E. Design Criteria for Storm Drainage Collection/Conveyance Facilities

- (1) All stormwater runoff collection and conveyance facilities shall be designed in accordance with the following basic standards.
 - (a) All development sites shall be graded to provide drainage away from and around all structures in order to prevent any potential flooding damage.
 - (b) In order to promote overland flow and infiltration/percolation of runoff, roof drains shall not be connected to roadways or storm sewers unless permitted on a case by case basis by the Township. Lots located on the high side of roadways shall extend footer drains to the curb line storm sewer, if applicable. Low side lots shall extend footer drains to a stormwater collection/conveyance/control system or natural watercourse in accordance with the approved stormwater plan for the development site. If applicable, stabilized outlets shall be provided for all roof drains and footer drains.
 - (c) Collection/conveyance facilities shall not be installed parallel and close to the top or bottom of a major embankment to avoid the possibility of failing or causing the embankment to fail.
 - (d) All stormwater drainage collection/conveyance facilities shall be designed to convey the 25-year storm peak flow rate from the contributing drainage area and to carry it to the nearest suitable outlet such as a stormwater control facility, curbed roadway, storm sewer or natural watercourse without damage to the drainage structure or roadway. All stormwater drainage collection/conveyance facilities shall be designed to convey the runoff from the 25-year design storm. Roadway crossings located within designated floodplain area must be able to convey runoff from the 100year design storm with a minimum of 1.0 foot freeboard measured below the lowest point along the top of the roadway. Stormwater drainage collection/conveyance facilities must also be designed to convey the 100-year storm event to any stormwater detention facilities so as not to endanger life of seriously damage property.
 - (e) Stormwater drainage shall not be permitted to cross over intersections or the crown of the road. Trench drains shall be used to control drainage from entrances (driveways, business accesses) to a road.
 - (f) When it can be shown that, due to topographic conditions, natural drainage ways on the development site cannot adequately provide for drainage, open channels may be constructed conforming substantially to the line and grade of such natural drainage ways. Work within natural drainage ways shall be subject to the approval of the Pennsylvania DEP through the Joint Permit Application process, or, where deemed appropriate by the Pennsylvania DEP, through the General Permit process.

- (g) Stormwater drainage systems shall be provided to permit unimpeded flow along natural watercourses, to drain all low points along roadways and to intercept stormwater runoff along roadways at intervals reasonably related to the extent and grade of the area drained.
- (h) Existing points of concentrated stormwater drainage that discharge from the development site onto adjacent property shall not be altered without the permission of the altered property owner(s) and shall be subject to any applicable discharge criteria specified in these Specifications.
- (i) Areas of existing diffused drainage discharge shall be subject to any applicable discharge criteria in the general direction of the existing discharge, whether proposed to be concentrated or maintained as diffused drainage areas, except as otherwise provided by these Specifications. If diffused flow is proposed to be concentrated and discharged onto adjacent property, the Developer must document that adequate downstream conveyance facilities exist to safely transport the concentrated discharge, or otherwise prove that not erosion, sedimentation, flooding, or other harm will result from the concentrated discharge.
- (j) Any stormwater management facilities regulated by these Specifications that would be located in or adjacent to waters of the Commonwealth of Pennsylvania or wetlands shall be subject to approval by the Pennsylvania DEP through the Joint Permit Application process, or, when deemed appropriate by the Pennsylvania DEP, through the General Permit process. When there is a question whether wetlands may be involved, it shall be the responsibility of Developer to show that the land in question cannot be classified as wetlands, otherwise approval to work in the area in question must be obtained from the Pennsylvania DEP.
- (k) Any storm-water management facilities regulated by these Specifications that would be located within the right-of-way of the Commonwealth of Pennsylvania shall be subject to approval by the Penn DOT.
- (l) All spring and sump pump discharges shall be collected so as not to flow onto to any roadway. Stabilized outlets shall be provided for all spring and sump pump discharges.
- (2) Storm sewers shall comply with the following criteria.
- (a) Where practical, the storm sewers shall be designed to traverse under seeded and planted areas. If constructed within ten (10) feet of road paving, walks or other surfaced areas, storm sewers shall have a narrow trench and maximum compaction of backfill to prevent settlement of the superimposed surface or development.

