MILFORD TOWNSHIP SUBDIVISION ORDINANCE ARTICLE VI DESIGN STANDARDS/IMPROVEMENT SPECIFICATIONS

601 <u>General Standards</u>

- 601.1 Application The standards and requirements contained in this Article are intended as the minimum for the preservation of the environment and promotion of the public health, safety and general welfare and shall be applied as such by the Milford Township Planning Commission and by the Milford Township Board of Supervisors in reviewing and evaluating plans for all proposed subdivisions and/or land developments.
- A. Additional or higher type improvements may be required in specific cases where, in the opinion of the Township, they are necessary to create conditions essential to the health, safety, morals and general welfare of the citizens of Milford Township and/or to protect the environment of the Township.
- 601.2 <u>Flanned Improvements</u> Physical improvements to the property being subdivided and/or developed shall be provided, constructed and installed as shown on the record plan.
- 601.3 Improvements Specifications All improvements installed by the Developer shall be constructed in accordance with the design specifications and construction standards of the Township.
- A. Where there are no applicable Township specifications, improvements shall be constructed in accordance with specifications furnished by the Township Engineer, County Engineer, Pennsylvania Department of Environmental Resources, Bureau of Forestry or such other State or Federal agency as may be applicable.
- B. If there are no applicable Township or State regulations, the Township Planning Commission and/or the Board of Supervisors may authorize that such specifications be prepared by the Township Engineer or an Engineering Consultant.
- 601.4 Other Ordinances Whenever other Township ordinances and/or regulations impose more restrictive standards and requirements than those contained herein, such other ordinances and/or regulations shall be

observed, otherwise, the standards and requirements of this Ordinance shall apply.

- 601.5 Modifications The standards and requirements of this Ordinance may be modified (pursuant to Section 803), by either increasing or decreasing the said standards and/or requirements, by the Township Supervisors, upon recommendation of the Township Planning Commission, where such modifications achieve substantially the objectives of this Ordinance, will not unduly tax Township fiscal service obligations and which are further protected by such covenants or other legal provisions as will assure conformity to and achievement of the subdivision and/or development plan.
- 601.6 <u>Land Suitability</u> Land subject to hazards to life, health or property or considered to be otherwise uninhabitable shall not be subdivided or developed for building purposes unless adequate safeguards are provided.
- 601.7 <u>Natural Features</u> Natural features such as vegetation, trees, water courses and other physical features shall be preserved to the greatest extent possible.

602 Blocks and Lots

602.1 Configuration - The configuration of blocks and lots shall be based upon the lot area requirements, the salient natural features, the existing man-made features, and the proposed type of structure. Lot configurations should provide for flexibility in building locations, while providing safe vehicular and pedestrian circulation.

602.2 Blocks

- A. Residential blocks shall have a maximum length of one thousand six hundred (1600) feet.
- B. Commercial blocks shall have a maximum length of one thousand (1000) feet.
- C. Blocks shall be of sufficient width to permit two tiers of lots except where a public street, stream, other natural barrier or unsubdivided land prevents the platting of two tiers of lots.

602.3 Lots

- A. Lot sizes and widths shall be governed by the Milford Township Zoning Ordinance. The net lot area shall be determined by computing the gross area contained within the lot lines and subtracting therefrom the following non-qualifying areas:
 - 1. Any area or portion of the lot lying within or subject to any road, road right-of-way, access easement or assess right-of-way.
 - The area of any flood plain, utility easement, utility right-of-way, or easement or right-of-way of any other type, other than a road or access easement or right-of-way, which encroaches upon the area available for building as determined from the front, side and rear building setback lines prescribed in the Milford Township Zoning Ordinance.
- B. Lots shall not be divided by municipal boundaries.
- C. All lots shall front on a street. If double frontage lots are platted as provided herein, the lot depth shall be increased by twenty (20) feet to provide for a planting strip along the rear lot line.
- D. All side lines of lots shall be at right angles to straight street lines and radial to curved street lines.
- E. Double frontage lots shall not be platted except where provided as reverse frontage lots to minimize driveway intersections along a public road; and lot access is restricted to the interior development street.

603 Streets/Roads

Roads shall be graded, improved and surfaced to the grades and specifications shown on the plans, profiles and cross sections as approved by the Township.

603.1 Topography - Roads shall be logically related to topography to produce reasonable grades, minimize stormwater run-off and provide suitable building sites.

