Period".

Storm Sewer - A system of pipes and/or open channels that convey intercepted runoff and stormwater from other sources, but excludes domestic sewage and industrial wastes.

Stormwater - The total amount of precipitation reaching the ground surface.

Stormwater Management Facility - Any structure, natural or man-made, that, due to its condition, design, or construction, conveys, stores, or otherwise affects stormwater runoff. Typical stormwater management facilities include, but are not limited to, detention and retention basins, open channels, storm sewers, pipes, and infiltration structures.

Stormwater Management Plan - The plan for managing stormwater runoff in the Conococheague Creek Watershed adopted by Franklin County as required by the Act of October 4, 1978, P.L. 864, (Act 167), and known as the "Conococheague Creek Watershed Action Act 167 Stormwater Management Plan.

Stormwater Management Site Plan - The plan prepared by the Developer or his representative indicating how stormwater runoff will be managed at the particular site of interest according to this Ordinance.

Stream Enclosure - A bridge, culvert or other structure in excess of 100 feet in length upstream to downstream which encloses a regulated water of this Commonwealth.

Subarea - The smallest drainage unit of a watershed for which stormwater management criteria have been established in the Stormwater Management Plan.

Subdivision - The division or re-division of a lot, tract, or parcel of land by any means into two or more lots, tracts, parcels or other divisions of land including changes in existing lot lines for the purpose, whether immediate or future, of lease, partition by the court for distribution to heirs or

devises, transfer of ownership, or building or lot development: Provided, however, that the subdivision by lease of land for agricultural purposes into parcels of more than ten acres, not involving any new street or easement of access or any residential dwellings, shall be exempt.

Swale - A low lying stretch of land which gathers or carries surface water runoff.

Timber Operations - See Forest Management.

Time-of-Concentration (Tc) - The time for surface runoff to travel from the hydraulically most distant point of the watershed to a point of interest within the watershed. This time is the combined total of overland flow time and flow time in pipes or channels, if any.

Watercourse - A stream of water; river; brook; creek; or a channel or ditch for water, whether natural or manmade.

Waters of the Commonwealth - Any and all rivers, streams, creeks, rivulets, ditches, watercourses, storm sewers, lakes, dammed water, wetlands, ponds, springs, and all other bodies or channels of conveyance of surface and underground water, or parts thereof, whether natural or artificial, within or on the boundaries of this Commonwealth.

Wetland - Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, ferns, and similar areas.

ARTICLE III-STORMWATER MANAGEMENT

Section 301. General Requirements

- A. All regulated activities in Conococheague Creek Watershed which do not fall under the exemption criteria shown in Section 402 shall submit a drainage plan consistent with the Conococheague Creek Watershed Stormwater Management Plan to the municipality for review. This criteria shall apply to the total proposed development even if development is to take place in stages. Impervious cover shall include, but not be limited to, any roof, parking or driveway areas and any new streets and sidewalks. Any areas designed to initially be gravel or crushed stone shall be assumed to be impervious for the purposes of comparison to the exemption criteria.
- B. Stormwater drainage systems shall be provided in order to permit unimpeded flow along natural watercourses, except as modified by stormwater management facilities or open channels consistent with this Ordinance.
- C. The existing points of concentrated drainage that discharge onto adjacent property shall not be altered without permission of the affected property owner(s) and shall be subject to any applicable discharge criteria specified in this Ordinance.
- D. Areas of existing diffused drainage discharge shall be subject to any applicable discharge criteria in the general direction of existing discharge, whether proposed to be concentrated or maintained as diffused drainage areas, except as otherwise provided by this ordinance. If diffused drainage discharge is proposed to be concentrated and discharged onto adjacent property, the Developer must document that adequate downstream conveyance facilities

exist to safely transport the concentrated discharge, or otherwise prove that no erosion, sedimentation, flooding or other harm will result from the concentrated discharge.

- E. Where a development site is traversed by watercourses drainage easements shall be provided conforming to the line of such watercourses. The terms of the easement shall prohibit excavation, the placing of fill or structures, and any alterations that may adversely affect the flow of stormwater within any portion of the easement. Also, maintenance, including mowing of vegetation within the easement shall be required, except as approved by the appropriate governing authority.
- F. When it can be shown that, due to topographic conditions, natural drainageways on the site cannot adequately provide for drainage, open channels may be constructed conforming substantially to the line and grade of such natural drainageways. Work within natural drainageways shall be subject to approval by PaDEP through the Joint Permit Application process, or, where deemed appropriate by PaDEP, through the General Permit process.
- G. Any stormwater management facilities regulated by this Ordinance that would be located in or adjacent to waters of the Commonwealth or wetlands shall be subject to approval by PaDEP through the Joint Permit Application process, or, where deemed appropriate by PaDEP, the General Permit process. When there is a question whether wetlands may be involved, it is the responsibility of the Developer or his agent to show that the land in question cannot be classified as wetlands, otherwise approval to work in the area must be obtained from PaDEP.
- H. Any stormwater management facilities regulated by this Ordinance that would be located on State highway rights-of-way shall be subject to approval by the Pennsylvania Department of Transportation (PENNDOT).
- I. Minimization of impervious surfaces and infiltration of runoff through seepage beds, infiltration trenches, etc. are encouraged strongly, where soil conditions permit, to reduce the size or eliminate the need for detention facilities.
- J. Roof drains must not be connected to streets, sanitary or storm sewers or roadside ditches to promote overland flow and infiltration/ percolation of stormwater where advantageous to do so. When it is more advantageous to connect directly to streets or storm sewers, then it shall be permitted on a case by case basis by the municipality.
- K. Special requirements for watersheds draining to high quality (HQ) and exceptional value (EV) waters. The temperature and quality of water and streams that have been declared as exceptional value and high quality are to be maintained as defined in Chapter 93, Water Quality Standards, Title 25 of Pennsylvania Department of Environmental Protection Rules and Regulations. Temperature sensitive BMP's and stormwater conveyance systems are to be used and designed with storage pool areas and supply outflow channels and should be shaded with trees. This will require modification of berms for permanent ponds and the relaxation of restrictions on planting vegetation within the facilities, provided that capacity for volumes and rate control is maintained. At a minimum, the southern half on pond shorelines shall be planted with shade or canopy trees within ten (10) feet of the pond shoreline. In conjunction with this requirement, the maximum slope allowed on the berm area to be planted is 10 to 1. A long term maintenance schedule and

management plan for the thermal control BMP's is to be established and recorded for all development sites.

Section 302. Stormwater Management Districts

- A. Conococheague Creek Watershed has been divided into stormwater management districts as shown on the Watershed Map in Appendix D.

In addition to the requirements specified below, the ground water recharge (Section 307), water quality (Section 308), and streambank erosion (Section 309), requirements shall be implemented.

Standards for managing runoff from each subarea in the Conococheague Creek Watershed is shown below. Development sites located in each of the A, B, or C Districts must control post-development runoff rates to pre-development runoff rates for the design storms as follows:

<u>District</u>	<u>Subareas</u>	<u>Design Storm Post-Development</u>	<u>Design Storm Pre-Development</u>
A		2- year	1- year
		5- year	5- year
		10- year	10- year
		25- year	25- year
		100-year	100-year
B		2- year	1- year
		5- year	2- year
		10 – year	5- year
		25- year	10- year
		100-year	100-year
C		(See Below)	(See Below)

- EXPLANATION OF DISTRICT C: Provisional Direct Discharge District - Development sites which can discharge directly to the Conococheague Creek main channel or major tributaries or indirectly to the main channel through an existing stormwater drainage system (i.e., storm sewer or tributary) may do so without control of post-development peak rate of runoff. Sites in District C will still have to comply with the criteria for groundwater recharge (Ordinance Section 307); water quality (Ordinance Section 308); and streambank erosion (Ordinance Section 309). If the post-development runoff is intended to be conveyed by an existing stormwater drainage system to the main channel, assurance must be provided that such system has adequate capacity to convey the increased peak flows or will be provided with improvements to furnish the required capacity. When adequate capacity of downstream system does not exist and will not be provided through improvements, the post-development peak rate of runoff must be controlled to the pre-development peak rate as required in District A provisions (i.e., 10-year post-development flows to 10 pre-development flows) for the specified design storms.

Section 303. Stormwater Management District Implementation Provisions (Performance Standards)

- A. General - Post-development peak rates of runoff from any regulated activity shall meet the peak release rates of runoff prior to development for the design storms specified on the Stormwater Management District Watershed Map (Ordinance Appendix D) and Section 302, of the Ordinance.
- B. District Boundaries - The boundaries of the Stormwater Management Districts are shown on an official map that is available for inspections at the municipal office. A copy of the official map at a reduced scale is included in the Ordinance Appendix D. The exact location of the Stormwater Management District boundaries as they apply to a given development site shall be determined by mapping the boundaries using the two-foot topographic contours (or most accurate data required) provided as part of the Drainage Plan.
- C. Sites Located in More Than 1 District - For a proposed development site located within two or more stormwater management district category subareas, the peak discharge rate from any subarea shall be the pre-development peak discharge for that subarea as indicated in Section 302. The calculated peak discharges shall apply regardless of whether the grading plan changes the drainage area by subarea. An exception to the above may be granted if discharges from multiple subareas recombine in proximity to the site. In this case, peak discharge in any direction may be a 100% release rate provided that the overall site discharge meets the weighted average release rate.
- D. Off-Site Areas - Off-site Areas that drain through a proposed development site are not subject to release rate criteria when determining allowable peak runoff rates. However, on-site drainage facilities shall be designed to safely convey off-site flows through the development site.
- E. Site Areas - Where the site area to be impacted by a proposed development activity differs significantly from the total site area, only the proposed impact area utilizing stormwater management measures shall be subject to the Management District Criteria. In other words, unimpacted areas bypassing the stormwater management facilities would not be subject to the Management District Criteria.
- F. "No Harm" option - For any proposed development site not located in a provisional direct discharge district, the developer has the option of using a less restrictive runoff control (including no detention) if the developer can prove that "no harm" would be caused by discharging at a higher runoff rate than that specified by the Plan. The "no harm" option is used when a developer can prove that the post-development hydrographs can match pre-development hydrographs, or if it can be proved that the post-development conditions will not cause increases in peaks at all points downstream. Proof of "no harm" would have to be shown based upon the following "Downstream Impact Evaluation" which shall include a "downstream hydraulic capacity analysis" consistent with Section 303G to determine if adequate hydraulic capacity exists. The land developer shall submit to the municipality this evaluation of the impacts due to increased downstream stormwater flows in the watershed.
 - 1. The "Downstream Impact Evaluation" shall include hydrologic and hydraulic calculations necessary to determine the impact of hydrograph timing modifications due

to the proposed development upon a dam, highway, structure, natural point of restricted streamflow or any stream channel section, established with the concurrence of the municipality.

2. The evaluation shall continue downstream until the increase in flow diminishes due to additional flow from tributaries and/or stream attenuation.
3. The peak flow values to be used for downstream areas for the design return period storms (2, 5, 10, 25, 50, and 100-year) shall be the values from the calibrated model for the Conococheague Creek Watershed. These flow values can be obtained from the watershed plan.
4. Developer-proposed runoff controls which would generate increased peak flow rates at storm drainage problem areas would, by definition, be precluded from successful attempts to prove "no-harm", except in conjunction with proposed capacity improvements for the problem areas consistent with Section 303.H.
5. A financial distress shall not constitute grounds for granting a no-harm exemption.
6. Capacity improvements may be provided as necessary to implement the "no harm" option which proposes specific capacity improvements to provide that a less stringent discharge control would not create any harm downstream.
7. Any "no harm" justifications shall be submitted by the developer as part of the Drainage Plan submission per Article IV.

G. "Downstream Hydraulic Capacity Analysis" - Any downstream capacity hydraulic analysis conducted in accordance with this Ordinance shall use the following criteria for determining adequacy for accepting increased peak flow rates:

1. Natural or man-made channels or swales must be able to convey the increased runoff associated with a 2-year return period event within their banks at velocities consistent with protection of the channels from erosion. Acceptable velocities shall be based upon criteria included in the DEP *Erosion and Sediment Pollution Control Program Manual*.
2. Natural or man-made channels or swales must be able to convey increased 25-year return period runoff without creating any hazard to persons or property.
3. Culverts, bridges, storm sewers or any other facilities which must pass or convey flows from the tributary area must be designed in accordance with DEP Chapter 105 regulations (if applicable) and, at minimum, pass the increased 25-year return period runoff.