- (b) Storm sewers shall be installed after excavating and filling in the area to be traversed is completed, unless, the storm sewer is installed in the original ground with a minimum of three (3) feet of cover and adequate protection is provided during the fill construction.
- (c) Storm sewers shall be designed with concrete cradle when traversing fill area and/or with concrete anchors when grades exceed twenty (20) percent.
- (d) Storm sewers shall be backfilled with PennDOT 2RC or PennDOT 2B coarse aggregate when traversing under paved areas and shoulder areas.
- (e) Storm sewers shall be designed to adequately handle the anticipated stormwater flow. Pipe within a Township right-of-way shall have a minimum diameter of fifteen (15) inches, unless the Township approves a smaller diameter.
- (f) Storm sewers shall be constructed of one of the materials specified in PennDOT Publication 408 Specifications, Sections 601, 602 and 603. All corrugated polyethylene pipe shall be Type S.
- (g) Trenching, bedding and backfilling requirements and materials shall conform to the requirements of PennDOT Publications 408 Specifications, as supplemented and amended by these Specifications.
- (h) Storm inlets and structures shall be designed to be adequate, safe, self-cleaning and unobtrusive and consistent with PennDOT and Township standards. The maximum spacing of inlets shall not exceed six hundred (600) feet. Inlets shall be PennDOT Type C or M with cast-in-place reinforced concrete or precast concrete tops.
- (i) The appropriate type grates shall be provided for all storm inlets, structures and other entrance appurtenances.
- (j) Manholes shall be designed so that the top shall be at finished grade and sloped to conform to the slope of the finished grade. Top castings of structures located in roads or parking areas shall be machined or installed to preclude "clanking".
- (k) Where a proposed storm sewer connects with an existing storm sewer system, the Developer shall demonstrate that sufficient capacity exists in the downstream storm sewer system to the handle the additional flow. The Developer shall provide a letter from the purveyor providing the existing storm sewer service approving the connection of the proposed storm sewer system.
- (l) Storm sewer outcall shall be provided with either reinforced concrete headwalls or pipe end sections and energy dissipation devices to prevent erosion and conform to the applicable requirements of the Pennsylvania DEP for stream encroachment (Ordinance 105 of the Pennsylvania DEP Rules and Regulations).

(m) Storm sewers shall be placed in front of the curb or curb line when located in a roadway right-of-way. When storm sewers are located in undedicated land, storm sewers shall be placed within an easement not less than twenty (20) feet wide as approved by the Township Engineer, who may require additional width of easement as circumstances warrant.

F. Maintenance of Stormwater Management Controls

(1) Maintenance Responsibilities

- (a) The Developer shall prepare a maintenance plan for stormwater management facilities located on the development site. The plan shall establish responsibilities for the continuing operation and maintenance of all proposed stormwater control facilities, consistent with the following principles:
 - (i) If a development consists of structures or lots that are to be separately owned and in which roadways, storm sewers and other public improvements are to be dedicated to the Township, stormwater collection/conveyance facilities shall be dedicated to and maintained by the Township. The ownership and operation/maintenance of stormwater infiltration systems, flow attenuation facilities and stormwater detention/retention facilities shall be responsibility of the Developer or private management entity in perpetuity.
 - (ii) If a development site is to be maintained in single ownership or if storm sewers and other public improvements are to be privately owned and maintained, then the ownership and operation/maintenance of any and all stormwater control facilities shall be the responsibility of the Developer or private management entity in perpetuity.
- (b) The Township, upon recommendation of the Township Engineer, shall make the final determination on the continuing maintenance responsibilities prior to final approval of the stormwater plan. The Township reserves the right to accept the ownership and operation/maintenance responsibilities for any and all of the stormwater management controls and to determine the terms and conditions under which the Township will accept ownership and operation/maintenance responsibilities.