- 603.2 Existing Access Existing private roads proposed to provide access to a subdivision and/or land development shall meet the requirements of this Section 603 or shall otherwise be improved to such standards.
- 603.3 Street Continuation Residential streets shall be planned to discourage through traffic; however, the arrangement of streets wherever possible shall provide for continuation of existing or platted streets and for adequate access to adjoining undeveloped tracts suitable for future subdivision by reserving rights-of-way to the adjoining undeveloped tracts.
- 603.4 Street Names Streets that are extensions of, or obviously in alignment with, existing streets shall bear the names of the existing streets. Street names shall not be repeated or be similar to those existing within the Township or adjacent areas and all street names shall be subject to the approval of the Township.

603.5 <u>Inadequate Rights-of-Way</u>

- A. Where a subdivision and/or land development abuts or contains an existing municipal or private street of inadequate right-of-way width, additional right-of-way width in conformance with Table V-I "Design Standards for Streets" shall be provided.
- B. Where a subdivision and/or land development abuts or contains an existing State road of inadequate right-of-way width additional set-back requirements shall be provided to reflect such additional width required to make the road conform to Table V-I "Design Standards for Streets".
- 603.6 <u>Cul-de-Sac Streets</u> Cul-de-sac streets shall meet the following design regulations:
- A. Dead-end streets are prohibited unless otherwise designed as cul-de-sac streets or designed to provide future access to adjoining properties.
- B. Any temporary dead end street shall be provided with a temporary all-weather turn-around, within the subdivision, and the use of such turn-around shall be guaranteed to the public until such time as the street is extended.
- C. Cul-de-sac streets, permanently designed as such, shall not exceed 1200 feet in length or shall not furnish access to more than 25 dwelling units.

- D. Unless future extension is clearly impractical or undesirable, the turn-around right-of-way shall be placed adjacent to the tract boundary line with sufficient additional width provided along the boundary line to permit extension of the street at full width.
- E. All cul-de-sac streets, whether permanently or temporarily designed as such, shall terminate in a circular right-of-way with a minimum diameter of 100 feet and the outer pavement edge or curb line shall have a minimum diameter of 80 feet.
- F. The circular right-of-way of the cul-de-sac shall be connected to the approach right-of-way by an arc having a radius of not less than twenty-five (25) feet.
- G. The circular paving of the cul-de-sac shall be connected to the approach paving by an arc having a radius of not less than forty (40) feet.
- 603.7 <u>Private Access Streets</u> Private access streets may be used in minor subdivisons to provide access to residential lots which do not front on a public or approved private road provided:
- A. The private access street serves no more than two (2) dwelling units.
- B. The private access street has a minimum right-of-way width of twenty (20) feet.
- C. Private access street entrances or aprons within the street right-fo-way shall be installed by the Developer and/or Subdivider as required in Section 603.10. Construction of the remaining length of the private access street shall be the responsiblility of the buyer or buyers of the served lot or lots and will not under any circumstances be offered to the Township as a municipal road. A covenant shall be placed on the final plan clearly assigning responsibility for construction and maintenance of the private access street and establishing its future private ownership status.

603.8 Intersections

A. Center-lines of streets shall intersect as nearly at right angles as possible.

- Any center-line angle of less than eighty (80)
 degrees shall be allowed only upon grant of a
 waiver by the Township based upon a written
 request by the Developer.
- Center-line angles of less than sixty (60) degrees shall not be approved under any condition.
- B. Intersections of more than two streets at one point are not permitted.
- C. Where streets intersect other streets, the minimum offset or distance between center-lines of parallel or approximately parallel streets intersecting a cross street from opposite directions shall be as follows:
 - 1. One hundred fifty (150) feet for minor streets.
 - 2. Four hundred (400) feet for collector or major streets.
- D. The cartway edge at intersections shall be rounded by a tangential arc with a minimum radius of forty (40) feet for minor streets or streets of lesser classification and fifty (50) feet for major and collector streets.
- E. For typical intersections and designs see Figures.
- 603.9 Major Street Frontage Where a subdivision and/or land development abuts or contains an existing or proposed major street, the Township may require minor streets or reverse frontage lots or such other treatment as will provide protection for abutting properties, reduction in number of intersections with the major street and separation of local and through traffic.
- 603.10 Street Right-of-Way, Travelway, Shoulder Widths, and Cross Sections Street right-of-way, travelway and shoulder shall be provided to the minimum standards provided in Table V-1.
- A. Shoulder surfaces shall be graded at a slope one half (1/2) inch per foot away from the pavement edge.
- B. The finished paved travelway surface of tangent medutend to be