H. Regional Detention Alternatives - For certain areas within the study area, it may be more cost-effective to provide one control facility for more than one development site than to provide an individual control facility for each development site. The initiative and funding for any regional runoff control alternatives are the responsibility of prospective developers. The design of any regional control basins must incorporate reasonable development of the entire upstream watershed. The peak outflow of a regional basin would be determined on a case-by-case basis using the hydrologic model of the watershed

consistent with protection of the downstream watershed areas. "Hydrologic model" refers to the calibrated model as developed for the Stormwater Management Plan.

- I. "Hardship Option" - The development of the plan and its standards and criteria was designed to maintain existing peak flows throughout the Conococheague Creek watershed as the watershed becomes developed. There may be certain instances, however, where the standards and criteria established are too restrictive for a particular landowner or developer. The existing drainage network in some areas may be capable of safely transporting slight increases in flows without causing a problem or increasing flows elsewhere. If a developer or homeowner may not be able to possibly meet the stormwater standards due to lot conditions or if conformance would become a hardship to an owner, the hardship option may be applied. The landowner would have to plead his/her case to the Township Supervisors with the final determination made by the Township. Any landowners pleading the "hardship option" will assume all liabilities that may arise due to exercising this option.

Section 304. Design Criteria for Stormwater Management Facilities

- A. Any stormwater facility located on State highway rights-of-way shall be subject to approval by the Pennsylvania Department of Transportation (PENNDOT).
- B. Any stormwater management facility (i.e., detention basin) designed to store runoff and requiring a berm or earthen embankment required or regulated by this ordinance shall be designed to provide an emergency spillway to handle flow up to and including the 100-year post-development conditions. The height of embankment must be set as to provide a minimum 1.0 foot of freeboard above the maximum pool elevation computed when the facility functions for the 100-year post-development inflow. Should any storm-water management facility require a dam safety permit under PaDEP Chapter 105, the facility shall be designed in accordance with Chapter 105 and meet the regulations of Chapter 105 concerning dam safety which may be required to pass storms larger than 100-year event.
- C. Any facilities that constitute water obstructions (e.g., culverts, bridges, outfalls, or stream enclosures), and any work involving wetlands as directed in PaDEP Chapter 105 regulations (as amended or replaced from time to time by PaDEP), shall be designed in accordance with Chapter 105 and will require a permit from PaDEP. Any other drainage conveyance facility that does not fall under Chapter 105 regulations must be able to convey, without damage to the drainage structure or roadway, runoff from the 25-year design storm with a minimum 1.0 foot of freeboard measured below the lowest point along the top of the roadway. Roadway crossings located within designated floodplain areas must be able to convey runoff from a 100-year design storm with a minimum 1.0 foot of freeboard measured below the lowest point along the top of roadway. Any facility that constitutes a dam as defined in PaDEP chapter 105 regulations may require a permit under dam safety regulations. Any facility located within a PENNDOT right of way must meet PENNDOT minimum design standards and permit submission requirements.
- D. Any drainage conveyance facility and/or channel that does not fall under Chapter 105 Regulations, must be able to convey, without damage to the drainage structure or roadway, runoff from the 10-year design storm. Conveyance facilities to or exiting from stormwater management facilities (i.e., detention basins) shall be designed to convey the design flow to or from that structure. Roadway crossings located within designated floodplain areas must be able to convey runoff from a 100-year design storm. Any facility located within a PENNDOT right-of-way must meet PENNDOT minimum design standards and permit submission requirements.

- E. Storm sewers must be able to convey post-development runoff from a _-year design storm without surcharging inlets, where appropriate.
- F. Adequate erosion protection shall be provided along all open channels, and at all points of discharge.
- G. The design of all stormwater management facilities shall incorporate sound engineering principles and practices. The Municipality shall reserve the right to disapprove any design that would result in the occupancy or continuation of an adverse hydrologic or hydraulic condition within the watershed.

Section 305. Calculation Methodology

Stormwater runoff from all development sites shall be calculated using either the rational method or a soil-cover-complex methodology.

- A. Any stormwater runoff calculations shall use generally accepted calculation technique that is based on the NRCS soil cover complex method. Table 305-1 summarizes acceptable computation methods. It is assumed that all methods will be selected by the design professional based on the individual limitations and suitability of each method for a particular site.

The Municipality may allow the use of the Rational Method to estimate peak discharges from drainage areas that contain less than 200 acres. The Soil Complex Method is recommended for drainage areas greater than 200 acres.

- B. All calculations consistent with this Ordinance using the soil cover complex method shall use the appropriate design rainfall depths for the various return period storms according to the region for which they are located as presented in Table B-1 in Appendix B of this Ordinance. If a hydrologic computer model such as HEC-HMS, or HEC-1 is used for stormwater runoff calculations, then the duration of rainfall shall be 24 hours. The Alternating Block Method to develop design hyetographs described in Figure B-1, Appendix B of this Ordinance shall be used for the rainfall distribution.
- C. For the purposes of pre-development flow rate determination, undeveloped land shall be considered as "meadow" in good condition, unless the natural ground cover generates a lower curve number or Rational 'C' value (i.e., forest), as listed in Table B-2 or B-3 in Appendix B of this document.
- D. All calculations using the Rational Method shall use rainfall intensities consistent with appropriate times-of-concentration for overland flow and return periods from the Design Storm Curves from PA Department of Transportation Design Rainfall Curves (1986) (Figures B-3 to B-4). Times-of-concentration for overland flow shall be calculated using the methodology presented in Chapter 3 of Urban Hydrology for Small Watersheds, NRCS, TR-55 (as amended or replaced from time to time by NRCS). Times-of-concentration for channel and pipe flow shall be computed using Manning's equation.
- E. Runoff Curve Numbers (CN) for both existing and proposed conditions to be used in the soil cover complex method shall be obtained from Table B-2 in Appendix B of this Ordinance.

- F. Runoff coefficients (c) for both existing and proposed conditions for use in the Rational method shall be obtained from Table B-3 in Appendix B of this Ordinance.
- G. Where uniform flow is anticipated, the Manning equation shall be used for hydraulic computations, and to determine the capacity of open channels, pipes, and storm sewers. Values for Manning's roughness coefficient (n) shall be consistent with Table B-4 in Appendix B of the Ordinance.

Outlet structures for stormwater management facilities shall be designed to meet the performance standards of this Ordinance using any generally accepted hydraulic analysis technique or method.

- H. The design of any stormwater detention facilities intended to meet the performance standards of this Ordinance shall be verified by routing the design storm hydrograph through these facilities using the Storage-Indication Method. For drainage areas greater than 200 acres in size, the design storm hydrograph shall be computed using a calculation method that produces a full hydrograph. The municipality may approve the use of any generally accepted full hydrograph approximation technique that shall use a total runoff volume that is consistent with the volume from a method that produces a full hydrograph.

TABLE 305-1
Acceptable Computation Methodologies For
Stormwater Management Plans

METHOD	METHOD DEVELOPED BY	APPLICABILITY
TR-20 (or commercial computer package based on TR-20)	USDA NRCS	Applicable where use of full hydrology computer model is desirable or necessary.
TR-55 (or commercial computer package based on TR-55)	USDA NRCS	Applicable for land development plans within limitations described in TR-55.
HEC-1 / HEC-HMS	US Army Corps of Engineers	Applicable where use of full hydrologic computer model is desirable or necessary.
PSRM	Penn State University	Applicable where use of a hydrologic computer model is desirable or necessary; simpler than TR-20 or HEC-1.
Rational Method (or commercial computer package based on Rational Method)	Emil Kuichling (1889)	For sites less than 200 acres, or as approved by the Municipality and/or Municipal Engineer.
Other Methods and/or	Varies	Other computation methodologies approved by the Municipality Municipal Engineer.

Section 306. Erosion and Sedimentation Requirements

- A. Whenever the vegetation and topography are to be disturbed, such activity must be in conformance with Chapter 102, Title 25, Rules and Regulations, Part I, Commonwealth of

Pennsylvania, Department of Environmental Protection, Subpart C, protection of natural Resources, Article II, Water Resources, Chapter 102, "Erosion Control," and in accordance with the [County Name] County Conservation District.

- B. Additional erosion and sedimentation control design standards and criteria that must be or are recommended to be applied where infiltration BMPs are proposed shall include the following:
1. Areas proposed for infiltration BMPs shall be protected from sedimentation and compaction during the construction phase, so as to maintain their maximum infiltration capacity.
 2. Infiltration BMPs shall not be constructed nor receive runoff until the entire contributory drainage area to the infiltration BMP has received final stabilization.

Section 307. Ground Water Recharge (Infiltration/Recharge/Retention)

- A. The ability to retain and maximize the ground water recharge capacity of the area being developed is encouraged strongly. Design of the infiltration/recharge stormwater management facilities shall give consideration to providing ground water recharge to compensate for the reduction in the percolation that occurs when the ground surface is paved and roofed over. These measures are encouraged, particularly in hydrologic soil groups A and B and should be utilized wherever feasible. Soils used for the construction of basins shall have low-erodibility factors ("K" factors).
- B. Infiltration BMPs shall meet the following minimum requirements:
1. Infiltration BMPs intended to receive runoff from developed areas shall be selected based on suitability of soils and site conditions and shall be constructed on soils that have the following characteristics:
 - a. A minimum depth of 24 inches between the bottom of the facility and the seasonal high water table and/or bedrock (limiting zones)
 - b. An infiltration and/or percolation rate sufficient to accept the additional stormwater load and drain completely as determined by field tests conducted by the Owner's professional designer or as otherwise approved by the municipal engineer.
 2. Infiltration BMPs receiving only roof runoff may be placed in soils having a minimum depth of 24 inches between the bottom of the facility and the limiting zone.
 3. The size of the recharge facility shall be based upon the following equation (DEP):

$$Re_v = [(S) (R_v) (A)] / 12$$

Where:

Re_v = Recharge Volume (acre-feet)
 S = Soil specific recharge factor (inches)
 R_v = Volumetric runoff coefficient
 A = Site area contributing to the recharge facility (acres)

And:

$$R_v = 0.05 + 0.009 (I)$$

Where:

I = percent impervious area

And:

S may be obtained based upon hydrologic soil group based upon the table below recommended as general values by DEP. More site specific data may be utilized to determine recharge if justified by the design engineer and approved by the municipal engineer.

<u>Hydrologic Soil Group</u>	<u>Soil Specific Recharge Factor (S)</u>
A	0.38 inches
B	0.25 inches
C	0.13 inches
D	0.06 inches

If more than one hydrologic soil group (HSG) is present at a site, a composite recharge volume shall be computed based upon the proportion of total site area within each HSG.

4. The recharge volume provided at the site shall be directed to the most permeable HSG available, if feasible.
 5. The recharge facility shall be capable of completely infiltrating the recharge volume within 4 days (96 hours).
 6. Infiltration areas should be located a minimum of 10' from a building foundation.
- C. A detailed soils evaluation of the project site may be required to determine the suitability of recharge facilities. The evaluation shall be performed by a qualified design professional, and at a minimum, address soil permeability, depth to bedrock, susceptibility to sinkhole formation, and subgrade stability. The general process for designing the infiltration BMP shall be:
1. Analyze hydrologic soil groups as well as natural and man-made features within the watershed to determine general areas of suitability for infiltration practices.
 2. Provide field test to determine appropriate percolation rate and/or hydraulic conductivity

3. Design infiltration structure for required storm volume based on field determined capacity at the level of the proposed infiltration surface.

- D. Extreme caution shall be exercised where infiltration is proposed in geologically susceptible areas such as strip mine or limestone areas. Extreme caution shall also be exercised where salt or chloride would be a pollutant since soils do little to filter this pollutant and it may contaminate the groundwater. It is also extremely important that the qualified design professional evaluate the possibility of groundwater contamination from the proposed infiltration/recharge facility and recommend a hydrogeologic justification study be performed if necessary. Whenever a basin will be located in an area underlain by limestone, a geological evaluation of the proposed location shall be conducted to determine susceptibility to sinkhole formations. The design of all facilities over limestone formations shall include measures to prevent ground water contamination and, where necessary, sinkhole formation. The infiltration requirement in the High Quality/Exceptional Waters shall be subject to the Department's Chapter 93 and Antidegradation Regulations. The municipality may require the installation of an impermeable liner in detention basins. A detailed hydrogeologic investigation may be required by the municipality.

It shall be the developers responsibility to verify if the site is underlain by limestone. The following note shall be attached to all drainage plans and signed and sealed by the developers engineer/surveyor/geologist:

_____, certify that the proposed detention basin (circle one) is/is not underlain by limestone.

- E. The municipality may require the developer to provide safeguards against groundwater contamination for uses which may cause groundwater contamination should there be a mishap or spill.
- F. Where pervious pavement is permitted for parking lots, recreational facilities, non-dedicated streets, or other areas, pavement construction specifications and maintenance schedules shall be noted on the plan.
- G. Recharge/infiltration facilities may be used in conjunction with other innovative or traditional BMPs, stormwater control facilities, and nonstructural stormwater management alternatives.

