

ORDINANCE NO. 97-4

AN ORDINANCE OF THE HILLTOWN TOWNSHIP BOARD OF SUPERVISORS AMENDING THE SUBDIVISION AND LAND DEVELOPMENT ORDINANCE (ORDINANCE 95-9) RELATIVE TO PLAN SUBMISSION PROCEDURES, GENERAL STANDARDS, WATER SUPPLY, STORMWATER MANAGEMENT, RECREATIONAL FACILITIES, AND RECREATION LAND REQUIREMENTS.

The Hilltown Township Board of Supervisors, upon review by the Bucks County Planning Commission and Hilltown Township Planning Commission, hereby enacts and ordains the following Ordinance:

- I. Section 305. - Major Subdivision and Land Development Procedure** shall be revised to read as follows:
- 2.A.(2) The application form shall be accompanied by the requisite fee as set forth in Section 302 of this Ordinance and by not less than four (4) copies of all required material and not less than seven (7) prints of the preliminary plan of the subdivision or development; or as amended by Township resolution from time to time.
 - 2.A.(3) The Township Secretary shall forward one (1) copy of the preliminary plan prints and one (1) copy of required material to the Bucks County Planning Commission and such other agencies as he/she deems appropriate for review and comment. One print shall be sent to the Fire Marshall when deemed necessary by the Township.
 - 3.A.(6) The subdivider or developer shall submit seven (7) prints of the final subdivision or land development plans and at least four (4) copies of all other required information.
 - 3.A.(7) Upon receipt of final plan, the Township Secretary shall forward two (2) copies of the plan and required materials to the Township Engineer for review and comment; one (1) copy of the plan and one (1) of all other material to the Bucks County Planning Commission; and copies to such other agencies whose recommendations would be pertinent to the processing of the plan. Remaining copies shall be forwarded to the Planning Commission.
- II. Section 404. - Final Plan (Record)** subsection 1. is amended to replace the words "white opaque linen" with the word "mylar".
- III. Section 502. - General Standards**, subsection 10. is added to read as follows:
- 10. Name of the Subdivision/Land Development is subject to review and approval by the Township. Names which conflict with, or are similar to, existing developments shall not be approved. During construction, the development name shall be in accordance with the approved plan.
- IV. Section 506. - Street Standards**, sub-section 3.D. shall be revised to change the street name "Old Bethlehem Road" to "Minsi Trail".

V. **Section 510. - Street intersections**, sub-section 6. shall be revised to change the word "curve" to "curb".

VI. **Section 516. - Stormwater Management Requirements** is revised to read as follows:

Section 516. - Stormwater Management Requirements. Stormwater drainage facilities shall be designed to convey flow of storm water runoff in a safe and efficient manner. The system shall insure proper drainage along streets, and provide positive drainage away from structures. The Township may require a primarily underground system to accommodate frequent floods and a secondary system to accommodate larger, less frequent floods. Drainage plans shall be consistent with local and regional drainage plans. The facilities shall be designed to prevent excess runoff onto adjacent properties.

1. General Requirements.

- A. Lots shall be laid out and graded with a minimum slope of two (2%) percent to provide positive drainage away from buildings. The Township may require a Grading and Drainage Plan for individual lots indicating a buildable area within each lot, complying with the setback requirements, for which positive drainage is assured.
- B. On-lot drainage swales shall be designed to provide positive conveyance of surface water from the individual lot. Each individual lot shall convey stormwater from the lot to a storm sewer system, street, open space area, or stormwater management easement without crossing or combining with stormwater from more than the adjacent lot.
- C. Drainage swales necessary to control surface drainage between lots shall be centered about the common property line.
- D. No person, corporation, or other entity shall block, impede the flow, alter, construct any structure, or deposit any material or thing, or commit any act which will affect normal or flood flow in any communal stream or water course without having obtained prior approval from the Township and/or Department of Environmental Protection, whichever is applicable.
- E. Whenever a watercourse, perennial stream or intermittent stream is located within a development site, it shall remain open in its natural state and location, and shall not be piped. It is the responsibility of the developer to stabilize existing eroded stream/channel banks.
- F. Where a subdivision or land development is traversed by a natural watercourse, there shall be provided a drainage easement or right-of-way conforming substantially with the line of such watercourse. The width of the easement shall be adequate to provide for unimpeded flow of storm runoff based on calculations made in conformance with Section 516.3.C. for the 100-year return storm. Terms of the easement shall prohibit excavation, the placing of fill or structures, and any alterations which may adversely affect the flow of stormwater runoff within any portion of the easement. Additionally, periodic maintenance of the easement to ensure proper runoff conveyance shall be required by the landowner.
- G. Existing points of concentrated drainage discharge onto adjacent property shall not be altered without written approval of the affected property owner(s).

