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PART 1

GENERAL PROVISIONS

§ 22-101. Short Title. [Ord. 158, 12/20/1994, § 101]

This Chapter shall be known as the "East Rockhill Township Subdivision and Land Development Ordinance."

§ 22-102. Purpose. [Ord. 158, 12/20/1994, § 102]

1. These regulations are adopted for the following purposes:
 - A. To protect and provide for the public health, safety and general welfare of East Rockhill Township.
 - B. To guide the future growth and development of East Rockhill Township in accordance with the Comprehensive Plan and Act 537 Sewage Facilities Plan of East Rockhill Township.
 - C. To provide for adequate light, air, water, privacy and to improve quality of same; to secure safety from fire, flood and other danger; and to prevent overcrowding of the land and undue congestion of population.
 - D. To protect the character and social and economic stability of East Rockhill Township and to encourage the orderly and beneficial development of East Rockhill Township.
 - E. To protect and conserve the value of land throughout East Rockhill Township and the value of buildings and improvements upon the land and to minimize the conflicts among the uses of land and buildings.
 - F. To guide public and private policy and action in order to provide adequate and efficient transportation, water supply, sewerage, stormwater management, schools, parks, playgrounds, recreation and other public requirements and facilities.
 - G. To provide the most beneficial relationship between the uses of land and buildings and the circulation of traffic within East Rockhill Township having particular regard to the avoidance of congestion in the streets and highways, and the pedestrian traffic movements appropriate to the various uses of land and buildings and to provide for the proper location and width of streets and building lines.
 - H. To establish reasonable standards of design and procedures for subdivision and resubdivisions in order to further the orderly layout and use of land; and to insure proper legal descriptions and monumenting of subdivided land.

- I. To insure that public facilities are available and will have a sufficient capacity to serve the proposed subdivision.
- J. To prevent the pollution of air, land, streams, lakes, ponds and groundwater; to assure the adequacy of drainage facilities; to safeguard the water table; and to encourage the wise use and management of natural resources in order to preserve the community and value of the land.
- K. To control stormwater in a manner consistent with the Bucks County Stormwater Management Plan.
- L. To regulate the subdivision and/or development of land within any designated floodplain district in order to promote the general health, welfare and safety of the community.
- M. To require that each subdivision lot in floodprone areas include a safe building site with adequate access; and that public facilities which serve such uses be designed and installed to minimize flood damage.
- N. To protect individuals from buying lands which are unsuitable for use because of flooding by prohibiting the improper subdivision and/or development of land within the designated floodplain districts; and which are unsuitable for use because of topography, wetlands, steep slopes and other environmental features.
- O. To preserve the natural beauty and topography of East Rockhill Township and to ensure appropriate development with regard to these natural features.
- P. To provide for open spaces through efficient design and layout of the land.

§ 22-103. Application of Regulations. [Ord. 158, 12/20/1994, § 103]

- 1. Subdivision Control.
 - A. No subdivision, as herein defined, of any lot, tract or parcel of land shall be effected and no street, alley, sanitary sewer, storm sewer, water main or other facilities in connection therewith shall be laid out, constructed, opened or dedicated for public use or travel, or for the common use of occupants of buildings abutting or to abut thereon, except in strict accordance with the provisions of this Chapter. No lot in any subdivision may be sold and no permit to erect, alter or repair any building upon land in a subdivision may be issued and no building may be erected in a subdivision, unless and until a subdivision plan has been approved by the Board of Supervisors and recorded in the office of the Recorder of Deeds for Bucks County.

- B. There shall be no subdivision of any lot which has been restricted from further subdivision by a note or restriction on a plan or deed recorded at the office of the Bucks County Recorder of Deeds.
2. Land Control Development.
 - A. Land development, as herein defined, must comply with the regulations contained herein. Such compliance shall include, but not be limited to, the filing of preliminary and final plats, the dedication and improvements of rights-of-way, streets and roads, and the payment of fees and charges as established by resolution of the Board of Supervisors.
 - B. Land development plans shall indicate the location of each structure and clearly define each unit and shall indicate public easements, common areas, an improvements, all easements appurtenant to each unit and improvements to public rights-of-way. Developments are subject to the zoning regulations [Chapter 27] as they apply to use and density requirements, setbacks, parking and other features, and the same shall be indicated on the land development plan.

§ 22-104. Interpretation and Conflict. [Ord. 158, 12/20/1994, § 104]

1. Interpretation. In interpreting and applying the provisions of this Chapter, they shall be held to be the minimum requirements for the promotion of public health, safety, comfort, convenience, and general welfare and protection of the natural environment.
2. Conflict with Public and Private Provisions.
 - A. Public Provisions. Where any provision of this Chapter imposes restrictions different from those imposed by any other provision of this Chapter or any other ordinance, rule, or regulation or other provisions of law, whether local, State or Federal, whichever provisions are more restrictive, or impose higher standards shall control.
 - B. Private Provisions. This Chapter is not intended to abrogate any easement, covenant of any other private agreement or restriction; provided, that where the provisions of this Chapter are more restrictive or impose higher standards or regulations than such easement, covenant, or other private agreement or restrictions, the requirements of this Chapter shall govern. Where the provisions of the easement, covenant or private agreement or restriction impose duties and obligations more restrictive, or higher standards than the requirements of these regulations, or the determinations of the Board of Supervisors in approving a subdivision or in enforcing this Chapter, and such private provisions are not inconsistent with this Chapter or determinations thereunder, then such private provisions shall be

operative and supplemental to these regulations and determinations made thereunder.

- C. **Municipal Liability.** The grant of a permit or approval of a plan for any proposed subdivision and/or land development to be located within any identified floodplain area or district shall not constitute a representation, guarantee, or warranty of any kind by East Rockhill Township or by any official or employee thereof the practicability or safety of the proposed use and shall create no liability upon East Rockhill Township, its officials or employees.

PART 2

DEFINITIONS

§ 22-201. Construction. [Ord. 158, 12/20/1994, § 201]

Unless otherwise expressly stated, the following words shall, for the purpose of this chapter, have the meanings herein indicated. The present tense shall include the future; the singular number shall include the plural; words used in the masculine gender shall include the feminine and the neuter; the word "shall" is always mandatory; the word "may" is always permissive.

§ 22-202. Terminology. [Ord. 158, 12/20/1994, § 202; as amended by Ord. 191, 4/18/2000, § I; by Ord. 192, 4/18/2000; by Ord. 214, 10/18/2005, §§ I, II; and by Ord. 241, 7/17/2008]

AFFORESTATION — The act or process of establishing a forest on land not currently forested.

AGRICULTURAL SOILS — Shall be recognized and classified as follows:

- A. Prime Agricultural Soils. The following soil types classified in the Soil Survey of Bucks County, Pennsylvania, U.S. Department of Agriculture, Natural Resources Conservation Service, September 2002 Report, or as amended:

**Manuscript
Symbol**

Soil Name

AlA	Alton gravelly loam, 0% to 3% slopes
AlB	Alton gravelly loam, 3% to 8% slopes
ArB	Arendtsville gravelly silt loam, 3% to 8% slopes
BeA	Bedington channery silt loam, 0% to 3% slopes
BeB	Bedington channery silt loam, 3% to 8% slopes
BrB	Brecknock channery silt loam, 3% to 8% slopes
BsA	Brownsburg silt loam, 0% to 3% slopes
BsB	Brownsburg silt loam, 3% to 8% slopes
CdA	Chester silt loam, 0% to 3% slopes
CdB	Chester silt loam, 3% to 8% slopes
CmB	Clarksburg silt loam, 3% to 8% slopes
DaA	Delaware loam, 0% to 3% slopes
DaB	Delaware loam, 3% to 8% slopes
DfB	Duffield silt loam, 3% to 8% slopes
DuA	Duncannon silt loam, 0% to 3% slopes
DuB	Duncannon silt loam, 3% to 8% slopes
EcB	Edgemont channery loam, 3% to 8% slopes

Manuscript Symbol	Soil Name
FoA	Fountainville silt loam, 0% to 3% slopes
FoB	Fountainville silt loam, 3% to 8% slopes
GlB	Gladstone gravelly silt loam, 3% to 8% slopes
GrA	Glenville silt loam, 0% to 3% slopes
GrB	Glenville silt loam, 3% to 8% slopes
LgA	Lansdale loam, 0% to 3% slopes
LgB	Lansdale loam, 3% to 8% slopes
LkA	Lawrenceville silt loam, 0% to 3% slopes
LmA	Lehigh channery silt loam, 0% to 3% slopes
LmB	Lehigh channery silt loam, 3% to 8% slopes
Lt	Linden loam
MaB	Manor loam, 3% to 8% slopes
McA	Matapeake silt loam, 0% to 3% slopes
McB	Matapeake silt loam, 3% to 8% slopes
MdA	Mattapex silt loam, 0% to 3% slopes
MIA	Mount Lucas silt loam, 0% to 3% slopes
MII	Mount Lucas silt loam, 3% to 8% slopes
NbB	Neshaminy silt loam, 3% to 8% slopes
PeA	Penn channery silt loam, 0% to 3% slopes
PeB	Penn channery silt loam, 3% to 8% slopes
PnB	Penn-Lansdale complex, 3% to 8% slopes
RaA	Raritan silt loam, 0% to 3% slopes
RaB	Raritan silt loam, 3% to 8% slopes
ReA	Readington silt loam, 0% to 3% slopes
Ro	Rowland silt loam
WaB	Washington silt loam, 3% to 8% slopes

- B. Agricultural Soils of Statewide Importance. The following soil types classified in the Soil Survey of Bucks County, Pennsylvania, U.S. Department of Agriculture, Natural Resources Conservation Service, September 2002 Report, or as amended:

Manuscript Symbol	Soil Name
AbA	Abbottstown silt loam, 0% to 3% slopes
AbB	Abbottstown silt loam, 3% to 8% slopes
AbC	Abbottstown silt loam, 8% to 15% slopes
AmA	Amell silt loam, 0% to 3% slopes
AmB	Amell silt loam, 3% to 8% slopes

Manuscript Symbol	Soil Name
AmC	Amell silt loam, 8% to 15% slopes
ArC	Arendtsville gravelly silt loam, 8% to 15% slopes
BeC	Bedington channery silt loam, 8% to 15% slopes
BrC	Brecknock channery silt loam, 8% to 15% slopes
BsC	Brownsburg silt loam, 8% to 15% slopes
BwB	Buckingham silt loam, 3% to 8% slopes
CbA	Chalfont silt loam, 0% to 3% slopes
CbB	Chalfont silt loam, 3% to 8% slopes
CdC	Chester silt loam, 8% to 15% slopes
CyB	Culleoka-weikert channery silt loam, 0% to 3% slopes
CyC	Culleoka-weikert channery silt loam, 8% to 15% slopes
DgC	Duffield-ryder silt loams, 8% to 15% slopes
EcC	Edgmont channery loam, 8% to 15% slopes
FoC	Fountainville silt loam, 8% to 15% slopes
GlC	Gladstone gravelly silt loam, 8% to 15% slopes
Ha	Hatboro silt loam (Farmland of statewide importance)
Ho	Holly silt loam, 0% to 8% slopes
KlB	Klinesville very channery silt loam, 3% to 8% slopes
LgC	Lansdale loam, 8% to 15% slopes
LkB	Lawrenceville silt loam, 3% to 8% slopes
LmC	Lehigh channery silt loam, 8% to 15% slopes
MaC	Manor loam, 8% to 15% slopes
MIc	Mount lucas silt loam, 8% to 15% slopes
NbC	Neshaminy silt loam, 8% to 15% slopes
NkA	Nockamixon silt loam, 0% to 3% slopes
NkB	Nockamixon silt loam, 3% to 8% slopes
NkC	Nockamixon silt loam, 8% to 15% slopes
PeC	Penn channery silt loam, 8% to 15% slopes
PkB	Penn-klinesville channery silt loam, 3% to 8% slopes
PkC	Penn-klinesville channery silt loam, 8% to 15% slopes
PkD	Penn-klinesville channery silt loam, 15% to 25% slopes
PnC	Penn-lansdale complex channery silt loam, 8% to 15% slopes
RaC	Raritan silt loam, 8% to 15% slopes
ReB	Readington silt loam, 3% to 8% slopes

Manuscript Symbol	Soil Name
RIA	Reaville channery silt loam, 0% to 3% slopes
RIB	Reaville channery silt loam, 3% to 8% slopes
RIC	Reaville channery silt loam, 8% to 15% slopes
StB	Steinsburg gravelly loam, 3% to 8% slopes
StC	Steinsburg gravelly loam, 8% to 15% slopes
WaC	Washington silt loam, 8% to 15% slopes
WeB	Weikert channery silt loam, 0% to 8% slopes

ALLEY — A strip of land over which there is a public or private right-of-way which serves as the secondary means of vehicular access to the side or rear of two or more properties. Frontage on such a right-of-way shall not be construed as satisfying the requirements of Township ordinances relating to frontage on a street.

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

APPLICATION FOR DEVELOPMENT — Every application, whether tentative, preliminary or final required to be filed, approved and recorded at the Bucks County Courthouse prior to start of construction or development including but not limited to an application for a building permit, for the approval of a subdivision plat or plan or for the approval of a development plan.

BERM — An earth mound which physically blocks views without using architectural elements.

BLOCK — A tract of land bounded by streets. Block length shall be measured along the centerline of a street between centerlines of intersecting streets.

BUILDING — Any structure having a roof supported by columns or walls and intended for shelter, housing or enclosure of persons, animals or chattels and including covered porches or bay windows and chimneys. Included shall be all manufactured homes and trailers to be used for human habitation.

CARTWAY OR ROADWAY — The portion of a street right-of-way normally paved or stoned and designed or intended for vehicular use.

CLEAR SIGHT TRIANGLE — An area of unobstructed vision at street intersection defined by lines of sight between points at a given distance from the intersection of the street right-of-way lines.

COMMON OPEN SPACE — A parcel of land or an area of water, or a combination of land and water within a development site and designed and

intended for the use or enjoyment of residents of a development not including streets, off-street parking areas and areas set aside for public facilities.

CONDOMINIUM AND COOPERATIVE — (An ownership arrangement and not a land use) a method of ownership which, when applied to a multifamily dwelling, provides for separate ownership for each unit, title of which shall consist of ownership of the unit together with an undivided interest in the common element.

CONSERVATION DISTRICT — Bucks County Conservation District.

COUNTY — The County of Bucks, Pennsylvania.

COUNTY PLANNING COMMISSION — The Planning Commission of the County of Bucks.

CROSSWALK — A right-of-way or easement for pedestrian travel which crosses a cartway.

CUL-DE SAC — A street intersecting another street at one end and termination at the other in a vehicular turnaround.

CULVERT — A pipe, conduit or similar structure including appurtenant works which convey surface water.

DENSITY — The measure of the number of dwelling units per unit of base site area as determined by Township Zoning Ordinance regulations [Chapter 27]. It shall be expressed in dwelling units per acre.

DESIGN STANDARDS — Regulations adopted pursuant to this chapter establishing minimum or maximum standards and a layout by which a subdivision and land development is developed.

DESIGN STORM — The magnitude of precipitation from a storm event measured in probability of occurrence (i.e., fifty-year storm) and duration (i.e., 24 hours) and used in computing stormwater management control system.

DETENTION BASIN — A basin designed to retard stormwater runoff by temporarily storing the runoff and releasing it at a predetermined rate.

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

DEVELOPMENT — Any man-made change to improved or unimproved real estate, including but not limited to the construction or placement of buildings or other structures, mobile homes, streets and other paving, utilities, mining,

dredging, filling, grading, excavation, or drilling operations and the subdivision of land.

DEVELOPMENT PLAN — The provisions for development including a planned residential development, a plat of subdivision, all covenants relating to use, location and bulk of buildings and other structures, intensity of use or density of development, streets, ways and parking facilities, common open space and public utilities. The phrase "provisions of development plan" when used in this chapter shall mean the written and graphic materials referred to in this definition.

DRAINAGE FACILITY — Any ditch gutter, swale, culvert, basin, storm sewer or other structure designed, intended or constructed for the purpose of conveying, diverting or controlling surface water or groundwater.

DRAINAGE RIGHT-OF-WAY — The lands required for the installation of stormwater sewers or drainage ditches or required along a natural stream or watercourse for preserving the channel and providing for the flow of water therein to safeguard the public against flood damage and unnatural erosion.

DRIVEWAY — A private vehicular passageway providing access between a street and a private parking area or private garage.

DWELLING — A building designed and occupied exclusively for residential purposes containing one or more dwelling units on a single parcel of land excluding hotel, rooming house, tourist home, institutional home, guest house, residential club, motel, motor court and the like.

DWELLING UNIT — Any room or group of rooms located within a residential building and forming a single habitable unit with facilities use or intended to be used for living, sleeping, cooking and eating by one family.

EASEMENT — A grant for the use of a parcel of land by the public, a corporation or a person for a specified purpose.

ENGINEER — A registered professional engineer licensed as such in the Commonwealth of Pennsylvania.

EROSION — The removal of soil particles by the action of water, wind, ice or other geological agents.

EXCAVATION — Any act by which earth, sand, gravel, rock or any other similar material is dug into, cut, quarried, uncovered, removed, displaced, relocated or bulldozed; and shall include the conditions resulting therefrom.

FILL —

- A. Any act by which earth, sand, gravel, rock or any other material is placed, pushed, dumped, pulled, transported or moved to a new location

above the natural surface of the ground or on top of a stripped surface and shall include the conditions resulting therefrom.

- B. The difference in elevation between a point on the original ground and a designated point of higher elevation on the final ground elevation.
- C. The material used to fill.

FINANCIAL SECURITY — Any approved security which may be in lieu of a requirement that certain improvements be made before the Board of Supervisors approves a final subdivision or land development plan including performance bonds, escrow agreements, and other similar collateral or surety agreements.

FLOOD — A temporary inundation of normally dry land areas.

FLOODPLAIN — Any areas of East Rockhill Township classified as special flood hazard areas (SFHAs) in the Flood Insurance Study (FIS) and the accompanying Flood Insurance Rate Maps (FIRMs), dated March 16, 2015, and issued by the Federal Emergency Management Agency (FEMA), or the most-recent revision thereof, including all digital data developed as part of the Flood Insurance Study, and, for areas abutting streams and watercourses where the one-hundred-year floodplain (one-percent annual chance flood) has not been delineated by the Flood Insurance Study, the applicant shall submit a floodplain identification study. The study, prepared by a registered professional engineer expert in the preparation of hydrologic and hydraulic studies, shall be used to delineate the one-hundred-year floodplain. The floodplain study shall be subject to the review and approval of the Township. All areas inundated by the one-hundred-year flood shall be included in the Floodplain Area. **[Added by Ord. No. 279, 2/10/2015]**¹

FOREST (WOODLANDS) — Areas comprised of one or more acres of mature or largely mature trees in which the largest trees measure at least six inches dbh (diameter at breast height) or 4 1/2 feet above the ground. Forest shall be measured from the dripline of the outer trees. Forest is also 10 or more individual trees which measure at least 10 dbh and form a contiguous canopy.

GOVERNING BODY — The Board of Supervisors of East Rockhill Township, Bucks County, Pennsylvania.

GRADE — The slope of a street, other public way, land area, drainage facility or pipe, specified in percent.

GRADING AND DRAINAGE PLAN — A plan showing all existing ground features and proposed grading, including existing and proposed surface and subsurface drainage facilities, described by grades, contours and topography.

¹This ordinance also repealed the definitions for “floodplain (general floodplain),” “floodplain soils,” “floodproofing,” “floodway,” “floodway fringe,” and “identified floodplain area.”

GROUNDWATER — Natural underground water supplies.

IMPERVIOUS SURFACE — Those surfaces which do not absorb precipitation and surface water. All buildings, parking areas, driveways, roads, sidewalks, swimming pools and any areas in concrete, asphalt, packed stone or other equivalent surfaces shall be considered impervious surfaces within this definition. In addition, other areas determined by the Township Engineer to be impervious within the meaning of this definition will be classified as impervious surfaces.

IMPROVEMENT CONSTRUCTION DOCUMENTS — Includes but are not limited to traffic study, stormwater management study, floodplain study, wetland studies, erosion and sedimentation pollution control narrative, geological studies for water supply, sewage facilities alternatives study, etc. Studies requiring engineering calculations shall be prepared, signed and sealed by a licensed professional engineer when deemed necessary by the Township.

IMPROVEMENTS — Those physical additions, installations and changes required to render land suitable for the use intended, including but not limited to grading, paving curbing, street lights and signs, fire hydrants, water mains, electric service, gas service, sanitary sewers, storm drains, sidewalks, crosswalks, driveways, culverts and street shade trees.

LAND DEVELOPMENT — Any of the following activities:

- A. The improvement of one or two or more contiguous lots, tracts or parcels of land for any purpose involving:
 - (1) A group of two or more residential or nonresidential buildings, whether proposed initially or cumulatively, or a single nonresidential building on a lot, or lots regardless of the number of occupants or tenure.
 - (2) The division or allocation of land or space, whether initially or cumulatively, between or among two or more existing or prospective occupants by means of, or for the purpose of streets, common areas, leaseholds, condominiums, building groups or other features.
- B. A subdivision of land.
- C. Land development does not include development which involves:
 - (1) The conversion of an existing single-family dwelling, detached dwelling or single-family semidetached dwelling into not more than three residential units unless such units are intended to be a condominium.
 - (2) The addition of a residential accessory building, including farm building, on a lot or lots subordinate to an existing principal building.

- (3) The addition or conversion of buildings or rides within the confines of an enterprise which would be considered an amusement park. For the purposes of this subsection, an amusement park is defined as a tract or area used principally as a location for permanent amusement structures or rides. This exclusion shall not apply to newly acquired acreage by an exclusion shall not apply to newly acquired acreage by an amusement park until initial plans for the expanded area have been approved by the proper authorities.

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

LOT, CORNER — A lot which has an interior angle of less than 135° at the intersection of two street lines. A lot abutting upon a curved street or streets shall be considered a corner lot if the tangent to the curb at the points beginning within the lot or at the points of intersection of the side lot lines with the street lines intersect at an angle of less than 135°.

LOT, DEPTH — The mean distance from the ultimate right-of-way line of the lot to its opposite rear line measured in a direction parallel to the side lines of the lot. Lot depth for triangular lots shall be the mean distance from the street line to the point of intersection of the side yards.

LOT OF RECORD — A lot which has been recorded in the office of the Recorder of Deeds.

LOT, INTERIOR — A lot, the side lot lines of which do not abut on a street.

LOT, LANE (FLAG LOT) — A lot which meets the criteria for an exception to the minimum lot width requirements under § 27-1505 of the Zoning Ordinance [Chapter 27].

LOT, MINIMUM WIDTH — The minimum required lot width measured at the required building setback line.

LOT, NONCONFORMING — A lot, the area or dimension of, which was lawful prior to the adoption or amendment of the relevant zoning ordinance [Chapter 27] but which fails to conform to the requirements of the zoning district under the current Zoning Ordinance. [Chapter 27].

LOT, REVERSE-FRONTAGE — A lot (excluding corner lots) which abuts upon two streets.

LOT, THROUGH — An interior lot having frontage on two parallel or approximately parallel streets.

LOT, TRIANGULAR — A lot having three lot lines but which does not qualify as a corner lot.

LOT, WIDTH — The distance measured between the side lot lines at the required minimum building setback line. In a case where there is only one side lot line, lot width shall be measured between such side lot line and the opposite rear lot line or street line.

LOT LINE ADJUSTMENT — A minor subdivision of land resulting in revised property boundaries between two or more existing lots and not resulting in the creation of any additional lots.

MAINTENANCE GUARANTEE — Any security which may be accepted by the Township for the maintenance of any improvements required by this chapter.

MAJOR SUBDIVISION — Any subdivision not classified as a minor subdivision or lot line adjustment.

MANUFACTURED/MODULAR HOME — A dwelling unit erected on a foundation and made of one or more sections built in a factory. The complete unit shall meet all applicable building codes in effect.

MINOR SUBDIVISION — Any division or redivision of a lot, tract or parcel of land by any means into two lots or less.

MOBILE HOME — A transportable, single-family dwelling intended for permanent occupancy, contained in one unit, or in two or more units designed to be joined into one integral unit capable of again being separated for repeated towing, which arrives at a site complete and ready for occupancy except for minor and incidental unpacking and assembly operations and constructed to that it may be used without a permanent foundation.

MOBILE HOME LOT — A parcel of land in a mobile home park, improved with the necessary utility connections and other appurtenances necessary for the erections thereon of a single mobile home.

MOBILE HOME PARK — A parcel or contiguous parcels of land which has been so designated and improved that it contains two or more mobile home lots for the placement thereon of mobile homes.

MUNICIPAL AUTHORITY — A body politic and corporate created pursuant to the Act of May 2, 1945 (P.L. 382, No. 164), known as the "Municipalities Authority Act of 1945."