(2) Agreement for Privately Owned Stormwater Facilities

(a) Prior to final approval of the stormwater plan for a subdivision/land development site the Developer and Township shall execute an agreement covering all stormwater control facilities that are to be privately owned. The agreement shall be recorded with the final subdivision/land development plan for the development site. The agreement shall stipulate that:

- (i) All facilities shall be maintained in accordance with the approved maintenance schedule and in a safe and attractive manner.
- (ii) Easements and/or rights-of-way shall be conveyed to the Township to assure access for periodic inspections by the Township and maintenance if required.
- (iii) The name, address and telephone number of the person or company responsible for maintenance activities shall be filed with the Township. In the event of a change, new information will be submitted to the Township within ten (10) days of the change.
- (iv) If the Developer fails to maintain the stormwater control facilities, the Township may perform the necessary maintenance work or corrective work following due notice by the Township to the stormwater control facilities owner to correct the problem(s). The facilities owner shall reimburse the Township for all costs within thirty (30) day of the date of the Township's cost statement and, where appropriate, municipal liens shall be imposed on any assets within the subdivision/land development.
- (b) Other items shall be included in the agreement where determined by the Township to be necessary to guarantee the satisfactory maintenance of all stormwater control facilities.

§405. Stormwater Plan Requirements.

1. General Requirements

A. No final subdivision/land development plan shall be approved, no permit authorizing construction issued, or any clearing and grubbing, or earth moving or land disturbance activity initiated until the final stormwater plan for the subdivision/land development site is approved in accordance with the provisions of this Ordinance.

2. Exemptions

A. The following activities are exempt from the stormwater plan preparation provisions of these Specifications. Exemption shall not relieve the Developer from providing adequate stormwater management to meet the purpose of Ordinance 22 of this Ordinance.

- (1) Any regulated activity that would create 5,000 square feet or less of impervious area. This criterion shall apply to the total development even if development is to take place in phases.
 - (2) Land disturbance associated with existing one and two family dwellings.
 - (3) Use of land for gardening for home consumption.

- (4) Agriculture when operated in accordance with a conservation plan or erosion and sediment pollution control plan approved by the County Conservation District. The agricultural activities such as growing crops, rotating crops, filling of soil and grazing animals and other such activities are specifically exempt from complying with the stormwater plan requirements of this Ordinance when such activities are conducted in accordance with a conservation plan prepared by the County Conservation District. The construction of buildings, parking lots or any activity that may result in impervious surface which increases the rate and volume of stormwater runoff shall comply with the stormwater management requirements of this Ordinance.
- (5) Forest management operations which are following the Pennsylvania DEP's management practices contained in the latest edition of its publication "Soil Erosion and Sedimentation Control Guidelines for Forestry" and are operation under an erosion and sedimentation control plan.

3. Stormwater Plan Contents

- A. General Format: The stormwater plan shall be drawn on sheets 24" x 36" with a graphic scale of not less than 1 inch = 200 feet. Plans intended for recording purposes shall not be larger than 16" x 22". All plan sheets shall contain a title block with: Name and address of the Developer and engineer, graphic scale, north arrow, legend, date of original preparation and date and description of each revision to the plan sheet.
- B. Existing and Proposed Features: The plan shall show the following under both predevelopment and post-development conditions:
 - (1) Watershed Location: Provide a key map showing the location of the development site within the watershed(s) and watershed subarea(s). On all site drawings, show the boundaries of the watershed(s) and watershed subarea(s) as they are located on the development site and identify watershed name(s) and watershed subarea number(s).
 - (2) Floodplain Boundaries: Identify 100-year Floodplain on the development site (as appropriate) based upon the Township Flood Insurance Study maps.
 - (3) Natural Features: Show all bodies of water (natural or artificial), watercourses (permanent and intermittent), sales, wetlands and other natural drainage courses on the development site, or which will be affected by runoff from the development site.
 - (4) Soils: Provide an overlay showing all soil types and boundaries within the development site (consult the County Conservation District, SCS and U.S. Geological Survey for information).
 - (5) Contours: Show existing and final contours at intervals of two (2) feet. In areas with slopes greater that fifteen (15) percent, five (5) foot intervals may be used.