TABLE V-I DESIGN STANDARDS FOR STREETS

DESIGN SPECIFICATION	MAJOR	COLLECTOR	MINOR	PRIVATE ACCESS	
Right-of-way Width (ft)	60 (a)	50 (a)	50 (a)	20	
Cartway width (ft)	40	38	30	NA	
Travelway width (ft)	24	22	20	12	
Minimum centerline radii (ft) (b)	500	300	150	75	
Minimun sight distance (ft)	400	300	200	60	
Maximum grade (%)	10	8 (⊂)	12 (d)	16	
Shoulder width (ft) (cut or fill)	10	8	6	NA	

Notes:

- a. Right-of-way width does not include slope, drainage or utility easements.
- b. Larger radii may be required as determined by allignment to provide required sight distances.
- c. 12% for up to 500 feet in distance.
- d. 14% for up to 500 feet in distance.
- e. The maximum grades in c. and d. above may be repeated if separated by distances of five hundred (500) feet meeting the standard grade requirements for the class of road.

TYPICAL STREET CROSS SECTION

superelevated, shall be crowned at one-quarter (1/4) inch per foot away from the center-line.

C. Froperly superelevated cross-sections shall be required on major and collector streets when the curve radii are less than 1500 feet. The maximum permissible superelevation shall be 0.08 feet per foot.

603.11 Easements

A. Access Easements

- Access easements shall be shown and labeled on the plans to indicate the purpose, easement users and the rights of said users.
- No access easement shall be a part of any lot, but shall be a separate area designed with the express purpose of access to a particular site or facility.
- 3. Ownership and maintenance responsibility shall be noted on the plan for each easement.

B. Utility Easements

- Utility Easements shall be a minimum of ten (10) feet in width and shall be provided along all street rights-of-way.
- Utility easements shall be shown and labeled on the plan and included in the restrictive covenents.

603.12 Street Alignment - Street alignment shall be designed as follows:

- A. Whenever street lines are deflected in excess of seven and one half (7 1/2) degrees within five hundred (500) feet, connection shall be made by horizontal curves.
- B. Streets shall be designed so that there will be unobstructed sight distances along the center-line thereof as set forth in Table V-1.
 - 1. Sight distances shall be measured from a point 3.75 feet above the road surface to a point 0.5 feet above the road surface.

- C. Between reversed curves the following minimum tangents shall be provided:
 - One hundred (100) feet on major and/or collector streets.
 - 2. Fifty (50) feet on minor streets.
- 603.13 <u>Street Grades</u> Street grades shall be designed as follows:
- A. Center-line grades shall not exceed the grades set forth in Table V-1.
- B. The maximum grade across the turnaround in a cul-de-sac street shall not exceed eight (8%) percent.
- C. To provide for adequate drainage, the minimum grade of any street gutter shall not be less than one-half (1/2) of one (1%) percent.
- D. To provide for adequate drainage, the minimum grade of any parallel ditch along a street shall be not less than one (1%) percent.
- E. A leveling area for all street intersections shall be provided as follows:
 - 1. The tangent grade of the through street at the point of intersection of the center-lines of the two streets shall not exceed eight percent (8%).
 - a. Crest and sag vertical curves shall be provided in accordance with Section 603.14.
 - The tangent grade of the connecting street(s) shall not exceed four percent (4%) within the right-of-way lines of the through street.
 - a. Crest and sag vertical curves shall be provided in accordance with Section 603.14.
 - b. The point of vertical curvature or tangency shall not be within the through street right-of-way.
- 603.14 <u>Vertical Curves</u> Vertical curves shall be used at changes of grade exceeding four percent (4%) and shall be designed as follows:

- A. Crest vertical curves shall be designed in relation to the raod classification to provide vertical sight distance consistent with the horizontal sight distances as set forth in Table V-1.
- B. On minor streets, sag vertical curves shall have a minimum lenght of fifteen (15) feet for each one percent (1%) algebraic difference in tangent grade with an absolute minimum length of seventy-five (75) feet. (Example: 4% = 75' v.c.; 4.1% to 5% = 90' v.c.; etc.)
- C. Except on minor streets, sag vertical curves shall have a minimum length of twenty-five (25) feet for each one percent (1%) algebraic difference in tangent grade with an absolute minimum length of one hundred (100) feet. (Example: 4% = 100' v.c.; 4.1% to 5% = 125'v.c.; etc.)
- D. The following vertical curve information should be shown on the plans: length of vertical curve, elevation VPI, and stationing of the VPI.
- 603.15 Clear Sight Triangles At all intersections, a triangular area shall be graded and/or other sight obstructions removed in such a manner as not to obscure vision between a height of from two (2) to ten (10) feet above the center-line grades of the intersection streets.
- A. The clear sight triangle shall be guaranteed either by deed restriction, by lease restriction or by plan referment, whichever method is applicable. Vegetation shall not be planted or allowed to grow in such a manner as to obscure said vision.
- B. Such triangular area shall be determined by the intersection street center-lines and a diagonal connecting the two points, one point at each street center-line:
 - 1. One hundred seventy-five (175) feet from the intersection of such street center-lines if either street is a major street.
 - 2. One hundred twenty-five (125) feet from the intersection of such street center-lines if either street is a collector street.

- 3. Eighty-five (85) feet from the intersection of such street center-lines if both streets are minor streets.
- 4. Whenever a portion of the line of such triangle occurs behind (from the street) the building setback line, such portion shall be shown on the final plan of the subdivision and shall be considered a building setback line.

603.16 <u>Driveways</u> - Driveways shall be as follows:

- A. Driveways shall not be permitted to have direct access to major or collector streets unless authorized by the Township and approved by the Township Engineer and/or the Pennsylvania Department of Transportation throught issuance of a highway occupancy permit.
- B. In order to provide safe and convenient means of access, recommended grades on private driveways should not exceed sixteen (16%) percent.
- C. Entrances shall be rounded at a minimum radius of five (5) feet or shall have a flare construction that is equivalent to this radius at the point of intersection with the cartway edge.
- D. Future driveways which are to be constructed adjacent to a street intersection shall be indicated on the preliminary and final plans.
 - The minimum distance between a driveway or point of access to a street shall be as follows:

Type of Subdivision or Land Development

Distance between center-lines of driveway and nearest intersecting road by type of intersecting road.

	 Major	Collecto	or .	Minor
Residential	 150 ft.	100 ft.		50 ft.
Non-Residential	300 ft.	200 ft.		150 ft.

Nearest intersecting street shall be construed as being on the same or the opposite side of the street on which the lot is located.

- E. Adequate provision shall be made for parallel drainage facilities
- 603.17 Bridges and Stream Crossings Bridges and other stream crossing structures which are part of the proposed street system shall be designed and constructed in accordance with the current Fennsylvania Department of Transportation Standards and Specifications for an H-20 loading. Evidence of compliance with and approval of the Bureau of Dams and Waterways, Fennsylvania Department of Environmental Resources, shall be provided. The travelway of the bridge shall be of a minimum width equal to the travelway width of the contiguous roadway.
- 603.18 <u>Clearing and Grubbing</u> The right-of-way shall be cleared and grubbed to the extent shown on the approved cross-sections.
- A. All trees, stumps, roots and other material deemed unsuitable by the Township shall be removed from the grading area.
- B. Voids created by thr removal of stumps or roots shall be backfilled and compacted to the satisfaction of the Township.
- C. Rocks and/or boulders shall be removed to a minimum depth of six (6) inches below the finish subgrade.
- D. All cleared and grubbed areas shall be inspected and approved by the Township prior to placing the embankment.
- 603.19 <u>Cuts and Fills</u> All cuts and fills shall be constructed as follows:
- A. The maximum slope of any earth embankment or excavation shall not exceed one foot vertical to two feet horizontal.
- B. The maximum slope of any rock excavation shall not exceed four feet vertical to one foot horizontal.
- C. All excavations and embankments shall have a continuous slope to the point of intersection with the natural grade with a rounding of the top of the slope of excavations to prevent erosion.
- D. All embankments shall be compacted to the satisfaction of the Township.