MUNICIPAL ENGINEER — A registered professional engineer licensed as such in the Commonwealth of Pennsylvania and appointed by the Township pursuant to § 1201 of the Second Class Township Code, 53 P.S. § 66201.

MUNICIPALITIES PLANNING CODE — Act of Assembly of July 31, 1968, P.L. 805, as amended.

ONE-HUNDRED-YEAR FLOOD — A flood that, on the average, is likely to occur once every 100 years (i.e., that has a one-percent chance of occurring each year, although the flood may occur in any year).

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

PLAN, FINAL — A complete and exact plan prepared by a licensed engineer or surveyor, prepared for official recording, showing right-of-way lines, easements, lot dimensions with bearings, lot numbers and any other relevant information pertaining to the street and lot subdivision or land development. The final plan shall include improvement construction documents prepared by a licensed engineer where applicable. Final plan must show typical cross-sections of streets and the horizontal and vertical details (plan profiles of all streets, drainage facilities, sanitary sewers, water mains, fire hydrants, street lights and all underground and aboveground utility conduits and poles). An exact copy of the approved final plan on opaque linen of standard size shall be submitted for necessary signatures and recording with the Bucks County Recorder of Deeds.

PLAN, PRELIMINARY — A plan prepared by a registered professional engineer and/or registered professional land surveyor showing the existing features of a tract and its surroundings and proposed street and lot layout within and adjacent to the subdivision or land development as a basis for consideration prior to preparation of a final plan. Preliminary plan shall include improvement construction documents prepared by a licensed engineer (where applicable). Preliminary plan must show typical cross-sections of the streets and the horizontal and vertical details (plan profiles of all streets, drainage facilities, sanitary sewers, water mains, fire hydrants, street lights and all underground and above ground utility conduits and poles).

PLAN, SKETCH — An informal plan indicating salient existing features of a tract and its surroundings and a general layout of the proposed subdivision or land development, to be used as the basis of informal discussions between representatives of the Township and the subdivider or land developer.

PLAN, SOIL EROSION AND SEDIMENTATION CONTROL — A plan approved by the Bucks County Conservation District for controlling erosion and sediment during construction which shall provide all steps, including scheduling, to assure erosion and sediment control during all phases of construction including final stabilization.

PLANNING COMMISSION — The East Rockhill Township Planning Commission.

PLAT — A map or plan of subdivision or land development whether sketch, preliminary or final.

PUBLIC FACILITIES — Any parks, playgrounds, trails, paths or other recreational areas; any water or sewer collection, transportation or treatment facilities; all street, sidewalk, curb or other roadway facilities to be dedicated; and any drainage or utility easement areas to be dedicated to the Township.

Any public improvements required by this chapter or otherwise to be constructed and dedicated to the Township.

PUBLIC HEARING — A formal meeting held pursuant to public notice by the Board of Supervisors or Planning Commission of the Township, intended to inform and obtain public comment, prior to taking action in accordance with this chapter.

PUBLIC MEETING — A forum held pursuant to notice under the Act of July 3, 1986 (P.L. 388, No. 84), known as the Sunshine Act, 53 P.S. § 271 et seq.

PUBLIC NOTICE — Notice published once each week for two successive weeks in a newspaper of general circulation in East Rockhill Township. Such notice shall state the time and place of the hearing and the particular nature of the matter to be considered at the hearing. The first publication shall not be more than 30 days and the second publication shall not be less than seven days from the date of the hearing.

RECREATION FACILITIES — The following definitions apply to the recreation facilities required by § 22-525 of this chapter:

BASKETBALL COURT — A complete basketball facility including paved, standard sized court area with posts, backboards and baskets at both ends of the court.

PLAYFIELD — A common area within a subdivision or land development for neighborhood residents to use for informal, active recreation purposes such a ball game and other activities requiring a large lawn area away from homes or other buildings for their proper conduct.

SWIMMING POOL — A complete swimming facility including the pool, surrounding paved deck, lawn area, lifeguard, and bathroom facilities and appropriate mechanical equipment.

TENNIS COURT — A complete tennis facility, including paved, standardsized court area, posts, net and fencing around its perimeter.

TOT LOT — A confined, developed, play area primarily for use by preschool children under the supervision of parents or guardian.

REFORESTATION — The act or process of restoring a forest on previously forested land.

RESERVE STRIP — A narrow parcel of ground having inadequate area for building purposes separating a street or a proposed street from other adjacent properties.

RESUBDIVISION — Any subdivision or transfer of land laid out on a plan which has been approved by the Board of Supervisors which changes or proposes to change property lines and/or public rights-of-way not in strict accordance with the approved plan.

RETENTION BASIN — A basin designed to retain stormwater runoff so that a permanent pool is established.

RIGHT-OF-WAY — A strip of land occupied or intended to be occupied by a street, sidewalk, alley, utilities or other similar use.

EXISTING RIGHT-OF-WAY — The legal right-of-way as established by the commonwealth or other appropriate governing authority and currently in existence.

FUTURE (ULTIMATE) RIGHT-OF-WAY — The right-of-way deemed necessary the Township as appropriate to provide adequate width for future street improvements.

RUNOFF — The surface water discharge or rate of discharge of a given watershed after a fall of rain or snow that does not enter the soil but runs off the surface of the land; that part of precipitation which flows over the land.

SEDIMENT — Solid material, both mineral and organic, that is in suspension, has been transported or has been moved from its site of origin by water.

SEDIMENTATION — The process by which mineral or organic material is accumulated or deposited by the movement of wind and water or by gravity. Once this matter is deposited or remains suspended in water, it is usually referred to as sediment.

SELECT EARTH BACKFILL — Crushed stone backfill graded in accordance with PennDOT Form 408.

SETBACK (BUILDING SETBACK LINE) — The minimum distance that a building must be held back from an adjacent lot line, depending on the applicable zoning district, or the minimum distance from the ultimate right-of-way, depending on the applicable street, road or highway.

SEWER, COMMUNITY — A system, whether publicly or privately owned, for the collection of sewage or nonhazardous industrial wastes of a liquid nature from two or more lots and for the treatment or disposal of the sewage or industrial waste on one or more of the lots or at any other site.

SEWER, INDIVIDUAL — A system of piping, tanks or other facilities serving a single lot and collecting and disposing of sewage in whole or in part into the soil or into waters of the commonwealth or by means of conveyance to another site for final disposal.

SIGHT DISTANCE — Includes safe sight distance, safe stopping site distance, passing sight distance and decision site distance as defined and regulated by Pennsylvania Code, Title 67, Chapter 441, and PennDOT Design Manual, Part 2, Publication 13. Sight distance for intersection of streets, alleys and driveways shall be measured (unobstructed) from a point 10 feet

back from edge of pavement at a height of 3 1/2 feet above the pavement surface to another point six inches above the pavement surface.

SITE — A parcel or parcels of land intended to have one or more buildings or intended to be subdivided into one or more lots.

SLOPE — The face of an embankment of cut section; any ground whose surface makes an angle with the plane of the horizon. Slopes are usually expressed in a percentage based upon vertical difference in feet per 100 feet of horizontal distance.

SOIL, PERCOLATION TEST — A field test conducted to determine the absorption capacity of soil to a specified depth in a given location for the purpose of determining suitability of soil for on-site sewage disposal.

SOILS ON FLOODPLAIN — Areas subject to periodic flooding listed in the Official Soil Survey provided by the United States Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey (<http://websoilsurvey.nrcs.usda.gov/>), as soils having a flood frequency other than none. **[Added by Ord. 279, 2/10/2015]**

STREET, ROAD OR HIGHWAY — Includes street, avenue, boulevard, road, highway, freeway, parkway, lane, viaduct, alley or any other ways used or intended to be used by vehicular traffic or pedestrians whether public or private which are identified on the legally adopted Township street or highway plan or the Official Zoning Map, together with all necessary appurtenances, including bridges, rights-of-way and traffic control improvements. The term shall not include the interstate highway system.

ARTERIAL STREETS — Those serving large volumes of comparatively high-speed and long-distance traffic and include facilities classified as main and secondary highways by the Pennsylvania Department of Transportation.

COLLECTOR STREETS — Streets which give minimal emphasis to travel mobility, which is characterized by low travel speeds, full land access, neighborhood penetration and which serve minor traffic generators such as local elementary schools, small individual industrial plants, offices, commercial facilities and warehouses not served by principal or minor arterials.

CUL-DE-SAC — A minor street intersection another street at one end and terminated at the other by a vehicular turnaround.

LOCAL ACCESS STREETS — Those used primarily to provide access to abutting properties.

MARGINAL ACCESS STREETS — Minor streets, parallel and adjacent to arterial streets, providing access to abutting properties and control of intersections with the arterial street.

STRUCTURE — Any man-made object having an ascertainable stationary location on or in land or water, whether or not affixed to the land.

SUBDIVISION — The division or redivision of a lot, tract or parcel of land by any means into two or more lots, tracts, parcels or other divisions of land, including changes in existing lot lines for the purpose, whether immediate or future, of lease, partition by the court for distribution to heirs or devisees, transfer of ownership or building or lot development; provided, however, that the subdivision by lease of land for agricultural purposes into parcels of more than 10 acres not involving any new street or easement, access or any residential dwelling shall be exempted.

SUBSTANTIALLY COMPLETED — Where, in the judgment of the Township Engineer, at least 90% (based on the cost of the required improvements for which financial security was posted pursuant to the requirements of this chapter) of those improvements required as a condition for final approval have been completed in accordance with the approved plan so that the project will be able to be used, occupied or operated for its intended use.

SURVEYOR — A registered professional land surveyor licensed by the Commonwealth of Pennsylvania.

SWALE — A low-lying stretch of land characterized as a depression used to carry surface water runoff.

TOPSOIL — Surface soils and subsurface soils which normally are fertile soils and soil material, ordinarily rich in organic matter or human debris. Topsoil is usually found in the uppermost soil layer called the A Horizon.

TREE PROTECTION ZONE (TPZ) — The area radial to the trunk of a tree measured 15 feet from the trunk of the tree to be retained or the distance from the trunk of the tree to the dripline (the line marking the outer edge of the branches of the tree), whichever is greater. Where there is a group of trees or woodlands, the tree protection area shall be an area encompassing the protection areas for the individual trees.

UNDEVELOPED LAND — Any lot, tract or parcel of land which has not been graded or in any other manner improved.

UNIT — A part of the property, structure or building designed or intended for any type of independent use, which has direct exit to a public street or way, or to an easement or right-of-way leading to a public street or way and includes a proportionate undivided interest in the common elements which is assigned to the property, structure or building.

WATER FACILITY — An inventory of the source, quantity, yield and use of groundwater and surface water resources within East Rockhill Township.

WATERCOURSE — An intermittent or perennial stream of water, river, brook, creek, swale identified on USGS mapping or SCS mapping; and/or delineated waters of the commonwealth.

WETLANDS — Those area that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and that, under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated areas. The term also includes but is not limited to wetland areas listed in the State Water Plan, the United States Fish and Wildlife Service Wetlands Inventory of Pennsylvania, the Pennsylvania Coastal Zone Management Plan and a wetland area designated by a river basin commission.

WETLANDS DELINEATION — The process by which wetland limits are determined. Wetlands must be delineated by a qualified specialist according to the 1989 Federal Manual (as amended) for the delineation of jurisdictional wetlands (whichever is treated) or according to any subsequent federal or state regulation. Qualified specialists shall include those persons being certified professional soil scientists as registered with Registry of Certified Professionals in Agronomy Crops and Soils (ARCPACS); or as contained on consultant's list of Pennsylvania Association of Professional Soil Scientists (PAPSS); or as registered with National Society of Consulting Soil Scientists (NSCSS) or as certified by state and/or federal certification programs; or by a qualified biologist/ecologist.

PART 3

SUBMISSION PROCEDURES

§ 22-301. General Procedure. [Ord. 158, 12/20/1994, § 301; as amended by Ord. 192, 4/18/2000; and by Ord. 214, 10/18/2005, § III]

1. Classification of Subdivision. Whenever any subdivision of land or land development is proposed, before any contract is made for the sale of any part thereof; and before any permit for the erection of a structure in such proposed subdivision or land development shall be granted, the owner, or his authorized agent, shall apply for and secure approval of such proposed subdivision or land development in accordance with the following procedures for subdivision and land development.
2. Preapplication DEP Consultation. Prior to the preparation of any plans, it is suggested that prospective developers consult with the Pennsylvania Department of Environmental Protection and/or Bucks County Health Department concerning soil suitability when onsite sewage disposal facilities are proposed.
3. Preapplication Conservation District Consultation. Prospective developers should consult with the Bucks County Conservation District representative concerning erosion and sediment control and geologic conditions at the proposed development.
4. Preapplication PennDOT Consultation. When the development site has frontage on a state highway and/or proposed access to a state highway, the developer should consult with PennDOT concerning design requirements which may be imposed in addition to the requirements of this chapter.
5. Official Filing Date.
 - A. For the purpose of these regulations, the official filing date shall be the date of the regular meeting of the Planning Commission next following the date complete application and plans are received in the municipal building; provided that, should said regular meeting occur more than 30 days following the submission of the application, the official filing date shall be the 30th day following the day the complete application has been submitted. All applications will not be deemed complete unless all applicable fees have been paid by the applicant and the application and plans conform with the plan requirements as set forth in Part 4 of this chapter.
 - B. Upon receipt of an application for subdivision or land development approval, the Township Secretary shall affix to the application both the date of submittal and the official filing date. Applications shall be administratively reviewed for completeness in accordance with the

East Rockhill Township's Subdivision/Land Development review policies dated July 7, 1994 (as amended.)

- C. Following submittal of a subdivision or land development plan to the Township for a formal review, no further documentation or additional plans or plan sheets may be submitted to the Township for inclusion with the plan under review. This policy shall apply to formal sketch preliminary and final submissions. In the event the applicant desires to submit a plan of substitution, the original plan shall be formally withdrawn and a new review time-table shall commence.
6. Bucks County Planning Commission Review. All plans shall be submitted to and reviewed by the Bucks County Planning Commission in accordance with its then-prevailing rules and regulations.
7. Any renderings, photographs, drawings or plans that are to be presented at a public meeting shall be submitted in PDF format or other format acceptable to the Township and shall accompany and be part of the plan submission application.

§ 22-302. Fee Schedule. [Ord. 158, 12/20/1994, § 302; as amended by Ord. 214, 10/18/2005, § IV]

1. All filing, inspection and engineering fees shall be submitted to East Rockhill Township.
2. Plan Filing Fee/Professional Services Fee. A filing fee and contract for professional services for required charges by the Township's professional consultants shall accompany the preliminary plan. No application shall be accepted or acted upon unless payment is made to East Rockhill Township. The East Rockhill Township Board of Supervisors shall establish by resolution a schedule of fees to be paid by the subdivider or land developer to defray the costs of administering and processing of plans. The schedule of fees, including professional consultant fees, may be changed from time-to-time by resolution of the Board of Supervisors of East Rockhill Township.
3. Review Fees.
 - A. Review fees shall include reasonable and necessary charges by the Township's professional consultants or engineer for review and report to the Township and shall be set by resolution. Such review fees shall be reasonable and in accordance with the ordinary and customary charges by the Township Engineer or consultant for similar services in the community, but in no event shall fees exceed the rate or cost charged by the engineer or consultant to the Township when fees are not reimbursed or otherwise imposed on applicants.
 - B. In the event the applicant disputes the amount of any such review fees, the applicant shall, within 10 days of the billing date, notify the

Township that such fees are disputed, in which case the Township shall not delay or disapprove a subdivision or land development application due to the applicant's request over disputed fees.

- C. In the event that the Township and the applicant cannot agree on the amount of review fees which are reasonable and necessary, then the fees shall be recalculated and recertified by another professional engineer licensed as such by the Commonwealth of Pennsylvania and chosen mutually by the Township and the applicant or developer.
- D. An applicant shall, by filing a plan, be then obligated to pay the fees herein provided. The engineering fees required to be paid by this section shall be promptly submitted to the Township by the applicant upon the submission of bills therefore to the applicant from time to time by the Board of Supervisors.

§ 22-303. Lot Line Adjustment Procedure. [Ord. 158, 12/20/1994, § 303]

Lot line adjustment plans shall be initiated and submitted for review in the form of a final plan as specified in § 22-402 and shall be otherwise reviewed in accordance with the procedures and standards of § 22-305.

§ 22-304. Minor Subdivision Procedure. [Ord. 158, 12/20/1994, § 304]

- 1. Minor subdivision plans shall be initiated and submitted for review in the form of a final plan as specified in § 22-402 and shall be otherwise reviewed in accordance with the procedures and standards of § 22-305.
- 2. Additional Subdivision. Any additional subdivision of a tract from which a minor subdivision has already been approved shall be deemed to be a major subdivision and shall follow the procedure applying thereof if the additional subdivision is submitted for review within five years of the approval of the minor subdivision.

§ 22-305. Major Subdivision and Land Development Procedure. [Ord. 158, 12/20/1994, § 305; as amended by Ord. 192, 4/18/2000; by Ord. 214, 10/18/2005, §§ V-VI; and by Ord. 241, 7/17/2008]

- 1. Sketch Plan. Prospective subdividers and developers are strongly urged to discuss possible development sites with the Planning Commission prior to submission of a preliminary plan. A sketch plan may be presented for review not less than 14 days prior to the regular meeting of the Planning Commission. Application for sketch plan review by the Bucks County Planning Commission must accompany the submission. Submission of a sketch plan will not constitute a formal filing of a subdivision or land development plan with the Board of Supervisors. Sketch plans should include those items listed in Part 4, Plan Requirements.
- 2. Preliminary Plan.

A. Submission of Preliminary Plans.

- (1) Required Documentation.
 - (a) The applicant or his agent shall distribute the required documents in accordance with the most current East Rockhill Township application form, which specifies that number of copies and reviewing agencies. All required documentation (plans, applications, stormwater management reports, traffic studies, etc.) shall also be submitted in PDF format.
 - (b) In addition to the above, an information packet shall be included with the submission to the Township at the time the application is made for land development or subdivision of any property. The information packet shall include the location of the land development or subdivision, real and equitable owners, number of lots, lot size, housing type or nonresidential use, water and sewer availability (on-site or public), amount of open space, and shall include a map showing the properties (and their uses) surrounding the proposed property and a general plan of the development showing the lots, roads, parking, etc. Said plans shall be submitted on an eleven inch by seventeen inch plan sheet.
 - (c) It is the responsibility of the subdivider or developer to coordinate plans with the respective private and public service agencies, including but not limited to (where applicable) Bucks County Conservation District, Bucks County Department of Health, Pennsylvania Department of Environmental Protection, PennDOT, adjacent municipalities and municipal authorities.
- (2) The application form shall be accompanied by the requisite fee as set forth in § 22-302 of this Part; sample plan notification letter and two copies of certified mail receipts; and by not less than four copies of all required material; and not less than seven prints of the preliminary plans of the subdivision or development; or as amended by Township resolution from time to time.
- (3) The applicant shall forward one copy of the preliminary plan prints and other required material to the Bucks County Planning Commission by certified mail, and to such other agencies as he/she deems appropriate for review and comment. One print shall be sent to the servicing fire company by certified mail when deemed necessary by the Township. Applicant shall provide certified mail receipts to the Township.

- (4) The Township Secretary shall forward two copies of the preliminary plan brings and one 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 Marshal when deemed necessary by the Township.
- (5) The Township Secretary shall forward two copies of the preliminary plan prints and required materials to the Township Engineer for review and comment.
- (6) The Township Secretary shall forward the remaining copies of the preliminary plan prints and required materials to the Planning Commission.
- (7) When applicable, the submission shall be accompanied by a planning module for land development, as required by the Pennsylvania Department of Environmental Protection.
- (8) Adequate water and sewer required.
 - (a) Applicants proposing a private water supply shall submit a water resources impact study in accordance with § 22-408 of this Part.
 - (b) No plan shall receive final plan approval until the applicant has demonstrated that the project can provide adequate water supply and wastewater disposal.

B. Review of Preliminary Plans.

- (1) In cases where the subdivision of land development adjoins an existing or proposed state highway or has proposed streets entering onto state highways, the developer shall submit the plans to the Pennsylvania Department of Transportation for review.
- (2) The Planning Commission will consider the plan to determine if it meets the standards set forth in this chapter, the Township Zoning Ordinance [Chapter 27] and all other applicable ordinances and regulations of the Township.
- (3) The Planning Commission shall act on the preliminary plan in time for the Board of Supervisors to render its decision within 90 days from the official filing date. Any requests for modification or waiver of the requirements of this chapter shall be in writing in accordance with PA Act 170, as amended, and be reviewed by the Planning Commission for advisory comments.

- C. Planning Commission Recommendation.
- (1) The Planning Commission shall recommend whether the preliminary plan shall be approved, approved with modifications, or disapproved and shall notify the Board of Supervisors in writing.
 - (2) In making its recommendations, the Planning Commission shall consider the recommendations of the Township Engineer, Township staff, Bucks County Planning Commission, interested residents and any agency or agencies from which a review was requested under subsection (2)(A)(3) of this section.
- D. Township Engineer Review. All plans and associated documents shall be reviewed by the Township Engineer prior to the transmission of such plans to the Board of Supervisors.
- E. Resubmission of Preliminary Plans. A revised plan submitted after disapproval shall be considered and processed as a new plan submission. A revised plan submitted after approval shall only be considered a new plan submission if, in the opinion of the Township, it has been substantially revised after said approval.
- F. Approval of Preliminary Plans.
- (1) The Board of Supervisors shall act on the preliminary plan within 90 days of the official filing date. Failure to do so shall be deemed an approval. Before acting on a preliminary plan, the Board of Supervisors may hold a hearing thereon after public notice.
 - (2) The Board of Supervisors shall notify the applicant of its decision to approve, approve with conditions or disapprove the preliminary plan in writing. Such notice shall be given to the applicant in person or mailed to him at his last known address not later than 15 days following the decision. If the plan is approved with conditions or disapproved, the Board of Supervisors shall specify in their notice the conditions which must be met and/or the defects found in the plan and the requirements which have not been met, including specific reference to provisions of the Pennsylvania Municipalities Code, 53 P.S. § 10101 et seq., or any other statute or provision of this chapter which has not been fulfilled.
 - (3) Approval of the preliminary plan shall constitute approval of the subdivision or land development as to the character and intensity of development and the arrangement and approximate dimensions of streets, lots and other planned features. The approval binds the subdivider or developer to the

general scheme of the subdivision shown, unless a revised preliminary plan is submitted and permits the subdivider to proceed with final detailed design of improvements, to arrange for guarantee to cover installation of the improvement and to prepare the final plan. Approval of the preliminary plan does not authorize the sale of lots nor the recording of the preliminary plan.

- (4) Where preliminary plan approval is given subject to conditions, the applicant shall accept or reject any or all of the conditions within 15 days from the date that he/she receives the written notification from the Board of Supervisors. Failure to accept or reject such conditions in writing within the foregoing time limit shall result in the conditional approval of the plat to become automatically rescinded pursuant to § 503(9) of the Pennsylvania Municipalities Planning Code and, in the alternative, the plan is denied due to noncompliance with the specified conditions.
- G. Any preliminary plan filed with the Township which has not been revised within six months from the date of the last Township Engineer's review letter shall be deemed inactive and may be denied for failure to promptly process the plan in accordance with Township ordinances.
- H. Any final plan filed with the Township which has not been revised within six months from the date of the last Township Engineer's review letter shall be deemed inactive and may be denied for failure to promptly process the plan in accordance with Township ordinances.
3. Final Plan.
- A. Submission of Final Plans.
- (1) After the subdivider or developer has received official notification from the Board of Supervisors that the preliminary plan has been approved, he must submit a final plan in accordance with the provisions of § 508 of the Municipalities Planning Code. Application to the Bucks County Planning Commission with appropriate fee must accompany the final plan submission.
 - (2) The final plan shall conform in all respects with the approved preliminary plan. If it does not, the plan submitted shall be considered a revised preliminary plan and shall be forwarded by the Township Secretary to the Planning Commission for review and recommendation as a preliminary plan.

- (3) The subdivider or developer must submit with the final plan a guarantee for the installation of improvements which meets the requirements of Part 6.
- (4) The application form shall be accompanied by the requisite inspection and engineering fees as set forth in § 22-302.
- (5) Documented approval of the planning module for land development by the Pennsylvania Department of Environmental Protection shall be part of the requisite materials accompanying the final plan submission.
- (6) The subdivider or developer shall submit 11 prints of the final subdivision or land development plans and at least six copies of all other required information.
- (7) Upon receipt of final plan, the Township Secretary shall forward the original plans and five copies of the plans and one copy of all the other material to the Planning Commission for review and recommendation; two copies of the plan and required materials to the Township Engineer for review and comment; two copies of the plan and one 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.