- (6) Land Cover: Show existing and final land cover classifications as necessary to support and illustrate the runoff calculations performed.
- (7) Drainage Area Delineation: Show the boundaries of the drainage areas employed in the runoff calculations performed.
- (8) Stormwater Management Controls: Show any existing stormwater management or drainage controls and/or structures, such as storm sewers, sales, culverts, etc. which are located on the development site, or which are located off-site but will be affected by runoff from the development site.
- C. Professional Certification: The stormwater plan (including all calculations) shall be prepared and sealed by a engineer, surveyor or landscape architect licensed by the Commonwealth of Pennsylvania and with training and expertise in hydrology and hydraulics. The Township may require documentation of such qualifications.
- D. Runoff Calculations: Calculations for determining pre- and post-development discharge rates and for designing stormwater control facilities must be submitted with the stormwater plan. All calculations shall be prepared using the methods and data prescribed by these Specifications.
- E. Stormwater Controls: All proposed stormwater runoff control measures must be shown on the drawings including methods for collecting, conveying and storing stormwater runoff on-site which are to be used both during and after construction. Erosion and sedimentation controls shall be shown in accordance with Section 407, "Erosion and Sedimentation Control", of these Specifications. The plan shall provide information on the exact type, location, sizing, design and construction of all proposed facilities and relationship to the existing watershed drainage system. The plan shall include technical specifications for materials and methods to be used in the construction of the stormwater management facilities.
 - (1) If the development is to be constructed in phases, the Developer must demonstrate that all stormwater facilities will be installed to manage stormwater runoff safely during each stage of development.
 - (2) A schedule for the installation of all temporary and permanent stormwater control measures and devices shall be submitted.
 - (3) If appropriate, a justification shall be submitted as to why any preferred stormwater management techniques, as listed in these Specifications, are proposed for use.
- F. Easements, Rights-of-Way, Deed Restrictions: All existing and proposed easements and rights-of-way for drainage and/or access to stormwater control facilities shall be shown along with any areas subject to special deed restrictions relative to or affecting stormwater management on the development site.

- G. Other Permits/Approvals: A list of any approvals/permits relative to stormwater management that will be required from other governmental agencies (Pennsylvania DEP Ordinances 105 and 106 permits and/or NPDES permit) and anticipated dates of submission/receipt shall be included with the stormwater plan submission. Copies of permit applications shall be furnished to the Township.
- H. Maintenance Program: The proposed maintenance plan for all stormwater control facilities shall be submitted with the stormwater plan and shall:
 - (1) Identify the proposed ownership entity (e.g., Township, property owner, private corporation, homeowner's association or other entity).
 - (2) Identify the type of maintenance, probable frequencies, personnel and equipment requirements and estimated annual maintenance costs.
 - (3) Identify method of financing continuing operation and maintenance if the facilities are to be owned by other than the Township.
 - (4) Include copies of any legal agreements required to implement the maintenance program and, if applicable, copies of the maintenance agreement required by these Specifications.
- I. Financial Guarantees: Submit financial guarantees in accordance with the provisions of Section 306 of this Ordinance.

4. Plan Review Procedures

A. Pre-Application Phase

- (1) Before submitting the stormwater plan, the Developer is urged to consult with the Township on the applicable regulations and techniques for safety managing runoff from the development site. The Township may also be helpful in providing necessary data for the stormwater plan.
- (2) The Developer is encouraged to submit a sketch plan with a narrative description of the proposed stormwater management controls for general guidance and discussion with the Township.
- (3) The pre-application phase is not mandatory; any review comments provided by the Township are advisory only and do not constitute any legally binding action on the part of the Township

B. Stormwater Plan Reviews

(1) Submission of Plans: The stormwater plan shall be submitted with the preliminary and final subdivision/land development submission.

- (2) Notification of Affected Municipalities: The Township shall notify municipalities adjacent to the subdivision/land development site that may be affected by the stormwater runoff and proposed controls for the site. Copies of plan shall be made available to such municipalities upon request. The Township Engineer in its review will consider comments received from any affected municipalities.
- (3) Township Engineer's Review: The Township Engineer shall recommend approval or disapproval of the stormwater plan based upon the requirements of the applicable Township Ordinances, the standards and criteria of these Specifications and good engineering practices. The Township Engineer's review of the subdivision/land development plan shall include a written report to the Township, along with supporting documentation, stating the reasons for recommending approval or disapproval.
- (4) Permits Required from Other Governmental Agencies: Where the proposed development requires an obstruction permit from the Pennsylvania DEP or an erosion/sedimentation permit from the County Conservation District, final stormwater plan approval shall not be granted until receipt of such permits. No building permit shall be issued, nor construction started, until such permits are received and copies filed with the Township.