Section 308. Water Quality Requirements

- A. In addition to the performance standards and design criteria requirements of Article III of this Ordinance, the land developer SHALL comply with the following water quality requirements of this Article unless otherwise exempted by provisions of this Ordinance.

Developed areas will provide adequate storage and treatment facilities necessary to capture and treat stormwater runoff. The Recharge Volume computed under Section 307 may be a component of the Water Quality Volume. If the Recharge Volume is less than the Water

Quality Volume, the remaining Water Quality Volume may be captured and treated by methods other than recharge/infiltration BMP's.

The Water Quality Volume (WQv) is the storage capacity needed to treat stormwater runoff produced by "P" inch of rainfall (90% Rule) from the developed areas of the site (For "P" Values, see Appendix B, Table B-5). The following calculation formula is used to determine the storage volume, WQv, in acre-feet of storage:

$$WQv = [(P)(R_v)(A)] / 12$$

WQv = Water Quality Volume

P=Rainfall Amount (90% of events producing this rainfall (Appendix B, Table B-5)

A = Area in acres

$R_v = 0.05 + 0.009(I)$ where I is the impervious surface ratio

- B. WQv shall be designed as part of a stormwater management facility which incorporates water quality BMP's as a primary benefit of using that facility, in accordance with design specifications contained in "Pennsylvania Handbook of Best Management Practices for Developing Areas".

The following factors SHALL be considered when evaluating the suitability of BMPs used to control water quality at a given development site:

1. Total contributing drainage area.
2. Permeability and infiltration rate of the site soils.
3. Slope and depth to bedrock.
4. Seasonal high water table.
5. Proximity to building foundations and well heads.
6. Erodibility of soils.
7. Land availability and configuration of the topography.

- C. The following additional factors SHOULD be considered when evaluating the suitability of BMPs used to control water quality at a given development site:

1. Peak discharge and required volume control.
2. Stream bank erosion.
3. Efficiency of the BMPs to mitigate potential water quality problems.
4. The volume of runoff that will be effectively treated.
5. The nature of the pollutant being removed.
6. Maintenance requirements.
7. Creation/protection of aquatic and wildlife habitat.
8. Recreational value.
9. Enhancement of aesthetic and property value.

Section 309. Stream Bank Erosion Requirements

Applying the water quality criteria in Section 308 above will also help the stream bank erosion problem. Detain the 2-year post-development storm to the one-year predevelopment storm and detaining the 1-year post-development storm a minimum of 24 hours.

ARTICLE IV-DRAINAGE PLAN REQUIREMENTS

Section 401. General Requirements

For any of the activities regulated by this Ordinance, the preliminary or final approval of subdivision and/or land development plans, the issuance of any building or occupancy permit, or the commencement of any land disturbance activity may not proceed until the Property Owner or Developer or his/her agent has received written approval of a Drainage Plan from the Municipality.

Section 402. Exemptions

Any Regulated Activity that meets the exception criteria in the following table is exempt from the provisions of this Ordinance. This criteria shall apply to the total development even if development is to take place in phases. The date of the municipal Ordinance adoption shall be the starting point from which to consider tracts as "parent tracts" in which future subdivisions and respective impervious area computations shall be cumulatively considered. An exemption shall not relieve the applicant from implementing such measures as are necessary to protect health, safety, and property. This exemption shall not relieve the applicant from meeting the special requirements for watersheds draining to high quality (HQ) or exceptional value (EV) waters (Section 301K) and requirements for groundwater recharge (Section 307), water quality (Section 308) and streambank erosion (Section 309). An exemption shall not relieve the applicant from providing adequate stormwater management to meet the purpose of this Ordinance; however, drainage plans will not have to be submitted to the municipality.

Stormwater Management Exemption Criteria

<u>Total Parcel Size</u>	<u>Impervious Area Exemption (sq.ft.)</u>
≤ 1/4 acre	2,500 sq. ft.
>1/4 to 1 acre	5,000 sq. ft.
>1 to 2 acres	10,000 sq. ft.
> 2 to 5 acres	15,000 sq. ft.
>5 acres	20,000 sq. ft.

ARTICLE V-INSPECTIONS

Section 501. Schedule of Inspections

- A. The Municipal Engineer or his municipal assignee shall observe all phases of the installation of the permanent stormwater management facilities as deemed appropriate by the Municipal Engineer.
- B. During any stage of the work, if the Municipal Engineer determines that the permanent stormwater management facilities are not being installed in accordance with the approved Stormwater Management Plan, the Municipality shall revoke any existing building permits until a revised Drainage Plan is submitted and approved, as specified in this Ordinance.

ARTICLE VII-MAINTENANCE RESPONSIBILITIES

Section 701. Performance Guarantee

The applicant should provide a financial guarantee to the Municipality for the timely installation and proper construction of all stormwater management controls as required by the approved stormwater plan and this ordinance equal to the full construction cost of the required controls.

Section 702. Maintenance Responsibilities

- A. The Drainage Plan for the development site shall contain an operation and maintenance plan prepared by the developer and approved by the municipal engineer. The operation and maintenance plan shall outline required routine maintenance actions and schedules necessary to insure proper operation of the facility(ies).
- B. The Drainage Plan for the development site shall establish responsibilities for the continuing operating and maintenance of all proposed stormwater control facilities.

**ORDINANCE APPENDIX B -
STORMWATER MANAGEMENT DESIGN CRITERIA**

**TABLE B-1
DESIGN STORM RAINFALL AMOUNT (INCHES)**
Source: "Field Manual of Pennsylvania Department of Transportation"
STORM INTENSITY-DURATION-FREQUENCY CHARTS
P D T - I D F" May 1986.

**FIGURE B-1
ALTERNATING BLOCK METHOD FOR
RAINFALL DISTRIBUTION**
Source: Applied Hydrology, Chow, Maidment, Mays, 1988

**FIGURE B-2
PENNDOT DELINEATED REGIONS**
Source: "Field Manual of Pennsylvania Department of Transportation"
STORM INTENSITY-DURATION-FREQUENCY CHARTS
P D T - I D F" May 1986.

**FIGURE B-3
REGION 3 PENNDOT STORM INTENSITY-DURATION-FREQUENCY CURVE**
Source: "Field Manual of Pennsylvania Department of Transportation"
STORM INTENSITY-DURATION-FREQUENCY CHARTS
P D T - I D F" May 1986.

**FIGURE B-4
REGION 4 PENNDOT STORM INTENSITY-DURATION-FREQUENCY CURVE**
Source: "Field Manual of Pennsylvania Department of Transportation"
STORM INTENSITY-DURATION-FREQUENCY CHARTS
P D T - I D F" May 1986.

**TABLE B-2
RUNOFF CURVE NUMBERS**
Source: NRCS (SCS) TR-55

**TABLE B-3
RATIONAL RUNOFF COEFFICIENTS**

**TABLE B-4
MANNING ROUGHNESS COEFFICIENTS**

**TABLE B-5
24-HOUR STORM VALUES REPRESENTING 90% OF ANNUAL RAINFALL**

TABLE B-1
Design Storm Rainfall Amount (Inches)

The design storm rainfall amount chosen for design should be obtained from the PennDOT region for which the site is located according to Figure B-2.

Source: "Field Manual of Pennsylvania Department of Transportation"
STORM INTENSITY-DURATION-FREQUENCY CHARTS
P D T - I D F" May 1986.

Duration	Region 3					
	Precipitation Depth (in)					
	1 Yr	2 Yr	5 Yr	10 Yr	25 Yr	50 Yr
5 min	0.32	0.35	0.40			0.58
15 min	0.60	0.70			1.13	1.24
1 hr	1.00	1.10			2.06	2.31
2 hrs	1.20				2.18	2.56
3 hrs				2.13	2.46	2.88
6 hr			2.16	2.64	3.06	3.60
12 hr		2.50	2.52	3.24	3.72	4.44
24 hr		2.64	3.12	3.84	4.56	5.52

Duration	Region 4						
	Precipitation Depth (in)						
	1 Yr	2 Yr	5 Yr	10 Yr	25 Yr	50 Yr	100 Yr
5 min	0.30	0.35	0.41	0.45	0.50	0.55	0.61
15 min	0.58	0.68	0.80	0.93	1.03	1.13	1.25
1 hr	1.01	1.22	1.48	1.70	1.91	2.16	2.41
2 hr	1.24	1.50	1.84	2.14	2.46	2.80	3.18
3 hr	1.38	1.71	2.10	2.43	2.82	3.24	3.69
6 hr	1.68	2.04	2.52	3.06	3.60	4.14	4.74
12 hr	2.04	2.52	3.00	3.84	4.56	5.16	6.00
24 hr	2.40	2.88	3.60	4.56	5.76	6.48	7.44

FIGURE B-1
ALTERNATING BLOCK METHOD FOR
RAINFALL DISTRIBUTION

Source: Applied Hydrology, Chow, Maidment, Mays, 1988

The Alternating Block Method can be utilized by to develop design hyetographs from the PennDOT Storm Intensity-Duration-Frequency (PDT-IDF) curves. This method redistributes the incremental rainfall values developed from the PDT-IDF curves in a quasi-symmetrical form, where the block of maximum incremental depth is positioned at the middle of the required duration and the remaining blocks of rainfall are arranged in descending order, alternately to the right and to the left of the central block. Example B-1 below shows this method for a 100-year, 2- hour duration storm with 20- minute time intervals.

Example B-1
100- Year, 2- hour duration storm Hyetograph Development
Region 3

(1)	(2)	(3)	(4)	(5)
Time	100- Yr Rainfall Intensity (inches/hr)	100 yr Rainfall Duration (inches)	Difference (inches)	Hyetograph (inches)
			0.00	0.00
		0.96	0.96	0.08
	4.34	1.45	0.49	0.11
30	3.52	1.76	0.31	0.14
40	2.98	1.99	0.23	0.18
50	2.60	2.17	0.18	0.31
60	2.31	2.31	0.14	0.96
70	2.10	2.45	0.14	0.49
80	1.91	2.55	0.11	0.23
90	1.76	2.64	0.09	0.14
100	1.65	2.76	0.12	0.12
110	1.55	2.84	0.08	0.09
120	1.44	2.88	0.04	0.04

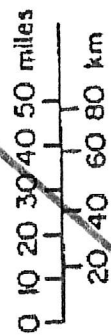
Notes :

Values from Column (2) are derived from the appropriate rainfall chart based on the location of the site under analysis. (Region 3 in this example, therefore use Figure B-3)

Column (3) = Column (2) * Column (1) / 60 minutes (i.e. 5.78 inches / hr * 10 min / 60 = 0.96).