- H. Areas of existing diffused drainage discharge onto adjacent property shall be managed such that, at a minimum, the peak diffused flow does not increase in the general direction of discharge, except as otherwise provided in this Section. If diffused flow is proposed to be concentrated and discharged onto adjacent property, the developer must document that there are adequate downstream conveyance facilities to safely transport the concentrated discharge or otherwise prove that no harm will result from the concentrated discharge.
 - I. Any drainage facilities required by this Section that are located on State highway rights-of-way shall be subject to approval by the Pennsylvania Department of Transportation.
 - J. Storm drainage facilities and appurtenances shall be so designed and provided as to minimize erosion in swales, watercourse channels and at all points of discharge.
- 2. Performance Principle. All developments shall limit the rate of stormwater runoff such that the rate of runoff after development does not exceed the rate of runoff from the undeveloped site during comparable design storms with a return period of 2, 5, 10, 25, 50 and 100 years.
 - 3. "No Harm Option" - The Township, upon request by the applicant, may grant a waiver of the stormwater management requirements of this Ordinance when the increase in impervious surface is less than 10,000 square feet and the effect of any increase in the rate of stormwater runoff on downgrade property is negligible. The request for a waiver must include a written opinion by a professional engineer licensed in the Commonwealth of Pennsylvania that the increase in runoff will not adversely affect adjoining parcels. If a waiver of stormwater management requirements is granted, the Township shall require the applicant to pay a fee in an amount established by separate Resolution of the Board of Supervisors to the Hilltown Township stormwater management capital fund.
 - 4. Neshaminy Creek Watershed. All subdivisions and land developments located within the Neshaminy Creek Watershed portion of the Township (Refer Appendix "G") shall comply with the Hilltown Township Stormwater Management Ordinance, Ordinance No. 93-2, as amended. Requirements of the Stormwater Management Ordinance shall be in addition to and not in lieu of requirements as set forth within Section 516 of this Ordinance.
 - 5. Calculation Methodology.
 - A. Stormwater runoff from all development sites shall be calculated using either the Rational Method or soil-cover-complex methodology.
 - B. Design of any detention basin intended to meet the requirements of this Section shall be verified by routing the design storm hydrograph through the proposed basin. For basin designed using the modified Rational Method technique, the detention volume shall, at a minimum, equal the volume derived from the approximate routing process as contained in SCS Technical Release Number 55 (TR55, 1986), Chapter 6, (Figure 6-1).
 - C. All stormwater detention facilities shall provide a minimum 1.0 foot freeboard above the maximum pool elevation (to the spillway crest) associated with the

2- through 25-year runoff events. An emergency spillway shall be designed to pass the 100-year runoff event with a minimum 0.5 foot freeboard (to the top of berm).

- D. All calculations using the soil-cover-complex method shall use the Soil Conservation Service Type II 24-hour rainfall distribution. The 24-hour rainfall depths for the various return periods used in the soil complex method shall be as follows: 2 year - 3.3 inches, 5 year - 4.2 inches, 10 year - 5.0 inches, 25 year - 5.8 inches, 50 year - 6.4 inches, and 100 year - 7.2 inches.
 - E. Farm field or disturbed earth pre-development cover conditions of a site or portions of a site used for modeling purposes, and existing man-made impervious surfaces shall be considered as "meadow" when developing "cover complex" calculations.
 - F. HEC I and HEC II study shall be performed where it is necessary to determine the limits of the 100-year floodplain. Technical Paper No. 40, U.S. Department of Commerce, "Rainfall Frequency Atlas of the United States" and NOAA Technical Memorandum NWS Hydro-35 shall be used to establish rainfall intensities for HEC programs.
 - G. All calculations using the Rational Method shall use rainfall intensities consistent with appropriate times of concentration and return periods and the Intensity - Duration - Frequency Curves as presented in Field Manual of Pennsylvania Department of Transportation PDT-IDF Charts, dated May 1986. (Region 4).
 - H. Runoff Curve Numbers (CN's) to be used in the soil-cover-complex method shall be based upon accepted standards as included within Technical Release 55, dated June 1986 title, "Urban Hydrology for Small Watersheds".
 - I. Runoff coefficients for use in the Rational Method must be based on Maximum "C" values listed within Bureau of Soil and Water Conservation "Erosion and Sediment Pollution Control Program, manual dated April, 1990 (Table 4.2).
 - J. The Manning equation shall be used to calculate the capacity of watercourses. Manning "n" values used in the calculations shall be consistent with the table presented in Appendix "C". Pipe capacities shall be determined by methods acceptable to the Township Engineer.
 - K. All stormwater runoff and floodplain runoff calculations, and design of stormwater management facilities shall be prepared by a registered Professional Engineer licensed in the Commonwealth of Pennsylvania.
6. Storm Drainage System Requirements.
- A. Any proposed storm drainage plans which affect the drainage basin in any stream shall be approved by the Division of Dams and Waterway Management of the Pennsylvania Department of Environmental Protection in accordance with the Title 72, Chapter 105, as amended.
 - B. Easements shall be dedicated to the Township along all natural or man-made streams and watercourses and/or detention basin areas within a subdivision or land development. These easements shall be of sufficient width as determined by

acceptable engineering practice and approved by the Township Engineer to include an area to sufficiently accept the flow of a 100-year design storm. Easements shall be provided where storm drainage swales, culverts or other structures traverse, enter or discharge onto private property. On private property, the entire easement area and fencing and landscaping (if any) shall be maintained by the property owner. The Township shall not maintain and/or repair any improvements within that easement unless stormwater runoff from public roads or public park land crosses through the easement. If stormwater runoff from public roads or public lands crosses through the easement, the Township shall, upon satisfactory installation of improvements as specified in a Developer's Improvement agreement and Maintenance Agreement, maintain and repair only the structural stormwater management improvements within the easement such as:

- (1) Piping
- (2) Inlets
- (3) Outlet, Headwalls
- (4) Energy Dissipation Structures or Facilities
- (5) Detention Basin Control Structures

The landowner shall be responsible for all other maintenance and repairs within this easement. For example, the landowner must:

- (1) Mow the lawn.
- (2) Repair or replace fencing.
- (3) Repair or replace landscaping.
- (4) Control vermin and repair damage from animals.
- (5) Keep the area free of obstructions, structures, vegetation, or accumulated sediment that may block or hinder the function and purpose of the easement.
- (6) Keep the area free of litter or garbage.
- (7) Repair erosion and restore vegetation as necessary to keep the easement in good repair.