E. Slope easements shall have sufficient width to contain the entire slope.

603.20 <u>Sub Grade</u>, Base and Surface

A. Subgrade

- 1. The design and construction of the road bed shall take into consideration the supporting capacities of the subgrade, with particular attention to those soils which are subject to frost heave.
- Subgrade, parallel and cross drainage facilities shall be provided when necessary and shall be located, designed and installed to maintain proper drainage.
- G. Unsuitable soils shall be removed and replaced, drained or otherwise stabilized to provide adequate support for the road bed and anticipated loads. If construction of a road bed in such locations and particularly on soils identified in the Pike County Soil Survey as subject to frost heave is proposed, the Township shall require such drainage facilities and/or underdrains and subgrade drains as necessary to stabilize the subgrade. The design of such facilities shall be approved by the Township.
- B. Base Course Base course coarse aggregate material shall conform in type and be compacted to the depths shown in Table V-2 of this Ordinance in accordance with the latest specifications of the Fennsylvania Department of Transportation (Form 408) and the requirements of Milford Township.
- C. Surface Course The bituminous surface course shall conform in type and be compacted to the depths shown in Table V-2 of this Ordinance in accordance with the latest specifications of the Pennsylvania Department of Transportation (Form 408) and the requirements of Milford Township.
- D. Shoulders Where curbs are not provided, shoulders shall be constructed of the material and compacted to the width and depth shown in Table V-2 of this Ordinance.

- 603.21 <u>Curbs and Gutters</u> Where curb and gutters are provide, construction standards are as follows:
- A. Straight curbs of portland cement concrete shall be twenty-one (21) inches in depth, six (6) inches wide at the top and eight (8) inches wide at the bottom and shall have an exposed face between six (6) inches and eight (8) inches.
- B. Expansion joints shall be provided at least every twenty (20) feet.
- C. The Township may require steel reinforcing of portland cement curbs.
- D. Gutter requirements shall be in conformance with good engineering practice and subject to the approval of the Township.
- E. Gutters and/or drainage swales shall be designed to prohibit erosive velocities and may be required to be paved.
- 603.22 <u>Guiderails</u> Guiderails shall be installed wherever a fill or embankment exceeds five (5) feet above natural grade. Guiderails shall meet Pennsylvania Department of Transportation specifications.

604 <u>Monuments and Markers</u>

Monuments and markers shall be placed so that the center or scored or marked point shall coincide exactly with the intersection of the lines being monumented or marked and shall conform to the following:

- 604.1 Monuments shall consist of either:
- A. A two (2) inch (inside diamenter) galvanized pipe filled with concrete at least thirty-six (36) inches in length (preferred 42" to 48").
- B. A concrete cylinder four (4) inches in diameter and at least thirty-six (36) inches in length (preferred 42" to 58").
- C. Such other monuments as the Township may approve.
- 604.2 Monuments shall be set flush with the finish grade of the surrounding ground.

- 604.3 All monuments shall be placed under the direction of a Registered Professional Land Surveyor who will take full responsibility for their accuracy and placement.
- 604.4 Monuments shall not be placed until road grading has been completed.
- 604.5 Monuments shall be placed as follows:
- A. At all exterior property corners where permanent corners do not exist at the time of the perimeter survey. (Existing permanent corners shall not be removed or replaced but shall be noted on the plan as existing and described.)
- B. One monument for every ten lots proposed shall be placed at intersections of rear lot lines, the location of which shall be proposed by the developer and approved by the Township. However, an adequate number of monuments shall be provided so that in no case shall the distance between monuments exceed one thousand (1000) feet.
- 604.6 Lot markers shall consist of either:
- A. Solid steel rods not less than one-half (1/2) inch in diameter or not less than twenty-four (24) inches in length.
- B. Steel pipes not less than three-quarters (3/4) inch in diameter or not less than twenty-four (24) inches in length.
- C. Such other markers as the Township may approve.
- 604.7 Markers normally shall be set two (2) inches above the finish grade of the surrounding ground.
- 604.8 All markers shall be placed under the direction of a Registered Professional Land Surveyor who will take full resopnsiblilty for their accuracy and placement.
- 604.9 Markers shall not be placed until road grading has been completed.
- 604.10 Lot markers shall be placed as follows:
- A. At all points where lot lines intersect street right-of-way lines.

- B. At all points where lot lines intersect exterior property lines.
- C. At all interior lot corners.
- D. At such other lot corners and locations as the Township may direct.

605 Stormwater and Drainage

safety and welfare.