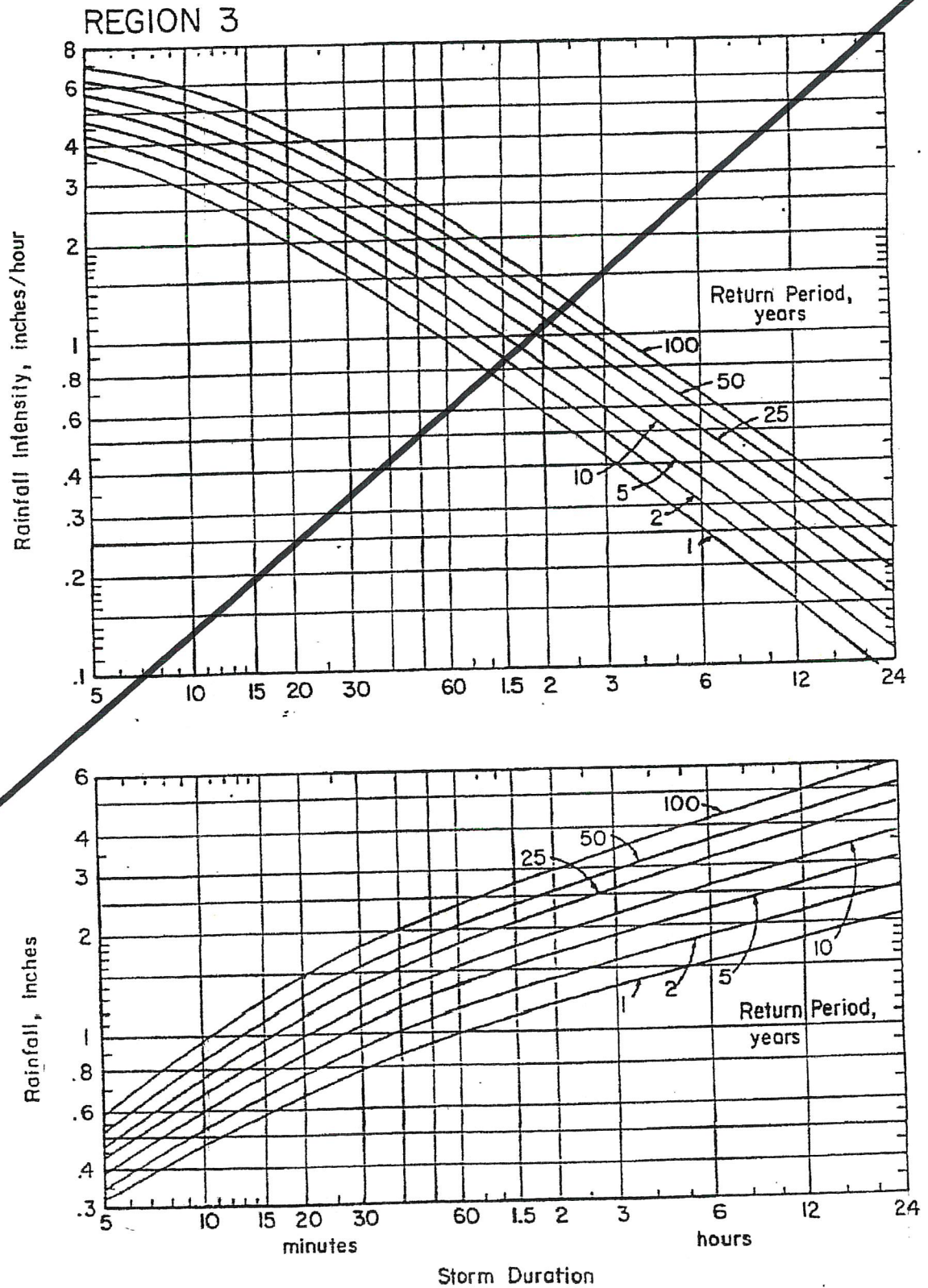
Column (4) = Difference in Column(3) for each time interval (i.e. 1.45 - 0.96 = 0.49).

Column (5) is Column (4) rearranged with the maximum increment from Column (4) placed at the middle of the event (Time = 60 minutes, in this example), then rearranging the remaining values from Column (4) in descending order, alternately right and left (below and above) the central block.



Refer to Section 510.D.(7) for source of Storm Frequency, Depth, Intensity data.

FIGURE B-3
PENNDOT STORM INTENSITY-DURATION-FREQUENCY CURVE



Refer to Section 510.D.(7) for source of Storm Frequency, Depth, Intensity data.

FIGURE B-4
PENNDOT STORM INTENSITY-DURATION-FREQUENCY CURVE

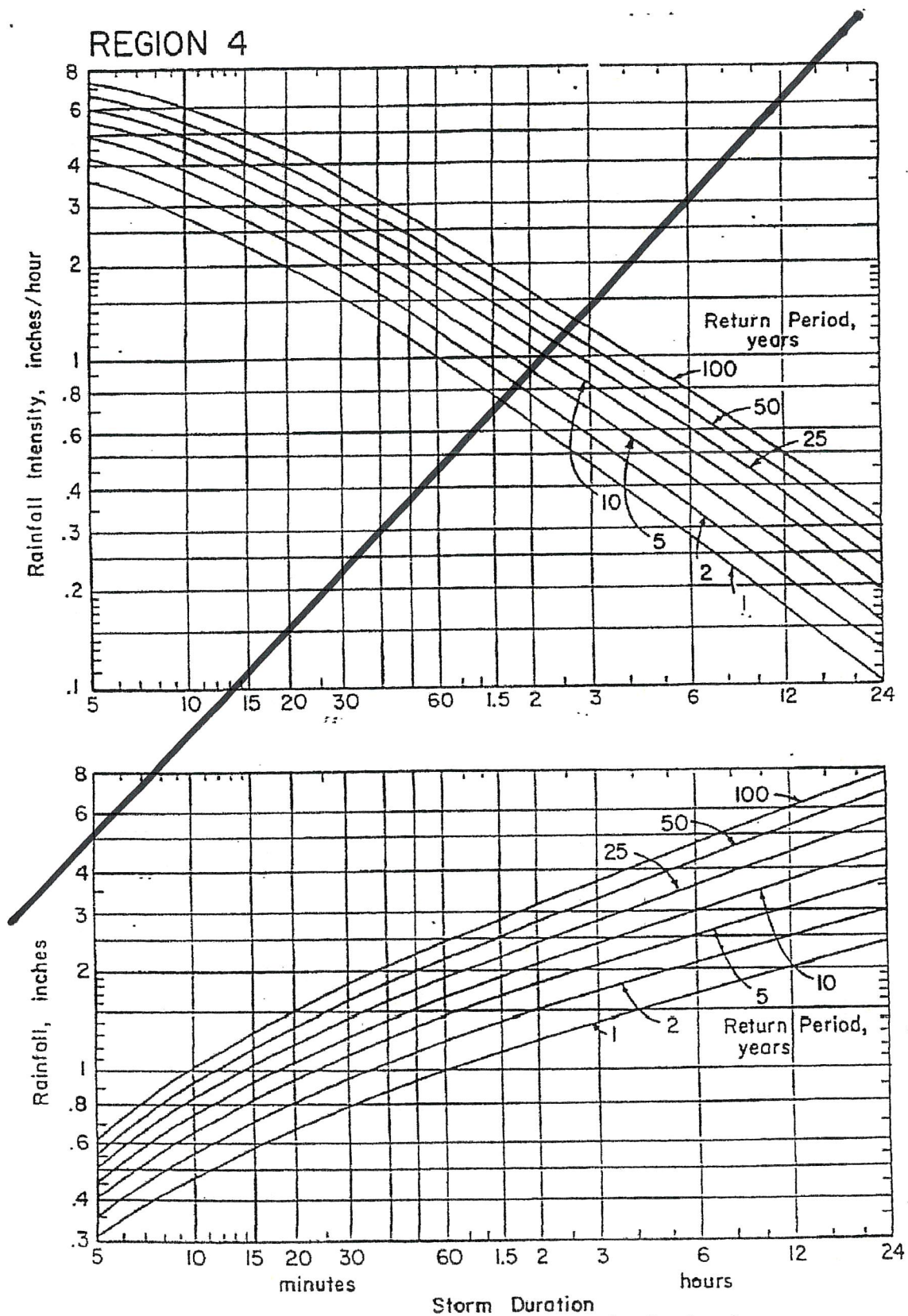


TABLE B-2
Runoff Curve Numbers
(From NRCS (SCS) TR-55)

LAND USE DESCRIPTION		HYDROLOGIC SOIL GROUP			
		A	B	C	D
Open Space		44	65	77	82
Orchard		44	65	77	82
Meadow		30**	58	71	78
Agricultural		59	71	79	83
Forest		36**	60	73	79
Commercial	(85% Impervious)	89	92	94	95
Industrial	(72% Impervious)	81	88	91	93
Institutional	(50% Impervious)	71	82	88	90
Residential					
Average Lot Size	% impervious				
1/8 acre or less	65	77	85	90	92
1/8 - 1/3 acre	34	59	74	82	87
1/3 - 1 acre	23	53	69	80	85
1 - 4 acres	12	46	66	78	82
Farmstead		59	74	82	86
Smooth Surfaces (Concrete, Asphalt, Gravel or Bare Compacted Soil)		98	98	98	98
Water		98	98	98	98
Mining/Newly Graded Areas (Pervious Areas Only)		77	86	91	94

* Includes Multi-Family Housing unless justified lower density can be provided.

** Caution - CN values under 40 may produce erroneous modeling results.

Note: Existing site conditions of bare earth or fallow shall be considered as meadow when choosing a CN value.

TABLE B-3 RATIONAL RUNOFF COEFFICIENTS

	HYDROLOGIC SOIL GROUP			
LAND USE DESCRIPTION	A	B	C	D
Cultivated Land : without conservation treatment	.49	.67	.81	.88
: with conservation treatment	.27	.43	.61	.67
Pasture or range land : poor condition	.38	.63	.78	.84
: good conditions	---*	.25	.51	.65
Meadow : good conditions	---*	---*	.44	.61
Wood or Forest Land : thin stand, poor cover, no mulch	---*	.34	.59	.70
: good cover	---*	---*	.45	.59
Open Spaces, lawns, parks, golf courses, cemeteries				
Good conditions : grass cover on 75% or more of the area	---*	.25	.51	.65
Fair conditions : grass cover on 50% to 75% of the area	---*	.45	.63	.74
Commercial and business areas (85% impervious)	.84	.90	.93	.96
Industrial districts (72% impervious)	.67	.81	.88	.92
Residential :				
Average lot size Average % Impervious				
1/8 acre or less 65	.59	.76	.86	.90
1/4 acre 38	.25	.49	.67	.78
1/3 acre 30	---*	.49	.67	.78
1/2 acre 25	---*	.45	.65	.76
1 acre 20	---*	.41	.63	.74
Paved parking lots, roofs, driveways, etc.	.99	.99	.99	.99
Streets and roads :				
Paved with curbs and storm sewers	.99	.99	.99	.99
Gravel	.57	.76	.84	.88
Dirt	.49	.69	.80	.84

Notes : Values are based on S.C.S. definitions and are average values.

Values indicated by “---” should be determined by the design engineer based on site characteristics.

Source : New Jersey Department of Transportation, Technical Manual for Stream Encroachment, August, 1984

Roughness Coefficients (Manning's "n") For Overland Flow (U.S. Army Corps Of Engineers, HEC-1 Users Manual)

Roughness Coefficients (Manning's "n") For Channel Flow

*depending upon type, coating and diameter

TABLE B-5

24-Hour Storm Values Representing 90 % of Annual Rainfall

(Source: PA Handbook of Best Management Practices for Developing Areas, 1998)

PennDOT Rainfall Region	P Inches
1	1.13
2	1.48
3	1.60
4	1.95
5	2.04

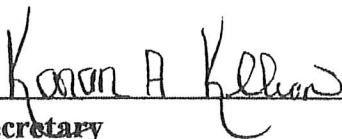
CERTIFICATE OF ADOPTION

I hereby certify that the following Amendments:

Article III, Section 306, Fees shall be revised to add reference to applicable Sections of the Pennsylvania Municipalities Planning Code, Article IV, Section 401, Plan Requirements shall be revised to require signatures of contiguous property owners on plans for lot additions, and to include the seal and signature of the professional responsible for plan preparation on the plans. Article IV, Section 402, Supporting Documentation shall be revised to include the requirement of a preliminary hydrogeologic study for all D.E.P. Planning Module submissions proposing on-lot sewage disposal. Article IV, Section 403, Required Plan Notations shall be revised to include a Plan Note regarding obstructions in the clear sight triangle of intersections. Article V, Section 503.D., Cul-De-Sacs or Dead End Streets shall be revised to include paving requirements for temporary turn-arounds. Article V, Section 503.P (3), Shoulder Area shall be revised to remove line painting requirements for shoulders. Article 8, Section 801., Completion of Improvements or Guarantee Thereof Prerequisite to Final Plat Approval shall be revised to remove security requirements for any improvement for which financial security is required by the Pennsylvania Department of Transportation.

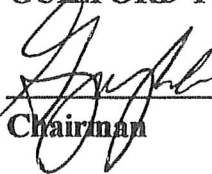
to the Guilford Township Subdivision and Land Development Ordinance (No. 99-1) were adopted by the Board of Supervisors of Guilford Township, Franklin County, Pennsylvania at their regular meeting on August 2, 2001. The Amendments have been incorporated into this copy.

ATTEST:



Secretary

**BOARD OF SUPERVISORS OF
GUILFORD TOWNSHIP**



Chairman


(Seal)

CERTIFICATE OF ADOPTION

Ordinance No. 2004 - 02

I hereby certify that the following Amendments:

Article V, Section 510.A. (1) Antietam Creek Storm Water District, shall be revised to refer to the Antietam Creek Watershed Storm Water Management Plan in Appendix A. The sentence "Where there is an apparent conflict in requirements the more stringent requirements will prevail". shall be added.

Article V, Section 510.A. (2), General Storm Water District, is removed in its entirety.

Article V, Section 510.A. (2), Conococheague Creek Storm Water District, shall be added in its entirety.

Appendix A., Antietam Creek Watershed Act 167 Stormwater Management Ordinance, shall be added.