- C. Storm sewers, culverts, and related installations shall be provided to permit the flow of natural watercourses, to ensure the drainage of all low points (except in protected "wetlands") on the subdivided lots or developed land areas and along the line of streets, and to intercept stormwater runoff along streets at intervals related to the extent and grade of the area drained. The system shall also be designed to accommodate or receive and discharge all runoff from adjacent upstream properties. Where adequate existing storm sewers are readily accessible, the Developer must connect new stormwater facilities to the existing system.
- D. Flood Protection: No stormwater runoff or natural drainage water shall be so diverted as to overload existing drainage systems, or create flooding or the need for additional drainage structures on other private properties or public lands, without proper and approved provisions being made for taking care of these conditions.
- E. Whenever the location of concentrated runoff from a site is changed due to development, the developer must secure written approval from any adjacent downstream property owners. Additionally, the developer shall indemnify and/or hold harmless the Township against any claim of damage from any downstream property owners that may result from the proposed development.

- F. Scour and Erosion Prevention: In areas in which street curbs are not required by either this Ordinance or by the Township, drainage may be accomplished by natural or artificial swales and culverts. Special structures such as check dams, drop-outlets, concrete flow channels, or other energy dissipating structures, rip-rap or non-degradable geotextile linings, may be required to prevent scour or erosion in locations with large runoff quantities or steep slopes. Bituminous paved swales will not be permitted.
- G. Low Point Drainage: Developer shall grade and install all necessary drainage facilities to insure drainage of all low points on subdivided lots or within the subdivision or developed land areas (except in areas of protected "wetlands").
- H. Storm Runoff Detention Facilities: Detention facilities shall be designed in accordance with the following requirements:

- (1) The detention facilities shall be designed to retard stormwater runoff rates after development in accordance with Section 516.2.
- (2) All stormwater management facilities shall be provided with an emergency spillway or overflow device designed for the 100 year storm. Emergency spillways discharging over embankment fill shall be constructed of reinforced concrete checkerblocks to protect the berm against erosion. The checkerblocks shall be backfilled with topsoil and seeded. The checkerblock lining shall extend to the toe of the fill slope on the outside of the berm, and shall extend to an elevation 3 feet below the spillway crest on the inside of the berm.

Vegetated spillways may be utilized for spillways constructed entirely on undisturbed ground (i.e., not discharging over fill) if the designer can demonstrate that flow velocities through the spillways will not cause erosion of the spillway. A dense cover of vegetation shall be rapidly established in such spillways by sodding or seeding with a geotextile anchor. Such a vegetated spillway must be stabilized before runoff is directed to the basin.

- (3) Pipe outlet shall permit complete drainage of all detained water, unless provisions for permanent ponding have been approved.
- (4) The detention facility shall be planted with low maintenance grass or substitute satisfactory to the Township. Detention basins shall be planted with ground cover in accordance with Township Standards.
- (5) All basin bottoms shall be designed with four (4) feet wide parabolic concrete flow channels from all storm sewer endwalls and points of concentrated flow from drainage swales to the outlet structure. Minimum grade of detention basin bottom shall be 2% to the low flow channel. Flow channel shall have a slope of not less than one (1%) percent. Flow channels shall be constructed with Class "AA" 3750 psi concrete, 4 inches in depth placed on a minimum of 4 inches of PennDOT 2B stone. Minimum channel depth shall be two (2) inches.
- (6) To minimize the visual impact of detention basins, the basin shall be designed to avoid the need for safety fencing. To meet this requirement, basins shall be designed to the following specifications:

- a. Maximum depth of detained runoff shall be 24 inches for a 2 year or 10 year storm event.
 - b. Maximum depth of detained runoff shall be 36 inches for a 100 year storm event.
 - c. Interior slopes shall not be steeper than a ratio of 4:1 horizontal to vertical.
 - d. Never exceed a depth of 24 inches for more than four (4) hours.
 - e. Drain completely within eight (8) hours of the end of the rainfall.
- (7) These depths and slopes may be exceeded by permission of the Township on a case-by-case basis if lot runoff, topography and/or existing downstream systems make the required pond area unreasonably large. In such a case, fence and landscape screens will be required.
 - (8) An access ramp of 10:1, 10 feet wide, shall be provided to allow maintenance equipment to reach the basin floor. The ramp shall coincide with the required gate if fencing is needed.
 - (9) Where required, fencing for detention basins shall provide a suitable barrier at least four (4) feet in height of material approved by the Township, such as split rail fencing with wire backing. Access to the basin shall be provided by a gate or gates having a total opening of at least ten (10) feet at such a location as to permit ready access to the detention basin with maintenance equipment.
 - (10) Landscaping subject to approval of the Township shall be installed adjacent to the detention facility, so as to provide a buffer between the facility and the adjacent development. If a fence is required, the detention basin fence shall be screened in accordance with Township Standards.
 - (11) Basin outlet piping shall be Class III reinforced O-ring concrete pipe. A minimum of one (1) concrete anti-seep collar shall be required. Pre-cast collars shall have a minimum thickness of eight (8) inches; field poured collars shall have a minimum thickness of twelve (12) inches. Collars may not be installed within two (2) feet of pipe joints. Collars must be designed to project a minimum of two (2) feet around the perimeter of the pipe. Maximum collar spacing is fourteen (14) times the design projection around the perimeter.
 - (12) Basin berms shall be constructed in accordance with requirements specified in Appendix "E".
 - (13) No stone gabion baskets may be used in the construction of detention basins, retention basins, or retaining walls.
 - (14) Where permanent pond facilities are proposed, there shall be a safety ledge three feet wide at the maximum water surface level.
- I. All proposed streets shall be designed so as to discharge surface water from their rights-of-way. Storm drainage improvements as deemed necessary by