C. Status of the Stormwater Plan After Final Approval

- (1) Upon final stormwater plan approval, receipt of all necessary permits, execution of the Developer's Agreement and posting of the necessary financial security, the Developer may commence to install or implement the approved stormwater plan.
- (2) If the site development or building construction does not begin within two (2) years of the date of final approval of the stormwater plan, then before doing so, the Developer shall resubmit the stormwater plan to verify that no condition has changed within the watershed that would affect the feasibility or effectiveness of the previously approved stormwater management controls. Further, if for any reason development activities are suspended for two (2) years of more, then the same requirement for resubmission of the stormwater plan shall apply.

D. Stormwater Plan Modifications

- (1) If the request for a plan modification is initiated before construction begins, the stormwater plan must be resubmitted and reviewed according to the procedures contained herein.
- (2) If the request for a plan modification is initiated after construction is underway, the Township Engineer shall recommend approval or disapproval of the modification based upon field inspection provided: (1) the requested changes in stormwater controls do not result in any modifications to other approved Township land use/development requirements (e.g., building setbacks, yards, buffer zones, etc.) and (2) the performance standards set forth in these Specifications are met. Notification of the Township Engineer's action shall be sent to the governing body which may issue a stay

of the plan modification within five (5) days and require the Developer to resubmit the plan modification for full stormwater plan review.

E. Inspections of Stormwater Management Controls

- (1) The Township Engineer or a designated representative shall inspect the construction of the temporary and permanent stormwater management system for the development site. The Developer shall notify the Township Engineer at least forty-eight (48) hours in advance of the completion of the following key development phases:
 - (a) At the completion of preliminary site preparation including stripping of vegetation, stockpiling of topsoil and construction of temporary stormwater management and erosion control facilities.
 - (b) At the completion of rough grading but prior to placing of topsoil, permanent drainage or other site development improvements and ground covers.
 - (c) During construction of the permanent stormwater facilities at such times as specified by the Township Engineer.
 - (d) Completion of permanent stormwater management facilities including established ground covers and plantings.
 - (e) Completion of final grading, vegetative control measures or other site restoration work done in accordance with the approved plan and permits.
- (2) No work shall commence on any subsequent phase until the preceding phase has been inspected and approved by the Township. If there are deficiencies in any phase, the Township Engineer shall issue a written description of the required corrections and stipulate the time by which the corrections must be made.
- (3) If during construction, the Developer or the Developer's contractor identifies any site conditions, such as subsurface soil conditions, alterations in surface or subsurface drainage which could affect the feasibility of the approved stormwater management facilities, the Developer shall notify the Township Engineer with twenty-four (24) hours of the discovery of such condition and request a field inspection. The Township Engineer shall determine if the condition requires a stormwater plan modification.
- (4) In cases where stormwater control facilities are to be installed in areas of landslide-prone soils or other special site conditions exist, the Township Engineer, at its sole discretion, may require special precautions such as soil tests and core borings, full-time inspectors and/or similar measures. All costs of any such measures shall be borne solely of the Developer.
- F. Financial Guarantees and Dedication of Public Improvements: Financial security, dedication of public improvements shall conform to applicable provisions of this Ordinance.

§406. Lot Grading.

- 1. Blocks and lots shall be graded to provide proper drainage away from buildings and to prevent the collection of stormwater in pools. Minimum two (2) percent slopes away from buildings shall be required.
- 2. Lot grading shall be of such design as to carry surface water to the nearest practical roadway. storm drain or natural watercourse. Where drainage sales are used to deliver surface waters away from buildings, their grade shall not be less than one (1) percent. These sales shall be sodded, planted or lined in accordance with the latest edition of the Pennsylvania DEP's Erosion and Sediment Pollution Control Program Manual or as required by the Township.
- 3. No final grading shall be permitted which creates any exposed surface, cut face or fill, steeper in slope than three (3) horizontal to one (1) vertical unless the Developer provides a retaining wall designed in accordance to sound engineering standards for which plans are submitted to the Township Engineer for review and acceptance. This requirement may be modified based on a detailed engineering study completed by a licensed professional engineer of the Commonwealth of Pennsylvania, on behalf of the developer, which demonstrates that modification of this requirement is justified, and such plan is reviewed and recommended by the Tyrone Township Engineer for approval by the Tyrone Township Board of Supervisors.
- 4. All fills shall be located so that settlement, sliding or erosion will not result in property damage or be hazardous to adjoining property, roadways or buildings.
- 5. The top or bottom edge of slopes shall be a minimum of three (3) feet from property lines or right-of-way lines of roadways in order to permit the normal rounding of the edge without encroaching upon the abutting property. All property lines, where walls or slopes are steeper than one (1) horizontal to one (1) vertical and five (5) feet or more in height, shall be protected by a protective fence or suitable barrier no less than four (4) feet in height and accepted by the Township Engineer.
 - 6. All lots must be kept free of any debris or nuisances.