Appendix B., Conococheague Creek Storm Water Management Plan, shall be added

to the Guilford Township Subdivision and Land Development Ordinance (No. 99-1) were adopted and enacted by the Board of Supervisors of Guilford Township, Franklin County, Pennsylvania at their regular meeting on July 1, 2004.

ATTEST:

Karan Kellon

**BOARD OF SUPERVISORS OF
GUILFORD TOWNSHIP**

[Signature]
[Signature]
Steven C. Rock

ORDINANCE NO. 2005-16

AN ORDINANCE OF THE TOWNSHIP OF GUILFORD, FRANKLIN COUNTY, PENNSYLVANIA. AMENDING ARTICLE IV AND ARTICLE V OF THE GUILFORD TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE, AS AMENDED, PERTAINING TO THE DEDICATION OF PARK AND RECREATION AREAS AND FEES IN LIEU THEREOF.

WHEREAS, the Board of Supervisors for Guilford Township has determined that it is in the best interest of the general public of the Township of Guilford (the "Township") to provide and ensure adequate park and recreation areas and facilities to serve the general public of Guilford Township; and

WHEREAS, the Pennsylvania Municipalities Planning Code allows the adoption of provisions in a subdivision and land development ordinance requiring public dedication of land, the construction of recreational facilities and, inter alia, the payment of fees in lieu thereof for park and recreation purposes; and

WHEREAS, the Board of Supervisors has formally adopted the Guilford Township Park and Recreation Plan 2005 necessary for the exercise of said authority hereunder;

NOW THEREFORE, BE IT HEREBY ENACTED AND ORDAINED, AND IT IS HEREBY ENACTED AND ORDAINED BY the Board of Township Supervisors for the Township of Guilford, Franklin County, as follows:

Article IV and Article V of the Guilford Township Subdivision and Land Development Ordinance, as amended, are hereby amended in their entirety as follows:

1. Section 402 – Add the following as item I.:

“I. Where the developer/applicant proposes the construction and dedication of recreational facilities or payment of fee in lieu thereof as set forth herein, plan notations shall be provided clearly identifying the selected alternative to comply with the applicable recreational requirements.

2. Renumber the existing section “512 Exceptions” to “513 Exceptions”
3. Add the following as Section 512:

“512 Recreational Requirements

Each subdivision and land development shall construct and dedicate recreational facilities and land or pay a fee-in-lieu of such construction and dedication to the Township in accordance with the following requirements:

A. Construction and Dedication of Recreational Facilities

1. Recreation Study: Where a sub-divider/developer proposes to construct and dedicate recreational facilities and land to the Township, a Recreation Study shall be submitted along with the Plan Submission, prepared by a professional with demonstrated experience in the planning and design of recreational facilities and amenities which addresses the following:
 - a.) Demographic Analysis: Identify the anticipated composition and characteristics of the occupants of the proposed subdivision or land development; the expected types of recreational amenities to be provided; and why the land where the recreational facilities are proposed adequately accommodates the recreational function *including attendant off street parking facilities*.
 - b.) Land Area Requirements for Dedication:
 - (1.) A minimum of 1,500 square feet of suitable recreation land shall be dedicated for each dwelling unit within a residential subdivision or land development.
 - (2.) A minimum of 10% of the net land area in any non-residential subdivision or land development shall be established for recreation.
 - (3.) Land offered for dedication shall be contiguous and shall not be less than *ten* (10) acres.
 - c.) Criteria for determining location and suitability.
 - (1.) The proposed recreation area to be dedicated shall comply with and be subject to the following criteria:
 - (a) Be easily and safely accessible, have good ingress and egress and have direct access to a public roadway.
 - (b) Be contiguous and regular in shape.
 - (c) Have suitable topography and soil conditions for use and development as a park or recreation area.
 - (d) A minimum of seventy-five percent (75%) of the required area shall *not exceed* a slope of seven percent (7%).
 - (e) No more than twenty-five (25%) of the required area may be within flood plain or wetland areas.
 - (f) Be served by all essential utilities, such as water, sewer and electric.
 - (g) Be compatible with the objectives, guidelines and recommendations as set forth in the Guilford Township Park and Recreation Plan, as amended.

d.) Land that is subject to one or more of the following features will disqualify it for acceptance for dedication as recreational land:

1. Park land dedication sites abutted by existing residential where in the judgment of the Board of Supervisors the character of the proposed recreation facility would not be compatible with the existing residential neighborhood.
2. Areas encumbered by overhead utility lines or easements of any type that might limit the opportunity for park and recreation development.
3. Land used or otherwise encumbered by hazardous and/or municipal waste materials or dumpsites.
4. *Land used for stormwater management structures.*

e.) **EXEMPTIONS:** The following subdivisions or land developments shall be exempt from the provisions of this Section:

- (1) Subdivision of land into two (2) or more lots appropriately restricted to agricultural purposes.
- (2) Subdivision of land into two (2) or more lots for the purpose of reconciling adjoining property lines or *lot* additions not involving additional development.
- (3) Subdivision or land development *of* the Township, municipal authority, *or school district.*
- (4) Expansion of an existing developed non-residential building and/or structures which is required to prepare a Land Development Plan.

f.) Construction and Dedication of Recreational Facilities

Where the sub-divider/developer proposes to construct and dedicate recreational facilities to the Township, the improvements shall be secured in accordance with the applicable provisions of Article VIII herein. Additionally, all land to be dedicated shall be free and clear of all liens, encumbrances and easements excepting however existing building restrictions, easements of roads; rights of public utility companies, if any. Otherwise the title to the land shall be good and marketable as will be insured by a reputable Title Insurance Company at the regular rates.

B. Payment of fee in lieu of dedication.

1. As an alternative to dedication of land and upon agreement with the Board of Supervisors, the developer or sub-divider may agree to pay a fee-in-lieu of dedication.
2. The cash payment in-lieu of land dedication shall be met by the payment as determined by resolution of the Board of Supervisors as duly amended from time to time based upon a per dwelling fee for residential units and a per acreage fee for non-residential subdivisions or land developments.
3. All fees paid hereunder shall be due and payable in full upon approval of the final subdivision or land development plan or phase or section thereof and shall be paid prior to the *release* of any plan for recording.
4. All monies paid to the Township pursuant to this section shall be deposited and utilized in accordance with the provisions and requirements of the Pennsylvania Municipalities Planning Code.

This ordinance shall become effective in accordance with applicable law.

ENACTED AND ORDAINED this 7 day of July, 2005.

TOWNSHIP OF GUILFORD

By: [Signature]
Chairman, Board of Township Supervisors

By: [Signature]

By: [Signature]

ATTEST:

[Signature]
Township Secretary

(Township Seal)

ORDINANCE NO. 2005-17

AN ORDINANCE OF THE TOWNSHIP OF GUILFORD, FRANKLIN COUNTY, PENNSYLVANIA AMENDING ARTICLE V OF THE GUILFORD TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE, AS AMENDED PERTAINING TO STREET CONSTRUCTION SPECIFICATIONS AND RELATED TERMS APPLICABLE TO DEVELOPMENT IN GUILFORD TOWNSHIP.

WHEREAS, the Board of Supervisors for Guilford Township has determined that it is in the best interest of the general public of the Township of Guilford (the "Township") to allow the for interim street surface construction consistent with sound engineering principles; and

WHEREAS, the Pennsylvania Municipalities Planning Code allows for the adoption of provisions in a subdivision and land development ordinance regulating standards by which streets shall be designed, graded and improved;

NOW, THEREFORE, BE IT HEREBY ENACTED AND ORDAINED, AND IT IS HEREBY ENACTED AND ORDAINED BY the Board of Township Supervisors for the Township of Guilford, Franklin County, as follows:

Article V of the Guilford Township Subdivision and Land Development Ordinance, as amended, is hereby amended as follows:

1. Section 503.P. – Add "(which may include an interim wearing course)" after the word 'pavement' in sentence four.
2. Section 503.P. – Add "final" before 'wearing course' at the end of sentence four.
3. Section 503.P. – Add "final" before 'wearing course' at the beginning of sentence five.
4. Section 503.P. – Replace 'pavement base' with "stone subbase" in the final sentence.
5. Section 503.P.(1),(b) – Replace 'Base.' With "Stone Subbase.".
6. Section 503.P.(1),(d) – Renumber and rename as "(e) Final Wearing Course.".

7. Section 503.P.(1),(d) – Add the following:

(d) Interim Wearing Alternative. Placement of an interim wearing surface Is not required, however if an interim wearing surface is to be placed Then it must be included on the standard pavement section in the Approved land development plans. The interim wearing course shall Be a minimum of one and one-half (1.5) inches of ID-2 wearing course, Rolled and compacted and shall be placed a minimum of twenty-eight (28) feet wide for cartway and shoulder construction.

8. Section 503.P.(1),(e) – Renumber ‘(e) Alternative Paving.’ As “(f) Alternative Paving.”.

9. Section 503.P.(2),(b) – Replace ‘Subbase.’ With “Stone Subbase.”.

10. Section 503.P.(2),(d) – Renumber and rename as “(e) Final Wearing Course.”.

11. Section 503.P.(2),(d) – Add the following: •

(d) Interim Wearing Alternative. Placement of an interim wearing surface Is not required, however if an interim wearing surface is to be placed Then it must be included on the standard pavement section in the Approved land development plans. The interim wearing course shall Be a minimum of one and one-half inches of ID-2 wearing course, Rolled and compacted and shall be placed a minimum of thirty-six (36) feet wide for cartway and shoulder construction.

ENACTED AND ORDAINED this 7 day of July, 2005.

TOWNSHIP OF GUILFORD

By: [Signature]
Chairman, Board of Township Supervisors

By: [Signature]

By: [Signature]

ATTEST:

[Signature]
Township Secretary

(Township Seal)

ORDINANCE NO. 2005-18

AN ORDINANCE OF THE TOWNSHIP OF GUILFORD, FRANKLIN COUNTY, PENNSYLVANIA AMENDING ARTICLE II OF THE GUILFORD TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE, AS AMENDED PERTAINING TO THE DEFINITIONS OF SEWAGE AND WATER FACILITIES AND RELATED TERMS APPLICABLE TO DEVELOPMENT IN GUILFORD TOWNSHIP.

WHEREAS, the Board of Supervisors for Guilford Township has determined that it is in the best interest of the general public of the Township of Guilford (the "Township") to regulate the location and ownership of certain sewer and water facilities consistent with sound land use planning principles; and

WHEREAS, the Pennsylvania Municipalities Planning Code allows for the adoption of provisions in a subdivision and land development ordinance regulating certain sewer and water facilities.

NOW, THEREFORE, BE IT HEREBY ENACTED AND ORDAINED, AND IT IS HEREBY ENACTED AND ORDAINED BY the Board of Township Supervisors for the Township of Guilford, Franklin County, as follows:

Article II of the Guilford Township Subdivision and Land Development Ordinance, as amended, is here by amended by adding the following definitions:

1. "Sewer Authority – The Guilford Township Authority, established under the Municipalities Authorities Act of 1945, which provides, maintains, owns or operates sewage facilities."
2. "Sewage Facilities – A system of sewage collection, conveyance, treatment and disposal which will prevent the discharge of untreated or inadequately treated sewage or other waste into waters of this Commonwealth or otherwise provide for the safe and sanitary treatment and disposal of sewage or other wastes consistent with the Sewage Management Program of Guilford Township."

The term includes:

- (i) On-Lot Sewage Disposal System – A system of piping, tanks or other facilities serving a single lot and collecting and disposing of sewage in whole or in part into the soil or into waters of this Commonwealth or by means of conveyance to another site for final disposal.

- (ii) Public Sewage System – A sewage facility owned by the Sewer Authority for the collection of sewage from two or more lots, or two or more equivalent dwelling units and the treatment or disposal, or both, of the sewage on one or more of the lots or at another site.”
3. “Sewage Management Program – A program authorized by the official action of Guilford Township for the administration, management and regulation of the disposal of sewage.”
4. “Public Water System – A system which provides water to the public for human consumption owned by the Guilford Water Authority or another municipal entity providing public water service within Guilford Township.”

ENACTED AND ORDAINED this 7 day of July, 2005.

TOWNSHIP OF GUILFORD

By: [Signature]
Chairman, Board of Township Supervisors

By: [Signature]

By: [Signature]

ATTEST:

[Signature]
Township Secretary

(Township Seal)

ORDINANCE NO. 2008-9

AN ORDINANCE OF THE TOWNSHIP OF GUILFORD, FRANKLIN COUNTY, PENNSYLVANIA. AMENDING ARTICLE IV OF THE GUILFORD TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE, AS AMENDED, PERTAINING TO PLAN REQUIREMENTS.