B. Review of Final Plans.

- (1) The Planning Commission shall review the plan and requisite materials for compliance with the approved preliminary plan and for conformance to requirements of this chapter.
- (2) The Planning Commission shall act on the final plan in time for the Board of Supervisors to render their decision within 90 days from the official filing date.

C. Planning Commission Recommendation.

- (1) The Planning Commission shall recommend whether the final plan shall be approved, approved with conditions, or disapproved and shall notify the Board of Supervisors in writing.
- (2) In making its recommendation, the Planning Commission shall consider the recommendations of the Township Engineer, the Bucks County Planning Commission, the Bucks County Conservation, Pennsylvania Department of Transportation and the recommendations of any agency or agencies from which a review was requested under subsection (3)(A)(7).

- D. Township Engineer Review. All plans and associated documents shall be reviewed by the Township Engineer prior to the transmission of such plans to the Board of Supervisors.
- E. Resubmission of Final Plans. A revised plan submitted after denial shall be considered and processed as a new final plan submission.
- F. Approval of Final Plans. The Board of Supervisors shall act upon the application for approval of a final plan and render its decision and communicate it to the applicant not later than 90 days following the date of the regular meeting of the Planning Commission next following the date the application is filed; provided that, should the next regular meeting occur more than 30 days following the filing of the application, said ninety-day period shall be measured from the 30th day following the day the application has been filed.
- (1) The decision of the Board of Supervisors shall be in writing and shall be communicated to the applicant personally or be mailed to him at his last known address not later than 15 days following the decision.
 - (2) When the application is not approved in terms as filed, the decision shall specify the defects found in the application and describe the requirements which have not been met and shall, in each case, cite to the provisions of the Pennsylvania Municipalities Planning Code or any other statute and the provisions of this chapter and any other ordinance relied upon.
 - (3) Failure of the Board of Supervisors to render a decision and communicate it to the applicant within the time and manner required herein shall be deemed an approval of the application in terms as presented unless the applicant has agreed in writing to an extension of time or change in the prescribed manner of presentation of communication of the decision, in which case, the failure to meet the extended time or change in manner of presentation or communication shall have like effect.
 - (4) Where final plan approval is given, subject to conditions, the applicant shall accept or reject any or all of the conditions within 15 days from the date the he receives the written notification from the Board of Supervisors. Failure to accept or reject such conditions in writing within the foregoing time limit shall result in the conditional approval of the plat to become automatically rescinded pursuant to § 509(9) of the Pennsylvania Municipalities Planning Code and in the alternate, the plan is denied due to noncompliance with the specified conditions.
- G. Recording of Final Plans.

- (1) Upon approval of the final plan, the subdivider or developer shall prepare two linen reproductions of the original final record plan, including all plan sheets, and five paper prints all executed and notarized by the applicant bearing appropriate engineering and surveying seals which shall be submitted to the Township not later than 30 days after approval. These plans, upon satisfaction of all conditions attached to the approval, will be signed by the Board of Supervisors. A copy of the signed final plan shall be recorded in the office of the Bucks County Recorder of Deeds within 90 days after approval of the final plan or the approval of the Board of Supervisors shall be null and void. The final plan must be recorded before proceeding with the sale of lots or construction of buildings.
- (2) Plans shall be recorded at the Bucks County Courthouse by the Township. All costs associated with recordation of the plans shall be re responsibility of the developer.
- (3) Recording the final plan shall be an irrevocable offer to dedicate all streets and other public ways to public use, and to dedicate or reserve all park reservations and other public areas to public use unless reserved by the subdivider as hereinafter provided. The approval of the final plan shall not impose any duty upon the Board of Supervisors of East Rockhill Township concerning maintenance of the improvements offered for dedication nor shall such approval be construed as an acceptance of such dedication.
- (4) The subdivider shall place a notation on the final plan if there is no offer of dedication the public of streets and certain designated public areas, in which event the title to such areas shall remain with the owner and the Township shall assume no responsibility for improvement or maintenance thereof, which fact shall be noted on the plan.

§ 22-306. Review by Park and Recreation Board. [Ord. 158, 12/20/1994, § 306]

1. General. All residential subdivisions and land developments with open space required pursuant to § 27-305 of the Zoning Ordinance [Chapter 27] must be reviewed by the Township Park and Recreation Board.
2. Procedure.
 - A. The applicant shall prepare two additional copies of the preliminary plan and submit these to the Township Secretary as required by § 22-305(2)(A)(3) of this chapter.
 - B. The Township Secretary or other official designated by the Board of Supervisors, upon notification by the Planning Commission that the

application is accepted for review as per § 22-305, shall forward to the Chairman of the Township Park and Recreation Board or designee the two copies of the preliminary plan.

- C. The Township Park and Recreation Board shall review the plans as submitted and shall report to the Planning Commission promptly. The report shall be in writing and shall include a list of any comments and/or recommendations of the Board. In addition, the Park and Recreation Board shall indicate whether it recommends the Township accept dedication of the proposed open space and whether it finds the open space as proposed acceptable or in need of revision.
- D. The Park and Recreation Board shall meet in person with the applicant if it deems this to be necessary.
- E. Two copies of any and all revisions to the preliminary plan submission affecting open space and/or recreation facilities shall be forwarded to the Park and Recreation Board upon receipt for their review and comments.

§ 22-307. Time Limitation of Plan Approval. [Ord. 158, 12/20/1994, § 307]

When an application for approval of a plan, whether preliminary or final, has been approved without conditions or approved by the applicant's acceptance of conditions, no subsequent change or amendment in the zoning, subdivision or other governing ordinance or plan shall be applied to adversely affect the right of the applicant to commence and to complete any aspect of the approved development in accordance with the terms of such approval within five years of such approval. The five-year period shall be counted from the date of the preliminary plan approval. Failure to substantially complete the required improvements within the aforesaid five-year period, or within any extension thereof as may be granted by the Board of Supervisors or as may be permitted by § 508(4)(v and vi) of the Pennsylvania Municipalities Planning Code for staged developments, shall make the application subject to any and all changes in zoning, subdivision and any other governing ordinance enacted by the Township subsequent to the date of the initial preliminary plan approval.

§ 22-308. Modifications. [Ord. 158, 12/20/1994, § 308]

- 1. General. The Board of Supervisors may grant a modification of the requirements of one or more provisions of this chapter if the literal enforcement will exact undue hardship because of peculiar conditions pertaining to the land in question; provided, that such modification will not be contrary to the public interest and that the purpose and intent of this chapter is observed.
- 2. Procedure. All requests for modification shall be in writing and shall accompany and be part of the application for development. The request shall state, in full, the grounds and facts of unreasonableness or hardship on

which the request is based, the provision or provisions of this chapter involved and the minimum modification necessary.

3. Requests for modification shall be referred to the Planning Commission for advisory comments.

PART 4

PLAN REQUIREMENTS

§ 22-401. Sketch Plan. [Ord. 158, 12/20/1994, § 401]

1. Purpose. A sketch plan is an optional submission. It is offered to give the applicant an opportunity to consult early and informally in the plan preparation phase with the Township and Bucks County Planning Commission. The purpose of this submission is to allow the Township and the applicant opportunity to discuss lot layout, street layout, location of buildings, arrangement and location of open space, etc., before detailed engineering is done. The Township may comment on not only whether the sketch plan meets the objectives of Township ordinances but, also if they feel it is consistent with sound planning and design principles. It is not intended in any way to replace the preliminary plan, but rather to give the applicant guidance in preparing the much more detailed preliminary plan. Recommendations and comments made by the Township in response to sketch plan submission shall in no way be regarded as an official approval, nor shall such action grant any legal rights to the applicant or immunity from full compliance with requirements and procedures set forth for preliminary and final plans.
2. Data furnished in a sketch plan shall be at the discretion of the subdivider but is suggested to include the following:
 - A. Tract boundaries and total acreage.
 - B. Location map.
 - C. North point.
 - D. Streets on and adjacent to the tract.
 - E. Significant topographical, geological features including but not limited to floodplains, steep slopes, boulders, wetlands, etc., which may impact or limit the proposed use of the property.
 - F. Existing road/utility and other easements and rights-of-way.
 - G. Proposed general street layout.
 - H. Proposed general lot layout including location of open space and other preservation areas.
3. A subdivision sketch plan should be drawn to scale although precise dimensions are not required.

§ 22-402. Lot Line Adjustment and Minor Subdivision. [Ord. 158, 12/20/1994, § 402; as amended by Ord. 214, 10/18/2005, §§ VII-VIII]

1. Purpose. The purpose of this section is to provide an expeditious means of subdivision approval for lot line adjustments and minor subdivision. A lot line adjustment involves relocation of one or more existing boundary line(s) between two adjacent lots or the shifting of boundary lines to increase the area of an existing lot; provided, however, that the lot line adjustment results in the same number or fewer lots than existed prior to the lot line adjustment.
2. Drafting Standards.
 - A. The plan shall be drawn at a scale of one inch equals 50 feet or one inch equals 100 feet.
 - B. Dimensions shall be set forth in feet and decimal parts thereof and bearings in degrees, minutes and seconds.
 - C. Each sheet shall be numbered and shall show its relationship to the total number of sheets.
 - D. When the plan is a revision of a previously approved plan, dotted lines shall be used to show features or locations to be abandoned and solid lines to show the currently proposed features. Notations of revisions shall be numbered and dated.
 - E. Plan shall be so prepared and bear an adequate legend to indicate clearly which features are existing and which are proposed.
 - F. The boundary line of the subdivision shall be shown as a solid heavy line.
 - G. Plan shall be on sheets either 18 inches by 24 inches or 24 inches by 36 inches. All plan sheets shall be of the same size. All lettering shall be so drawn as to be legible if the plan should be reduced to half size.
3. Plan shall show or be accompanied by the following information:
 - A. Name of subdivision or land development.
 - B. Name and address of owner of record and applicant.
 - C. Name and address of the firm which prepared the plan and professional seal of the individual certifying the accuracy of the plan and compliance with applicable standards.
 - D. Date of preparation of the plan, a descriptive list of revisions to the plan and the revision dates.

- E. Tax parcel numbers, deed book and page numbers of properties involved including any deed restrictions to the property and recorded plan book and page number for previously recorded subdivisions. A copy of the current deed(s) for the tract shall be submitted with the plan.
 - F. Zoning requirements, including but not limited to the following:
 - (1) Applicable district.
 - (2) Lot size and yard requirements.
 - (3) Natural resource protection standards.
 - (4) Copy of order indicating any variances or special exceptions granted.
 - G. Location map showing the relationship of the site to adjoining properties, proposed property lines, zoning district boundaries, and streets within 1,000 feet. Scale of the location map shall be one inch equals 800 feet.
 - H. North point.
 - I. Written and graphic scales for plan and location map.
 - J. Total acreage of the site (net and gross); proposed lot sizes (net and gross); area of ultimate right-of-way; and in the case of lot line adjustments, area being conveyed and a summary of pre/post development areas of lots involved.
 - K. Tract boundary (as determined by field survey).
 - L. Both existing and proposed property lines, including bearing and distance information.
 - M. Streets on and adjacent to the site with legal and future rights-of-way.
 - N. All existing buildings (and their uses), driveways, wells, sewer systems, utility easements, utility poles (with ownership and pole number I.D. certification), etc.
 - O. Monuments, existing and proposed.
 - P. USGS contours.
 - Q. Tax map parcel number and names of current owners of immediately adjacent lands.
4. In addition to requirements of subsections (2) and (3) above, minor subdivision plans shall show or be accompanied by the following information:

- A. Soil types within the site based on maps contained in the "Soil Survey of Bucks County, PA", USDA - NRCS, National Cooperative Soil Survey, September, 2002, or as amended. A table shall indicate each soil's limitations for community development.
 - B. Contour lines measured at vertical intervals of two feet. Contour lines shall be determined by onsite survey, not interpretation of USGS maps.
 - C. Datum to which contour elevations refer. Benchmark shall be identified.
 - D. Existing vegetation including wooded areas, large trees over six inch caliper standing alone and other significant vegetation limits of trees/vegetation to be removed/preserved.
 - E. Planning modules for land development as required by Chapter 71 of the Pennsylvania Sewage Facilities Act.
 - F. Proposed improvements including buildings (and their uses), driveways, sewer lines, storm drains, culverts, street improvements, grading and other requirements of this chapter.
 - G. Soil erosion and sedimentation control plan prepared in accordance with § 22-518 of this chapter.
 - H. Existing features as may be required by § 22-403(4) when deemed necessary by the Township.
 - I. Wetland delineation study prepared pursuant to § 22-409.
5. Notice of Plan. Notice of filing of plan shall be given by the applicant to all abutting landowners of record in accordance with § 22-403(13) of this Part.

§ 22-403. Preliminary Plan. [Ord. 158, 12/20/1994, § 403; as amended by Ord. 192, 4/18/2000; and by Ord. 214, 10/18/2005, § IX]

1. Purpose. The purpose of the preliminary plan is to enable the Township to examine proposals for compliance with zoning, subdivision and land development and other Township ordinances. Preliminary plans are required for all land developments and major subdivisions.
2. Plan Preparation.
 - A. The preliminary plan shall be at a scale of not more than 50 feet to the inch.
 - B. Plan and profile views shall be drawn at a scale of one inch equals 50 feet, respectively. Horizontal and vertical scales of one inch equals 20

feet and one inch equals two feet shall be permitted when greater detail is required as deemed necessary by the Township Engineer.

- C. Enlarged details of special features, intersections, drainage facilities, etc., shall be drawn at a scale of one inch equals 20 feet or one inch equals 10 feet.
 - D. Sheet sizes shall be either 18 inches by 24 inches or 24 inches by 35 inches.
 - E. All sheets shall be the same size and be numbered relative to the total number of sheets (i.e., one of four, etc.) If a new sheet is added, all sheets shall be appropriately renumbered. Use of letters to denote new sheets (i.e., Sheet 1A of 4) shall not be permitted.
 - F. Where two or more sheets are required to show the entire tract, a reduced scale key plan shall be included to show how the sheets correspond.
 - G. A reduced scale plan of the entire site at a scale greater than 50 feet to the inch may be required in cases where it will facilitate the review process.
 - H. Plan shall be so prepared and bear an adequate legend to clearly indicate which features are existing and which are proposed.
 - I. Site out boundary shall be shown as solid heavy line.
3. General Information. All preliminary plans shall show the following general information:
- A. Proposed subdivision or land development name or identifying title.
 - B. Name(s) and address(es) of the owner(s) of the property, including reference to deed book, volume and page of current legal owner.
 - C. Name and address of applicant.
 - D. Name and address of the firm which prepared the plan and professional seal of the individual certifying its accuracy and compliance with applicable standards.
 - E. Date of preparation of the plan and a descriptive list of revisions to the plan and the revisions dates.
 - F. North point.
 - G. Location map showing the relationship of the site to adjoining properties, proposed property lines, zoning district boundaries and streets within 1,000 feet. Scale of the location map shall be one inch equals 800 feet.

- H. Written and graphic scales for plan and location map.
- I. Tract boundary with bearing and distance information.
- J. Tax map parcel number(s) of parcels which comprise the subdivision or land development, deed book and page numbers of the properties involved, including deed restrictions to the property, recorded plan book and page number for the previously recorded subdivision (if any). A copy of the current deed(s) for the tract shall be submitted with the plan.
- K. Zoning requirements including the following where applicable:
 - (1) Zoning district and district boundaries if within 500 feet of the site boundary.
 - (2) Lot size and yard requirements.
 - (3) Variances or special exceptions granted.
 - (4) Buffer yard requirements.
 - (5) Site capacity calculations.
 - (6) Inventory of all natural resources, natural resource protection rates, allowable disturbance to each resource and proposed disturbance to each resource.
 - (7) Parking requirements.
 - (8) Proposed use including zoning ordinance designation (i.e., Use 2A, "Single-Family Detached.").
 - (9) Allowable and proposed density.
 - (10) Impervious surface area ratio, allowable impervious ratio and tabulation of proposed impervious area.
 - (11) Dwelling unit mix.
- L. Tax map parcel number and names of current owners of immediately adjacent lands.
- M. Total acreage of the site (net and gross) and number of proposed lots and/or dwelling units or gross leasable floor area.
- N. Statement identifying existing and proposed method of sewage disposal and water service. If public, name of agency providing service.

- O. Statements regarding maintenance responsibilities of permanent stormwater management control facilities, swales, drainageways and open space areas.
4. Existing Features Plan. Within the tract proposed for subdivision and/or land development and within 100 feet of the tract boundaries, the following information shall be shown on the preliminary plan:
- A. All existing property lines of site if currently containing several smaller parcels.
 - B. All property and easement boundaries defined by bearing and distance information.
 - C. Total width of streets and alleys; names of streets and alleys; total width of legal rights-of-way and ultimate rights-of-way. Half widths of streets and alleys shall be dimensioned as measured from physical centerline to legal and ultimate rights-of-way.
 - D. Buildings (and their uses), driveways, wells, sewer systems, pipelines, underground and/or aboveground storage tanks, pools, fences, silos, water systems fire hydrants, valves, towers, etc.
 - E. Utility poles with identification information/numbers and street lights.
 - F. Contour lines measured at vertical intervals of two feet. Contour lines shall be determined by onsite survey, not interpretation of the USGS maps. Location of survey benchmark shall be noted. Benchmark shall be based on USGS datum reference points or sewer manhole datum (whichever is more accessible relative to location to site). Assumed benchmark elevations and arbitrary control points will not be acceptable unless approved by the Township Engineer.
 - G. Monumentation and pins within and along site out boundary, rights-of-way, easements, etc.
 - H. Soil types within the site based on maps contained in the "Soil Survey of Bucks County, PA," USDA - NRCS, National Cooperative Soil Survey, September, 2002. A table shall indicate each soil's limitations for community development.
 - I. Area of vegetation including wooded areas and large trees over six-inch caliper standing alone. Areas of scrub growth with an understory height of at least four feet shall be delineated independently of wooded areas.
 - J. Watercourses, storm sewers, culverts, bridges or any other significant drainage features and facilities with associated inverts, pipe/culvert

sizes, material, and lengths and all applicable dimensional information.

- K. Floodplain areas or districts including information on one-hundred-year flood elevations. FEMA cross-sections and elevations shall be utilized to delineate floodplain and floodway boundaries where detailed study information is available. Where applicable, floodplain/floodway delineations shall be based upon the East Rockhill Township Flood Insurance Study (as amended) Community Panel Number 420187. Where detailed study information is not available, one-hundred-year flood elevations shall be calculated utilizing HEC I computations to generate flow information and HEC II computations to calculate water surface elevations. Structures, culverts, obstructions, bridges or any other significant feature within 500 feet downstream of the site shall be included within the study to account for potential backwater affects. Basins, ponds, flood control facilities or any other significant drainage facility within upstream tributary area shall be included in the study. Use of TR-55 "Urban Hydrology for Small Watersheds," United States Department of Agriculture, Soil Conservation Service will be an acceptable alternate method for calculating one-hundred-year flow rates. Use of other methods must be approved by the Township Engineer.
 - L. Utility, private and/or public easements, and purposes for which the easements have been established with all applicable restrictions and/or covenants.
 - M. Wetlands, wetland margins, ponds, pond shorelines, lakes, lake shorelines with total area of coverage listed. List of soil consultants qualifications must be submitted with a certification as to accuracy of the delineation. Certification must properly reference plan by title, date and parcel number.
 - N. Step slopes shall be independently mapped by shading for the following ranges:
 - (1) Eight percent to 15%.
 - (2) Sixteen percent to 25%.
 - (3) Over 25%.
 - O. Predeveloped drainage boundaries with associated areas, time of concentration paths and runoff factors.
5. Site Improvement Plan. A site improvement plan shall be prepared and include the following proposed improvements:
- A. General lot layout, easement and right-of-way boundaries.

- B. Location of dwellings and structures including exterior dimensions, first floor elevation and garage floor elevation.
 - C. Sanitary and storm sewer layout, pipe lengths, size, material, slopes, inverts and grate/manhole elevations.
 - D. Location of water mains and fire hydrants, electric and gas utilities.
 - E. Streets, curb, sidewalk, pedestrian ramps, pedestrian paths, recreational facilities.
 - F. Street and alleys widths.
 - G. Driveway locations.
 - H. Intersections.
 - I. Cartway widening improvements and appropriate dimensions from existing roadway centerlines.
 - J. Existing and proposed sight distances at existing and/or proposed intersections. Sight distances at existing and/or proposed intersections. Sight distances shall be determined in accordance 67 Pa. Code, Chapter 441.
 - K. Clear sight triangles at proposed and existing intersections.
 - L. Parking areas, parking stalls, aisles and associated dimensions.
 - M. Curb and cul-de-sac radii.
 - N. Culverts, bridges, basins and any other significant drainage facility.
 - O. Street signage.
6. Grading Plan. Grading plan shall include the following:
- A. General site layout property lines, easement boundaries, structures, streets, curb, sidewalk, etc.
 - B. First floor elevation and garage floor elevation of all existing and proposed buildings.
 - C. Existing and proposed contours.
 - D. Bottom and top of curb elevations around curb returns at intersection and turnaround area on cul-de-sac streets.
 - E. General layout of storm sewer.
 - F. Grate elevations of storm sewer inlets.

- G. Rim elevations of manholes.
7. Drainage Plan. Drainage plan shall include the following:
 - A. General site layout of streets, buildings, sidewalk and curb and storm sewer.
 - B. Post development drainage boundaries with associated areas, time of concentration, flow path and runoff factors listed.
 - C. Existing contours.
 - D. Proposed grading.
 - E. Required stage/storage charge for detention basins.
 - F. Discharge location of all roof drains and sump pump lines.
 8. Erosion and Sedimentation Control Plan. Erosion and sedimentation control plan shall be prepared in accordance with applicable provisions of 25 Pa. Code, Chapter 102, "Erosion Control," DEP Erosion and Sedimentation Pollution Control Program Manual, Erosion and Sedimentation Pollution Control Plan Guide for Small Projects, (as published by the Southeast Pennsylvania Association of Conservation Districts), and Special Protection Waters Implementation Handbook and in accordance with § 22-518 of this chapter.
 9. Landscaping and Lighting Plan. Landscaping and lighting plan shall include the following existing and proposed features:
 - A. General lot layout and setbacks, easement and right-of-way boundaries.
 - B. Location of driveways, structures, curb and sidewalk.
 - C. Layout of sanitary sewer, associated laterals, storm sewer, water, electric and gas utilities.
 - D. Proposed tree and planting locations coordinated with underground utilities maintaining required horizontal separation distances.
 - E. Location of parking area lighting, driveway lampposts and streetlight fixtures with radial extent of illumination in form of isolux contours in unit of horizontal footcandles (HFC). Isolux lines shall be in increments of 0.5 HFC.
 - F. Buffer yards with applicable yard widths dimensioned.
 10. Plan and Profiles. Plan and profiles shall be prepared for all streets and utilities where improvements are proposed or are being extended from existing facilities and shall include the following:

- A. Profiles shall include at a minimum the following:
- (1) Existing and proposed ground elevations and profile.
 - (2) Proposed profile of ground and/or street.
 - (3) All applicable vertical curve data for streets.
 - (4) Sight distance requirements.
 - (5) Sanitary sewer, storm drainage and water service facilities; vertical separation distances at utility crossings and encasements; inverts of pipes at crossing locations.
 - (6) All utility and storm pipe sizes, materials, slopes, inverts and lengths.
 - (7) Inlet and manhole inverts, rim and grate elevations; top of wall elevations for endwalls and headwalls.
 - (8) Centerline stationing along profile.
 - (9) Profiles for streets shall follow roadway centerlines.
 - (10) Stationing of sanitary sewer laterals and inverts for same.
 - (11) Manhole and inlet numbering corresponding to profile view.
 - (12) Profiles along existing streets for areas of cartway widening shall include existing edge of road profile and bottom of curb profile.
- B. Plan views shall include at a minimum the following:
- (1) Right-of-way and easement boundaries.
 - (2) Dimensioning of street widths.
 - (3) Location of curb, sidewalk, driveway entrances and pedestrian ramps.
 - (4) Centerline stationing along streets.
 - (5) Location of all sanitary sewer mains and laterals, storm sewer, roof drains and sump pump leaders, water mains and gas mains.
 - (6) Manhole and inlet numbering corresponding to profile view.
 - (7) Location of street and regulatory signs.
 - (8) Proposed contours within limits of right-of-way boundaries.