the Township shall be required along all existing streets on which a subdivision or land development abuts.

- J. Design Criteria: Unless a more conservative design is required by another Regulation, or is required because of conditions particular to an individual development, the following storm criteria shall be used to design storm collection and conveyance systems:

<u>AREA</u>	<u>DESIGN STORM RETURN</u> <u>(Years)</u>
<u>Residential Areas</u>	
Fixed Pipe	10
Total Conveyance	100 Year
<u>Non-residential Areas</u>	
Fixed Pipe	25
Total Conveyance	100 Year
<u>Culvert Crossings of Any Road</u>	
In Culvert	25
Total Conveyance	100 Year

The Preliminary Plan shall indicate flooding limits of the 100 year storm.

- K. Design Preparation: Designs of Storm Drainage Systems shall be prepared by a licensed Professional Engineer. Complete detail calculations shall be submitted to the Township for review. Calculations shall cover the entire drainage basin involved, including consideration of areas outside the proposed subdivision or developed land areas.
- L. The Developer shall provide written assurance, satisfactory to the Township, that the detention basin will be properly maintained. Such assurances shall be in a form to act as a covenant that will run with the land, and shall provide Township maintenance at the cost of the landowner in case of default, and further provide for assessment of costs and penalties in case of default.
- M. As an alternate to the above paragraph, the Township may, at their own option, assume responsibility of the basin and may accept dedication of the basin by the Developer. If the detention basin is dedicated or offered to the Township for long term maintenance, the following regulations shall apply:
- (1) The dedicated area shall not be considered part of the Open Space and Recreation Requirements as required elsewhere in the Subdivision and Land Development Ordinance and Zoning Ordinance.
 - (2) If fencing is necessary, the basin design shall provide a level area (2% slope) eight feet in width on both the inside and outside of the fence, along the entire length of the fence for proper access by Township maintenance equipment. The total width of this generally level area shall be at least 16 feet.
 - (3) The Developer shall provide for the special financial burden the Township will be accepting if the Township accepts the detention basin

maintenance. To help mitigate this future financial burden, the Developer shall contribute to the Township a cash payment in the amount of ten thousand (\$10,000.00) dollars per acre, on a pro rata basis, for any detention basin site or area dedicated to the Township and being accepted by the Township. This requirement may be modified by a Resolution of the Township, from time to time, to reflect actual long term costs of detention basin maintenance in the Township.

- N. Setback to Boundaries: No piped storm sewer system outlet or detention basin surface discharge structure or energy dissipation structure shall be located closer than twenty (20') feet from the boundary of any drainage easement under the control of the developer or which may be utilized by the developer, so as to allow for adequate space for stormwater dissipation in vegetated land areas controlled by or available to the developer and/or to allow adequate space for equipment access for future maintenance.

7. Collection System Design.

- A. The collection system shall be designed by the Rational Method of Design in accordance with American Society of Civil Engineers Manual No. 37 except where noted, using the formula $Q=CiA$, unless otherwise approved by the Township.

- (1) Capacity: "Q" is the required capacity in cubic feet per second for the collection system at the point of design.
- (2) Runoff Coefficient: "C" is the runoff coefficient applicable to the entire drainage area. It shall be based on consideration of soil conditions, average slope of the drainage area and the ultimate development of the entire drainage area according to comprehensive plans. For the various types of ultimate development, the runoff coefficient shall be taken from the table in Appendix "C" unless sufficient engineering data has been presented to the Township Engineer by the Developer which information in the judgment of the Township Engineer is sufficient to warrant the use of an alternate runoff coefficient.
- (3) Rainfall Intensity Formula: "i" is the rainfall intensity in inches per hour and shall be determined from rainfall intensity charts for this area, based on time of concentrations, including Overland Flow Time, Manning's Formulae for channelized flow time and pipe flow time. The design rainfall frequency shall be taken from the PennDOT Intensity-Duration-Frequency Field Manual, Region 4 as presented in Appendix "C".
- (4) Drainage Area: "A" is the drainage area, in acres, tributary to the point of design, and shall include areas tributary from outside sources as well as from within the subdivision or developed land area itself.