WHEREAS, the Board of Supervisors for Guilford Township has determined that it is in the best interest of the general public of the Township of Guilford (the "Township") to provide requirements for subdivision and land development plat preparation; and,

WHEREAS, the Pennsylvania Municipalities Planning Code allows for the adoption of provisions in the subdivision and land development ordinance governing the specifications, submittal and processing of plats;

NOW THEREFORE, BE IT HEREBY ENACTED AND ORDAINED, AND IT IS HEREBY ENACTED AND ORDAINED BY the Board of Township Supervisors for the Township of Guilford, Franklin County, as follows:

Article IV of the Guilford Township Subdivision and Land Development Ordinance, as amended, is hereby amended as follows:

1. Section 401.R. – Remove in its entirety the following sentence, "Where new streets are proposed, the owner/developer shall install a four (4) inch paint or tape stripe to mark the separation of the travel lanes from the shoulder areas."
2. Section 403. – Add the following:

"K. Guilford Township hereby acknowledges that the storm water management plan as proposed herein meets and is consistent with the Township's ordinances relating to storm water management. Developer/Applicant and Township acknowledge that this Plan may require a National Pollutant Discharge Elimination System (NPDES) permit from the Department of Environmental Protection, Commonwealth of Pennsylvania. As a result of the NPDES permit program, the storm water management plan as proposed may be changed and/or altered. If the NPDES permit program requirements result in changes and/or alterations, the Applicant/Developer shall submit the changes and/or alterations from the storm water management plan to the Township and Township's engineer for review and approval. Similarly, if the storm water management plan is changed and/or altered as a result of PennDOT requirements, the Applicant/Developer shall submit the changes and/or alterations from the storm water management plan to the Township and Township's engineer for review and approval.

- L. By approval of this Plan including the storm water management plan as proposed, the Township takes no position on the legality of the effect of the storm water management plan regarding adjacent property owners.
- M. Where landscaping is required as provided for in Section 513 of this Ordinance, such landscaping shall be installed and continuously maintained in accordance with the applicable regulations. A notation shall be placed on the Final Plans to be approved by the Township clearly stating the initial and on-going responsibility of the owner/developer to comply with the landscaping regulations as a continuous condition of Subdivision and Land Development approval.”.

This ordinance shall become effective in accordance with applicable law.

ENACTED AND ORDAINED this 18 day of December, 2008.

TOWNSHIP OF GUILFORD

By: [Signature]
Chairman, Board of Township Supervisors

By: [Signature]

By: [Signature]

ATTEST:

[Signature]
Township Secretary

(Township Seal)

ORDINANCE NO. 2008-10

AN ORDINANCE OF THE TOWNSHIP OF GUILFORD, FRANKLIN COUNTY, PENNSYLVANIA AMENDING ARTICLE V OF THE GUILFORD TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE, AS AMENDED, PERTAINING TO LANDSCAPING REQUIREMENTS AND SPECIFICATIONS AND CUL-DE-SAC STREET DESIGN APPLICABLE TO DEVELOPMENT IN GUILFORD TOWNSHIP.

WHEREAS, the Board of Supervisors for Guilford Township has determined that it is in the best interest of the general public of the Township of Guilford (the "Township") to allow for snow removal areas on cul-de-sac streets consistent with sound engineering principles; and,

WHEREAS, the Board of Supervisors for Guilford Township has determined that it is in the best interest of the general public of the Township of Guilford (the "Township") to require landscaping within land developments consistent with sound engineering principles; and,

WHEREAS, the Pennsylvania Municipalities Planning Code allows for the adoption of provisions in a subdivision and land development ordinance regulating standards by which streets and land developments shall be designed;

NOW, THEREFORE, BE IT HEREBY ENACTED AND ORDAINED, AND IT IS HEREBY ENACTED AND ORDAINED BY the Board of Township Supervisors for the Township of Guilford, Franklin County, as follows:

Article V of the Guilford Township Subdivision and Land Development Ordinance, as amended, is hereby amended as follows:

1. Section 503.D.(3) – Add "A "Snow Removal Easement", free of obstructions, driveways, etc., shall be provided on the circular turn-around and have a minimum area of 600 sq.ft.".
2. Section 513 EXCEPTIONS – Renumber as "514 EXCEPTIONS".
3. Section 513 (NEW) – Shall read as follows:

“513 LANDSCAPING

- A. Purpose – The intent of these landscaping requirements is to promote compatible and attractive development within Guilford Township.
- B. Scope and Requirements – A Landscape Plan shall be required for each subdivision or land development plan. In addition to other Plan requirements set forth in this Ordinance, the following is required for submission:
 - (1) Except for single-family detached and single-family semi-detached any part or portion of a site which is not used for buildings or other structures, loading and parking spaces and aisles, sidewalks, and designated storage areas shall be landscaped according to an overall plan, prepared and approved as part of the Subdivision or Land Development Plan.
 - (2) A replacement program for non-surviving plants should be included as part of the Landscape Plan.
 - (3) The type(s) of plantings shall be limited or carefully selected for locations where they will not be disturbed or contribute to conditions hazardous to the public safety. Such locations include, but shall not be limited to, public rights-of-way; underground and above-ground utilities; and sight triangle areas required for unobstructed views at street and driveway intersections.
 - (4) Screening, Buffer Yards and Planting Strips – screening, buffer yards and planting strips are required, but not limited to, the following conditions:
 - (a) Screening, where required
 - (i) Around all open sides of any common utility yard and outdoor equipment or refuse storage area.
 - (ii) All service, delivery, loading and outdoor storage and trash disposal areas shall be screened from all residential districts, public streets, parking lots and pedestrian walkways. These areas shall be screened from the above listed places by the use of fences, walls, berms, evergreen plant material, or a combination of these.
 - (iii) All mechanical equipment not enclosed in a structure shall be completely screened in a manner compatible with the architectural and landscaping style of the remainder of the lot.

(b) Buffer Yards, where required

- (i) Where a proposed commercial, industrial, or institutional use abuts an existing residential use or district.
- (ii) Where any proposed multi-family residential use abuts an existing single-family detached or single-family semi-detached residential use.

(c) Planting Strip, where required

- (i) All commercial, industrial, institutional, and non-residential uses shall be separated from all side and rear property lines and all street right-of-way lines by a planting strip having a minimum width of ten (10) feet measured from the property line or right-of-way line.
- (ii) Said planting strip shall only be broken by approved entrances or exits.

(d) Screening and Landscaping of Parking Lots

- (i) Screening along street rights-of-way. All parking lots with more than ten (10) spaces shall be screened from any street right-of-way by a landscape screen to be installed within a ten (10) feet wide planting strip measured from the right-of-way line. The landscape screen may be composed of a combination of shrubs, trees, and earthen berms.
- (ii) The landscape screen shall be broken only at points of vehicular or pedestrian access.
- (iii) Parking lot interior landscaping. All parking lots with twenty (20) or more spaces shall be provided with interior landscaped areas equal to ten (10) square feet for each parking space, excluding those spaces located directly along the perimeter for which landscape screens have been provided. The intent of this Section is to require landscaping within parking lots; therefore, landscaping screens, planting strips and landscaping surrounding buildings shall not be considered as interior landscaping.
 - (1) The interior landscaping shall be provided within curbed island planters having a minimum area of one-hundred (100) square feet.

- (2) The interior parking lot landscaping shall be placed so as to delineate driving lanes, define rows of parking, and generally mitigate the visual impact of parking lots.
- (3) The interior parking lot landscaping shall be composed of a combination of shrubs and trees. At least one shade or ornamental tree shall be required for each twenty (20) parking spaces.

C. Specifications –

- (1) All plantings and maintenance thereof shall be performed in conformance with good nursery and landscape practices.
- (2) All trees at the time of planting shall have a minimum trunk diameter of one and one-half (1.5) inches at a height of six (6) inches above finished grade.
- (3) Species selection shall be based upon the existing site conditions including the site geology, hydrology, and soils as well as functional considerations of screening and buffer yards and architectural compatibility.
- (4) Trees and shrubs used for screening shall consist of at least fifty (50) percent evergreen trees and shrubs and shall be so arranged as to provide an immediate visual screen of fifty (50) percent. Evergreen trees shall be at least six (6) feet in height at the time of planting and shrubs shall have a minimum height of three (3) feet at the time of planting. Linear spacing of trees shall be fifteen (15) feet maximum. Parallel rows of trees shall be staggered and separated by eight (8) feet maximum.
- (5) No plantings shall be placed with their center closer than five (5) feet from the property line of the tract, including road right-of-way's.
- (6) Vegetative screens shall be perpetually maintained during the period the principal use causing the need for screening is in operation. Any plant material that does not survive shall be replaced within six (6) months.
- (7) Walls, ornamental structures, fences, and berms, or a combination of these, not less than six (6) feet in height may be used in combination with appropriate plant material.
- (8) In order for the Township to determine compliance with the requirements of this Section, a plan shall be submitted showing the proposed design of the landscape screen. Said plan shall include a plant schedule and sufficient information as required for the installation of the screen.”

ENACTED AND ORDAINED this 18 day of December, 2008.

TOWNSHIP OF GUILFORD

By: [Signature]
Chairman, Board of Township Supervisors

By: [Signature]

By: [Signature]

ATTEST:

[Signature]
Township Secretary

(Township Seal)

ORDINANCE NO. 2010-02

AN ORDINANCE OF THE TOWNSHIP OF GUILFORD, FRANKLIN COUNTY, PENNSYLVANIA. AMENDING ARTICLE IV OF THE GUILFORD TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE, AS AMENDED, PERTAINING TO DESIGN STANDARDS.

WHEREAS, the Board of Supervisors for Guilford Township has determined that it is in the best interest of the general public of the Township of Guilford (the "Township") to provide requirements for subdivision and land development design standards; and,

WHEREAS, the Board of Supervisors for Guilford Township has adopted and amended an Official Map of Guilford Township in accordance with applicable requirements of the Pennsylvania Municipalities Planning Code; and,

WHEREAS, the Pennsylvania Municipalities Planning Code allows for the adoption of provisions in the subdivision and land development ordinance governing design standards, development coordination and Official Map consistency;

NOW THEREFORE, BE IT HEREBY ENACTED AND ORDAINED, AND IT IS HEREBY ENACTED AND ORDAINED BY the Board of Township Supervisors for the Township of Guilford, Franklin County, as follows:

Article V of the Guilford Township Subdivision and Land Development Ordinance, as amended, is hereby amended as follows:

1. Section 502 – Change the section title to read in its entirety as follows:
"COORDINATED DEVELOPMENT and OFFICIAL MAP CONSISTENCY"
2. Section 502 – Add the following sentence:

"Proposed projects shall be consistent with the applicable features and elements set forth on the Official Map of Guilford Township."
3. Section 503.C.(1) – At the end of the first sentence after the word 'Ordinance' add the following, "and the Official Map of Guilford Township."

This ordinance shall become effective in accordance with applicable law.

ENACTED AND ORDAINED this 15th day of July, 2010.

TOWNSHIP OF GUILFORD

By: _____

Gary Stark
Chairman, Board of Township Supervisors

By: _____

By: _____

Paul Dobb
Steven C. Rock

ATTEST:

Karen Helden
Township Secretary

(Township Seal)

AN ORDINANCE AMENDING ARTICLE 7 OF ORDINANCE NO. 99-1, AMENDED BY ORDINANCE NO. 2001-02, AMENDED BY ORDINANCE NO. 2004-02, AND AMENDED BY ORDINANCES NO. 2005-16, 2005-17, AND 2005-18, WHICH ORDINANCE AND AMENDMENTS THERETO REGULATE THE LAND SUBDIVISION AND DEVELOPMENT.

WHEREAS, pursuant to its powers under laws of the Commonwealth of Pennsylvania, the general supervision of the affairs of Guilford Township, Franklin County, Commonwealth of Pennsylvania, is in the hands of its Board of Supervisors; and

WHEREAS, said Board deems it to be in the best interest of the public health, safety, and welfare to amend the aforesaid Ordinance to comply with Federal and State Floodplain Management requirements.

NOW THEREFORE, BE IT ENACTED AND ORDAINED, by the Board of Supervisors for Guilford Township, Franklin County, Pennsylvania, that Article 7 of Ordinance No. 99-1, as subsequently amended (hereinafter the Subdivision and Land Development Ordinance) shall be as follows:

SECTION I: Article 7 of the Guilford Township Subdivision and Land Development Ordinance, entitled "Floodplain Area Regulations" shall be removed and replaced with the following:

ARTICLE VII

701. Any subdivision or land development occurring within a flood plain as identified in Ordinance 2011-08, the Flood Plain Management Ordinance, as amended from time to time, shall be in strict conformity with the provisions of the Subdivision and Land Development Ordinance and the Flood Plain Management Ordinance.