- (9) Top and bottom of curb elevations at ends of returns and centrally along returns, at intersections and other critical locations as deemed necessary by Township Engineer.
 - (10) Plan views of improvements along existing streets shall include existing centerline and edge of road spot elevations every 25 linear feet.
11. Construction Details Plan. The construction details plan shall include but not be limited to the following general construction details:
- A. Roadway/widening construction.
 - B. Utilities installation, bedding and backfill.
 - C. Storm sewer installation, bedding and backfill.
 - D. Sanitary sewer installation, bedding and backfill.
 - E. Basin construction.
 - F. Traffic control.
 - G. Miscellaneous erosion and sedimentation control details.
 - H. Sidewalk and curb installation specifications.
 - I. Right-of-way and easement restoration.
 - J. Special structures.
 - K. Miscellaneous drainage swale design information.
 - L. Fencing details.
 - M. Any other details as deemed necessary by the Township and/or Township Engineer.
12. Additional Documentation. The following information shall be submitted with the preliminary plan where applicable:
- A. Traffic impact study prepared pursuant to § 22-405.
 - B. Sewage facilities planning modules prepared pursuant to § 22-407.
 - C. Water resources impact study prepared pursuant to § 22-408.
 - D. A statement describing the manner in which the developer shall advise each prospective purchaser of a residential lot or unit of the existence and location of certain conditions impacting on the purchased property including:

- (1) Location and type of adjacent open space or recreational facilities.
 - (2) Location and type of any stormwater management easements.
 - (3) All utility and other drainage easements.
 - (4) Any deed restrictions and/or restrictive covenants established on the lot during the course of the subdivision approval process.
 - (5) Any streetlight or fire hydrant assessments by any municipal entity.
 - (6) Such other information as directed by the Township.
- E. A phasing plan clearly showing all proposed lots, improvements, utilities, etc. in the respective phases.
 - F. Wetland delineation study prepared pursuant to § 22-409.
13. Notice of Preliminary Plan. Notice of filing of preliminary plan shall be given by the applicant to all abutting landowners of record.
- A. Proof of notice shall be given at the time of application and shall be by certified letter to each abutting landowner of record.
 - B. The foregoing letter shall identify the following:
 - (1) Date of application.
 - (2) Record owner of the tract to be developed.
 - (3) The location of the tract to be developed indicating street address, zoning district and tax map parcel number.

§ 22-404. Final Plan (Record). [Ord. 158, 12/20/1994, § 404; as amended by Ord. 192, 4/18/2000; as amended by Ord. 214, 10/18/2005, § X]

- 1. All subdivision and land development applicants shall submit two clear and legible blue or black line print on white opaque linen and five paper prints of the record plan including all sheets of the plan set.
- 2. Drafting Standards. The standards required for a record plan shall be the standards outlined in §§ 22-402 and 22-403.
- 3. All plans must be acknowledged with a raised notary seal affixed; raised seal of registered engineer and/or surveyor responsible for the plan; and raised seal of architect and/or landscape architect who collaborated in the preparation of the plan; and if the applicant is a corporation, a raised

corporate seal. All plans must be approved by the Board of Supervisors together with the raised official seal.

4. General Information. The general information required for a record plan shall be the general information required by §§ 22-402 and 22-403.
5. Existing Features. The existing features required to be shown on a record plan shall be the existing features required by §§ 22-402 and 22-403.
6. Proposed Improvements. The proposed improvements required to be shown on a record plan shall be as follows:
 - A. Dimensions and bearings of each lot line, areas of lots and consecutive numbering of lots. All sheets shall show lot numbers.
 - B. Building setbacks established by zoning or other ordinances or deed restrictions with distances to the right-of-way line.
 - C. A reference to any land dedicated for public use or offered for dedication for parks, playgrounds, recreational areas, widening of streets or other public uses.
 - D. The layout of streets, alleys and walkways including names and widths of cartways and rights-of-way, curb lines, radius on right-of-way and curb lines, courses and distances on right-of-way lines and centerline stationing and other such information.
 - E. Rights-of-way and/or easements for any use including drainage, utilities or other such pertinent requirements by bearings, dimensions and width.
 - F. Location of all proposed monumentation.
 - G. Location of any proposed lots, sites, fills or protective structures within the floodplain and location of areas subject to special deed restrictions relating to flooding.
 - H. The layout of all open space areas including the proposed ownership.
 - I. Improvement construction plans shall be provided in accordance with the requirements in § 22-403.
7. Notes and Certificates. The record plan must include the required notes and certificates:
 - A. On all applications where improvement construction plans are required, the following note shall appear on the record plan: "Sheets 2 through _____, inclusive, on record at the Township, shall be considered a part of the approved final plan as if recorded with same." These shall be listed by sheet number and title on the record plan.

B. The signature of the registered engineer and/or surveyor certifying that the plan represents a survey made by him; that any existing monumentation shown hereon exists as located; and the dimensional geodetic details are correct.

C. An acknowledgment as follows:

(1) Where the owner(s) are individuals, all shall join as follows:

Commonwealth of Pennsylvania:

Signature of Owner
SS.

County of Bucks

On the ____ day of ____, 20 ____, before me the subscriber, a notary public of the Commonwealth of Pennsylvania, residing in ____ personally appeared (name(s) of all owners), known to me (or satisfactorily proven) to be the persons whose name(s) (is/are) subscribed to the foregoing plan, and acknowledge that (he/she/they) (is/are) the registered owner(s) of the designated plan, that all necessary approvals of the plan have been obtained and is endorsed thereon and that (he/she/they) desire that the foregoing plan be recorded according to law.

Witness my hand and notarial seal, the day and year aforesaid.

Notary Public

My Commission Expires _____

(SEAL)

(2) Where the owner is a corporation:

Commonwealth of Pennsylvania

SS.

County of Bucks

On the ____ day of ____, 20 ____, before me the subscriber, a notary public of the Commonwealth of Pennsylvania, residing in ____ personally appeared (name of officer of corporation), who acknowledged (himself/herself) to be the (president/secretary) of (name of the corporation), a corporation, and that as such (president or secretary), being authorized to do so, (he/she) executed the foregoing plan by signing that the said corporation is the registered owner of the designated land, that all necessary approvals of the plan have been obtained and is endorsed thereon, and that (he/she/they) desire that the foregoing plan be recorded according to law.

Witness my hand and notarial seal, the day and year aforesaid.

Notary Public

My Commission Expires _____

(SEAL)

D. Approved notation by the Township shall be as follows:

Approved by the Board of Supervisors of the Township of East Rockhill this ____ day of ____, 20 ____.

E. Township Planning Commission Notations:

Recommended for approval by the East Rockhill Township Planning Commission this ____ day of ____, 20 ____.

F. Bucks County Planning Commission Notation:

BCPC No. _____

PROCESSED AND REVIEWED. Report prepared by the Bucks County Planning Commission in accordance with the Municipalities Planning Code. Certified this date ____

Executive Director, Bucks Planning Commission

G. Recording Notation:

"Recorded in the office of the Recorder of Deeds, Bucks County, day of ____, 20, ____.

H. Signatures to appear on plan — the following signatures shall be placed directly on the plan in black ink:

- (1) The owner or owners of the land. If the owner of the land is a corporation, the signatures of the president and secretary and the corporate seal shall appear.
- (2) The notary public acknowledging the owner's statement of intent.
- (3) The licensed engineer and/or surveyor who prepared the plan. If an architect and/or a landscape architect collaborated in the preparation of the plan, his signature and seal shall also appear.

- (4) The Bucks County Planning Commission.
- (5) The Planning Commission of East Rockhill.
- (6) The Supervisors of East Rockhill Township.

§ 22-405. As-Built Plans. [Ord. 158, 12/20/1994, § 405]

Upon completion of public improvements (prior to acceptance of same by the Board of Supervisors), the subdivider or developer will furnish the Township with as-built plans for all utilities, roads and stormwater management facilities. As-built plans for detention/retention basins and/or underground storage facilities utilized to control stormwater discharge must be prepared and submitted to the Township Engineer for review immediately upon completion of rough grading to verify required stage/storage capacity. As-built plans for these facilities must be reviewed for compliance with stormwater management plan design requirements prior to any additional site work. As-built plans shall contain information listed in Appendix D at the end of this chapter.

§ 22-406. Traffic Impact Study. [Ord. 158, 12/20/1994, § 406; as amended by Ord. 252, 4/20/2010]

1. Purpose. The traffic impact study will enable East Rockhill Township to assess the impact of the proposed development on the transportation system, highways, public transportation and pedestrian/bicycle trails in the Township. The purpose of the impact study is to ensure that proposed developments do not adversely affect the transportation network and to identify any traffic problems associated with access between the site and the existing transportation network as well as to recommend necessary improvements that will mitigate deficient traffic operations. The study's purpose is also to delineate solutions to potential problems and to present improvements to be incorporated into the proposed development. The study shall assist in the protection of air quality, conservation of energy and encouragement of public transportation use.
2. The traffic impact study shall be prepared by a qualified traffic engineer and/or transportation planner with previous traffic study experience. Procedures and standards for the traffic impact study are set forth herein. The applicant may provide funds to the Township, which may hire a traffic engineer of its choice to conduct the study, if deemed appropriate by the Township.
3. Applicability.
 - A. A traffic impact study shall be submitted for all residential subdivisions or land developments of 25 or more residential lots and/or dwelling units; all commercial, office, industrial, institutional or other nonresidential uses requiring subdivision or land development approval; all rezoning requests; and/or any other project when deemed necessary by the Board of Supervisors.

- B. The East Rockhill Township Board of Supervisors, at its discretion, may require any other subdivision or land development application to be accompanied by a traffic impact study; provided, however, that the Supervisors notify the applicant within 60 days following the Planning Commission's first meeting to consider the proposal. Such notification shall specify the reason for the requirement, citing the proposal's particular location or existing problems or type of use (e.g., generation of heavy truck traffic).
4. Definitions.
- A. Engineering and traffic studies shall be prepared in accordance with Pennsylvania Title 67, Chapter 201, Engineering and Traffic Studies.
 - B. As used herein, the following terms shall have the meanings indicated:

LEVEL OF SERVICE — As described in the 2000 Highway Capacity Manual, as updated and amended, indicates how well traffic moves on a particular highway facility or through a specific intersection. There are six levels of servicing ranging from A through F. Level of Service A indicates generally free movement. Level of Service E represents maximum capacity of the facility. Level F indicates congestion. Level of Service D is considered the level of service design threshold.

PUBLIC TRANSPORTATION — Transportation service for the general public provided by a common carrier of passengers generally on a regular route basis, or a private operator offering service to the public.

QUEUE ANALYSIS — An analysis that identifies the maximum queue of vehicles in each traffic stream, measured in feet. The analysis shall utilize a computer model accepted by the Department of Transportation and the Township, which will calculate the queues and which can be calibrated to represent existing conditions.

STUDY AREA — The area of land that is likely to be affected by the development and shall be discussed with and approved by the Township Traffic Engineer prior to initiating the study. Specific intersections to be included in the study shall also be approved by the Township Traffic Engineer prior to initiating work. When a road of the Commonwealth of Pennsylvania is involved, the applicant shall consult with PennDOT in defining the study area.

TRIP GENERATION RATES — The total count of trips to and from a study site per unit of land use as measured by parameters such as dwelling units, acres, etc.

VOLUME/CAPACITY ANALYSIS — This procedure compares the volume of a roadway or intersection approach to its capacity (maximum number of vehicles that can pass a given point during a given time period). The procedures described in the 2000 Highway Capacity Manual, Transportation Research Board Special Report 209, as updated and amended, shall be followed.

WARRANTS FOR TRAFFIC SIGNAL INSTALLATION — This is a series of warrants which detail the minimum traffic or pedestrian volumes or other criteria necessary for the installation of a traffic signal. These warrants are contained in the Manual on Uniform Traffic Control Devices for Streets and Highways, United States Department of Transportation, Federal Highway Administration, 2000, as updated and amended.

5. General Requirements and Standards. A transportation impact study shall contain the following information:
 - A. General Site Description. The site description shall include the size, location, proposed land uses, any construction staging and the completion date of the proposed subdivision or land development. If the development is residential, types of dwelling units shall also be included. A brief description of other major existing and proposed developments within the study area shall be provided. The general site description shall also include probable socioeconomic characteristics of potential site users to the extent that they may affect the transportation needs of the site (e.g., number of senior citizens).
 - B. Transportation Facilities Description.
 - (1) The description shall contain a full documentation of the proposed internal and existing external transportation system. This description shall include proposed internal vehicular, bicycle and pedestrian circulation, all proposed ingress and egress locations, all internal roadway widths and rights-of-way, parking conditions, traffic channelizations and any traffic signals or other intersection-control devices at all intersections within the site. Also, the description shall include the characteristics of the site users with respect to their transportation needs. In addition, the description for institutional, educational, daycare, or other similar facilities shall include a narrative of the shift changes or arrival and dismissal times, student drop-off/pick-up procedures, number of school buses, and number of students, where appropriate. The description shall also include an evaluation of any proposed drive-through facilities to establish adequacy of the proposed design relative to internal access, stacking, and ingress/egress.

- (2) The report shall describe the entire external roadway system within the study area. Additionally, the report shall identify any potential obstructions to the access to the proposed site, such as weight-restricted or flood-prone bridges, flood-prone streets, low-clearance underpasses, weight-restricted streets and any other natural or man-made feature which may adversely affect access to the site during an emergency.
 - (3) All intersections included in the study area shall be identified and sketched. All existing and proposed public transportation services and facilities within a one-mile radius of the site shall also be documented. All future committed or proposed roadway and intersection improvements within the study area, including proposed construction and traffic signalization, shall be noted. This information shall be obtained from the Twelve-Year Highway Capital Program for the Delaware Valley Region, Pennsylvania Department of Transportation, Bucks County Planning Commission, and the November 1994 Transportation Improvements Plan - Route 313/663 Corridor, Bucks County, Pennsylvania. The responsible party and anticipated project schedule shall be identified for each improvement.
- C. Existing Traffic Conditions. Existing traffic conditions shall be measured and documented for all roadways and intersections established as part of the approved study area and scope and shall be based on the following:
- (1) Existing traffic volumes for average daily traffic, peak highway hour(s) traffic, and peak development generated hour(s), and documentation shall be included in the report. Note: Often the highway and development peak hours coincide, depending on the land use. Documentation regarding all traffic counts shall be included. Figures shall be provided in the report illustrating the peak-hour turning movement traffic volumes.
 - (2) A volume/capacity analysis based upon existing traffic volumes shall be performed during the peak highway hour(s) and the peak development-generated hour(s), as applicable, for all roadways and study intersections. Levels of service shall be determined for each location using the 2000 Highway Capacity Manual methodology, as updated and amended. The level of service results of the volume/capacity analysis shall be presented graphically.
 - (3) A summarization of the most recent five-year accident data within the study area shall be provided if required by the Township, based on accident records from both the local police and State Police.

- D. Future Conditions Analysis Without the Proposed Development. An evaluation of the anticipated future traffic volumes and the ability of the roadway network to accommodate this traffic without the proposed development shall be provided. The analysis shall be for the development completion year and any interim years if development phases are proposed. Also, an analysis of future conditions 10 years after the initial development opening year shall be provided if required by the Pennsylvania Department of Transportation and/or the Township. This evaluation shall include the following:
- (1) Peak-hour traffic volumes shall be projected for the design year(s) based on traffic growth information compiled by the Bucks County Planning Commission, the Delaware Valley Regional Planning Commission, and/or the Pennsylvania Department of Transportation. Projected traffic volumes shall also include anticipated traffic growth associated with other area proposed developments or developments under construction. All assumptions and methodologies utilized to forecast the future traffic volumes shall be clearly documented and acceptable to the Township. Figures shall be provided in the report illustrating the peak-hour turning movement traffic volumes.
 - (2) A volume/capacity analysis based on future without-development traffic volumes shall be performed during the peak highway and development hours, as applicable, for all study intersections. The capacity analysis shall be conducted according to methods of analysis as previously described herein. The level-of-service results shall be presented graphically.
 - (3) Roadway and intersection improvements committed to by others for implementation prior to the design year(s) should be included in the analysis. The applicant's traffic engineer shall seek guidance from the Township in determining the appropriateness of any planned, programmed and/or committed future roadway and intersection improvements. An analysis of future conditions both without and with improvements shall be provided, if appropriate.
- E. Trip Generation Characteristics. Estimation of vehicular trips to result from the proposed development shall be completed for the design year(s) for the average daily peak highway hour(s) and peak development-generated hour(s) and shall be determined as follows:
- (1) Estimation of the number of trips generated by the proposed uses for each study hour and also on a daily basis shall be developed utilizing the most recent edition of the Institute of Transportation Engineers' publication, Trip Generation. Other local sources of trip generation data may be acceptable, subject

to supporting study information on more than one similar site and the approval of the Township. For proposed expansions or relocation of existing facilities, actual trip generation information may be utilized, if appropriate, as determined by the Township.

- (2) Traffic volumes generated by the proposed development shall be distributed and assigned throughout the study area for each of the study peak hours and provided on separate figures for review. Documentation of all assumptions used in the distribution and assignment of traffic shall be provided.

F. Future Conditions Analysis With the Proposed Development. A description of the adequacy of the roadway system and study intersections to accommodate future traffic with development of the site shall be provided. An analysis shall be completed for each study peak hour as follows:

- (1) Daily and peak-hour traffic volumes shall be projected for the design year(s). Projected traffic volumes shall be calculated by adding the anticipated development trip generation to the future traffic volumes without development for the roadway network and site access. Figures shall be provided in the report illustrating the peak-hour turning movement traffic volumes.
- (2) A volume/capacity analysis based on future traffic volumes with development shall be performed during the peak highway and development hours, as appropriate, for all study intersections. The capacity analysis shall be conducted according to methods of analysis previously described herein. The level-of-service results shall be presented graphically.
- (3) A queuing analysis shall be performed during the peak highway and development hours, as appropriate, for each study and site access intersection. The results of the queuing analysis shall be presented graphically, and the available storage lengths for all existing and proposed lanes shall be identified to determine the adequacy of these facilities to accommodate the anticipated future vehicular traffic queues.
- (4) A traffic-simulation computer model shall be completed during the peak highway and development hours, as appropriate, for each study and site access intersection, where deemed appropriate for complex developments or developments located near heavily utilized roads or intersections, as recommended by the Township or the Township Traffic Engineer. The purpose of this will be for the Township, reviewing agencies, and other interested parties to visualize the movement of traffic upon

completion of the proposed development and any associated traffic improvements.

- G. Proposed Improvements. A description of proposed improvements to remedy and/or otherwise mitigate the deficiencies and impacts, as established by the analyses required herein, shall be identified, as follows:
- (1) Improvements shall be identified that would increase the capacity to return to predevelopment levels of service. Improvements shall be presented for postdevelopment traffic volumes to operate at a Level of Service D or better for all movements and Level of Service C for the overall intersection. The improvements identified shall ensure that under no circumstances will the levels of service be worse than predevelopment conditions. For individual movements and overall intersections that function at Level of Service E or F, the volume capacity ratio and delay shall be no worse than predevelopment conditions.
 - (2) The description of improvements shall describe the location, nature, and schedule, as well as the party responsible for the improvements. The listing of recommended improvements shall include but not necessarily be limited to the following elements: internal circulation design; site access design location; traffic signal installation/operation; roadway/intersection widening, capacity or reconfiguration improvements; new roadways; and other geometric safety improvements deemed appropriate. Although the improvement recommendations shall be consistent with any current transportation capital improvement plan of the Township, the improvements listed in the transportation capital improvement plan shall not be considered unless they are planned within a reasonable schedule, as directed by the Township.
 - (3) A volume/capacity analysis shall be presented demonstrating the anticipated operating conditions of the study intersections upon implementation of any recommended improvements. The level of service results of the volume/capacity analysis shall be presented graphically.
 - (4) Access design recommendations shall be provided consistent with the design requirements of the Township and/or the guidelines of the Pennsylvania Department of Transportation, including the following:
 - (a) The available safe stopping sight distance measurements for egressing and left-turn ingressing movements shall be indicated for each access, and recommendations shall

be provided for any access location that does not provide sufficient sight distance in accordance with the applicable requirements, which may include relocation of the proposed access, provision of separate turning lanes, roadway improvements, or turning restrictions.

- (b) The necessity for auxiliary turn lanes at each site access intersection shall be identified per Township requirements minimally based on current design guidelines of the Pennsylvania Department of Transportation.
 - (c) All access points and pedestrian crossings shall be examined as to the need for and feasibility of installing traffic signals or other traffic control devices, pursuant to the guidelines and traffic signal warrants of the Pennsylvania Department of Transportation.
 - (d) Access Management. Shared access, access easements, established or floating cross easements, driveway interconnections, shared parking, and parking easements shall be provided with adjoining lots, where appropriate and deemed necessary by the Board of Supervisors. If driveway interconnections are not yet appropriate, then shared access, shared parking, or cross-access easements shall be set aside for future use.
 - (e) The safety of vehicles and pedestrians utilizing the proposed access shall be considered and improvements incorporated into the access design, if deemed appropriate by the Board based on recommendations by either the Township Engineer or the Township Traffic Engineer.
 - (f) Access points to the site shall be located to minimize any potential obstruction to access as identified in the report on the external roadway system required pursuant to § 22-406, Subsection 5B, of this chapter.
- (5) Traffic-calming measures shall be incorporated as part of all improvement designs, consistent with the PennDOT Traffic Calming Handbook, Publication 383.

H. Conclusions and Recommended Improvements.

- (1) Levels of service for all roadways and intersections shall be identified at the conclusion of each phase of the development, and a level-of-service matrix shall be provided for comparison of the levels of service. All roadways and/or intersections showing

a level of service below C for the overall intersection and Level of Service D for any movement shall be considered deficient, and specific recommendations for the elimination of these traffic problems shall be identified. Also, improvements shall be offered to ensure that vehicular queues can be accommodated to provide efficient access and mobility to/from the proposed development for pedestrian and vehicular traffic. This listing of recommended improvements shall include but not be limited to the following elements: internal circulation design, site access location and design, external roadway and intersection design improvements, traffic signal installation and operation, including signal timing, improvements to minimize potential obstructions to site access and transit design improvements. All physical roadway improvements shall be shown on sketches. Where appropriate, traffic-calming measures shall be considered and identified and incorporated into the site design in order to discourage cut-through traffic and to reduce the travel speed of vehicles traveling through the development. Likewise, best access management practices for the safe and efficient movement of all modes of transportation shall be applied.

- (2) Existing and/or future public transportation service shall also be addressed. A listing of all actions to be undertaken to increase present public transportation usage and improve service, if applicable, shall be included.
 - (3) The listing of recommended improvements for roadways, transit, pedestrian and bicycle facilities shall include, for each improvement, the party responsible for the improvement, the cost and funding of the improvement and the completion date for the improvement.
6. Time of Submission. The traffic impact study shall be submitted to the Planning Commission with the preliminary plan submittal. Improvement plans for permits shall not be submitted to PennDOT until after review by the East Rockhill Township Planning Commission and Board of Supervisors and the Township's consultants, unless approved to do so by the Board of Supervisors.
 7. Implementation. The Board of Supervisors shall review the traffic impact study to analyze its adequacy in solving any traffic problems that will occur due to the land development or subdivision. The Board of Supervisors may decide that certain improvements contained on and/or adjacent to the site and within the study area are necessary for land development or subdivision plan approval and may attach these conditions to the approval. If the Township concludes that additional improvements or modifications are necessary beyond those recommended by the applicant, the applicant shall have the opportunity to resubmit alternative improvement designs to obtain

plan approval. The Board of Supervisors may request additional analysis and may also impose upon the applicant additional improvements deemed necessary to accommodate the effects of the development.

§ 22-407. Sewage Facilities. [Ord. 158, 12/20/1994, § 407; as amended by Ord. 192, 4/18/2000]

1. General. The applicant shall submit the following information for review to insure that the proposed method of sewage collection, treatment and disposal is adequate to serve the proposed subdivision or land development. The evaluation must establish that each proposed lot, building or structure will be served by an appropriate sewage system.
2. Development Applications. The applicant shall make application to the Pennsylvania Department of Environmental Protection (DEP) which shall determine whether or not the application will require submission of planning modules.
3. If Pennsylvania DEP determines that planning modules are required for the proposed development then the following steps must be taken:
 - A. In order to be deemed a complete subdivision or land development application, any application for preliminary subdivision or land development approval must be accompanied by a duly completed Department of Environmental Protection sewage facilities planning module. Such planning module shall also meet all the requirements contained in 25 Pa. Code, Chapter 71.
 - B. Such application, and planning module shall meet all the procedural and content requirements of 25 Pa. Code, Chapter 71, Subchapters 71.52 and 71.53, including the requirement that they be accompanied by the comments on the planning module of the Bucks County Health Department and the Bucks County Planning Commission. Evidence that the sewage facilities planning module has been before these agencies for 60 days without comment shall be sufficient to satisfy this requirement.
 - C. The Township shall review and act upon the planning modules in accordance with the requirements and criteria set forth in 25 Pa. Code, Chapter 71 and may refuse to adopt a proposed revision to its official sewage facilities plan for new land development for reasons including but not limited to the following:
 - (1) The plan is not technically or administratively able to be implemented.
 - (2) Present and future sewage disposal needs of the area, remaining acreage or delineated lots are not adequately addressed.