B. Collection System Standards:

- (1) Curb Inlets: Curb inlets shall be located at curb tangents on the uphill side of street intersection. Design and location of curb inlets shall be approved by the Township.
- (2) State Approvals: Drainage structures that are located on State highway rights-of-way shall be approved by the Pennsylvania Department of

Transportation, and a copy of the Highway Occupancy Permit shall be submitted to the Township.

- (3) Pipe Materials: All storm piping shall be Class III Reinforced Concrete pipe, except when pipe class and strength is required to be increased in accordance with PennDOT Specifications for deep pipe installation. Piping shall be saw-cut at ends, as needed, and not hammered or broken.
- (4) Minimum Pipe Size: Minimum pipe size shall be 18 inches.
- (5) Inlet and Manhole Construction: Inlet and manhole castings and concrete construction shall be equivalent to Pennsylvania Department of Transportation Design Standards.
- (6) Roof Drainage: Stormwater roof drains and pipes shall not discharge water over sidewalks or walkways.
- (7) Open end pipes must be fitted with concrete endwalls or wing walls in accordance with PennDOT Standards.
- (8) Open culvert endwalls or wing walls for pipes larger than eighteen (18) inches in diameter and longer than sixty (60) feet in length shall be fitted with durable protective grates.
- (9) Flow Velocity: Storm drains shall be designed to produce a minimum velocity of 3.0 feet per second when flowing full. The maximum permissible velocity shall be 15.0 feet per second.
- (10) Manholes: Manholes shall be spaced at intervals not exceeding 300 feet, and shall be located wherever branches are connected or sizes are changed, and wherever there is a change in alignment or grade. For drainage lines of at least thirty-six (36) inches diameter, manholes may be spaced at intervals of four hundred (400) feet. Manholes shall be equipped with open grate lids.
- (11) Backfill/bedding requirements shall conform to the construction detail included in Appendix "A".
- (12) Storm sewer structures (i.e. endwalls, inlets, end sections, etc.) may not be located on top of or within ten (10) feet of electric, water, sanitary sewer, and gas services and/or mains, unless approval is received from the Township, and from the Authority or Utility having jurisdiction over same.
- (13) Storm sewer pipes must be oriented at substantially right angles to electric, water, sanitary sewer, and gas utilities when crossing above or beneath same. Crossing angles of less than 90⁰ will only be permitted at discretion of the Township Engineer. When skewed crossings are permitted, interior angles between alignment of the storm sewer pipe and utility may not be less than 45⁰. Vertical and horizontal design of storm sewer must be linear.

C. **Open Swales and Gutters:** Open swales shall be designed on the basis of Manning's Formula as indicated for collection systems with the following considerations:

- (1) **Roughness Coefficient:** The roughness coefficient shall be 0.040 for earth swales.
- (2) **Bank Slopes:** Slopes for swale banks shall not be steeper than one (1) vertical for three (3) horizontal.
- (3) **Flow Velocity:** Design velocity in grass or vegetated swales shall not exceed four (4) feet per second.
- (4) To minimize sheet flow of stormwater across lots located on the lower side of roads or streets, and to divert flow away from building areas, the cross-section of the street as constructed shall provide for parallel ditches or swales or curbing on the lower side which shall discharge only at drainage easements, unless otherwise approved by the Township.
- (5) Gutters and swales adjacent to road paving shall be permitted to carry a maximum flow of five (5) cubic feet per second prior to discharge away from the street surface, unless it is proven to the satisfaction of the Township by engineering calculations that the road slopes or other factors would allow higher gutter or swale capacity.
- (6) Flows larger than those permitted in gutters and roadside swales may be carried in swales outside the required road right-of-way in separate drainage easements, or may be carried in pipes or culverts inside or outside the required road right-of-way.
- (7) Swales shall be stabilized with vegetation or other materials, approved by the Township, to prevent erosion.
- (8) Swales shall be provided with u-drains as deemed necessary by the Township should overland seepage result in potential maintenance problems for same. U-drains must discharge into a natural drainage channel or storm sewer system.

D. **Bridges and Culverts:** Bridges and culverts shall be designed in accordance with Pennsylvania Department of Transportation Construction Standards. Separate design plans and specifications shall be required for each bridge and culvert which plans and specifications shall be subject to review and approval of the Township.

VII. Section 519. - Water Supply, Distribution Systems and Fire Protection, subsection 2.B. shall be revised to read as follows:

2.B. All residential subdivisions of fifteen (15) lots or more; and all residential subdivisions of five (5) lots or more with a density greater than 0.75 dwelling units per acre, shall be required to be provided with public or centralized water supply and distribution systems, designed and constructed in accordance with specifications of the Hilltown Township Water and Sewer Authority.

VIII. Section 525. - Recreational Facilities is revised to read as follows:

Section 525. - Recreational Facilities.