§407. Erosion and Sedimentation Control.

- 1. The Developer, and each person, corporation, or other entity which engages in earthmoving activities within the Township shall design, implement and maintain erosion and sedimentation control measures and facilities that effectively prevent accelerated erosion sedimentation. These control measures and facilities shall be contained in an erosion and sedimentation control plan that meets the requirements of the Pennsylvania DEP Ordinance 102 (Erosion Control) Rules and Regulations and has been approved by the Township. The erosion and sedimentation control plan must be available at all times at the site of the activity. No final subdivision/land development plan shall be approved, no permit authorizing construction issued, or any clearing and grabbing, or earthmoving or land disturbance initiated until the final erosion and sedimentation control plan for the subdivision/land development is approved by the Township.
- 2. Prior to approval of a subdivision/land development plan proposing any earthmoving activity in excess of five thousand (5,000) square feet within the Township, an erosion and sedimentation

control plan must be submitted to and approved by the County Conservation District and the Township. For sites involving five (5) or more acres, the appropriate National Pollutant Discharge Elimination System (NPDES) Permit for Stormwater Discharges from Construction Activities or earth disturbance permit must be obtained from the County Conservation District or the Pennsylvania DEP

- 3. The erosion and sedimentation control plan must include erosion and sedimentation control measures and activities for individual building lots within a subdivision/land development.
- 4. Financial security for erosion and sedimentation control measures and facilities must be included in the financial security as required in Section 306 of this Ordinance.
- 5. If applicable, persons undertaking any earthmoving activity shall pay all fees for the review of the erosion and sedimentation control plan directly to the County Conservation District. Any person requiring the complete explanation of the County Conservation District's charges for plan reviews shall contact the County Conservation District.
- 6. Persons undertaking any earthmoving activity must notify the County Conservation District and the Township by telephone or certified mail at least seven (7) days prior to the start of construction. Persons undertaking any earthmoving activity must attend a pre-construction conference with the County Conservation District and the Township prior to the start of construction.
- 7. Township and the County Conservation District are authorized to conduct both routine and emergency site inspections of ongoing earthmoving operations, without prior notification within the municipal boundaries of the Township to establish compliance With the approved erosion and sedimentation control plan.
- 8. All violations of the requirements of these Specifications regarding erosion and sedimentation control determined during a site inspection shall be listed on an inspection report that itemizes the following items for each violation:
 - A. Specific type of violation, including location and scope.
 - B. A period of time for correction of the violations without the assessment of any penalties.
- 9. The Township's inspector and the person responsible for the earthmoving activity (or a designed representative) must sign the inspection report and a copy provided to the latter party.
- §408. <u>Water Obstructions and Encroachments</u>. The Developer must apply for and obtain a Pennsylvania DEP General Permit and/or a U.S. Army Corps of Engineers Joint Permit for construction across or within a waterway or wetland. The design and construction of this work must meet the requirements of the Pennsylvania DEP and/or the U.S. Army Corps of Engineers.
- §409. Flood Plains. Development upon property that is partially or entirely within an identified flood plain shall conform to the procedures and requirements contained within Ordinance 8, "Flood Plains", of the Township of Tyrone Code of Ordinances. The minimum first floor elevations shall be provided on the plans for all building lots located within the identified one hundred (100) year flood plain.

§410. Utilities.