- (3) The plan is not consistent with the Township land use plans and ordinances, this chapter, or other ordinances or plans controlling land use or development.
 - (4) The plan is not consistent with the comprehensive program of the Township as contained in its official sewage facilities plan.
 - (5) The plan does not meet the consistency requirements set forth in 25 Pa. Code, Chapter 71, subsection 71.21(a)(5)(i)-(iii).
- D. When the Township refuses to adopt a proposed revision to the official sewage facilities plan, it shall state the reasons for the refusal and forward a copy of this statement to the person making the submission and to the Department of Environmental Protection.
- E. When the Township adopts the proposed revisions to the official sewage facilities plan, the Township shall forward the proposed revisions to the department with the information required by 25 Pa. Code, Chapter 71, subsection 71.52. Adoption of the proposed revisions of the official plan shall be by resolution of the Board of Supervisors.
- F. Approval of the planning modules by the Pennsylvania Department of Environmental Protection shall be a condition of subdivision or land development plan approval by the Township.
4. Requirements for Final Plan Approval. Where onlot sewage disposal is proposed, final plan approval shall not be granted for any subdivision or land development until satisfactory evidence has been presented by the applicant to the Township that the Bucks County Health Department and the Pennsylvania Department of Environmental Protection have determined that the lots proposed for subdivision are generally suitable for onlot septic systems and; provided, further, that a note shall be placed on the final plans as follows:

"The planning module for land development has been approved by the Pennsylvania Department of Environmental Protection and the Bucks County Department of health as to the subdivision plan. However, the septic system permit has not been issued for the lot(s) upon which new building(s) are proposed. Prior to issuance of a building permit, a septic system permit shall be obtained and presented to the Zoning Officer for each new building."

§ 22-408. Water Resources Impact Study. [Ord. 158, 12/20/1994, § 408; as amended by Ord. 192, 4/18/2000; and by Ord. 214, 10/18/2005, § XI]

1. All projects withdrawing 10,000 gpd or greater of groundwater, or surface water or a combination of these two sources are required to obtain a permit from the DRBC. Copies of all submissions by the applicant to the DRBC shall be sent to the Township. Additionally, copies of all submissions to the

- Department of Environmental Protection (DEP) and all correspondence received by the applicant from the DEP shall be forwarded to the Township.
2. Any water withdrawal project not under the jurisdiction of the DRBC will be reviewed by the Township. A water resources impact study shall be required when the proposed development is not served by the public water supplied by East Rockhill Township or water authority approved by the Township and one or more of the following conditions are met:
 - A. The proposed residential subdivision contains 15 lots or more.
 - B. The proposed residential subdivision contains five lots or more with a density of 1.8 dwelling units per acre or greater.
 - C. The nonresidential subdivision contains three lots or more.
 - D. A proposed well is intended for nonresidential use (i.e., industrial, commercial, institutional, community, agricultural).
 3. The water impact study shall be prepared by a hydrologist or professional engineer qualified to conduct groundwater investigations. The purpose of the study will be to determine if there is an adequate supply of water for the proposed use and to estimate the impact of the additional water withdrawals on existing nearby wells, underlying aquifers and streams. The Township Engineer shall be involved in the study as the Township feels is necessary and appropriate.
 4. A water system which not provide an adequate supply of water for the proposed use, considering both quality, and quantity and/or adversely affects nearby wells and streams shall not be approved by the Township.
 5. The adequacy of water supply shall be determined based upon the assumption that there are 3 1/2 persons per dwelling unit using 75 gallons of water per person per day. The applicant shall submit an analysis which evaluates the consistency between the proposed use and the groundwater preservation guidelines included in the Township's Sewage Facilities Plan/201 Facilities Plan.
 6. The water impact study shall be signed by the person(s) preparing the study and shall include the following information:
 - A. Calculations of the projection water needs using the criteria set forth in the following references:
 - (1) "Public Water Supply Manual," Bureau of Water Quality Management Publication No. 15 by the Pennsylvania Department of Environmental Protection, Harrisburg, Pennsylvania.

- (2) "Guide for Determination of Required Fire Flow" by the Insurance Services Office (ISO) as modified.
 - (3) "American Water Works Association Standards and Manuals for the American Water Works Association," Denver, Colorado.
 - B. A geologic map of the area within a one-mile radius.
 - C. The location of all faults, lineaments and fracture traces within 1/4 mile of the site.
 - D. The locations of all existing and proposed wells within 1/4 mile of the site and all large withdrawal wells (10,000 gpd+) within one mile of the site.
 - E. The location of all existing and proposed onlot septic systems with 1/4 mile of the site.
 - F. The location of all streams, perennial and intermittent, within 1/4 mile of the site.
 - G. A discussion of the aquifers underlying the site and their long-term drought recharge capability based on accepted published data or detailed site-specific investigations.
 - H. Based on the drought recharge capacity of the underlying aquifer and the calculated daily groundwater withdrawals of the project, a hydrologic budget shall be calculated for the site property itself and for the area within 1/4 mile of the site.
 - I. Based on the results of the hydrologic budget, a determination shall be made on whether or not the potential exists for adverse affects on the hydrologic environment caused by the project.
 - J. The study shall include a brief statement of the qualifications of the person(s) preparing the study.
7. The following site-specific investigations shall be required:
- A. For each well that is constructed:
 - (1) An accurate geologic log should be constructed during the drilling of the well giving a detailed description of the type and thickness of rocks encountered. Additionally, the log should contain information on the depth and thickness of all water bearing zones encountered and the yield from each zone. Yield from the well must be measured using a quantitative method.
 - (2) Samples shall be collected every 20 feet during drilling or at each change in rock type. Each sample shall be placed in a

nonbreakable container. The container, in a sturdy box, shall be made available to the Township.

- B. A pumping test of not less than 48 hours duration shall be conducted at a rate of not less than 150% of the intended long-term withdrawal from the well. The 48 hour est. shall be conducted at a constant pumping rate that should not deviate greater than +/- 5% during the test.
- C. In order to determine the impact of the project well on existing wells, a representative sample of existing wells, evenly spaced around the pumping well, shall be monitored for changes in water level. The number and location of monitoring wells shall be subject to approval by the Township. Sufficient well monitoring shall be performed to allow for the construction of hydrographs showing a continuous record of well levels before, during and after the pumping test.
- D. A means of accurately measuring the well discharge shall be provided, subject to approval by the Township.
- E. Well discharge shall be directed away from the site by a method suitable to the Township and to a point suitable to the Township.
- F. Records shall be compiled in typewritten form to include the following information:
 - (1) Name of driller and personnel conducting test.
 - (2) Description of test well to include horizontal and vertical dimensions, casing installed and grouting details.
 - (3) List of formation samples.
 - (4) Static water level immediately prior to yield testing.
 - (5) Hydrograph of depth to water surface during test pumping and recovery period at the test well showing corresponding pump and discharge rate in gallons per minute and time readings were taken.
 - (6) Log of depth surface at existing and monitoring wells during test pumping period showing time readings were taken.
- G. A report shall accompany the test well data which analyzes and interprets all of the data as to the impacts on the groundwater supply and existing wells. Conclusions shall be drawn from the analysis.
- H. The submission to the Township shall include any and all applications, reports or supplemental information submitted to the

Pennsylvania Department of Environmental Protection and/or the Delaware River Basin Commission.

8. For all residential subdivisions of five lots or more, and all nonresidential subdivisions or land developments, the applicant shall enter into a well depletion agreement with the Township to protect offsite existing wells. The well depletion agreement shall provide for financial security sufficient to restore any offsite affected wells in a manner approved by the Township.

§ 22-409. Wetland Delineation. [Ord. 214, 10/18/2005, § XII]

When the National Wetlands Inventory (NWI) maps or other mapping adopted by the Township indicate wetlands on a site or when a site contains hydric soils or an area with a predominance of wetlands vegetation, an on-site investigation shall be conducted to determine if wetlands are present on the site. Wetland boundaries shall be delineated through an on-site assessment which shall be conducted by a professional soil scientist or other professional of demonstrated qualifications. Such a person shall certify that the methods used correctly reflect currently accepted technical concepts, including the presence of wetlands vegetation, hydric soils and/or hydrologic indicators. A study shall be submitted with sufficient detail to allow a thorough review by the Township. The study must be validated by the U.S. Army Corps of Engineers.

PART 5

GENERAL DESIGN STANDARDS

§ 22-501. Application. [Ord. 158, 12/20/1994, § 501]

The following principles, standards and requirements will be applied by the Township to evaluate plans for proposed subdivision or land developments. The standards and requirements outlined herein shall be considered minimum standards and requirements for the promotion of the public health, safety, morals and general welfare. Where literal compliance with the standards herein specified is clearly impractical, the Board of Supervisors may modify or adjust the standards to permit reasonable utilization of property while securing substantial conformance with the objectives of this chapter.

§ 22-502. General Standards. [Ord. 158, 12/20/1994, § 502; as amended by Ord. 214, 10/18/2005, § XIII]

1. All portions of a tract being subdivided or developed shall be taken up in lots, streets, public lands or other proposed uses so that remnants and landlocked areas shall not be created.
2. Reserve strips controlling access to lots, public rights-of-way, public lands or adjacent private lands shall be prohibited unless their control is placed with the Township under conditions of the Board of Supervisors.
3. New lot lines shall follow Township boundary lines rather than cross them.
4. Subdivisions and land developments shall be laid out so as to avoid the necessity for excessive cut or fill.
5. Land subject to flooding or other hazards to life, health or property shall not be platted for residential occupancy or for such other uses as may increase danger to health, life or property, or aggravate erosion until all such hazards have been eliminated or unless adequate safeguards against such hazards are provided by the subdivision plans. Such land within the subdivision or land development shall be set aside on the plan for uses which shall not be endangered by periodic or occasional inundation and shall not produce unsatisfactory living conditions.
6. Every possible means shall be provided to preserve trees, groves, waterways, scenic points, historic spots or other community assets and landmarks that are located within a proposed subdivision or land development.
7. Proposed subdivisions or land developments shall be coordinated with existing nearby neighborhoods so that the community as a whole may develop harmoniously.
8. Where the preliminary plan includes a portion of a tract which could be further subdivided or developed under the standards of the Zoning

Ordinance [Chapter 27], the applicant shall submit a prospective street/lot layout for the entire tract which shall respect the environmental performance standards included in Part 17 of the Zoning Ordinance [Chapter 27].

§ 22-503. Community Facilities and Open Space. [Ord. 158, 12/20/1994, § 503; as amended by Ord. 214, 10/18/2005, § XIV]

1. In reviewing subdivision plans, the Planning Commission will consider the adequacy of existing or proposed community facilities to serve the additional dwellings proposed by the subdivision.
2. Where deemed essential by the Board of Supervisors upon consideration of the particular type of development proposed and especially in large-scale planned residential developments, the Board of Supervisors may require the dedication or reservation of such areas or sites of an extent and location suitable to the needs created by the development for schools, parks and other purposes.
3. Areas provided or reserved for such community facilities shall be adequate to provide for building sites, landscaping and off-street parking as appropriate to the use proposed.
4. Noxious weeds as defined by the Noxious Weed Control Law must be removed from all open space areas. Noxious weeds include the following:
 - A. Cannabis sativa, commonly know as marijuana.
 - B. The lythrum salicaria complex: any nonnative lythrum, including lythrum salicaria and lythrum virgatum, their cultivars and any combination thereof.
 - C. Cirsium arvense, commonly known as Canadian thistle.
 - D. Rosa multiflora, commonly known as multiflora rose.
 - E. Sorghum halepense, commonly known as johnson grass.
 - F. Carduus nutans, commonly known as musk thistle.
 - G. Cirsium vulgare, commonly known as bull thistle.
 - H. Datura stramonium, commonly known as jimson weed.
 - I. Polygonum perfoliatum, commonly known as mile-a-minute.
 - J. Puerria lobata, commonly known as kudzu vine.
 - K. Sorghum bicolor cv. drummondii, commonly known as shattercane.

- L. Heracleum mantegazzianum, commonly known as giant hogweed.
 - M. Galega officinalis, commonly known as goatsrue.
5. Designation of and permitted uses on open space land shall conform to requirements of § 27-1903 of the Zoning Chapter. Land which is to be used for recreation purposes shall be established as lawn (except those portions which will remain forested). Open space areas to be natural which are fallow field/meadow shall be planted with native tree species to establish forest. Planting plan which identifies tree species, genus, size, and spacing and groundcover/preparation shall be submitted with the preliminary plan application and is subject to approval by the Township.
 6. The perimeter of common open space areas whether to be owned by the Township or by a homeowner's association shall be delineated by fencing (at break points), tree plantings or other methods approved by the Township. In addition, signage shall be installed to alert adjacent property owners of the open space area.

§ 22-504. Blocks and Lots. [Ord. 158, 12/20/1994, § 504; as amended by Ord. 214, 10/18/2005, § XV; and by Ord. 241, 7/17/2008]

1. The length, width, shape and design of blocks shall be determined with due regard to the provision of adequate site for buildings of the type proposed, land use and/or zoning requirements of the Township [Chapter 27], topography of the land being subdivided and requirements for safe and convenient vehicular and pedestrian circulation.
2. Unless the topography of the land being subdivided or the existing patter of development in the immediately adjacent area shall be otherwise than herein required, the following minimum standards for the design and size of blocks and lots shall prevail:
 - A. Blocks shall not exceed 1,600 feet in length nor be less than 500 feet in length. Block length shall be measured along the centerline of a street between centerlines of intersecting streets.
 - B. Residential blocks shall be of sufficient depth to accommodate two tiers of lots, except where reverse frontage lots containing frontage on a local street and either an arterial or a collector street are used.
 - C. Blocks for commercial and industrial areas may vary from the elements of design contained in this section if the nature of the use requires other treatment. In such cases, off-street parking for employees and customers shall be provided along with safe and convenient limited access to the street system. Space for off-street loading shall also be provided with limited access to the street system. Extension of streets, and utilities shall be provided as necessary.

- D. Lot lines intersecting street lines shall be substantially at right angles or radial to street lines from the street line to the rear lot line.
- E. Lots shall front on a street which has already been dedicated to the Township, or which the subdivider or developer proposes to dedicate to the Township in connection with approval of the final plan.
- F. The Township shall assign house numbers to each lot within a subdivision.
- G. Minimum lot sizes shall be in accordance with the Township Zoning Ordinance [Chapter 27].
- H. Remnants of land, smaller than required for a lot, shall not be permitted within any subdivision. Such remnants shall be incorporated into existing or proposed lots, or dedicated to public use if acceptable to the Board of Supervisors.
- I. Reverse-frontage lots are prohibited except in accordance with subsection (2)(B) above. Vehicular access for reverse-frontage lots is restricted to local streets.
- J. Residential lots shall not be created which front upon an arterial or collector street, as defined in § 506(1).
- K. Residential lot depth shall not be less than one nor more than three times the lot width. Lot depth shall be measured as the average distance from the ultimate right-of-way line to rear property line. Lot width is the distance between side property lines measured at the required minimum building setback line.
- L. At least two trees shall be planted in the energy conservation zone on all residential lots. The energy conservation zone is an area located no more than 22 feet from a dwelling unit in a 180° band commencing due east of the northeast point of the structure, through due south, ending due west of the northwest point of the structure. All exterior air-conditioning units, except for air-conditioning units placed on the roof, shall be shaded by trees and/or shrubs. These on-lot trees shall be selected from the trees listed under § 22-515, Subsection 1H, Deciduous Tree List, of this chapter and shall have a minimum trunk diameter of 2.5 inches measured six inches above finished grade at the time of installation.

§ 22-505. Street; General. [Ord. 158, 12/20/1994, § 505; as amended by Ord. 214, 10/18/2005, § XVI; and by Ord. 252, 4/20/2010]

- 1. Proposed streets shall be properly related to such street plans or parts thereof as have been officially prepared and adopted by the Township and

shall be coordinated with existing or proposed streets in adjoining subdivisions or land developments.

2. Any developer subdividing or developing a parcel which fronts a state highway or proposes access thereto shall be required to obtain a Pennsylvania Department of Highways highway occupancy permit for any access, improvement and encroachment within the roadway right-of-way. No plat which will require access to a highway under the jurisdiction of the Department of Transportation shall be finally approved unless the plat contains a notice regarding permit requirements. (See Part 8 of this chapter.)
3. Proposed streets shall further conform to such county and state road and highway plans as have been prepared, adopted or filed as prescribed by law.
4. Streets shall be related to topography so as to produce usable lots and acceptable grades.
5. Centerlines of proposed streets must coincide with centerline of right-of-way.
6. Access shall be given to lots and portions of the tract in the subdivision of land development and to adjacent unsubdivided property unless the topography clearly indicates that such connection is not feasible. Streets giving such access shall be improved to the limits of the subdivision or land development to Township specifications. Reserve strips and landlocked areas shall not be created.
7. Streets shall be laid out to preserve the integrity of their design. Local access streets shall be laid out to discourage their use by through traffic and, where possible, collector streets shall be designed for use by through traffic.
8. Where the proposed subdivision of land development contains or is adjacent to an existing or proposed arterial street, provision shall be made for marginal access streets. The Township may also require rear service areas, double frontage lots, or such other treatment as will provide protection for abutting properties, reduction in number of intersections with arterial streets, and separation of local and through traffic.
9. Screening through the use of appropriate plant materials, fences, or berms subject to site plan review shall be provided along the property line of lots with reverse frontage to buffer the lot from the higher order street.
10. Half or partial streets will not be permitted in new subdivision or land developments.
11. Dead-end streets shall be prohibited, except as stubs to permit future street extension into adjoining tracts or when designed as cul-de-sacs. Temporary stub streets shall be permitted only if the street is less than 200 feet in length and provides access to two or fewer dwelling units.

12. Street names shall be coordinated with existing or platted street names; and if a new street is a continuation of or is aligned with an existing or platted street, it shall bear the same name as the existing or platted street. All street names shall be of historical, geographic, topographic or other local significance. Street names shall be subject to approval of the Board of Supervisors. All street regulatory signage shall be in accordance with PA Title 67, PennDOT Publications 236 and 68 (Chapter 211) and shall be installed on standard PennDOT approved breakaway posts.
13. No street shall be laid out or opened which extends to or crosses any boundary between the Township and any other municipality except with the specific approval of the Board of Supervisors and upon such condition as the Township may impose.
14. All streets shall have a uniform width throughout their respective lengths except where otherwise required by the Board of Supervisors pursuant to § 22-506.
15. No new street will be permitted which will create an existing principal structure nonconforming to front yard requirements of the Township Zoning Ordinance [Chapter 27].
16. When the subdivision or land development abuts an existing street, drainage improvements shall be made to existing streets. Required improvements must be extended as necessary to provide positive drainage to existing storm drainage facilities or drainage channels. Additionally, existing cartways shall be reconstructed where necessary to establish minimum construction standards of § 22-506(5). Where reconstruction is not required, leveling with ID-2 binder and/or wearing course material (or other paving material approved by the Township), and full width overlay with wearing course material is required to improve the cartway surface. When leveling is required, structural paving fabric designed for use as an interlayer must be installed between the leveling and wearing course.
17. All new residential subdivisions and/or land developments containing 13 dwelling units or more shall have a minimum of two public street entrances/exits from public roads so that it is possible to enter the development and drive through on a continuous road to a second entrance/exit to a public street. This requirement shall not be satisfied by a divided boulevard-type entrance, nor shall it be satisfied with an emergency access, unless such access is paved, built to public street standards and is open continuously.
18. All streets shall be designed to accommodate efficient plowing of snow, which may include adequate snow storage easements, spacing of access points, parking restrictions and/or other design features as may be determined necessary by the Township.

§ 22-506. Street Classification and Design Standards. [Ord. 158, 12/20/1994, § 506; as amended by Ord. 214, 10/18/2005, §§ VII-XIX]

1. Street Classification. Three functional classifications are hereby established for the streets and roads in East Rockhill Township:
 - A. Arterial. This classification includes highways which provide intracounty or intermunicipal traffic of substantial volumes where the average trip lengths are usually five miles or greater. Generally, these highways should accommodate operating speeds of 35 to 55 mph.
 - B. Collector. This classification is intended to include those highways which connect local access highways to arterial highways. They may serve intracounty and intramunicipal traffic. They may serve as traffic corridors connecting residential areas with industrial, shopping, and other service. They may penetrate residential areas. Generally, these highways will accommodate operating speeds of 35 miles per hour.
 - C. Local Access. This classification is intended to include streets and roads that provide direct access to abutting land and connections to higher classes of roadways. Traffic volumes will be low and travel distances generally short. These streets and roads should be designed for operating speeds of 25 mph or under.

2. Right-of-Way Widths. Minimum widths for each type of public street shall be as follows:

Type of Street	Right-of-Way Width
Arterial	100 feet
Major collector	80 feet
Minor collector	60 feet
Local access	50 feet or greater depending on development type; on-street parking requirements as determined by the Board of Supervisors.

- A. Where a proposed subdivision abuts or contains an existing public street or road having a right-of-way width less than would be required if said street or road were created under this chapter, sufficient additional width for right-of-way shall be provided and dedicated to meet the foregoing standards.
- B. Additional right-of-way and cartway widths may be required by the Board of Supervisors to promote public safety and convenience when required by special conditions and to provide parking space in areas of intensive use.

3. Street Classification. Pursuant to Ord. 139, 10/15/1991 [Chapter 27, § 27-1510, § 27-1518], Township streets are classified as follows:
 - A. Arterial. Dublin Pike (S.R. 313).
 - B. Major Collector. Ridge Road (S.R. 563), Fifth Street and North Park Road (S.R. 563).
 - C. Minor Collector. Park Avenue, Old Bethlehem Pike, Callowhill Road, Rockhill Road, Three Mile Run Road, Branch Road, Blooming Glen Road, Schwenkmill Road, Old Bethlehem Road, Sterner Mill Road and Richlandtown Road.
 - D. Local Access. All other roads not classified above as arterial, major collector or minor collector.

4. Cartway Width.

- A. Minimum width of paving on existing streets shall not be less than the following:

Type	Cartway Width (feet)
Arterial	34 (or as required by PennDOT)
Major/minor collector	28 (or as required by PennDOT)
Local access	24 (28 if curb required)

- B. Residential Streets. All new proposed residential streets shall be constructed with a minimum right-of-way of 50 feet and a minimum cartway of 28 feet. Where parking is permitted on one side, the minimum right-of-way shall be 56 feet and the minimum cartway width shall be 32 feet. Where parking is permitted on both sides, the minimum right-of-way shall be 60 feet and the minimum cartway shall be 36 feet. The Township reserves the right to require additional cartway width. On-street parking requirements shall be determined by the Board of Supervisors.

5. Design Standards. Design of streets shall conform with PennDOT Design Manual, Part 2, Highway Design (PDT Pub. 13), and all applicable PennDOT RC standards, unless specifically modified by this chapter.

6. Pavement Design.

- A. All components of the pavement structure shall be designed and constructed in accordance with Pennsylvania Department of Transportation Specifications Form 408 and shall be noted as such on the plan.

- B. Minimum Requirements. The following shall be considered to be minimum standards for local access street construction:

Section	Type	Min. Depth (Compacted)
(1) Surface	ID-2 Wearing Course	1 1/2 inches
Base	BCBC	4 1/2 inches
Subbase	3A Modified Stone	6 inches
or		
(2) Surface	ID-2 Wearing Course	1 inch
Base	ID-2 Binder Course	2 inches
Subbase	AASHTO #1 Stone w/2 inch Screenings	8 inches

Note: AASHTO No. 1 stone subbase required on new streets constructed without curb. Subgrade shall be compacted and crowned with the required street crown and shall be prepared to PennDOT Specifications Form 408.

Structural fabric will be required in locations deemed necessary by the Township Engineer.

- C. Pavement design for nonresidential streets shall be subject to approval of the Township Engineer dependent upon anticipated traffic type and volume.
- D. Minimum requirements for cartway widening cross sections along existing roadways shall be in accordance with subsection (5)(B)(1).
- E. Minimum requirements for storm sewer and utility trench pavement restoration within existing roadways shall be in accordance with standards as contained in "Standard Specifications and Requirements for the Construction of Sanitary Sewers, East Rockhill Township, dated January 14, 1993, revised January 21, 1992," as amended.
7. Roadside Barriers. Roadside barriers and guide rail shall be required in accordance with PennDOT Design Manual, Part 2, Highway Design, Chapter 12 (PDP Pub. 13). Construction and materials shall be in accordance with applicable PennDOT RC standards.
8. Traffic Control. Vehicular traffic control in work zone areas on and along streets open to the public shall be in strict accordance to requirements of PennDOT Publication 203, Work Zone Traffic Control (67 Pa. Code, Chapter 203).
9. Speed limit, no parking, and advisory signs shall be installed along new development streets in accordance with PennDOT regulations, and as required by the Township. Street name signs shall identify both intersecting

streets and shall have six-inch high white lettering with green background conforming to design utilized by the Township Road Department.