1. Hilltown Township requires the public dedication of land suitable for the use intended; and upon agreement with the applicant or developer, the construction of recreational facilities, payment of fees in lieu thereof, private reservation of land, or a combination, for park or recreation purposes as a condition precedent to final plan approval; or as the governing body selects and prefers for developments of 25 lots or more.
2. General Requirements.
 - A. For all residential subdivisions of 25 or more dwelling units, recreational facilities shall be provided by the developer.
 - B. Recreation facilities shall be constructed on recreation land within detached clustered subdivisions and performance standard developments.
 - C. Recreation facilities shall be readily accessible to all development residents; or in the case of recreation facilities dedicated to the Township, shall be easily and safely accessible to the general public. At least one (1) side of the recreation area shall abut a street for a minimum distance of 50 feet for access of emergency and maintenance vehicles, and parking facilities where deemed necessary by the Township.
 - D. The configuration of recreation areas must be able to accommodate recreation activities proposed by the development plans. Required minimum area shall not include narrow or irregular pieces of land which are remnants from plotting and/or street and parking areas.
 - E. Recreation areas shall not be traversed by utility easements unless said utilities are placed underground and no part of them or their supportive equipment protrudes above ground level.
 - F. Active recreation areas shall be located such that the use of recreational facilities will not be a nuisance to the residents of nearby dwelling units. Adequate buffering/fencing shall be constructed to separate recreational facilities from private properties.
 - G. The developer shall be required to improve the recreation land so that it is usable for the intended activity, including necessary facilities and equipment. Proposed improvements, including facilities and equipment, shall be acceptable to Hilltown Township.
 - H. A public water fountain shall be installed within active recreation areas.
 - I. Hilltown Township may, but shall not be required to, accept any portion(s) of the recreational land/facilities provided. Recreational facilities not dedicated to, or accepted by Hilltown Township, shall be owned and maintained by a Homeowner's Association or other method acceptable to the Township.
 - J. Proposed recreation areas and facilities may be reviewed by the Hilltown Township Park and Recreation Board pursuant to Section 306 of this Ordinance as deemed necessary by Board of Supervisors.

2. Minimum Recreation Facility Requirements. The following table lists facilities required by this section:

<u>Total No. of Lots/Dwelling Units</u>	<u>No. of Playfields</u>	<u>No. of Tot Lots*</u>	<u>No. of Basketball or Tennis Courts</u>
25 to 49	1 and	1 and	0
50 to 99	2 and	2 and	0
100 to 149	3 and	3 and	1
150 to 199	4 and	4 and	2
200 to 249	5 and	5 and	2
250 to 299	6 and	6 and	3
300 to 349	7 and	7 and	3
350 to 400	8 and	8 and	4

- * Where more than one (1) tot lot is required, tot lots may be combined to provide a larger structure with additional play events, when approved by the Township.

In addition, for over 300 lots/dwelling units, the applicant shall install one swimming pool.

3. Tot Lot Requirements.
- A. Use of tot lots shall be limited to daylight hours only; no lighting shall be installed.
 - B. Low maintenance play equipment and structures shall be included and confined by a gated fence, a minimum of three (3') feet high. The gate shall be self-closing and self-latching.
 - C. Tot lot shall include a coordinated commercial "play structure" with a minimum of ten (10) play events designed to serve a minimum of twenty (20) children aged 12 and under. All equipment shall be installed over a resilient safety surface and shall conform to safety guidelines established by the International Play Equipment Manufacturers Association (IPEMA).
 - D. Sitting areas, including benches, shall be provided for the convenience of persons supervising the children.
 - E.. Shade trees shall be provided for sitting and play areas; gazebo or picnic-type shelters may be used in addition to shade trees.
 - F. Where a tot lot is placed adjacent to a playfield, practical measures, such as fencing and orientation of facilities, shall be used to reduce hazards, especially from balls, frisbees, or other flying objects.
 - G. Minimum dimensional standards shall be as follows:
 - (1) Minimum area: 2,500 square feet within the fenced area.
 - (2) Minimum horizontal dimension: 35 feet.
 - (3) Minimum setbacks:
 - a. From lot lines: 10 feet.

- b. From the ultimate right-of-way of local streets: 25 feet.
 - c. From the ultimate right-of-way of collector/arterial streets: 50 feet.
- (4) A landscaped buffer shall be provided between the proposed tot lot and any proposed or existing dwelling located within 100 feet of the tot lot.
- H. Locations: At convenient, centralized intervals, requiring not longer than a 1,000 feet walk from any dwelling unit.
- 4. Playfield Requirements.
 - A. Playfields shall be used only during daylight hours; no lighting shall be installed.
 - B. Playfields are intended for informal, neighborhood use. Playfields shall not be used for formalized programs such as Little League Baseball, Soccer, or Midget Football unless located, designed, and intended for use by the entire community.
 - C. Playfields shall consist of a lawn area, unobstructed by trees, shrubs, benches, and other playground equipment. Trees and shrubs shall be installed along the perimeter of a playfield to define its limits, enhance its appearance, and filter noise generated by activities.
 - D. Playfields shall be gently sloped, not less than 1 percent nor more than 2 percent grade, and shall be well-drained so that they are suitable for use in good weather.
 - E. Playfields must be fenced unless waived by the Township.
 - F. Sitting areas must be provided along the perimeter unless waived by the Township.
 - G. Minimum dimensional standards shall be as follows:
 - (1) Minimum area: 25,000 square feet.
 - (2) Minimal horizontal dimension: 150 feet.
 - (3) Minimum setbacks to the edge of a playfield.
 - a. From any dwelling unit: 100 feet.
 - b. From any property line: 50 feet.
 - c. From the ultimate right-of-way of local streets: 50 feet.
 - d. From the ultimate right-of-way of collector/arterial streets: 100 feet.
 - H. Locations: At convenient, centralized intervals.
- 5. Basketball and Tennis Court Requirements.