1. General.

- A. Telephone, electric, television cable, water, sanitary sewer, storm drainage, natural gas and such other utilities shall be installed underground and shall be provided within the roadway right-of-way or easements to be dedicated for such utilities, and in accordance with the plans approved by the Township and the applicable utility company. Underground installation of the utility distribution and service lines must be completed prior to placement of the roadway pavement structure. All such utilities must have at least four (4) feet of cover.
 - B. Except for service connections, utilities shall not be placed under the roadway cartway.
 - C. Sanitary sewer system manholes shall not be placed within the roadway cartway.
- D. All utility lines crossing the roadway cartway and/or shoulder, or installed within the roadway shoulder must be completely backfilled with properly compacted PennDOT No. 2RC coarse aggregate or No. 2B coarse aggregate.
- E. Off-site utility extensions within Township roadway right-of-way shall be installed as follows:
 - (1) Saw cut the existing pavement surface to the bottom of the base course to a neat, straight edge.
 - (2) Completely backfill the utility trench with properly compacted PennDOT No. 2RC coarse aggregate or No. 2B coarse aggregate.
 - (3) Back-cut or over-cut the utility trench a minimum of one (1) foot on each side of the trench.
 - (4) Install the pavement structure in accordance with the standards as set forth in Section 403, "Roadway and Drainage Improvements", of these Specifications.
 - (5) Pour hot bitumastic joint sealant on all pavement joints in accordance with PennDOT Publication 408, Section 469.
- 2. Sanitary Sewers and Sewage Disposal.
 - A. The Township shall determine the method of sanitary sewage disposal in a proposed subdivision/land development.
- B. Public Sanitary Sewerage System: Where a public sanitary sewerage system is within one thousand (1,000) feet of the proposed subdivision/land development, and the capacity exists to serve the proposed subdivision/land development, the Developer shall provide the subdivision/land development with a complete sanitary sewerage system to be connected to the existing public sanitary sewerage system. An engineer registered in the Commonwealth of

Pennsylvania shall design the system. The design and construction of the public sanitary sewerage system shall conform to the minimum standards as required by the entity which owns the existing public sanitary sewage system. The Developer shall provide copies of all required permits from the Pennsylvania DEP for the proposed sanitary sewerage system

C. On-Site Sewerage System: Where it is determined by the Township that a subdivision/land development may rely upon on-site sewerage systems for sanitary sewage disposal, the on-site system(s) shall comply with the rules and regulations of the Pennsylvania DEP and the requirements of the Township's Sewage Enforcement Officer.

3. Water.

A. Public Water Supply System: Where a public water supply system is within one thousand (1,000) feet of the proposed subdivision/land development, and the capacity exists to serve the proposed subdivision land development, the Developer shall provide the subdivision/land development with a complete water supply system to be connected to the existing public water supply system. An engineer registered in the Commonwealth of Pennsylvania shall design the system. The design and construction of the water supply system shall conform to the specifications of provider of water service and/or the Pennsylvania DEP. The Developer shall provide copies of all required permits from the Pennsylvania DEP for the proposed water supply system. All water supply system components installed within a Township roadway right-of-way shall be backfilled and the pavement structure replaced as set forth in this Section 408 of these Specifications.

B. Private Water Supply System: If water is to be provided by a privately owned and operated water supply system, the water supply system shall comply with the rules and regulations of the Pennsylvania DEP and, if applicable, the Pennsylvania Public Utility Commission. The Developer shall provide copies of all required permits from the Pennsylvania DEP for the proposed water supply system. All water supply system components installed within a Township roadway right-of-way shall be backfilled and the pavement structure replaced as set forth in this Section 408 of these Specifications.

C. Individual Wells: With the exception of Minor Subdivisions, if individual wells are proposed for each lot, the Developer shall prepare a hydrogeological study of the development site. For Minor Subdivisions, the Township may direct the Developer to prepare a hydrogeological study of the development site. When a water supply facilities feasibility report is required, the Township may approve the use of on-lot water supply systems (wells) when:

- (1) This report indicates that justification of the project necessitates consideration of this type of water supply.
- (2) The anticipated water supply yield is adequate for the type of development proposed.
- (3) The installation of such systems will not endanger or decrease the groundwater supplies to adjacent properties.

(8) The mobile home park shall provide a private garbage and refuse hauling service for the park residents. If centralized garbage and refuse containers are provided, the containers shall be screened.