10. Stop line markings shall be installed at all intersections of proposed public streets with arterial and major/minor collector streets, and with other existing local streets where determined necessary by the Township. Stop line markings shall be thermomastic white lines 12 inches wide extending across the approach lane(s). Lines shall be placed four feet in advance of and parallel to the nearest crosswalk line. Where marked crosswalks do not exist, the stop line shall be placed at the desired stopping point, but no more than 30 feet or less than four feet from the nearest edge of the intersection travel way.
11. Crosswalk marking shall be installed (where sidewalk exists or is proposed) at all intersections of proposed public streets with arterial and major/minor collector streets, and with other existing local streets where determined necessary by the Township. Crosswalk markings shall consist of six-foot long white thermomastic longitudinal lines 24 inches wide, spaced 24 inches apart.
12. Patterned concrete crosswalks shall be installed on major pedestrian routes and internally on new residential streets where determined necessary by the Township due to anticipated pedestrian traffic volume and for traffic calming. Patterned concrete crosswalks shall conform to requirements of Appendix G and general concrete specifications of Appendix H.²

§ 22-507. Cul-de-Sac Streets. [Ord. 158, 12/20/1994, § 507; as amended by Ord. 214, 10/18/2005, § XX]

1. Cul-de-sac streets shall not be permitted unless the applicant can demonstrate to the satisfaction of the Township that construction of a through street is not feasible. The applicant shall submit for review by the Township aerial mapping with tax map parcels identified which indicate the viability of potential future street construction to establish the through street.
2. A snow storage area shall be provided along the right-of-way of the turnaround. The snow storage area shall be contained within an easement not less than 15 feet wide measured from the right-of-way line and of sufficient length as deemed necessary by the Township to provide adequate storage area.
3. Unless future extension is clearly impractical or undesirable, the turnaround right-of-way shall be placed adjacent to a property line and contained within an easement area. A right-of-way of the same width as the street shall be carried to the property line in such a way as to permit future extension of the street into the adjoining tract. At such time as such a street is extended,

²Editor's Note: Appendices G and H are on file at the Township office.

the overage created by the turnaround outside the boundaries of the extended street shall revert in ownership to the property owners fronting on the cul-de-sac turnaround.

4. Commercial and industrial cul-de-sacs shall be reviewed for adequacy by the Township Engineer. When deemed necessary by the Township, additional cartway and/or right-of-way radius may be required.
5. Permanent cul-de-sac streets shall be kept to a minimum and shall not exceed 500 feet in length or serve as access to more than 12 dwelling units, whichever is more restrictive, unless specifically authorized by the Board of Supervisors. The minimum length of a cul-de-sac shall be 250 feet. For the purpose of this chapter, cul-de-sac streets shall be measured from the intersection of the right-of-way line with the future right-of-way line of the existing street to the center of the turnaround area.
6. P-loops (loop streets from a single access point) shall have an entrance leg not exceeding 500 feet. The loop of a P-loop shall have a street length not exceeding 3,000 feet.
7. Turnarounds.
 - A. Cul-de-sac streets with curb, whether permanent or temporary, shall be provided with a turnaround at the closed end having a minimum radius to the edge of the finished street or curb line of not less than 45 feet. Permanent cul-de-sac streets shall be provided at the terminus with a right-of-way radius of 60 feet.
 - B. Cul-de-sac streets within developments with a minimum required lot area of 1.8 acres or greater shall be provided with a turnaround at the closed end designed with a landscaped island in accordance with Appendix H. Landscaped island shall not include curb.

§ 22-508. Street Alignment. [Ord. 158, 12/20/1994, § 508]

1. Whenever street lines are deflected in excess of 1 1/2°, connection shall be made by horizontal curves. Long radial curves shall be used rather than a series of short curves and tangents.
2. The minimum radius at the centerline for horizontal curves on collector and arterial streets shall be 300 feet, and for local streets the minimum radius shall be 150 feet.
3. On local access streets, the minimum tangent between reverse curves shall be at least 100 feet; on collector and arterial streets, the minimum tangent shall be at least 250 feet.

§ 22-509. Street Grades. [Ord. 158, 12/20/1994, § 509]

1. The minimum center-line grade on all streets shall be 75% on streets with curbs, 1% on streets without curbs.
2. The maximum grade on collector or arterial streets shall be 7%, and on local access streets, 10%.
3. Vertical curves shall be used in changes of grade exceeding 1% and shall provide proper sight distance.
4. Minimum vertical sight distance shall be in accordance with PennDOT Chapter 441, as amended.
5. Intersections. Maximum grade of a proposed street within 50 feet of the ultimate right-of-way of an existing street or proposed street shall not exceed 4%.

§ 22-510. Street Intersections. [Ord. 158, 12/20/1994, § 510]

1. Local streets shall not intersect with collector or arterial streets on the same side at intervals of less than 800 feet as measured from center line to center line.
2. The distance between center lines of streets opening onto the opposite side of a proposed or existing street shall be not less than 150 feet unless the streets are directly opposite each other.
3. Multiple intersections involving the junction of more than two streets shall not be permitted.
4. Proposed street intersections shall be designed at right angles. The intersection of a new street with an existing street shall not be at an angle of less than 75°, except that all intersections with an arterial or collector street shall be at 90°.
5. Horizontal curbs will not be permitted on a proposed street within 50 feet of the ultimate right-of-way of an existing or proposed street.
6. Minimum curb radius at the intersection of two local streets shall be at least 20 feet, and minimum curve radius at an intersection of a local street and a collector or arterial street shall be at least 25 feet.
7. A clear sight triangle of 75 feet in all directions shall be provided and maintained at all intersections measured along the center line from the point of intersection. Nothing which obstructs the vision of a motorist shall be permitted in this area.
8. Minimum horizontal and vertical sight distances shall be established in accordance with PennDOT Chapter 441, as amended.

§ 22-511. Driveways. [Ord. 158, 12/20/1994, § 511; as amended by Ord. 214, 10/18/2005, § XXI]

1. General.
 - A. Driveways on corner lots shall be located no less than 60 feet from any street intersection (measured from the intersection of the ultimate right-of-way lines). Sight distance requirements for all residential and nonresidential driveways shall be in accordance with PennDOT Chapter 441.
 - B. Driveways to corner lots shall gain access from the street of lower classification when a corner lot is bounded by streets of two different classifications as described herein. A corner lot created by a proposed street and an existing street shall gain access to the proposed street.
 - C. All driveways serving single-family dwellings, except shared driveways, shall be at least five feet from any side or rear lot line.
 - D. All driveways serving single-family dwellings shall not exceed a grade of 10%, unless a leveling area not exceeding 4% and 20 feet in length is included at the entrance and the terminus of the driveway, in which case the maximum driveway slope may be increased to 15%.
 - E. All driveways shall be paved from the edge of cartway to the ultimate right-of-way, or for a length of 15 feet, whichever is greater using the following minimum standards:
 - (1) A crushed aggregate base course with a compacted depth of six inches.
 - (2) A bituminous binder course (ID-2) with a compacted depth of 1 1/2 inches.
 - (3) A bituminous wearing course (ID-2) with a compacted depth of one inch.
 - (4) In the case where sidewalks are provided, a concrete driveway apron shall be required.
 - F. Where an existing roadside drainage swale is too shallow to permit installation of a driveway pipe, a paved swale may be installed conforming to requirements of PennDOT Chapter 441 unless the anticipated depth of flow across the driveway exceeds one-half inch during the ten-year-return storm. Where the anticipated depth of flow across the driveway exceeds one-half inch during the ten-year-return storm, a concrete trench box with steel grate must be installed. Grates must be recessed below edge of cartway to establish a minimum 2% slope from the cartway to the grate. Trench boxes must extend beyond edge of driveway paving a minimum five feet.

- G. Driveway Pipes.
 - (1) Driveway pipes must include flared end sections.
 - (2) End of pipes must extend a minimum of five feet beyond edge of paving.
 - (3) Minimum pipe length is 20 feet.
 - (4) Minimum pipe size shall be twelve-inch round or fourteen inches by nine inches arch.
 - (5) Pipe must be corrugated metal except when reinforced concrete pipe is required by the Township.
 - (6) Minimum nine inches of cover must be maintained between top of pipe and finished paving elevation.
 - H. All single-family residential driveways shall have a minimum width of eight feet.
 - I. Intersection of single-family driveways with cartways shall be installed with minimum paving radii of five feet at both sides.
 - J. Where curb and sidewalk are required, concrete aprons shall be poured with a minimum thickness of six inches on a minimum four inch thick bedding of PennDOT 2B stone. All concrete shall be PennDOT Class "AA" 3750 psi. mix. One-half inch expansion shall be placed between apron and curb. One-quarter inch score contraction joints shall be installed at 1/3 intervals.
2. Shared Residential Driveways.
- A. Minimum driveway width shall be 18 feet within the street ultimate right-of-way.
 - B. Entrance must be paved in accordance with subsection (1)(E) within the ultimate right-of-way or for a minimum length of 20 feet (whichever is greater).
 - C. Intersection of driveways with cartways shall be installed with minimum paving radii of 10 feet at both sides.
 - D. Driveways must be centered on property lines.
3. Nonresidential Driveways.
- A. Design requirements shall be in accordance with Pennsylvania Department of Transportation Chapter 441.

- B. Driveways shall be paved. Design of paving section shall be in accordance with excepted loading and frequency of loading. Minimum paving specification shall be in accordance with subsection(1)(E).

§ 22-512. Curbs. [Ord. 158, 12/20/1994, § 512; as amended by Ord. 214, 10/18/2005, § XXII]

1. Curb shall be installed on all parking areas located within multifamily, apartment buildings, and commercial and industrial developments. Curb shall also be required on new residential streets in subdivision or land developments, and all new nonresidential streets. Curbs are also required along all existing streets where deemed necessary by the Township. In such cases curbs, or other drainage controls shall be installed to properly control surface drainage and protect the streets from erosion.
2. All curbs shall be depressed at intersections to sufficient width to accommodate wheelchairs and shall be in accordance with the latest PennDOT Standards.
3. Curb shall be plain cement concrete curb, 18 inches in depth placed and finished in accordance with requirements set forth in the latest edition of PennDOT Specifications, Form 408. Concrete shall conform to specifications contained in Appendix F. After completion of the bituminous paving, Class BM-1 asphalt shall be applied to the joint between the curb and bituminous paving for a distance of one foot from the curb toward the center of the road to seal the joint between the curb and bituminous paving.
4. Curb cuts (driveway depression) shall be a maximum of 1 1/2 inches above roadway surface, a minimum of one inch above the roadway surface, and a minimum of 14 feet in width.

§ 22-513. Sidewalks. [Ord. 158, 12/20/1994, § 513; as amended by Ord. 214, 10/18/2005, § XXIII]

1. Sidewalks are required along both sides of all existing streets unless waived by the Board of Supervisors. Sidewalks are also required on all new residential streets where curbing is required.
2. Sidewalks shall be located within a public right-of-way, public easement or common open space area. Any such system shall be interconnected and not disjointed.
3. All sidewalks located within the street right-of-way shall be located in such a manner as to provide sufficient area for street trees.
4. Sidewalks shall be a minimum of four feet in width.
5. Sidewalks shall have a minimum depth of four inches and shall be placed on a four-inch-thick bed of PennDOT 2B stone base. Concrete driveways,

driveway aprons, and sidewalks that will provide access for vehicles shall have a minimum concrete depth of six inches reinforced with wire mesh, and be placed on a six-inch-thick bed of PennDOT 2B stone base. Concrete shall conform to specifications contained in Appendix F.

6. Sidewalks shall not exceed a 10% grade. All sidewalks shall be finished using methods that will provide a skid-resistant surface.
7. Curb depressions designed to accommodate wheelchairs shall be provided at street and other crossings and shall be in accordance with the latest PennDOT and Americans with Disabilities Act (ADA) standards. Handicapped accessible aprons shall be constructed with a minimum six-inch depth of concrete. Detectable warnings, 24 inches in width (in the direction of travel) shall extend the full width of the curb ramp and be located so that the edge nearest the curbline is between six inches and eight inches from the curbline. Detectable warnings shall consist of raised truncated domes with a diameter of nominal 0.9 inch, a height of nominal 0.2 inch and a center-to-center spacing of nominal 2.35 inches; and shall contrast visually with adjoining surfaces. (Refer ADA Guidelines § 4.29).
8. Sidewalks shall be laterally pitched at a slope of 1/4 inch per foot to provide for adequate surface drainage.
9. All final plans which include installation of sidewalk within a street right-of-way shall contain a notice regarding responsibility for removal of snow and ice. (Refer to sample in Appendix "B," Part 9 of this chapter.

§ 22-514. (Reserved)

§ 22-515. Landscaping and Street Trees. [Ord. 158, 12/20/1994, § 515; as amended by Ord. 214, 10/18/2005, §§ XXIV-XXVI; and by Ord. 241, 7/17/2008]

1. Street Trees and Buffer Plantings.
 - A. Street trees shall be planted along all existing and proposed streets within any land development or major subdivision where suitable street trees do not exist.
 - B. Medium to large deciduous street trees shall be planted at an average interval of not more than 40 feet. Small deciduous street trees shall be planted at an average interval of not more than 30 feet. Street trees must be selected and coordinated to provide adequate separation from overhead and underground utilities. Refer to § 22-515, Subsection 1H, of this chapter.
 - C. Street trees shall not be planted opposite each other but shall alternate.

- D. Street trees shall be planted within the street right-of-way unless otherwise approved by the Township.
- E. At the time of installation, the minimum trunk diameter of canopy trees measured at a height of six inches above finished grade shall be 2 1/2 inches. The minimum height of evergreen trees shall be six feet.
- F. Any plant material which does not survive, exhibits poor growth habit, is diseased, is missing, or is damaged by deer or natural causes within 18 months from the date of acceptance by the Township, or 18 months following installation/replacement, whichever is greater, shall be replaced by the developer.
- G. Financial security shall be posted with the Township in an amount equal to the estimated cost of trees and plantings, to be released 18 months from Township acceptance of the installation and installation of replacement trees pursuant to Subsection 1F above.
- H. Prior to acceptance of street tree installation/replacement and prior to acceptance of the eighteen-month maintenance period, all trees must be elevated to provide a clear zone seven feet above the sidewalk (if existing) and curb. Tree branches shall be pruned in accordance with standards of the Tree Care Industry Association (formerly National Arborist Association).
- I. The following plant material may be utilized for street trees, buffer trees, and other landscaping required by this chapter:

(1) Medium to Large Deciduous Trees.⁽¹⁾

Scientific Name	Common Name	Mature Height (feet)	Street Tree Use ⁽²⁾
Acer nigrum	Black maple	50-60	Y
Acer rubrum	Red maple	40-60	Y
Acer saccharum	Sugar maple	60-75	N
Aesculus hippocastanum	Horse chestnut	60-70	N
Aesculus x carnea	Red horse chestnut	35-50	N
Betula alleghaniensis	Yellow birch	60-80	N
Betula lenta	River birch	60-80	N
Betula nigra	Black birch	45-55	N
Fagus grandifolia	American beech	50-70	N
Fraxinus americana	White ash	50-80	N
Fraxinus pennsylvanica ⁽³⁾	Green ash	30-50	Y

Scientific Name	Common Name	Mature Height (feet)	Street Tree Use⁽²⁾
Ginkgo bilboa	Ginkgo (male only)	50-70	Y
Gleditsia tricanthos	Honeylocust	40-60	Y
Gymnocladus dioicus	Kentucky coffeetree	50-60	Y
Liquidambar styraciflua ⁽³⁾	Sweet gum	50-75	Y
Liriodendron tulipifera	Tulip poplar	75-100	N
Magnolia acuminata	Cucumber tree	50-70	N
Metasequoia glyptostroboides	Dawn redwood	65-85	N
Nyssa sylvatica	Black gum	40-70	N
Ostrya virginiana	American hophornbeam	30-40	Y
Platanus acerifolia	London planetree	70-80	N
Platanus occidentalis	American sycamore	75-100	N
Quercus alba	White oak	50-100	N
Quercus acutissima	Sawtooth oak	40-50	N
Quercus imbricaria	Shingle oak	40-65	N
Quercus macrocarpa	Bur oak	70-90	N
Quercus Montana	Chestnut oak	40-75	N
Quercus palustris ⁽⁴⁾	Pin oak	60-75	N
Quercus phellos	Willow oak	55-75	N
Quercus robur	English oak	60-80	Y
Quercus rubra	Red oak	60-80	Y
Quercus shumardii	Shumard oak	60-80	Y
Sassafras albidum	Sassafras	30-50	N
Taxodium distichum	Bald cypress	60-80	N
Tilia americana	Basswood (American linden)	50-70	Y
Tilia cordata	Littleleaf linden	60-80	N
Ulmus Americana (disease-resistant varieties)	American elm	70-90	Y
Zelkova serrata	Japanese zelkova	60-70	Y

NOTES:

- ⁽¹⁾ Medium to large deciduous trees shall not be utilized where potential conflict will exist with overhead electric facilities.

NOTES:

- (2) Trees identified with "Y" may be utilized as street trees where there is no potential conflict with overhead electric facilities.
- (3) Use limited to seedless cultivars when planted adjacent to streets, parking lots, sidewalks, pedestrian paths, and drainage structures. Recommended cultivars are liquidambar styraciflua (sweet gum) Rotundiloba, and Fraxinus pennsylvanica (green ash), Patmore, Summit, Newport, Urbanite and Cimmaron.
- (4) Quercus palustris (pin oak) has drooping branches and should also not be installed adjacent to parking lots, sidewalks, or pedestrian paths unless the cultivar Green Pillar is planted.

(2) Small Deciduous Trees:⁽¹⁾

Scientific Name	Common Name	Mature Height (feet)	Street Tree Use ⁽²⁾
Acer buergeranum	Trident maple	20-30	N
Acer campestre	Hedge maple	25-40	Y
Acer ginnala	Amur maple	15-20	Y
Acer griseum	Paperbark maple	25-35	Y
Acer tataricum	Tatarian maple	15-25	Y
Amelanchier (tree form species)	Serviceberry	15-30	N
Carpinus betulus	European hornbeam	35-40	Y
Capinus caroliniana	American hornbeam	20-35	Y
Cercis Canadensis	Eastern redbud	25-30	N
Chionanthur virginicus	Fringe tree	15-25	N
Cornus Florida ³	Flowering dogwood	20-30	N
Cornus kousa ³	Kousa dogwood	20-30	N
Cornus mas	Cornelian dogwood	20-30	Y
Cornus racemosa	Gray dogwood	20-30	Y
Crataegus crus-galli	Cockspur hawthorn (thornless)	15-20	N
Crataegus laevigata	English hawthorn	15-20	N
Crataegus phaenopyrum	Washington hawthorn (thornless)	20-30	N
Crataegus punctata	Dotted hawthorn	20-25	N

Scientific Name	Common Name	Mature Height (feet)	Street Tree Use ⁽²⁾
Crataegus viridis	Winter king hawthorn	25-30	N
Halesia carolina	Carolina silverbell		
Koelreuteria paniculata	Goldenrain tree	25-40	Y
Maackia amurensis	Maackia	25-30	N
Magnolia (hybrids)	Hybrid magnolia	20-30	N
Magnolia stellata	Star magnolia	10-20	N
Malus (species and hybrids)	Flowering crabapple	15-30	N
Prunus okame	Okame cherry	20-25	Y
Prunus virginiana	Choke cherry	20-30	Y
Prunus serrulata	Oriental cherry	20-25	Y
Sorbus (species and varieties) ⁽⁴⁾	Mountain ash	15-35	N
Syringa (species and varieties)	Ivory silk/lilacs	20-30	Y

NOTES:

- ⁽¹⁾ Small deciduous trees may be utilized for street tree installation only where medium to large deciduous trees may conflict with overhead electric facilities.
- ⁽²⁾ Trees identified with "Y" may be utilized as street trees.
- ⁽³⁾ Cornus florida (flowering dogwood) and Cornus kousa (Kousa dogwood) have low horizontal-spreading branches and should also not be installed adjacent to parking lots, sidewalks, or pedestrian paths.
- ⁽⁴⁾ Sorbus (mountain ash) has fruit and should also not be installed adjacent to parking lots, sidewalks, pedestrian paths, or drainage structures.

(3) Evergreen Trees:

Abies balsamea	Balsam fir
Ilex opaca	American holly
Picea abies	Norway spruce
Picea omorika	Serbian spruce
Picea pungens	Colorado spruce
Picea rubens	Red spruce
Pinus echinata	Short-leaf pine
Pinus nigra	Austrian pine
Pinus strobus	White pine
Pinus virginiana	Virginia pine

Pseudotsuga menziesli	Douglas fir
Tsuga canadensis	Eastern hemlock

(4) Hedge (four feet high minimum):

Craataegus intricata	Thicket hawthorn
Forsythia intermedia	Border forsythia
Syringa chinensis	Chinese lilac
Syringa vulgaris	Common lilac

(5) Hedgerow (four feet high minimum):

Crataegus crus-galli	Cockspur thorn
Crataegus phaenopyrum	Washington hawthorn
Viburnum (native species and varieties)	Viburnum

(6) Shrubs (three feet high minimum):

Juniperus virginiana	Upright juniper
Phracantha lalandi	Laland firethorn
Taxus capitata	Upright yew
Taxus hicksi	Hicks yew
Thuja occidentalis	American arborvitae

(7) Shrubs (four feet high minimum):

Hamamelis vernalia	Vernal witch hazel
Hamamelis virginiana	Common witch hazel
Ilwx verticillata	Winterberry
Rhamnus frangula	Glossy buckthorn
Viburnum (native species and varieties)	Viburnum

NOTE: Additional trees and other plant material and cultivars may be utilized when approved by the Township.

J. Plant Material Specifications.

- (1) Names of plants shall agree with the nomenclature of Standard Plant Names, as adopted by the American Joint Committee on Horticulture Nomenclature, 1942 edition, as amended; size and grading standards shall conform to those specified by the American Association of Nurserymen in the latest edition of the

USDA Standards for Nursery Stock. No substitutions shall be permitted except by written permission of the Township.

- (2) **Quality.** All plants shall be typical of their species or variety and shall have normal, well-developed branches and vigorous fibrous root systems. All plants shall be nursery-grown, unless otherwise stated, and shall have been growing under the same climate conditions as the municipality for at least two years prior to the date of planting. Written verification of nursery/location shall be provided to the Township for approval prior to installation. All plants which are found unsuitable in growth or condition or which are not true to name shall be removed and replaced with acceptable plants. No plants with trunk damage or scarring shall be permitted to be installed. All trunk wrapping must be removed at the time of installation to permit inspection of the trunk condition.
 - (3) **Preparation of Plants.** All precautions customary in good trade practice shall be taken in preparing plants for moving. All balled and burlapped plants shall be dug to meet or exceed the USDA Standards for Nursery Stock.
 - (4) **Delivery.** Plants shall be packed, transported and handled with the utmost care to ensure adequate protection against injury.
2. **Landscaping of Parking Areas.** Any subdivision or land development application that includes an off-street parking facility shall propose landscaping of all such facilities. An off-street parking facility includes the designated parking areas and any appurtenant surfaced areas upon which a vehicle is designed to maneuver, including but not limited to all parking stalls, loading areas, drives within the property lines, and areas for maneuvering. Every off-street parking facility shall be landscaped so that 50% of each facility will be shaded with tree based upon the anticipated tree crowns at maturity. Development of such canopy shall be in accordance with the following:
- A. The amount of facility that will be shaded at maturity shall be determined by using the appropriate percentage of the crown based upon whether the tree is a medium to large tree or small tree as included within the Deciduous Tree List (§ 22-515, Subsection 1H, of this chapter) and on their location relative to the parking facility. A thirty-five-foot-diameter crown shall be utilized for trees included on the Medium to Large Deciduous Tree List; a twenty-foot-diameter crown shall be utilized for trees included on the Small Tree Deciduous List.
 - B. Trees not included on the Medium to Large Deciduous Tree List or Small Deciduous Tree List may be used as parking lot shade trees if

approved by the Township. The species of trees should be varied throughout the parking facilities.

- C. Trees shall receive 25%, 50%, 75%, or 100% shading credit based upon their location relative to the parking area. Areas where canopies overlap shall not be counted twice. Where the actual tree crown based upon species/location is less than one of the established percentage increments, the credit shall be rounded down to the next increment. [For example: If a crown will result in a large tree having 800 square feet of shading, the shading credit is reduced to 75% (722 square feet) based upon the shading credit chart.] If the site has two or more separate parking areas, the amount of shading shall be calculated separately for each facility.