605.1 - Purpose
The purpose of this section is to provide for the management of the quantity, velocity and direction of stormwater in order to provide protection to downstream property owners, to control soil erosion and sedimentation and to protect the public general health,

605.2 - Flan

A stormwater drainage and management plan shall be required for all major subdivisions and all land developments and shall be subject to the approval of the Township. The Plan shall show all existing surface drainage features and shall include all appropriate designs, details and dimensions necessary to clearly explain proposed construction materials, grades and elevations. The Developer shall submit the plan and all associated engineering calculations to the Flanning Commission at the time of preliminary subdivision plan submittal and said plan shall be submitted concurrently by the developer to the Pike County Conservation District. Preliminary subdivision approval shall not be granted until all required approvals for the development are received from the County Conservation District.

Said Plan shall comply with Commonwealth of Pennsylvania, Title 25, Chapter 102 Department of Environmental Resources regulations for soil erosion and sedimentation control; and said Plan shall meet the intent of Section 13 of the Pennsylvania Stormwater Management Act to assure that (1) the maximum rate of storm water runoff is no greater after development than prior to development activities, or (2) the quantity, velocity and direction of resulting storm water runoff is managed in a manner which otherwise adequately protects health and property from possible injury; and said Plan shall comply with all Pennsylvania Department of Transportation requirements.

605.4 Design Criteria

- A. Stormwater management facilities shall be designed for a storm frequency of ten (10) years, using generally accepted engineering principles. In addition to being designed for a ten year storm, detention facilities shall be designed to pass a 100 year storm without facilities failure.
- B. In cases where detention of stormwater is proposed, the post development, peak rate of stormwater discharge from the parcel being developed shall not exceed the predevelopment, peak rate of stormwater discharge from the parcel being developed.
- C. The Board of Supervisors shall in cases where existing drainage problems, flooding or other factors relating to the public health, safety and welfare and upon the recommendation of the Township Engineer, require that the proposed stormwater control facilities be designed to more stringent criteria; or, require the provision of stormwater control facilities in areas where no such facilities are proposed by the developer.

605.5 - Additional Requirements

- A. All proposed surface drainage structures shall be indicated on the preliminary drainage plan submitted with the preliminary subdivision plan and shall be considered "improvements" for the purposes of final subdivision approval.
- B. Natural drainage courses and points of natural drainage discharge shall not be altered.
- C. Stormwater or natural drainage water shall not be diverted to overload existing drainage systems, or create flooding or the need for additional stormwater management or drainage facilities on other properties without the written consent of the owners of such properties and the provision by the developer of facilities to control the stormwater or drainage.
- D. Where a subdivision is traversed by a natural drainage way or channel there shall be reserved by the developer a drainage easement conforming substantially with the line of such drainage way or channel, and of such width as will be adequate to

preserve the unimpeded flow of natural drainage, or for the purpose of widening, deepening, relocating, maintaining, improving or protecting such drainage facilities. A drainage easement shall also be so provided for all proposed stormwater control facilities.

- E. Where a subdivision is traversed by a watercourse, there shall be provided a drainage easement of at least 25 feet on each side of the stream from each stream bank, or such additional width as will be adequate to preserve the unimpeded flow of the watercourse.
- F. All streets shall be so designed as to provide for discharge of surface water from their right-of-ways.
- G. In no case shall any pipe system of less than eighteen (18) inches be installed underneath a street or driveway.
- H. Drainage structures that are located on State Highway rights-of-way shall be approved by the Pennsylvania Department of Transportation and a letter from that agency indicating such approval shall be directed to the Township prior to final plan approval.
- I. Lots shall be laid out and graded to prevent cross lot drainage and to encourage drainage away from proposed building areas.
- J. Drainage easements of a minimum of ten (10) feet in width shall be provided along all side and near lot lines; and adjacent to street rights-of-way as required by the stormwater drainage and management plan.
- K. Paved street shoulders, gutters and/or drainage swales and rip/rap of drainage swales may be required to provide for adequate stormwater management.
- L. Stormsewer facilities shall be required in any development where the Township determines that surface and drainage structures are inadequate to prevent excessive erosion and road or lot maintenance problems.

605.6 - Maintenance of Stormwater Control Facilities

- A. Maintenance of stormwater control facilities shall be the responsibility of the owner of said facilities. A legally binding agreement shall be executed between the owner and the Township to provide for such maintenance and providing for inspections by the Township.
- B. In cases where a property owners association is created for the ownership, operation and maintenance of common facilities such property owners association shall be responsible for the maintenance of stormwater control facilities and such maintenance shall be established in the deed covenants and restrictions.
- C. When stormwater management control facilities are located on an individual lot, and when such facilities 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. If the municipality determines at any time that any permanent stormwater management control facility has been eliminated, altered or improperly maintained, the owner of the stormwater control facility shall be advised of corrective measures required and given a reasonable period of time to take necessary action. If such action is not taken by the property owner, the municipality may cause the work to be done and lien all costs against the property.