B. Mobile Home Lots

- (1) Each mobile home lot shall be marked off by the placement of permanent monuments as set forth in Section 412, "Monuments", of these Specifications. Mobile home lot lines shall not extend beyond right-of-way lines of internal roadways. Lot area, dimensions and setbacks shall be as set forth in Section 402 hereof.
- (2) Each mobile home lot must be consecutively numbered, said number to be shown on a permanent marker on the lot. When lots front on both sides of a street, one side shall bear odd numbers and the other side shall bear even numbers.
- (3) A mobile home pad, properly graded, placed and compacted so as to be durable and adequate for support of the maximum anticipated loads during all seasons, shall be provided on each mobile home lot within the park. Each pad shall be provided with an anchoring system designed to resist the flotation, collapse and lateral mobile movement of mobile homes.
- (4) Each mobile home lot shall be provided with a poured-in-place reinforced cement concrete outdoor patio having a surface area of at least two hundred (200) square feet and a depth of at least one (1) foot. The outdoor patio shall be located at the main entrance to the mobile home.
- (5) Each mobile home lot shall be provided with an outdoor storage building with a capacity of at least five hundred sixty (560) cubic feet. Centrally located storage lockers will not be permitted.
- (6) All lawns at each mobile home lot and mobile home park open spaces must be graded and seeded. The ground surface of the park shall be graded and equipped to drain all surface water in a safe, efficient manner.

C. Access

- (1) Each mobile home park shall be directly accessible from an existing Federal, Commonwealth, County or Township roadway. No individual mobile home lot shall take direct access from such roadway.
- (2) There shall be at least two (2) accesses from the mobile home park to a Federal, Commonwealth, County or Township roadway. However, there shall be no more than two (2) points of ingress and egress for any mobile home park on the same roadway.

- (a) Points of ingress and egress shall be located with a minimum distance of one hundred fifty (150) feet between them.
- (b) All entrances and exits shall be at right angles to the existing roadway.
- (c) Plans for mobile home parks shall meet the requirements for access contained in Section 403, "Roadway and Drainage Improvements" hereof.
- (3) All mobile home lots shall front on an internal roadway within the mobile home park.
- (4) All internal roadways within a mobile home park shall be posted at least every two hundred (200) feet with fifteen (15) miles per hour speed limit signs.
- (5) All access roads and internal roadways shall be named and shown by roadway identification signs approved by the Township.

D. Internal Roadways and Parking

- (1) All internal roadways within the mobile home park shall be designed to the minimum design standards set forth in Section 403 hereof.
- (2) [Reserved]
- (3) There shall be established and maintained within a mobile home park an offstreet parking area(s) for the use of guests. The number of spaces shall be equal to one (1) space for every four (4) mobile home sites.
- (4) Traffic control and roadway identification signs shall conform to PennDOT and Township standards. Signs shall be placed at all locations as directed by the Township. The signs shall be paid for by the Developer and installed by the Township.

E. Utilities and Park Facilities

(1) All necessary utility hook-ups serving each mobile home lot shall be placed underground in accordance with the requirements of the respective utility owners. Each mobile home lot within the park shall be served by public water and sewerage systems or approved private water and sewerage systems as well as with electric, telephone and other utilities. If applicable, the Developer of the mobile home park shall secure all permits required by the Pennsylvania DEP for the construction of water and

and sewerage systems.

§412. Monuments. The Developer is responsible for the placement of permanent monuments at all property comers of lots and all points where lot lines intersect curves, either front or rear, and at all points of curve tangency on all roadway right-of-way and property lines. The monument must be a iron pipe, steel bar or copperweld marker at least thirty-six (36) inches long and not less than three quarter (3/4) inches in diameter. Monument shall be set under the direct supervision of a professional land surveyor registered in the Commonwealth of Pennsylvania. Permanent monuments shall be set after the completion of all site-grading activities.

SECTION 3. SEVERABILITY. If any sentence, clause, section or part of this Ordinance is for any reason found to be unconstitutional, illegal or invalid, such unconstitutionality, illegality or invalidity shall not affect or impair any of the remaining provisions, sentences, clauses, sections or parts of this Ordinance. It is hereby declared as the intent of the Board of Supervisors of the Township of Tyrone that this Ordinance would have been adopted had such unconstitutional, illegal or invalid sentence, clause, section or part thereof not been included herein.

SECTION 4. EFFECTIVE DATE. This Ordinance shall become effective upon the earliest date provided by law.

ORDAINED AND ENACTED as an 2003.	Ordinance of Tyrone Township this day of
V	TYRONE TOWNSHIP BOARD OF SUPERVISORS
ATTEST:	Raymond M. Paul, Jr., Chair Donna Kerlin, Vice Chair
Yohn Burket, Secretary	John Burket, Supervisor