Shading Credit Chart

	100%	75%	50%	25%
Medium to large tree	962 square feet	722 square feet	481 square feet	240 square feet
Small tree	491 square feet	368 square feet	246 square feet	123 square feet

- D. A parking facilities shading plan shall be submitted with any subdivision or land development application including an off-street parking facility. The plan shall clearly show (graphically) all surfaced areas included in the calculation of the amount of the facility to be shaded. Trees shall be drawn to scale representing the canopy size at maturity as listed in the Deciduous Tree List.
 - (1) The shading plan shall also include a table identifying the quantity and type of trees used, the percentage of shade credited to each, and their corresponding canopy size.
 - (2) All off-street parking facilities shall be indicated on the shading plan, and the total area calculated shall be noted in the shade calculation table. Parking facilities include all parking stalls, loading areas, drives within the property lines, and areas for maneuvering.
 - (a) Surfaced areas for automobile dealerships, lumberyards, and similar facilities that are used for display, sales, service, and vehicle storage may be relieved of the 50% shading requirement as follows:
 - [1] The Township may accept a fee in lieu of the 50% shading requirement, which shall be in an amount approved by the Township; or

[2] The Township may accept an applicant's offer to plant the required number/size of trees on riparian areas or other Township-owned property as designated by the Township.

(b) All required parking facilities for these uses are still subject to the 50% shading requirement.

(3) Sample Shade Calculation Table.

	Botanical Name/Common Name	100% Shading Credit (square feet)	75% Shading Credit (square feet)	50% Shading Credit (square feet)	25% Shading Credit (square feet)	Total Credit (square feet)
Tree	Name					
T1						
T2						
T3						
Total Tree Shade						
Total Paved Area						
Percent of Shade Coverage						

E. A minimum six feet by six feet of planting area shall be provided for each tree planted in a tree well or planter strip. A minimum four feet by eight feet of planting area shall be provided for each tree planted in an island planter. Planter dimensions are measured from the interior side of the curb. The center line of trees must be planted at a minimum of 24 inches from the face of the curb or paved surface (where curb is not utilized). A two-foot overhang for vehicles into the planter area is allowed as long as trees are installed a minimum of four feet from the edge of the parking area.

F. Planting areas shall contain soil, shrubs, and/or living ground cover with two inches of natural bark or root mulch. Dyed mulch may not be utilized. Interlocking pavers and decomposed granite may also be utilized in heavily used areas.

G. Proper planting is essential to achieve the best growth of the tree. This includes but is not limited to tree handling, tree spacing, tree well size, soil composition, irrigation, and maintenance. The entire tree planting area (tree well, island or strip) shall be excavated to a depth of three feet. The planter area shall be backfilled with native soil and necessary amendment prior to tree planting. All planting areas shall have a minimum of 12 inches and a maximum of 18 inches of topsoil.

- H. The perimeter of all parking facilities shall be landscaped with one or any combination of the following buffers in order to visually screen the vehicles:
- (1) One eighteen-inch to twenty-four-inch tall shrub per each three feet of buffer.
 - (2) One four- to four-and-one-half-foot-high berm.
 - (3) One five-foot-high wooden or stockade-type fence.
- I. All plantings shall be able to survive soot, gas fumes and salt. Trees which have low-growing branches, gum or moisture which may drop on vehicles or blossoms, thorns, seeds or pods which may clog drainage facilities shall not be installed adjacent to streets, parking lots, sidewalks, pedestrian paths, and drainage facilities.
3. Open Space Plantings.
- A. The applicant shall provide a method of physically delineating open space areas from private lots. Such methods shall include shrubbery, trees, markers, fencing, or other methods acceptable to the Township. Trees, shrubs, markers, or fencing shall be placed on the linked open space at its boundary. Where hedge plant material is provided as screening or a barrier between private lots and open space, additional markers or plant material for delineation are not necessary.
- B. A plan for control of noxious weeds, as defined by the Noxious Weed Control Law (Act 72 of 1994, as amended), shall be submitted for approval by the Township for all open space areas. The control plan may include periodic cutting, grubbing, foliar spray, basal bark herbicide application, soil application, or a combination of methods. The control plan shall be determined based upon the extent of infestation, quality of native vegetation, existing natural resources (floodplains, wetlands, steep slopes), natural habitat disturbance, etc. Noxious weeds include the following:
- (1) Cannabis sativa, commonly known as "marijuana."
 - (2) The Lythrum salicaria complex: any nonnative Lythrum, including Lythrum salicaria and Lythrum virgatum, their cultivars and any combination thereof.
 - (3) Cirsium arvense, commonly known as "Canadian thistle."
 - (4) Rosa multiflora, commonly known as "Multiflora rose."
 - (5) Sorghum halepense, commonly known as "Johnson grass."
 - (6) Carduus nutans, commonly known as "musk thistle."

- (7) *Cirsium vulgare*, commonly known as "bull thistle."
- (8) *Datura stramonium*, commonly known as "jimson weed."
- (9) *Polygonum perfoliatum*, commonly known as "mile-a-minute."
- (10) *Puerria lobata*, commonly known as "kudzu vine."
- (11) *Sorghum bicolor* cv. *Drummondii*, commonly known as "shattercane."
- (12) *Heracleum mantegazzianum*, commonly known as "giant hogweed."
- (13) *Galega officinalis*, commonly known as "goatsrue."

C. Open space areas not existing as forest or proposed as natural areas (i.e., wetland) shall be established in meadow, turf grass, or lawn or established as forest. Open space areas to be dedicated to the Township and to remain natural, which are fallow field/meadow, shall be planted with native tree species to establish forest.

- (1) A planting plan which identifies tree species, genus, size, and spacing, and ground cover/preparation shall be submitted with the preliminary plan application and is subject to approval by the Township.
- (2) The planting plan shall, at a minimum, provide for the installation of one tree per 100 square feet of reforestation area. Trees shall have a minimum height of two feet at the time of installation. Bare-root plants shall be planted between October 15 and December 1. Potted plants shall be planted between March 15 and May 1. Trees shall be fertilized, mulched, and staked and, if necessary, protected from deer browsing. Species shall be native hardwoods.
- (3) Township-owned open space may be designated and remain in agricultural use pursuant to Zoning Ordinance requirements [Chapter 27] where permitted by the Board of Supervisors.

D. Prior to seeding open space areas, a soil test must be conducted by a soil testing laboratory and the soils amended to achieve pH and N.P.K. levels as recommended for the proposed seeding. At time of dedication, all open land areas must have at least 90% cover with appropriate grasses or other species and be free of noxious weeds as defined by the Commonwealth of Pennsylvania.

4. Stormwater Management Basin Landscaping.

- A. Stormwater management detention/retention ponds and basins shall be designed consistent with the Pennsylvania Stormwater Management Best Management Practices Manual, dated December 30, 2006.
 - B. At a minimum, the perimeter of any stormwater management basin shall be landscaped with three deciduous trees, two evergreen trees, and eight shrubs per 100 feet of perimeter, arranged in an informal manner.
5. Existing Vegetation. In cases where natural features existing on the site duplicate or essentially duplicate the requirements of the street tree, buffering, or landscaping provisions of this chapter, these requirements may be waived by the Board of Supervisors.
6. Protection of Existing Plant Materials.
- A. All subdivisions and land developments shall be laid out in such a manner so as to preserve healthy trees and shrubs on the site.
 - B. During the construction of any site, trees and shrubs to be protected shall be protected by snow fencing, safety fencing or silt fencing, to ensure that there is no encroachment within the area of their dripline by changing grade, trenching, stockpiling of building materials or topsoil, or the compaction of the soil and roots by any motor vehicle. Heritage trees (trees with a dbh of 48 inches or greater) shall be protected with chain-link fence installed five feet outside of the dripline of the tree to be preserved during construction activity.
 - C. If any plant material is to be moved, it must be done in accordance with specifications set forth by the American Association of Nurserymen.
 - D. All diseased or dead trees shall be promptly removed from the site. All trees to be preserved shall be pruned when necessary to remove dead limbs.
 - E. No grading, construction activity, or storage of topsoil or materials shall occur within a tree protection zone (TPZ) measured 15 feet from the trunk of a tree to be retained, or the distance from the trunk to the dripline, whichever is greater. No equipment may be driven over this area, and no building materials are to be stacked against the trees or within the area of this buffer. Prior to construction, the TPZ shall be delineated by the following methods:
 - (1) The TPZ that is delineated on the site prior to construction shall conform to the approved development plans.
 - (2) All trees scheduled to remain shall be marked; where groups of trees exist, only the trees on the edge need to be marked.

- (3) A forty-eight-inch-high wooden snow fence mounted on steel posts, located eight feet on center, or other delineation approved by the Township, shall be placed along the boundary of the TPZ;
 - (4) When the tree protection fence has been installed, it shall be inspected and approved by the Township prior to clearing and further construction.
 - (5) Fencing along the tree protection zone shall be maintained until all work/construction has been completed; any damaged protective fence shall be replaced and repaired immediately.
 - (6) Trees being removed shall not be felled, pushed, or pulled into a TPZ or into trees that are to be retained.
- F. No tree is to support any scaffolding, signs, temporary utilities, surveying spikes, or any other device.
- G. Those trees whose removal will damage other trees which are to remain must be removed by hand. The resulting stumps must be carefully removed to minimize damage to roots and trunks of other trees.
- H. Trees Damaged During Construction.
- (1) Tree trunks and exposed roots damaged during construction shall be protected from further damage. Damaged branches shall be pruned according to Tree Care Industry Association (formally National Arborist Association) standards. All cuts shall be made sufficiently close to the trunk or parent limb but without cutting into the branch collar or leaving a protruding stub. All necessary pruning cuts must be made to prevent bark from being torn from the tree and to facilitate rapid healing.
 - (2) All trees which have been disturbed or have experienced damage to their roots or branches shall be fertilized in early fall or mid-spring. Fertilizer grade shall have approximately three parts nitrogen to one part phosphorus and potassium (3:1:1 ratio). Fertilizer shall be broadcast over the soil surface in an area twice the size of the tree protection zone at a rate of one pound of nitrogen per 1,000 square feet.
 - (3) Trees proposed to remain on a subdivision and/or land development plan which die or are so severely damaged during construction to require removal as determined by the Township shall be replaced pursuant to § 22-515, Subsection 7, of this chapter.

- I. Stumps, branches and other wood debris shall not be buried on site. Where trees are removed outside of an area to be excavated, it is preferred that stumps be removed by grinding to a point six inches below existing grade.
7. Replacement Trees/Reforestation. Trees with a diameter of six inches or more which are to be removed or destroyed during any stage of development, grading and/or construction within a subdivision or land development shall be replaced with a tree or trees of the type provided by Subsection 1G, H and I of this section. However, removal of trees on a site shall not exceed the maximum permitted pursuant to natural resource protection standards of § 27-1900 of the Zoning Ordinance. Replacement trees shall meet the following size limitations:
 - A. Trees with a diameter of six inches or more but less than 10 inches which are removed shall each be replaced with a tree of a like caliper or no fewer than two trees measuring four inches to six inches in diameter.
 - B. Trees with a diameter of 10 inches or more but less than 15 inches which are removed shall each be replaced with a tree of like caliper or no fewer than four trees measuring four inches to six inches in diameter.
 - C. Trees with a diameter of 15 inches or more but less than 24 inches which are removed shall each be replaced with no fewer than six trees measuring four inches to six inches in diameter.
 - D. Trees with a diameter of 24 inches or more which are removed shall each be replaced with no fewer than 10 trees measuring four inches to six inches in diameter.
 - E. All replacement trees shall be measured at a height of four feet above the finished grade level. Replacement trees should be provided in addition to, not in place of, required buffers, street trees, trees in parking lots, or trees planted on single-family lots or common open space.
 - F. Where sufficient replacement trees of the required caliper size are not available or smaller caliper trees would have a greater survivability rate due to the planting environment, the Board of Supervisors may authorize smaller caliper replacement trees, provided that the total caliper inches to be planted is comparable to the requirements set forth above.
 - G. Where development takes place on fully wooded lots, replacement trees or their equivalent may be planted as follows:

- (1) The applicant shall enhance existing wooded areas through planting of understory trees or shrubs;
- (2) In order to mitigate the impact of stormwater runoff either on site or upon adjacent properties, the applicant shall plant riparian buffers and other areas designated by the Township, provided that the Township secures the necessary permission if the riparian buffer areas are on private property (refer to the East Rockhill Township Map of Afforestation/Reforestation Sites - Township Owned Parcels);
- (3) The Township may accept designated off-site areas or other riparian buffer areas in need of planting; or
- (4) The Township may accept a capital contribution made to the Forest Conservation/Street Tree Fund in an amount approved by the Township.

8. Reforestation/Afforestation.

A. All proposed major subdivisions or land developments shall comply with the following:

- (1) Conduct afforestation on the site in accordance with the following:
 - (a) A site located in the R-1, C-O, E, or I Zoning District and having less than 20% of its base site area covered by forest shall be afforested a minimum of 20% of the base site area.
 - (b) In all other zoning districts, a site having less than 25% of its base site area covered by forest shall be afforested to a minimum of 25% of the base site area.
- (2) Conduct reforestation of the site in accordance with the following:
 - (a) When the forest cover on a site is currently below the afforestation percentages described in Subsection 8A(1)(a) and (b) above, any existing forest removed by the applicant shall be reforested on the site on a 2:1 ratio based upon area of removal (i.e., if 1,000 square feet of forest is cut, it must be reforested with 2,000 square feet of forest). Any reforestation of removed preexisting forest shall be in addition to any forest planted to meet the afforestation requirements of Subsection 1A above.
 - (b) When the forest cover on a site is currently above the afforestation percentages described in Subsection

8A(1)(a) and (b) of this section, any existing forest removed by the applicant shall be reforested on the site on a 1:1 ratio based upon area of removal (i.e., if 1,000 square feet of forest is cut down, it must be replaced with 1,000 square feet of forest).

- (3) The trees used in the afforestation or reforestation shall be native to the Township and included under § 22-515, Subsection 1I, of this chapter, or other trees approved by the Township. Where appropriate, preference should be given to replacement trees of the same species as the trees removed from the site.
- B. Afforestation and reforestation shall be accomplished pursuant to a planting plan subject to approval by the Township.
- (1) The planting plan shall identify tree species, genus, size, and spacing; and ground cover/preparation and shall be submitted with the preliminary plan application.
 - (2) The planting plan shall, at a minimum, provide for the installation of one tree per 100 square feet of afforestation/reforestation area. Trees shall have a minimum height of two feet at the time of installation. Bare-root plants shall be planted between October 15 and December 1. Potted plants shall be planted between March 15 and May 1. Trees shall be fertilized, mulched and staked and, if necessary, protected from deer browsing. Species shall be a mix of native hardwoods with varying canopies and mature heights.
- C. The following are considered a priority for afforestation and/or reforestation:
- (1) To establish or enhance forests within or adjacent to riparian buffers;
 - (2) To establish or enhance forests on one-hundred-year floodplains, when appropriate;
 - (3) To establish or enhance forest corridors to connect existing forests within or adjacent to the site; and, where practical, forest corridors should be a minimum of 300 feet in width to facilitate wildlife movement;
 - (4) To establish or enhance forest buffers adjacent to critical habitats where appropriate;
 - (5) To establish or enhance forests on slopes of 25% or greater;
 - (6) To establish or enhance forests on slopes of 15% or greater;

- (7) To establish or enhance forests on slopes of 8% or greater;
 - (8) To establish forest areas adjacent to existing forests to increase the overall area of contiguous forest cover; and
 - (9) To establish or enhance forest buffers adjacent to areas of differing land use or adjacent to highways or utility rights-of-way.
- D. All afforestation and reforestation shall be conducted in conformance with state and federal best management practices.
- E. All afforestation and reforestation shall be completed prior to the recordation of the approved subdivision or land development plan or be guaranteed to be completed pursuant to the development/financial security agreements required under Part 12 of this chapter. All afforestation and reforestation areas shall be maintained until 18 months after completion of construction upon the site and acceptance of the public improvements and installation of replacement trees by the Township.
- F. All afforestation and reforestation shall occur upon nonbuildable areas of the site, including open space, recreation lands, buffers (but shall be in addition to any buffer requirements), stormwater management BMPs, and other such areas. No afforestation/reforestation shall occur upon residential building lots.
- G. Forest Conservation/Street Tree Fund. If an applicant subject to this section demonstrates to the satisfaction of the Board of Supervisors that the requirements for reforestation or afforestation cannot be reasonably accomplished on site, the applicant shall contribute a fee in-lieu-of, at a rate to be established by resolution of the Board of Supervisors, into the Township's Forest Conservation/Street Tree Fund. At its discretion, the Board of Supervisors may permit an applicant to meet all or part of this fee in-lieu-of requirement by enhancing existing forest or other natural areas on the site or other Township-owned property through the removal of noxious and nonnative plants, the planting of native plants, or other means.
- H. Retention. The following trees, shrubs, plants, and specific areas shall be granted priority for retention and protection and shall be left in an undisturbed condition unless the applicant has demonstrated, to the satisfaction of the Board of Supervisors, that reasonable efforts have been made to protect them and the plan cannot be reasonably altered.
- (1) Trees, shrubs, and plants located in the following sensitive ecological areas: steep slopes, riparian buffers, one-hundred-year floodplain, floodplain soils, streams, watercourses, waters

of the commonwealth, waters of the United States, lakes, ponds, wetland margins, and critical habitats.

- (2) Any part of a contiguous forest that is 10 acres or larger.
- (3) Trees, shrubs or plants determined to be rare, threatened or endangered under the Federal Endangered Species Act of 1973 in 16 U.S.C. §§ 1531 thru 1544 and in 50 CFR Part 17 or placed upon the Pennsylvania Threatened Species List or the Pennsylvania Endangered Species List (34 Pa.C.S.A. § 2101 et seq.).
- (4) Trees that are part of a historic site, associated with an historic structure, or have been designated as a national, state, or county champion tree.
- (5) Any tree having a caliper of 24 inches or more, or at least 75% of the diameter, or a designated national, state, or county champion tree of that species.

I. Exemptions.

- (1) The following shall be exempt from the requirements of this Part:
 - (a) Commercial nurseries and fruit orchards.
 - (b) Christmas tree farms.
 - (c) Properties devoted to the practice of silviculture.
 - (d) Clearing of land for agricultural purposes.
 - (e) Cutting/removal of trees on tracts of land one acre or less in the area upon which a single-family dwelling has been erected or is to be erected, provided that the natural resource protection standards of the Zoning Ordinance [Chapter 27] are met. This exception does not apply to lots within proposed subdivisions or land developments.
 - (f) Removal of trees that are dead, dying or diseased; trees that have suffered severe damage, or any tree whose angle or growth makes it a hazard to structures or human life.
 - (g) Pruning and removal of trees by utility companies to provide for line clearance of utility wires in accordance with state and federal regulations.

- (2) If any forest or trees are removed from a parcel of land under one of the above exemptions and said parcel is subsequently used for a purpose not falling under one of the above exemptions within 10 years of the removal, the requirements of this section shall apply as if the forest or trees were never removed.
- J. An afforestation/reforestation plan shall be submitted with all major subdivision and land developments. This plan shall be prepared by a registered landscape architect or forester and shall address the following:
- (1) Location of existing forests, steep slopes equal to or greater than 15%, riparian buffers, one-hundred-year floodplains, floodplain soils, streams, watercourses, waters of the commonwealth, waters of the United States, lakes, ponds, wetlands, wetland margins, and critical habitats on the site.
 - (2) Location(s) where forest/tree removal is to take place, as well as the genus, species, size, location, and number of trees proposed to be removed.
 - (3) Total acreage (net) of the site and the total amount of forest land permitted to be developed on the site.
 - (4) Total amount of afforestation and/or reforestation required and proposed.
 - (5) Location(s) of afforestation and/or reforestation, as well as the genus, species, size, and location, and number of trees proposed to be planted.

§ 22-516. Stormwater Management Requirements. [Ord. 158, 12/20/1994, § 516; as amended by Ord. 191, 4/18/2000, § II; and by Ord. 192, 4/18/2000]

1. All subdivisions and land developments shall comply with the East Rockhill Township Stormwater Management Ordinance, Ord. 190, 4/18/2000, as amended. Requirements of the Stormwater Management Ordinance [Chapter 26, Part 4] shall be in addition to, and not in lieu of, requirements set forth within this section:

A. General Requirements.

- (1) Lots shall be laid out and graded with a minimum slope of 2% 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.

- (2) On-lot drainage swales shall be designed to provide positive conveyance of surface water from the individual lot. Each swale 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.
- (3) Drainage swales necessary to control surface drainage between lots shall be centered about the common property line.
- (4) 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 stream or watercourse without having obtained prior approval from the Township and/or Department of Environmental Protection, whichever is applicable.
- (5) 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 (except for road crossings). It is the responsibility of the developer to stabilize existing eroded stream/channel banks.
- (6) 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 stormwater runoff from the one-hundred-year return storm event. 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. Periodic maintenance of the easement to ensure proper runoff conveyance shall be required by the landowner.
- (7) Existing points of concentrated drainage discharge onto adjacent property shall not be altered without written approval of the affected property owner(s).
- (8) 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.

- (9) Any drainage facilities required by this section that are located on, or discharge to, a state highway rights-of-way shall be subject to approval by the Pennsylvania Department of Transportation.
- (10) 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.
- (11) Minimization of impervious surfaces and infiltration of runoff through seepage beds, infiltration trenches, etc., are encouraged, where soil conditions permit, to reduce the size or eliminate the need for retention/detention facilities.
- (12) Roof drains and sump pumps shall be discharged to a natural watercourse, drainage swale, or stormwater easement. Roof drains and sump pumps shall not be connected to a storm sewer or street stormwater collection system unless designed as part of a stormwater management facility within a proposed development. In no case shall roof drains or sump pumps be connected to a sanitary sewer.

B. Storm Drainage System Requirements.

- (1) Any proposed storm drainage plans which affect the drainage basin in any stream or watercourse 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.
- (2) Easements shall be dedicated to the Township along all natural or manmade streams and watercourses and/or stormwater management facility areas within a subdivision or land development. These easements shall be of sufficient width to convey a one-hundred-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 land crosses through the easement. If stormwater runoff from public roads or public lands cross 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:

- (a) Piping.
- (b) Inlets.
- (c) Outlet, headwalls.
- (d) Energy dissipation structures or facilities.
- (e) Stormwater management facility control structures.

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

- (a) Mow the lawn.
 - (b) Repair or replace fencing.
 - (c) Repair or replace landscaping.
 - (d) Control vermin and repair damage from animals.
 - (e) Keep the area free of obstructions, structures, vegetation, or accumulated sediment that may block or hinder the function and purpose of the easement.
 - (f) Keep the area free of litter or garbage.
 - (g) Repair erosion and restore vegetation as necessary to keep the easement in good repair.
- (3) 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 the 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.
- (4) 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 to address these conditions.
- (5) 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. 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.

- (6) Scour and Erosion Prevention. In areas in which the street curbs are not required by either this chapter 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.
- (7) 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.
- (8) 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:

	Design Storm Return (years)
Fixed Pipe	10
Total Conveyance	100

- (9) 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.
- (10) Setback to Boundaries. No piped storm sewer system outlet, detention basin, or energy dissipation structure shall discharge closer than 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.

C. Collection System Design.

- (1) The collection system shall be designed by the Rational Method of Design in accordance with American Society of Civil Engineers Manual No. 37, dated 1969, as amended, except where noted, using the formula $Q=CiA$, unless otherwise approved by the Township.
 - (a) Capacity. "Q" is the required capacity in cubic feet per second for the collection system at the point of design.
 - (b) 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 development, the runoff coefficient shall be determined in accordance with Chapter 4, Section B, Rational Method, of Manual No. 37, 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.
 - (c) 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 Formula 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.
 - (i) A five-minute storm duration shall be used if the duration does not result in a maximum expected discharge that exceeds the capacity of a thirty-inch pipe.
 - (ii) If a five-minute storm duration results in a pipe size exceeding 30 inches, the time of concentration approach shall be used in determining storm duration.
 - (iii) If a five-minute storm duration results in a pipe size exceeding 30 inches, within any run of pipe, the time of concentration approach may be used for sizing of pipes from that point on by adjusting the time of concentration.

- (d) 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.
- (2) Collection System Standards.
- (a) Curb Inlets. Curb inlets shall be located at curb tangents on the uphill side of street intersection, and at intervals along the curb line to control the maximum amount of encroachment of runoff on the roadway pavement so that same does not exceed 1/2 of the traveled lane width during the design storm event. Design and location of curb inlets shall be approved by the Township.
 - (b) 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.
 - (c) 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. Piping shall be saw-cut at ends, as needed, and not hammered or broken. All pipe joints and lift holes must be mortared.
 - (d) Minimum Pipe Size. Minimum pipe size shall be 18 inches.
 - (e) Inlet and Manhole Construction. Inlet and manhole castings and concrete construction shall be equivalent to Pennsylvania Department of Transportation Design Standards.
 - (f) Roof Drainage. Stormwater roof drains and pipes shall not discharge water over sidewalks or walkways.
 - (g) Open-end pipes must be fitted with concrete endwalls or wing walls in accordance with PennDOT standards.
 - (h) Open culvert endwalls or wing walls for pipes larger than 18 inches in diameter and longer than 60 feet in length shall be fitted with durable protective grates. Design of protective grates is subject to approval by the Township.
 - (i) 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. However, in no case shall the pipe slope be less than 0.5%.