606 Soil Erosion and Sedimentation Controls

All soil erosion and sedimentation control plans shall meet the specifications of and shall be approved by the Fike County Conservation District. Erosion and sedimentation controls shall be installed according to the approved Plan and shall be maintained by the developer in proper functioning condition until stabilization of the area is completed as determined by the Pike County Conservation District.

607 <u>Water Supply and Sewage Disposal</u>

607.1 General Standards

- A. All subdivisions and land developments shall be served by an adequate water supply and sewage disposal system.
- B. All suppliers of non-municipally owned, central water and/or sewer services shall be organized in such a fashion as to fall within the jurisdiction of the Pennsylvania Public Utility Commission and the Developer shall provide for operation, maintenance and continunity of services in a manner which is acceptable to the Township.
- C. One (1) copy of all correspondence, supporting documentation, applications for permits and certificates for operation submitted to the Fennsylvania Department of Environmental Resources and/or the Fennsylvania Public Utilities Commission for the right to provide such services shall be forwarded to the Township as a part of the public record. One (1) copy of the permit and/or certificate of convenience issued by the Fennsylvania Department of Environmental Resources and/or the Pennsylvania Public Utilities Commission authorizing such services shall be forwarded upon receipt to the Township as a part of the public record.
- D. In the case of utilization of a publically owned or other existing central water supply and/or sewage disposal system the developer shall submit at the preliminary stage a letter from the operator of such utility indicating the utility owner's willingness to supply service to the development and including a verification of the adequacy of the utility system to serve the proposed development. At the final approval stage an executed agreement with the service supplier shall be submitted.
- E. All required certificates of convenience, approvals and permits shall be obtained by the developer and/or the utility owner prior to final plan submission and shall be submitted therewith.
- F. All water supply and sewage disposal systems shall be designed and certified by a Registered Professional Engineer or other individual otherwise

certified for such design work; and all systems shall be designed in accord with all applicable federal, state and local standards.

607.2 On-lot Water Supply - All on-lot water supply systems shall comply with the requirements of Pennsylvania Department of Environmental Resources and/or applicable Township Ordinances. The installation of on-lot wells shall be required by restrictive covenant such facilities to be installed by the lot purchaser at the time of construction of the principal structure.

607.3 Central Water Supply

A. Central water systmes serving Flanned Residential Developments and/or Multi-family Dwellings shall be designed to provide for fire flow. All other central water supply systems shall be equipped with fire department standpipes.

B. Deep Well Source

- Wells shall be sited, drilled and tested under the direct supervisor of a Registered Frofessional Engineer and/or a Professional Ground Water Geologist.
- Wells shall be located away from potential source of pollution and on a reserved parcel of a minimum of one (1) acre.
- 3. The capacity of the well shall be sufficient to produce at least seventy-five (75) gallons per capita per day and/or two hundred sixty-two and one-half (262.5) gallons per day for each residential dwelling unit to be served. The capacity of service to industrial or commercial establishments shall meet the standards of the American Water Works Association.
- 4. Wells shall be pump tested utilizing a controlled step-drawdown test to establish the specific capacity of each well and to establish a long term pumping rate. The well shall be pumped at the above determined long term pumping rate for a sufficient period of time for stabilization to occur and the recovery noted. In no case will a pumping rate greater than the recharge rate be allowed.

- 5. Well construction shall be consistent with good practice and the guidelines of D.E.R.
- 6. The effect of the projected areawide drawdown shall be evaluated and reported.

C. Water Distribution System

- 1. The system design shall follow good engineering practice and the guidelines of D.E.R. and/or the Fublic Utilities Commission. The distribution system shall be designed and sized to provide the design flows at a minimum pressure of 25 psi at curb stops.
- 2. Pipe classes shall be consistent with design pressures.
- Before being placed into service, the system must be tested and chlorinated by procedures established by D.E.R.
- 4. The proposed utility shall provide for adequate flow of water for the subdivision supplied, by interconnecting two or more wells or by providing storage for a minimum or one (1) day's demand.
- 5. Service connections shall be a minimum of 3/4 inch diameter.