- A. Courts shall be constructed in accordance with specifications approved by the Township Engineer, and shall be oriented in a north-south direction.
 - B. Minimum dimensional standards shall be as follows:
 - (1) Court areas shall be of standard size. (Basketball courts shall be at least 50 feet by 84 feet with a minimum of 5 feet clearance on all sides; tennis courts shall be at least 36 feet by 78 feet with 12 feet clearance on both sides and 21 feet clearance on both ends.)
 - (2) Minimum setbacks to the edge of paving:
 - a. From any dwelling unit: 125 feet.
 - b. From any property line: 50 feet.
 - c. From the ultimate right-of-way of local streets: 50 feet.
 - d. From the ultimate right-of-way of collector/arterial streets: 100 feet.
 - C. Tennis courts shall be fenced around the entire perimeter with minimum ten (10') feet high fencing.
 - D. Basketball courts shall be fenced with a minimum six (6') feet high fencing when the edge of pavement is less than 30 feet from an area with a downward slope exceeding 8%.
 - E. Lighting may be provided for nighttime use of courts, so arranged that no glare affects abutting residences or streets, on a demand-activated basis, until no later than 10:00 P.M.
 - F. Locations: At convenient, centralized intervals.
6. Swimming Pool Requirements.
- A. Minimum pool surface area shall be 3,000 square feet (i.e. 40 feet by 75 feet).
 - B. A toddler's pool shall be provided.
 - C. The pool shall be surrounded by a paved, non-slip surface, a minimum of eight (8') feet wide.
 - D. Lawn area of not less than 4,000 square feet shall be provided around the pool, at a slope not exceeding 6% percent.
 - E. A permanent building shall be provided for bathrooms and lifeguard/supervisor room.
 - F. The entire facility shall be surrounded by a minimum six (6') feet high fence with a lockable gate.
 - G. Minimum setback to edge of paving, pool building, and perimeter fencing shall be as follows:

- (1) From any dwelling unit: 200 feet.
 - (2) From any property line: 100 feet.
 - (3) From any street right-of-way: 100 feet.
- H. Lighting may be provided for nighttime use, so arranged that no glare affects abutting residences or streets, until no later than 10:00 PM.
7. Consolidation of Facilities. Applicants are required to provide the numbers and types of facilities as required in this section, spaced for convenient access by the residents. However, applicants are encouraged to consolidate several facilities in fewer locations to better serve the residents' needs in the following possible ways:
- A. By locating all required tennis or basketball courts in one area, thereby restricting noise and light to one area, and precluding the need to search the neighborhood for a free court.
 - B. By combining two 25,000 square feet playfields into one 50,000 square feet area to permit larger fields for softball, football, soccer, or other fields sports, while maintaining the neighborhood use character.
 - C. By creating one or more park-like facilities rather than simply several sets of scattered facilities.
 - D. By locating some tot lots in combined areas while retaining others on individual sites to guarantee short walking distances to tot lots.

IX. Section 603. - Construction of Facilities, is amended to add the following:

- 3. No utility trench including but not limited to trenches for sanitary sewer, storm sewer, waterlines, electric service, or gas shall be left open at the end of the work day unless the trench is covered with steel plate or enclosed by an eight (8) feet high chain link fence.

X. ARTICLE VIII - Mandatory Dedication of Recreation Land, is hereby added to read as follows:

Section 801. - Recreation Land/Fee Requirements. Recreation land shall be defined as usable area that can be developed for playgrounds or tot lots, neighborhood parks, or community parks for active outdoor recreation. All residential subdivision or land development plans shall provide for suitable and adequate recreation land and/or fees as set forth in this Ordinance in order to fulfill the following purposes:

- 1. Insure adequate recreational areas and facilities to serve future residents of the Township.
- 2. Maintain compliance with recreation standards as recommended by the Hilltown Township Park and Recreation Comprehensive Plan as adopted by the Hilltown Township Board of Supervisors.

3. Minimize overuse of, and excessive demand for, existing recreational areas and facilities by future residents.
4. Allow for orderly acquisition and development of recreational areas to serve new residents.
5. Ensure that dedicated recreation land is suitable for the intended use.

Section 802. - Recreation Land Dedication Requirements.

1. All residential subdivision or land development plan submissions to the Township shall be required to provide for public dedication of land suitable for park and/or recreation use in accordance with the provisions of this Ordinance.
2. A minimum of 0.0327 acres or 1,422 square feet of suitable recreation land shall be provided per dwelling unit within all residential subdivision or land developments, and in accordance with provisions of Section 525 of this Ordinance, unless the applicant agrees to a fee-in-lieu of as outlined in Section 805. This requirement is based on the following: a goal of providing 10.5 acres of recreation land per 1,000 population in accordance with the standards of the National Park and Recreation Association as reflected by the Township Comprehensive Park and Recreation Plan; and an average household size of 3.11 persons per household as determined by the U.S. Census of 1990.
3. This recreation land requirement shall in no way diminish the requirement for open space where an open space requirement is set by the Township Zoning Ordinance.

Section 803. - Criteria for Determining the Location and Suitability of Recreation Areas.