702. MODIFICATIONS WITHIN FLOOD PLAIN DISTRICTS

1. General. If literal compliance with any of this Article's requirements or the Subdivision and Land Development requirements contained within the Floodplain Management Ordinance would result in an excessive hardship upon any prospective builder, developer, or landowner, the Township Supervisors may, upon written request, grant relief from the requirement in question. Notwithstanding any of the following

procedures, all structures shall be designed and constructed to withstand the one hundred (100) year flood.

2. Procedures.


- A. Requests for modification of requirements of this Article or the Floodplain Management Ordinance shall be reviewed by the Township in accordance with Article IX, including the appeals procedures in Section 904, and in accordance with the special considerations of Section 7.01 of the Township Land Use Permit Ordinance.
- B. A complete record of all modification requests and subsequent actions shall be maintained by the Township. An annual report of all modifications granted with respect to this Article shall be forwarded to the Federal Emergency Management Agency.

SECTION II: REPEALER. All provisions of previous Ordinances of Guilford Township which are contrary to this Ordinance are expressly repealed.

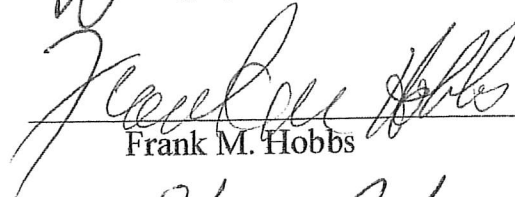
SECTION III: SEVERABILITY. If any section, subsection, paragraph, sentence clause, or phrase of this Ordinance shall be declared invalid for any reason whatsoever, such decision shall not effect the remaining portions of this Ordinance, which shall remain in full force and effect, and for this purpose the provisions of this Ordinance are hereby declared to be severable.

SECTION IV: EFFECTIVE DATE. This Ordinance shall be effective on January 18, 2012, and shall remain in force until modified, amended or rescinded by Guilford Township, Franklin County, Pennsylvania.

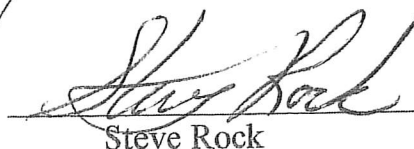
ENACTED AND ORDAINED this 15th day of December, 2011 by the Board of Supervisors of Guilford Township, Franklin County, Pennsylvania in lawful session duly assembled.



Gregory L. Cook



Frank M. Hobbs



Steve Rock

AN ORDINANCE AMENDING ARTICLE II, ARTICLE V, ARTICLE VI, AND ARTICLE VIII OF ORDINANCE NO. 99-1, AMENDED BY ORDINANCE NO. 2001-02, AS SUBSEQUENTLY AMENDED, WHICH ORDINANCE AND AMENDMENTS THERETO REGULATE THE LAND SUBDIVISION AND DEVELOPMENT.

WHEREAS, pursuant to its powers under laws of the Commonwealth of Pennsylvania, the general supervision of the affairs of Guilford Township, Franklin County, Commonwealth of Pennsylvania, is in the hands of its Board of Supervisors; and

WHEREAS, Article V of the Pennsylvania Municipalities Planning Code entitled "Subdivision and Land Development" 53 P.S. §10501 *et. seq.* authorizes the Township to regulate subdivision and land development within the Township; and

WHEREAS, said Board deems it to be in the best interest of the public health, safety, and welfare to amend the aforesaid Ordinance.

NOW THEREFORE, BE IT ENACTED AND ORDAINED, by the Board of Supervisors for Guilford Township, Franklin County, Pennsylvania, that Article II, Article V, Article VI and Article VIII of Ordinance No. 99-1, as subsequently amended (hereinafter the Subdivision and Land Development Ordinance) shall be as follows:

SECTION I: Article II of the Guilford Township Subdivision and Land Development Ordinance entitled "Definition of Terms", Section 202 entitled "Specific Definitions" shall be amended by adding the following terms and definitions, in appropriate alphabetical sequence, as follows:

BUFFER YARD (See also SCREENING): A landscaped area intended to separate and partially obstruct the view of two adjacent land uses or properties from one another. A strip of land, identified on a site plan or by a zoning ordinance, established to separate visually one type of land use from another land use that is incompatible. Normally, the area is landscaped and kept in open space use. Required plantings, fences and/or mounds shall be six (6) foot (minimum) height at planting or installation. Existing trees and shrubs, on the subject property may be accounted for in the required landscaped area.

LANDSCAPING: For the purpose of this Ordinance, landscaping is composed primarily of trees, shrubs and other plantings which serve to provide aesthetic appeal and to safeguard public health, safety and welfare, by serving as a buffer between uses, controlling erosion, reducing glare, lowering temperature, softening sound, diverting wind and reducing pollutants. A landscaping layout may contain other elements including water, timber, rocks, grass and street furniture.

PLANTING STRIP: An area landscaped with ground cover and plant material that does not include any impervious cover except for the crossing of approved entrance/exit driveways.

SCREENING (See also BUFFER YARD): The method by which a view or element of one site is partially shielded, concealed, or hidden from an adjacent site or adjacent element. Screening may include one or a combination of materials such as walls, berms, mounds, and plantings provided such materials are sufficiently dense within 12 months of installation. Plantings, fences, walls, and/or mounds shall be a minimum height of six (6) feet upon planting or installation.

SECTION II: Article V of the Guilford Township Subdivision and Land Development Ordinance entitled "Design Standards", Section 503 D. (3) entitled "Cul-de-sacs or Dead End Streets"; Section 503 S. (1) entitled "Residential Streets" (c)(d)(e)(f); Section 503 S. (2) entitled "Commercial and Industrial Streets" (c)(d)(e); Section 506 entitled "Lot Width and Setback Distances"; Section 509 D. entitled "Protection of the Falling Spring Creek and Drainage Basin"; Section 510 entitled "Erosion Control and Stormwater Management" A.(1)(2) and D.(2)(7); Section 512 entitled "Recreational Requirements" A. e.)(5); Section 513 entitled "Landscaping" (B)(C); shall be amended in their respective entirety and read as follows:

Section 503 D. Cul-de-sacs or Dead End Streets

- (3) There shall be no more than three (3) driveways off the circular turn around. Any lots designed with frontage on both the circular turn around and the street leading to it shall be allowed driveway access only to the street portion of the frontage and not to the circular turn around. Mailboxes for the three lots on the circular turn-around shall be located together at one location on a single pedestal. A notation shall be made on the plan regarding any such lots, mailbox and driveway locations shall be shown on the plan drawing for any such lots.

No panhandle lots shall be accessed from the circular turn around. A "Snow Removal Easement", free of obstructions including above-ground utility cabinets, driveways, etc., shall be provided on the circular turn-around and have a minimum area of 600 sq.ft.

Section 503 S. (1) Residential Streets

- (c) Binder. A minimum of three and one-half (3.5) inches of 25 mm Hot or Warm Superpave Mix, rolled and compacted, shall be placed a minimum of twenty-eight (28) feet wide for cartway and shoulder construction.
- (d) Interim Wearing Alternative. Placement of an interim wearing surface is not required, however, if an interim wearing surface is to be placed, then it must be included on the standard pavement section in the approved land development plans. The interim wearing course shall be a minimum of one and one-half (1.5) inches of 9.5 mm Hot or Warm Superpave Mix, rolled and compacted and shall be placed a minimum of twenty-eight (28) feet wide for cartway and shoulder construction.
- (e) Final Wearing Course. A minimum of two (2.0) inches of 9.5 mm Hot or Warm Superpave Mix, rolled and compacted shall be placed a minimum of twenty-eight (28) feet wide for cartway and shoulder construction.

- (2) Conococheague Creek Storm Water District-All land development occurring in Guilford Township located within the Conococheague Creek Watershed shall comply with the Conococheague Creek Storm Water Management Plan (Appendix B) and all other applicable provisions of this Ordinance. Where there is an apparent conflict in requirements the requirements used will be subject to the review and recommendation of the Township Engineer.

D. Standards.

- (2) Using Tables B-2 or B-3 in the attached Conococheague Watershed Study (Appendix B), all pre-development calculations shall be based upon existing land use features, excepting however, that agricultural uses shall be categorized by the following descriptions:

Cultivated land uses with contouring, terracing and crop residue in good condition.

- Pasture, grassland or range, in good condition.
- Meadow, in good condition.
- Woods, in good condition.
- Farmstead.

- (7) Storm water runoff calculations in both the Antietam Creek Storm Water district (Appendix A) and the Conococheague Creek Storm Water district (Appendix B) shall be based upon the following:

The design storm precipitation depth and intensity estimates to be used in the analysis of peak rates of discharge should be obtained from the Precipitation-Frequency Atlas of the United States, Atlas 14, Volume 2, U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), National Weather Service Hydrometeorological Design Studies Center, Silver Spring, Maryland, 20910. NOAA's 14 can be accessed at Internet address: [Http://hdsc.nws.noaa.gov/hdsc/pfds/](http://hdsc.nws.noaa.gov/hdsc/pfds/).

Section 512 A. Construction and Dedication of Recreational Facilities

1. e.) (5) Land Development Plans appropriately restricted to agricultural purposes.

f). Construction and Dedication of Recreational Facilities.

Where the sub-divider/developer proposes to construct and dedicate recreational facilities to the Township, the improvements shall be secured in accordance with the applicable provisions of Article VIII herein. Additionally, all

land to be dedicated shall be free and clear of all liens, encumbrances and easements excepting however existing building restrictions, easements of roads; rights of public utility companies, if any. Otherwise the title to the land shall be good and marketable as will be insured by a reputable Title Insurance Company at the regular rates, in a manner deemed appropriate by the Solicitor.

Section 513 Landscaping

B. Exemptions –

- (1) Those areas of a subdivision or land development plan that are restricted to single-family detached or single-family semi-detached residential structures are exempt from the landscaping requirements contained herein.
- (2) Those areas of a subdivision or land development plan that are restricted to agricultural uses only are exempt from the landscaping requirements contained herein.

C. Scope and Requirements – A Landscaping Plan shall be required for all portions of subdivision or land development plans not meeting the requirements of Sections 513.B.1. and 513.B.2. above. In addition to the other requirements Set forth in this Ordinance, the Plans must include the following:

(1) Any part or portion of a site which is not considered to be impervious or which is designated as storage area shall be landscaped according to a Subdivision or Land Development Plan that is reviewed and approved by the Township.

(2) A replacement program for non-surviving plants and/or trees.

(3) Screening, Buffer Yards and Planting Strips are required, but not limited to, the following conditions:

(a) Screening -

(i) Service, delivery, loading, outdoor storage and refuse storage areas shall be screened from all adjacent residential districts, and residential uses.

(ii) Mechanical equipment and trash disposal areas not enclosed in a structure shall be completely screened.

SECTION III: Article VI of the Guilford Township Subdivision and Land Development Ordinance entitled "Mobile Home/Manufactured Home Park Regulations and Mobile

Homes not Located in a Mobile Home Park", Section 617 entitled Fees for Mobile Home Park Permits shall be amended in its entirety and read as follows:

Section 617 FEES FOR MOBILE HOME PARK PERMITS

Fees for the Initial Permit Application and any renewal thereof as well as fees for individual mobile homes placed in the Park will be in accordance with a Resolution of the Board of Supervisors as amended from time to time.

Section 617 A. RESERVED
 B. RESERVED

SECTION IV: Article VIII of the Guilford Township Subdivision and Land Development Ordinance entitled "Improvement and Construction Requirements", Section 801 entitled "Completion of Improvements or Guarantee Thereof Prerequisite to Final Plat Approval" Subsection H, K and Section 804 entitled "Dedication of Improvement" shall be amended in its entirety and read as follows:

Section 801

- H. As the work of installing the required improvements proceeds, the party posting the financial security may request the governing body to release or authorize the release, from time to time, such portions of the financial security necessary for payment of the contractor or contractors performing the work. Any such requests shall be in writing addressed to the governing body, and the governing body shall have forty-five days from receipt of such request within which to allow the Township engineer to certify, in writing, to the governing body that such portion of work upon the improvements has been completed in accordance with the approved plat. Upon receipt of such certification the governing body shall authorize release by the bonding company or lending institution of an amount as estimated by the Township engineer fairly representing the value of the improvements completed, or if the governing body fails to act within said forty-five day period, the governing body shall be deemed to have approved the release of funds as requested. The governing body may, prior to final release at the time of completion and certification by its engineer, retain ten percent of the original amount of the posted financial security for the aforesaid improvements.