D. Flow Rates

- 1. Distribution systems serving residential developments shall provide for a minimum flow rate of at least one and one/fourth (1.25) gallons per minute for each lot or proposed dwelling unit for domestic purposes only.
- Distribution systems serving commercial or industrial developments shall provide for a minimum flow rate of at least twenty-five (25) times the projected average daily flow rate.
- 3. Distribution systems intended to provide for fire flow shall provide for minimum flow rates in accordance with the standards of the National Fire Underwriters.

607.4 On-lot Sewage Disposal — All on-lot sewage disposal systems shall comply with the applicable PA D.E.R. standards and all Township Ordinances. All residential lots in developments proposing the use of on-lot sewage disposal shall contain an area suitable for such a disposal system, with such areas indicated on the plan.

607.5 <u>Central Sewage Disposal System</u>

- A. All central sewage disposal systems shall be consistent with the sewage feasability studies and plans of the Township.
- B. All sewage collection and treatment facilities shall be designed and constructed in accordance with regulations and requirements of D.E.R. (as set forth in the Sewerage Manual prepared by the Bureau of Water Quality Management) and/or the Township. In the case of relatively small Community Sewage Systems (as defined in Chapter 73 of the Department regulations), the developer may submit a written request for a waiver from such requirements together with justification thereof.
- C. All central sewage disposal systems shall be designed and constructed to provide adequate capacity for the ultimate flow of the subject development. The Township may also require that any sanitary sewer be designed and constructed to provide for service to adjacent or nearby properties. In such instances, developers shall be financially responsible solely for those costs associated with their individual development.
- D. All central sewage disposal systems using subsurface or land application of sewage effluent shall be designed and constructed in accord with applicable PA D.E.R. standards; and, a suitable replacement area for the effluent disposal area shall be provided.

608 <u>Commercial and Industrial Subdivision and Land</u> <u>Developments</u>

608.1 Access Roads - Access roads serving commerical and industrial subdivisions and land developments shall be designed and constructed to collector street standards.

608.2 <u>Ingress and Egress</u>

- A. Driveways shall not be permitted to have direct access to major or collector streets unless approved by the Township and/or the Fennsylvania Department of Transportation through issuance of a highway occupancy permit.
- B. In order to provide safe and convenient means of access, grades on driveways shall not exceed eight percent (8%).
- C. Ingress and egress shall be restricted to one common access driveway located as follows: (if the tract exceeds four hundred (400) feet in road frontage, two such access points shall be permitted)
 - 1. Centerline of the driveway shall be a minimum of thirty-five (35) feet from any side property line. (sixty (60) feet if abutting a residential zone)
 - 2. Future driveways which are to be constructed adjacent to a street intersection shall be indicated on all preliminary and final plans and shall have the following distances between the centerline of the driveway and the right-of-way line of the nearest intersecting street or road:
 - a. Major streets 300 feet.
 - b. Collector streets 200 feet.
 - c. Minor streets 150 feet.
 - d. Other driveways 75 feet.

Note: nearest intersection street shall be construed as being on the same or the opposite side of the street on which the tract is located.

- 3. Curbing or traffic barriers shall be installed along the remainder of the road frontage to restrict ingress and egress to the approved access point.
- D. The width and design of all access driveways shall be in accordance with the Pennsylvania Department of Transportation specifications and/or the requirements of Milford Township.

609 <u>Multi-Family Dwellings</u>

In addition to the applicable regulations and standards of this Ordinance, multi-family dwelling subdivisions and/or land developments shall comply with the standards contained in Section 409 of the Milford Township Zoning Ordinance.

610 <u>Cluster Development</u>

In addition to the applicable regulations and standards of this Ordinance, cluster developments shall comply with the standards contained in Section 404 of the Milford Township Zoning Ordinance.

611 <u>Mobile Home Parks</u>

In addition to the applicable regulations and standards of this Ordinance, mobile home parks shall comply with the standards contained in Milford Township Ordinance 20, Mobile Home Parks.

612 Recreational Vehicle Parks and Campgrounds

612.1 - In addition to the applicable regulations and standards of this Ordinance, recreational vehicle parks and campgrounds shall comply with the standards contained in Section 403.2 of the Milford Township Zoning Ordinance.

612.2 - Access and interior roads of recreational vehicle parks and campgrounds shall comply with the standards for streets as provided by this Ordinance, such standard based upon the traffic capacity of the proposed street.