1. Site(s) must be easily and safely accessible, have good ingress and egress and have access to a public road.
2. Site(s) must have suitable topography for the development as a particular type of recreation area.
3. Size and shape of the site(s) must be suitable for the development as a recreation area.
4. Site(s) must meet the minimum size with respect to usable acreage as recommended by the Park and Recreation Comprehensive Plan for Hilltown Township.
5. Sites designated for recreation land shall not contain lands with natural resources land that is to be permanently protected and undeveloped in accordance with Section 504, Environmental Performance Standards of the Township Zoning Ordinance, stormwater detention facilities, or lands designated for any other purpose.
6. The recreational activities and/or facilities for which the area is intended must be specified on the development plans and recorded on the mylars.

7. Recreation areas shall not be traversed by utility easements unless said utilities are placed underground and no part of them or their supportive equipment protrudes above ground level.
8. The configuration of the recreation area must be able to accommodate recreation activities proposed by the development plans. The required areas shall not include narrow or irregular pieces which are remnants from lotting and/or street and parking areas.
9. On-site improvements shall be commensurate with the adjacent on-site development improvements, including but not limited to grading, curb, sidewalks, and utilities.
10. Open space which is required to be set aside as part of a cluster development, performance subdivision, or other use which requires open space shall be provided in addition to the recreation land required by this Article. Where both open space and recreational land are required, the requirements for mandatory dedication of recreation land shall be met in addition to the requirements for open space.

Section 804. - Ownership/Dedication to Township of Recreation Land.

1. The Hilltown Township Planning Commission and Park and Recreation Board will provide recommendations on any proposed recreation land dedication and any proposed assessment of recreation fees-in-lieu of land dedication.
2. If the Board of Supervisors determines that recreation land dedication would be in the public interest, such recreation land shall be owned and maintained by an entity that the Board of Supervisors determines is acceptable to ensure proper long-term oversight and maintenance of the land. This may be any of, but not limited to, the following, providing such entity agrees to accept such land for permanent recreation purposes:
 - A. Retention by the owner of the development if such dwelling units are to be rented, subject to restrictions acceptable to the Township Solicitor which shall ensure the perpetual dedication of the land for recreational use.
 - B. Dedication to a formal homeowner or condominium association, with such agreement subject to approval of the Board of Supervisors, after review by the Township. If any entity responsible for such recreation land should dissolve or become inactive or decide that it no longer wishes to be responsible for such land, it shall offer such land at no cost to the Township or to another entity that the Township so designates for continued use as recreation land.
 - C. Dedication to an established State, county or regional organization acceptable to the Board of Supervisors.
 - D. Dedication to Hilltown Township.

3. If the Board of Supervisors deems it to be in the public interest to accept dedication of land for recreational purposes, such acceptance shall be by adoption of a Resolution of the Board of Supervisors and acceptance of a deed of dedication from the developer. Acceptance of dedication of recreational land by the Township shall occur following a formal offer by the developer with title insurance and other information and conditions as required by the Township.
4. Recreation land shall include deed restrictions to permanently restrict its use for recreation and to prohibit the construction of buildings on the land, except building for non-commercial recreation or to support maintenance of the land.

Section 805. - Fee in Lieu of Dedication. Where, (upon agreement with the applicant or developer), it is determined that the dedication of all or any portion of land area required for recreational purposes is not feasible under the criteria set forth in the section, the Township shall require the applicant or developer to pay a fee in lieu of dedication of any such land or to construct recreational facilities in lieu of recreation land dedication to the Township as follows:

1. The fee shall be equal to the fair market value of the land otherwise required to be dedicated and improved for recreational use as established by separate Resolution of the Board of Supervisors.
2. Limitations on Use of Fees:
 - A. Any recreation fees collected under this section shall be placed within an interest-bearing "Recreation Fee Account" which shall function as a capital reserve fund and shall be accounted for separately from other Township funds.
 - B. To ensure that the lands and facilities are accessible to the residents of the development that paid fees toward their costs, the "Recreation Fee District Map" (see Appendix) designates service areas for neighborhood parks and one (1) township-wide service area for the Township community park. Any such fees collected under this subsection shall only be expended within the same "Recreation Fee District" as the subdivision and land development that contributed the fee if the fee is used for neighborhood parks. Fees collected from any district may be expended for the township-wide Community Park.
 - C. All fees and interest within the Recreation Fee Account shall only be used for acquisition of recreation land, development of, and capital improvement to, public recreational facilities, landscaping of recreation land, engineering, legal, planning, architecture, landscape architecture and the payment of debt directly resulting from such expenditures. Such fees specifically shall not be used for maintenance, routine repairs, operating expenses or recreational programs.
3. Fees required under this Section shall be paid prior to the recording of the applicable final plan or as building permits are issued with appropriate guarantee given, as determined by the Board of Supervisors.

4. If such fees are paid in installments or prior to the issuance of each building permit, then, for the purpose of determining limits for the time within such funds are required to be expended under State law, such time limit shall begin when the total fees related to the final approval are paid in full, and not from the date of payment of any portion of such fees. Upon request, the Township shall refund such fee, plus interest accumulated thereon from the date of payment, if the Township has failed to utilize the fee paid for the purposes set forth in this Section within 3 years.

XI. Effective Date

This Ordinance shall become effective five (5) days after enactment by the Hilltown Township Board of Supervisors, in accordance with the Pennsylvania Municipalities Planning Code, as amended. Enacted and Ordained into an Ordinance this 10th day of May, 1999.

HILLTOWN TOWNSHIP
BOARD OF SUPERVISORS