- K. Where the governing body accepts dedication of all or some of the requirements following completion, the governing body may require the posting of financial security to secure structural integrity of said dedicated improvements as well as the functioning of said dedicated improvements in accordance with the design and specifications as depicted on the final plat for a term not to exceed eighteen months from the date of acceptance of dedication. Said financial security shall be of the same type as otherwise required in this section with regard to installation of such improvements, and the amount of the financial security shall not exceed

fifteen percent of the actual cost of installation of said dedicated improvements.

Section 804 Dedication of Improvements

With any offer of dedication of municipal improvements, the subdivider or developer shall furnish the Township or appropriate Authority having jurisdiction a Deed of Easement and/or dedication in accordance with the standards of the Township or Authority, in a form acceptable to the Solicitor.

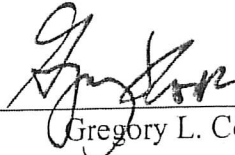
SECTION V: REPEALER. All provisions of previous Ordinances of Guilford Township which are contrary to this Ordinance are expressly repealed.

SECTION VI: SEVERABILITY. If any section, subsection, paragraph, sentence clause, or phrase of this Ordinance shall be declared invalid for any reason whatsoever, such decision shall not effect the remaining portions of this Ordinance, which shall remain in full force and effect, and for this purpose the provisions of this Ordinance are hereby declared to be severable.


SECTION VII: SAVINGS CLAUSE. In all other respects, the Ordinance of Guilford Township shall remain as previously enacted and ordained.

SECTION VIII: EFFECTIVE DATE. This Ordinance shall be effective five days after its enactment and shall remain in force until modified, amended or rescinded by Guilford Township, Franklin County, Pennsylvania.

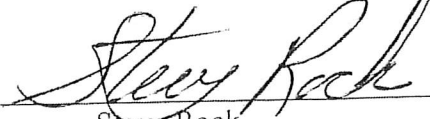
ENACTED AND ORDAINED this 7th day of August, 2014 by the Board of Supervisors of Guilford Township, Franklin County, Pennsylvania in lawful session duly assembled.



Gregory L. Cook



Theodore J. Bittinger



Steve Rock

**GUILFORD TOWNSHIP
FRANKLIN COUNTY, PA**

ORDINANCE NO. 2018-15

AN ORDINANCE OF THE TOWNSHIP OF GUILFORD, FRANKLIN COUNTY, PENNSYLVANIA AMENDING ARTICLE IV, ARTICLE V, AND ARTICLE VIII OF THE GUILFORD TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE NO. 99-1, AS AMENDED, REGULATING SUBDIVISION AND LAND DEVELOPMENT.

WHEREAS, pursuant to its powers under the laws of the Commonwealth of Pennsylvania, the general supervision of the affairs of Guilford Township, Franklin County, Commonwealth of Pennsylvania, is in the hands of its Board of Supervisors; and

WHEREAS, Article V of the Pennsylvania Municipalities Planning Code, entitled "Subdivision and Land Development", 53 P.S. §10501 *et seq.*, authorizes the Township to regulate subdivision and land development within the Township; and

WHEREAS, said Board deems it to be in the best interest of the public health, safety, and welfare of its citizens to amend the aforesaid Ordinance, as set forth in detail below.

NOW THEREFORE, BE IT ENACTED AND ORDAINED, by the Board of Supervisors of Guilford Township, Franklin County, Pennsylvania, that Articles IV, V, and VIII of Ordinance No. 99-1, as subsequently amended (hereinafter the Subdivision and Land Development Ordinance) shall be as follows:

SECTION I. Article IV of the Guilford Township Subdivision and Land Development Ordinance entitled "Plan Requirements", Section 401 entitled "Plan Requirements", Items E and G, and Section 403 entitled "Required plan Notations", Items I, M, N, O, and P shall be amended in their respective entirety and read as follows:

401.E Name of record owner (and subdivider) with notarization stating it is hereby certified that the undersigned has legal or equitable title in the land shown on the respective plan. Said notarization should also include a dedicatory statement to the Township for proposed Township streets, public sewer and/or public water easements and/or lines, or other proposed Township improvements. An original owner's signature and notary seal should be included on each plan copy submitted to the Township. In cases of lot additions to specific contiguous properties, the person(s) to whom the lot addition will be transferred shall sign and have properly notarized a statement on the plan affirming his intent to acquire the property.

401.G Names of all abutting property owners, respective deed references, and the UPI number of the tract being subdivided and/or developed as assigned by the Franklin County Assessment Office.

403.I Guilford Township Supervisors and their employees shall have access to any and all drainage easements and/or drainage facilities and shall have the right at their discretion to maintain or repair the facilities as necessary to restore them to the design conditions. The costs incurred by the Township to maintain or repair the facilities are to be paid by the property owner.

403.M Where landscaping is required as provided for in Section 513 of this Ordinance, such landscaping shall be installed and continuously maintained in accordance with the applicable regulations. The initial and on-going responsibility of the owner/developer to comply with the landscaping regulations is a continuous condition of the Subdivision and Land Development approval.

403.N Each stormwater detention basin, including rain gardens, shall be designed so that it is completely within the boundary of one property, or is within the jurisdiction of an identified and defined homeowners association, or other entity approved by the Township.

403.O The lot addition shown hereon (Lot ____) does not meet the minimum requirements for a building lot in Guilford Township and, therefore, cannot by itself be sold or transferred, except to an adjoining property owner.

403.P When a lot addition is necessary to construct proposed improvements or to comply with minimum lot requirements, the following note shall be included on the plans, "The lot addition shown hereon (Lot ____) shall be incorporated with receiving property by a consolidation deed so that the lot addition is no longer a separate tract of land. The consolidation deed shall include a perimeter description of the combined lots prior to recording. A copy of the recorded consolidation deed shall be provided to the Township prior to starting construction of any improvements shown hereon."

Section II. Article V of the Guilford Township Subdivision and Land Development Ordinance entitled "Design Standards", Section 504 entitled "Access", Item E shall be amended in its respective entirety and read as follows:

504.E Where a commercial or industrial subdivision abuts or contains an existing or proposed Township or State street and where two or more commercial or industrial lots share a common lot line the Township may require marginal access streets, private service alleys, reverse frontage lots or such other treatment as will provide reduction of the number of intersections with the Township or State street and separation of local and through traffic. It is the intent of the Township to provide, where feasible, that two

commercial and/or industrial tracts abutting each other be connected to one another in such a manner that traffic can flow between the tracts rather than being required to enter the Township or state street to accomplish the same traffic flow. Marginal access streets and private service alleys may have reduced right-of-ways and construction standards at the discretion of the Township, but not less than an eighteen (18) foot cartway with two (2) foot shoulders on each side constructed with a six (6) inch stone base, a two and one-half (2 1/2) inch 25 mm hot or warm Superpave mix, rolled and compacted, and a one and one-half (1 1/2) inch 9.5 mm hot or warm Superpave mix, rolled and compacted.

Section III. Article V of the Guilford Township Subdivision and Land Development Ordinance entitled "Design Standards", Section 510 entitled "Erosion Control and Stormwater Management", Item D.3 entitled "Standards", shall be amended in its respective entirety and read as follows:

510.D.3 All stormwater detention ponds shall be designed in accordance with the above criteria. Calculations shall be accompanied by the following supporting data:

- Either singular or composite inflow and outflow hydrographs.
- Stage-storage data.
- Stage-discharge data.
- Stage-routing calculations.
- Other data as required by the Township Engineer.

Emergency spillways as a minimum shall be set at an elevation to allow discharge from the pond during the 25-year storm. In no case, however, shall the composite outflow from the primary release device(s) and the emergency spillway exceed pre-development rates.

Spillways shall be provided structural stability. As such, locating spillways within the embankment is prohibited unless adequate reinforcing or lining is provided. A minimum one (1) foot freeboard shall be maintained.

Each stormwater detention basin, including rain gardens, shall be designed so that it is completely within the boundary of one property, or is completely within the jurisdiction of an identified and defined homeowners association.

Section IV. Article V of the Guilford Township Subdivision and Land Development Ordinance entitled "Design Standards", Section 510 entitled "Erosion Control and

Stormwater Management”, Item D.9 entitled “Standards”, shall be inserted in its respective entirety and read as follows:

510.D.9 The placement of soil amendments shall be limited to the unimproved area of the required front yard (as designated on the approved plans) of the building lots when the placement of soil amendments is required by a Post Construction Stormwater Management Plan. The location of the soil amendments must be shown and adequately dimensioned, and the related restrictions noted on the subdivision plan sheet(s) that are to be recorded.

Section V. Article V of the Guilford Township Subdivision and Land Development Ordinance entitled “Design Standards”, Section 512 entitled “Recreational Requirements” shall be amended in its respective entirety and read as follows:

512 RECREATIONAL REQUIREMENTS

Each subdivision and land development shall construct and dedicate recreational facilities and land, or pay a fee-in-lieu of such construction and dedication to the Township for the purpose of providing, acquiring, operating, or maintaining park or recreational facilities that are reasonably accessible to the property, in accordance with the following requirements:

Section VI. Article V of the Guilford Township Subdivision and Land Development Ordinance entitled “Design Standards”, Section 512 entitled “Recreational Requirements”, Item B.1 entitled “Payments of Fee In Lieu Of Dedication” shall be amended in its respective entirety and read as follows:

512.B.1 Payment of fee in lieu of dedication.

1. As an alternative to dedication of land and upon agreement with the Board of Supervisors, the developer or sub-divider may agree to pay a fee-in-lieu of dedication for the purpose of providing, acquiring, operating, or maintaining park or recreational facilities that are reasonably accessible to the property.

Section VII. Article V of the Guilford Township Subdivision and Land Development Ordinance entitled “Design Standards”, Section 513 entitled “Landscaping”, Item D.5 entitled “Specifications” shall be amended in its respective entirety and read as follows:

No plantings shall be placed with their center closer than five (5) feet from the property line of the tract, including road right-of-way’s and utility easements.

Section VIII. Article VIII of the Guilford Township Subdivision and Land Development Ordinance entitled “Improvement and Construction Standards” shall be amended in its respective entirety and read as follows:

ARTICLE VIII

IMPROVEMENT AND CONSTRUCTION REQUIREMENTS

801 **COMPLETION OF IMPROVEMENTS OR GUARANTEE THEREOF PREREQUISITE TO FINAL PLAT APPROVAL SHALL BE COMPLETED IN ACCORDANCE WITH SECTION 509 OF THE PENNSYLVANIA MUNICIPALITIES PLANNING CODE ACT OF 1968, P.L.805, No.247 AS REENACTED AND AMENDED.**

802 **RELEASE FROM IMPROVEMENT BOND SHALL BE COMPLETED IN ACCORDANCE WITH SECTION 510 OF THE PENNSYLVANIA MUNICIPALITIES PLANNING CODE ACT OF 1968, P.L.805, No.247 AS REENACTED AND AMENDED.**

803 **REMEDIES TO EFFECT COMPLETION OF IMPROVEMENTS SHALL BE COMPLETED IN ACCORDANCE WITH SECTION 511 OF THE PENNSYLVANIA MUNICIPALITIES PLANNING CODE ACT OF 1968, P.L.805, No.247 AS REENACTED AND AMENDED.**

804 **DEDICATION OF IMPROVEMENTS**

With any offer of dedication of municipal improvements, the subdivider or developer shall furnish the Township or appropriate Authority having jurisdiction a Deed of Easement and/or dedication in accordance with the standards of the Township or Authority, in a form acceptable to the Solicitor.

SECTION IX. Repealer. All provisions of previous ordinances of Guilford Township, or parts thereof, which are contrary or inconsistent to this Ordinance, are expressly repealed.

SECTION X. Savings Clause. In all other respects, the provisions of the Township of Guilford Subdivision and Land Development Ordinance shall remain as previously enacted and ordained.


SECTION XI. Severability. The provisions of this ordinance are declared to be severable, and if any section, subsection, sentence, clause or part thereof is, for any reason, held to be invalid or unconstitutional by a court of competent jurisdiction, such decision shall not affect the validity of any remaining sections, subsections, sentences, clauses or part of this ordinance.

SECTION XII. Effective Date. This Ordinance shall be effective five days after its enactment and shall remain in force until modified or rescinded by Guilford Township, Franklin County, Pennsylvania.

ENACTED AND ORDAINED THIS 20th DAY OF December, 2018 by the Board of Supervisors of Guilford Township, Franklin County, Pennsylvania in lawful session duly assembled.

ATTEST:


Secretary


Don Clapper, Chairman