- (j) Inlets and 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 36 inches diameter, inlets and manholes may be spaced at intervals of 400 feet. Manholes shall be equipped with open grate lids.
- (k) Storm sewer bedding/backfill requirements shall conform to the construction details included in Appendix "A".
- (l) Inlets shall be located to intercept concentrated runoff prior to discharge over public/private rights-of-way, sidewalks, streets, and driveways.
- (m) The capacity of all inlets shall be based on a maximum surface flow to the inlet of 4.0 cfs, calculated based on the design storm event. The maximum flow to inlets located in low points (such as sag vertical curves) shall include the overland flow directed to the inlet as well as all bypass runoff from upstream inlets. The bypass flow from upstream inlets shall be calculated using inlet efficiency curves included in PennDOT Design Manual Part 2, latest edition. If the surface flow to in inlet exceeds 4.0 cfs, additional inlets shall be provided upstream of the inlet, to intercept the excessive surface flow.
- (n) A minimum drop of two inches shall be provided between the inlet and outlet pipe invert elevations within all inlets and manholes. When varying pipe sizes enter an inlet or manhole, the elevation of the crown of all pipes shall be matched.
- (o) Storm sewer pipes shall have a minimum of 12 inches of cover over the bell of the pipe, and in no case shall any part of the pipe project into the road subbase or curb. Where cover is restricted, equivalent pipe arches may be specified in lieu of circular pipe.
- (p) The capacity of all storm sewer pipes shall be calculated utilizing the Manning Equation for open channel flow as applied to closed conduit flow. The Manning's roughness coefficient shall be 0.13 for all concrete pipe. In cases where pressure flow may occur, the hydraulic grade line

shall be calculated throughout the storm sewer system to verify that at least one foot of freeboard will be provided in all inlets and manholes for the design storm event.

- (q) Culverts shall be designed based on procedures contained in Hydraulic Design of Highway Culverts, HDS #5, U.S. Department of Transportation, Federal Highway Administration.
 - (r) Storm sewer structures (i.e., endwalls, inlets, end sections, etc.) may not be located on top of or within 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.
 - (s) Storm sewer pipes must be oriented at right angles to electric, water, sanitary sewer, and gas utilities when crossing above or beneath same. Crossing angles of less than 90° 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 45°. Vertical and horizontal design of storm sewer must be linear.
 - (t) Where a public storm sewer system is not located within a right-of-way, or dedicated public property, a twenty-foot-wide easement shall be established to encompass the storm sewer system. For multiple pipes or utilities, the width of the easement shall be a minimum of 30 feet.
- (3) 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:
- (a) Roughness Coefficient. The roughness coefficient shall be 0.040 for earth swales.
 - (b) Bank Slopes. Slopes for swale banks shall not be steeper than one vertical to three horizontal.
 - (c) Flow Velocity. Design velocity in grass or vegetated swales shall not exceed four feet per second.
 - (d) 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.

- (e) Gutters and swales adjacent to road paving shall be permitted to carry a maximum flow of five 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.
 - (f) 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.
 - (g) Swales shall be stabilized with vegetation or other materials, approved by the Township, to prevent erosion.
 - (h) Swales shall be provided with underdrains as deemed necessary by the Township should overland seepage result in potential maintenance problems for same. Underdrains must discharge into a natural drainage channel or storm sewer system.
- (4) 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.

§ 22-517. Excavation and Grading. [Ord. 158, 12/20/1994, § 517; as amended by Ord. 191, 4/18/2000, § III; and by Ord. 192, 4/18/2000]

1. All construction wherein excavation, placement of fill and/or grading activities are performed shall conform with the following general requirements:
 - A. No excavation or fill shall be made with a face steeper than three horizontal to one vertical, except under one or both of the following conditions:
 - (1) The material is sufficiently stable to sustain a steeper slope. A written statement to that effect from a professional engineer licensed in the Commonwealth of Pennsylvania and experienced in erosion control shall be submitted to the Township. The statement shall affirm that the site has been

inspected and the deviation from the slope restriction shall not result in injury to persons or damage to property. A detail of the treatment of the slope (proposed grade, seeding, erosion protection, etc.) shall be submitted with the application.

- (2) A concrete, masonry, or other approved retaining wall is designed by a registered professional engineer licensed in the Commonwealth of Pennsylvania constructed to support the face of the excavation or fill.
- B. If the vertical drop of an excavation or fill slope is greater than five feet, then the maximum slope shall not exceed four horizontal to one vertical.
- C. The top or bottom edges of slopes shall be a minimum of five feet from property lines or right-of-way lines of streets in order to permit the normal rounding of the edge without encroachment on abutting property.
- D. Adequate provision shall be made to prevent surface water from damaging the cut face of excavation and the sloping surfaces of fills.
- E. No person, corporation, or other such entity shall block, impede the flow of, alter, construct any structure, or deposit any material or thing or perform any work that will affect the normal or flood flow in any stream or watercourse without having obtained prior approval from the Township and/or Department of Environmental Protection, whichever is applicable.
- F. All lots, tracts, or parcels shall be graded to provide positive drainage away from buildings and dispose of it without ponding, except where ponding (detention/retention facilities, swales, etc.) is part of the stormwater management plan for the site.
- G. Concentration of surface water run-off shall be permitted only in swales, watercourses or stormwater management facilities.
- H. In no case shall grading be done in such a manner as to divert water onto the property of another landowner unless part of a stormwater management plan.
- I. Earth disturbance/staging shall be in strict accordance with the approved grading and erosion/sedimentation control plan.
- J. Areas of the site to remain undisturbed shall be protected from encroachment by construction equipment/vehicles to maintain the existing infiltration characteristics of the soil.

- K. The minimum depth of topsoil to be replaced shall be eight inches, or the existing depth of topsoil encountered on the site, whichever is greater.
- L. Topsoil shall not be removed from the development site. Topsoil shall be stripped, stockpiled, and redistributed on the site. Prior to plan approval, the applicant/designee shall provide the Township with calculations to determine the volume of topsoil anticipated to be stripped, stockpiled, and replaced on the site to verify that excess topsoil will not be generated as a result of construction activity.
- M. During grading operations, necessary measures for dust control must be exercised.
- N. No grading equipment shall be permitted to be loaded and/or unloaded on a paved public street, and no grading equipment shall be permitted to travel on or across a public street unless licensed for operation on public thoroughfares.
- O. Grading equipment shall not be permitted to cross streams. Temporary crossings shall only be permitted where application is made to, and approval received from, PADEP (where applicable), Bucks Conservation District, and the Township.

§ 22-518. Erosion and Sedimentation Control. [Ord. 158, 12/20/1994, § 518]

- 1. An erosion and sedimentation control plan shall be submitted with all applications wherein excavation, placement of fill and/or grading activities are proposed. The plan shall include a construction staging narrative indicating the sequence of earthmoving activities, and proposed erosion and sedimentation control procedures. Measures used to control erosion and reduce sedimentation during construction activities shall strictly conform to the standards and specifications of the Bucks County Conservation District and sequence of earthmoving activities. At a minimum, the following measures shall be included where applicable:
 - A. Stripping of vegetation, regrading or other activities shall be done in a way that will minimize erosion and resulting sedimentation.
 - B. Cut and fill operations shall be kept to a minimum. Wherever feasible, natural vegetation shall be retained, protected and supplemented.
 - C. All erosion and sedimentation control measures shall be installed per the approved plan prior to any earthmoving activities. Where a stormwater management basin is involved, the basin shall be constructed, functional and stabilized prior to any additional site activity. An as-built plan of the facility prepared by a registered professional land surveyor or engineer licensed in the Commonwealth of Pennsylvania shall be submitted to the Township for review to

verify adequate state/storage capacity prior to commencement of other site activity. Plan must include note stating the same.

- D. Disturbed earthen areas and duration of exposure shall be kept to a practical minimum, but shall not exceed 20 days. All disturbed soils and topsoil stockpile areas shall be stabilized as quickly as possible and, if necessary, seeded with temporary vegetation and mulched. If stockpile areas are located on sloping ground or near waters of the commonwealth, same shall be enclosed with silt fencing.
 - E. Permanent vegetation shall be installed as soon as practical on all sites.
 - F. All runoff from project areas shall be collected and diverted to facilities for removal of sediment.
 - G. Runoff from a project area shall not be discharged into the waters of the commonwealth without means to prevent sedimentation.
 - H. Sedimentation in the runoff water shall be trapped and filtered until the disturbed area is stabilized by the use of debris basins, sediment basins, silt traps or similar measures.
 - I. Sediment barriers shall be properly installed with silt fencing trenched and haybales staked.
 - J. Tire cleaning areas constructed of AASHTO #1 stone and at least 50 feet in length shall be provided at each point of access to the site and individual lots (once internal streets are constructed).
 - K. During construction activities, necessary measures for dust control must be exercised.
 - L. It shall be the responsibility of each person, corporation or other entity performing grading and/or building activities to install and maintain erosion and sedimentation controls until the site is stabilized. In the event any mud and/or debris is transported from the site onto a public roadway, the debris shall be removed and the roadway swept and/or washed as deemed necessary by the Township at the owner's expense.
2. Design of energy dissipation for high volume and/or high velocity discharge from storm sewer pipes and channels shall be in accordance with Hydraulic Engineering Circular No. 14, "Hydraulic Design of Energy Dissipaters for Culverts and Channels," as published by Department of Transportation, FHA, when deemed necessary by the Township Engineer and as approved by the Bucks County Conservation District.
 3. Design of Reno mattress and gabions shall be in accordance with any of the following publications:

- A. "Flexible Linings in Reno Mattress and Gabions for Canals and Canalized Watercourses" (as amended), published by Maccaferri.
- B. "Flexible Gabion Structures in Earth Retaining Works" (as amended), published by Maccaferri.
- C. Any other similar technical publication as prepared by a manufacturer or which has been prepared based on engineering study.

§ 22-519. Water Supply, Distribution Systems and Fire Protection. [Ord. 158, 12/20/1994, § 519; as amended by Ord. 192, 4/18/2000]

- 1. Water Supply. All lots and leased units in a subdivision or land development shall be provided with adequate water supply by means of one of the following methods:
 - A. Connection to a centralized or public water supply.
 - B. On-lot water supply.
- 2. Public and Centralized Water Supply and Distribution Systems.
 - A. All residential subdivision of 15 lots or more; all residential subdivisions of five lots or more with a density of 1.8 dwelling units per acre or greater; and all nonresidential subdivision of three lots or more shall be required to be provided with public or centralized water supply and distribution systems, designed and constructed in accordance with specifications of the applicable authority or water department.
 - B. All centralized water supply and distribution systems shall be offered for dedication to the Township and/or appropriate water authority having jurisdiction in the area of subdivision. In the event Township and Authority refuse acceptance, ownership and operation shall be maintained by a homeowners association in a manner acceptable to the Township.
 - C. Water quality requirements for a proposed centralized system shall conform to applicable standards of the Pennsylvania Department of Environmental Protection and Bucks County Department of Health.
 - D. Water mains shall be constructed by the developer in such a manner as to make adequate water service available to each lot, building or dwelling unit within the subdivision. A minimum pressure of 35 pounds per square inch shall be provided at each house or other building to be connected to the water supply main. The water supply must comply with regulations and standards of the Pennsylvania Department of Environmental Protection and, when applicable, the Delaware River Basin Commission.

- E. The system shall also be designed with adequate capacity and appropriately space fire hydrants for fire fighting purposes as determined by the Township. Hydrant locations shall be reviewed by the Fire Marshal and fire company servicing the area and approved by the Township.
 - F. All fire hydrants shall be fire flow tested and color-coded in accordance with National Fire Protection Association, Inc., NFPA 291. Fire flow tests shall be conducted in the presence of a representative of the fire company having jurisdiction within the area and the Township Engineer.
 - G. Water Impact Study. A water impact study pursuant to § 22-408 shall be required for all centralized water supply and distribution systems wherein a new water supply source is proposed to be developed.
3. Individual On-Lot Wells. Where individual on-lot wells are proposed, conformance with the requirements of Ord. 104, adopted 10/21/1986 [Chapter 26], shall be required.

§ 22-520. Sanitary Sewage Disposal. [Ord. 158, 12/20/1994, § 520; as amended by Ord. 192, 4/18/2000; and by Ord. 214, 10/18/2005, § XXVII]

- 1. The developer shall install the most effective type of sanitary disposal consistent with the Township's official plan for sewage facilities prepared in accordance with the Pennsylvania Sewage Facilities Act (Act 537), the Township Sewage Facilities Plan, and Chapter 71 of the Pennsylvania Department of Environmental Protection regulations for the subdivision or development.
- 2. Connection to public sanitary sewer system shall be required where such a system is proposed by the Township's official plan for sewage facilities and where such a system can feasibly be provided to the proposed subdivision.
- 3. In subdivision/land developments where connection to public sewage system is not proposed, onlot sewage disposal systems shall be installed by the property owner in accordance with the Pennsylvania Sewage Facilities Act, Chapter 73 of DEP regulations and the requirements of applicable Township regulations.
- 4. Sanitary sewer systems shall be located and/or designed to prevent flood damage and to eliminate infiltration of floodwaters into the system or discharges from the system into floodwaters.
- 5. On-lot Sewage Disposal Systems.
 - A. The owner shall provide for sewage disposal on an individual lot basis according to the rules, regulations, terms, and definitions, and conditions of the Individual Sewage Disposal System Application and

certification procedure for Bucks County, Pennsylvania, adopted by the Bucks County Board of Commissioners on March 24, 1971, and any amendments made thereto.

- B. On-lot sewage disposal facilities must comply with the provisions of Chapters 71 and 73. Administration of Sewage Facilities Program, Pennsylvania Sewage Facilities Act (Act of January 24, 1966), P.L. 1535, No. 537, as amended (35 P.S. § 507). The proposed facilities must be deemed satisfactory by the Bucks County Department of Health and a permit for on-lot disposal be issued. A Bucks County Department of Health Letter of Suitability for on-site disposal must be received by the Planning Commission with the preliminary plan for each and every lot.
- C. The developer shall provide the type of sanitary sewage disposal facility consistent with existing physical, geographical and geological conditions. All lots shall be provided with an on-site sanitary sewage disposal system of the type and design which shall, as a minimum requirement, meet the design standards of the Pennsylvania Department of Environmental Protection and/or the Bucks County Department of Health which systems shall be approved by the Pennsylvania Department of Environmental Protection and/or the Bucks County Department of Health.
- D. Each owner or occupant of a dwelling unit with on-lot facilities shall be provided by the developer with a plan of the system and an instruction manual for the use and proper maintenance of the system.
- E. If the site has marginal conditions as described by the DEP "Instructions for Completing Component 1" (3800-FM-WAWM0530) dated 10/20/01 (or as last amended), the applicant shall provide a replacement area as covered in the same document. All plans shall expressly identify the replacement area; and said plans shall further, by restrictive covenant, provide written assurance to future owners and to East Rockhill Township that said replacement area shall remain in its original condition as determined by the Township upon the effective date of the approval given to the plan.
- F. The dimensioned location of the on-lot wastewater treatment system (includes the footprint of the proposed system and all system components) as well as any required isolation distances required by the Pennsylvania Department of Environmental Protection shall be shown on the preliminary and final plan submission. The on-lot wastewater treatment system must be installed where shown on the plan.
- G. On-site wastewater system shall not be located within a floodplain as defined by the Township Zoning Ordinance.

- H. The area reserved for the on-lot wastewater system and any replacement sites shall be fenced and protected from any disturbance during all phases of construction.
 - I. All test sites for on-lot wastewater disposal shall be shown on the grading plan whether used or not used for the final wastewater disposal design. A soils report shall be provided to the Township for all wastewater test sites.
6. The developer shall be responsible for the completion of the appropriate planning module for land development components as required by the Department of Environmental Protection, including alternatives analysis and feasibility studies. (Refer to § 22-407 of this chapter.)
 7. All final plans shall contain a notice regarding sewage disposal systems (refer to sample in Appendix B, Part 8, of this chapter).
 - A. On-lot Sewage Disposal. All subdivision and land development plans shall contain a plan note specifying that approval of the plan does not guarantee permit issuance for sewage disposal.
 - B. Public or Centralized Sewers. All subdivision and land development plans shall contain a plan note specifying that connection to public sewer is required.
 8. Specific design standards and specifications for public and centralized sanitary sewer systems are contained in the "Standard Specifications and Requirements for the Construction of Sanitary Sewers, East Rockhill Township," dated January 14, 1993, revised January 21, 1992, as amended.

§ 22-521. Utilities. [Ord. 158, 12/20/1994, § 521]

1. Easements for utilities shall have a minimum width of 20 feet.
2. To the fullest extent possible, easements for public utilities shall be centered on or adjacent to rear or side lot lines.
3. Telephone, electric, T.V., cable and such other utilities shall be installed underground and shall be provided within right-of-way easements to be dedicated for such utilities and in accordance with plans approved by the Board of Supervisors in the applicable utility company. Underground installation of the utility distribution and service lines shall be completed prior to street paving, curb and sidewalk installation.

§ 22-522. Monuments and Markers. [Ord. 158, 12/20/1994, § 522]

1. Any existing monument, iron pipe, pin or marker determined and identified to be existing found property corners are to remain undisturbed.

2. Permanent stone or concrete monuments shall be accurately placed by a registered surveyor at the intersection of all lines forming angles and at changes in directions of lines in the boundary (perimeter) of the property subdivided. Monuments shall be premanufactured and not field constructed.
 - A. Monuments shall be a minimum 24 inches in length.
 - B. Monuments less than 24 inches in length may only be utilized when obstructions are encountered and use is approved by the Township.
3. All streets shall be monumented on the ultimate right-of-way lines at the following locations:
 - A. At least two monuments at each intersection.
 - B. At changes in direction of street lines, excluding curb arcs at intersections.
 - C. At each end of each curved street line, excluding curb arcs at intersections.
 - D. Where one of the above locations along the street line is a point common to a property corner, the concrete monument shall be installed in lieu of an iron pin.
 - E. At intermediate points, wherever topographical or conditions make it impossible to between two otherwise required monuments.
 - F. At such other places along the lines of streets as may be determined by the Township Engineer to be necessary so that any street may be readily defined in the future.
4. All monuments shall be placed so that the scored point shall coincide exactly with the point of intersection of the line being monumented.
5. Monuments shall be set with their top level at the finished grade of the surrounding ground, except as follows:
 - A. Monuments which are placed within the lines of existing or proposed sidewalks shall be so located that their tops will not be affected by lateral movement of the sidewalks.
 - B. Where sidewalks are existing, a stone point, a four-inch square chisel cut in the sidewalk with a drill hole in the center, may be substituted for a monument. Where bituminous paving is existing, a railroad spike may be substituted for a monument or iron pin where required.
6. Permanent reference marker pins of 1/2 inch O.D. solid rod, at least 24 inches long, shall be set at the following points:
 - A. At all points where lot lines intersect curves, either front or rear.

- B. At all angles in property lines of lots.
 - C. At all other lot corners not monumented.
 - D. At all points where easements intersect property lines.
 - E. At all other changes in direction of easement boundaries not located within future lawns.
7. All outboundary monuments shall be installed and certified as to their accuracy and conformance to plan information by the responsible surveyor prior to plan recordation.
 8. All property pins and monuments shall be installed and certified as to their accuracy and conformance to plan information by the responsible surveyor prior to issuance of a building permit for the subject lot. In the event it is determined by the Township that installation prior to construction start is not practical due to future grading operations, temporary wood stake corners shall be set by a licensed surveyor to permit stakeout inspection of proposed construction activities relative to required setbacks. Permanent property pins and monuments shall then be required to be installed prior to issuance of a use and occupancy permit for the parcel.
 9. All monuments along rights-of-way being dedicated to the Township, and pins delineating easements being granted to the Township shall be installed and certified as to their accuracy and conformance to plan information by the responsible surveyor. Installation and certification shall be provided prior to execution and acceptance of public improvements.
 10. Any preexisting or new property markers/monuments of a property under construction or properties surrounding the subject property under construction which are disturbed by construction activity are required to be reset and recertified by a licensed surveyor. Property owner and/or developer of the property under construction resulting in the disturbance shall be held responsible for proper replacement and recertification of disturbed property markers/monuments.

§ 22-523. Parking Facilities. [Ord. 158, 12/20/1994, § 523]

1. Off-street parking facilities shall be provided in compliance with the parking requirements of the Zoning Ordinance [Chapter 27] and the regulations contained herein.
2. Angled or perpendicular parking shall not be permitted along public streets.
3. General Parking Lot Standards.
 - A. Parking shall not be permitted along driveways which serve as the entrance(s) or exit(s) to parking areas.

- B. Parking areas shall be set back from boundary lines and ultimate right-of-way lines in compliance with the requirements of the Township Zoning Ordinance [Chapter 27]. In any case not regulated by zoning, parking areas shall not be located closer than 15 feet from any tract boundary line or ultimate right-of-way line. These setback areas shall be landscaped in accordance with the requirements of § 22-515 of this chapter.
- C. Where the edge of an existing parking area is located close to a street, driveway, or other parking area and the property is proposed for subdivision and/or land development, a minimum separation of 10 feet shall be provided between these features where feasible. This spacing shall consist of a raised landscape area, preferably curbed, with planting in conformance with § 22-515 herein.
- D. Dead-ended parking areas shall be discouraged when the required parking capacity can be accommodated in a layout that permits more convenient vehicular movements. However, extraneous through-traffic flow should be avoided.
- (1) Up to 30 parking spaces may also be located in a dead ended parking are if there is no more desirable alternative feasible and sufficient backup areas are provided for the end stalls.
 - (2) More than 30 parking spaces may be located in a dead ended parking area only if a turnaround area is provided at the closed end, suitable for passenger car turning.
- E. Handicapped parking stalls shall be installed in all parking lots as close and convenient to building entrances as is reasonable. The specific number and location of handicapped stalls shall be determined by the Board of Supervisors in accordance with current standards and with the advice of the Township Planning Commission and Engineer.
- F. All signage for parking facilities shall be as specified within § 22-505(12).
- G. All parking lots shall be provided with adequate lighting to assure safe maneuverability of vehicles and to promote safety for pedestrians. Lighting shall be so arranged that no glare affects abutting residences or streets.
- H. All nonresidential parking facilities, and all multifamily residential parking facilities and access driveways shall be paved. Minimum construction standards shall conform to requirements of § 22-511(1)(E).
4. Residential Parking Lots.

- A. Parallel rows of parking spaces, which are not separated by a driveway, shall be separated by a raised and/or curbed planting strip, a minimum of 10 feet wide, landscaped in accordance with § 22-515 herein.
 - B. A single row of parking spaces located parallel to and between two driveways shall be separated from one of the driveways by a raised and/or curbed planting strip, a minimum of five feet wide, landscaped in accordance with § 22-515, herein.
 - C. Parking lots shall be divided into sections of not more than 20 cars each, with the sections separated by raised and/or curbed planting strips, a minimum of 10 feet wide, landscaped in accordance with § 22-515, herein.
5. Nonresidential Parking Lots.
- A. Parking lots with a capacity of from 15 to 100 cars shall require a raised and/or curbed planting strip, a minimum of 10 feet wide, landscaped in accordance with § 22-515, herein, around the entire perimeter except where the buildings, driveways and walkways are located.
 - B. Parking lots for more than 100 cars shall be divided into sections by raised and/or curbed planting strips, a minimum of 10 feet wide, landscaped in accordance with § 22-515, herein.
 - (1) These planting strips shall be located parallel to the rows of parking to serve the following purposes:
 - (a) To separate main access (entrance-exit) driveways from rows of parking spaces.
 - (b) To separate other major driveways from rows of parking spaces (service drives, general internal circulation).
 - (c) To separate large parking areas into smaller units at intervals of not more than four rows of parking stalls with each unit capacity not greater than 100 cars.
 - (d) Refer to Appendix C (Part 8 of this chapter) for an illustration of appropriate locations and use of these planting strips.
 - (2) The end rows of parking shall be marked as islands by means of painted lines or the use of different paving materials such as paving blocks, bricks or round stones.
 - (a) Marked end islands shall be equal in size to one parking space for each row of spaces.

- (b) Parking shall be prohibited on these islands.
 - (c) The first parking space abutting the end of each island shall be reserved and marked for handicapped parking at the end of the row closest to the building unless more convenient locations are possible and reasonable. Ramps shall be provided at convenient intervals for access between parking surface and sidewalks.
 - (3) For parking areas with an ultimate capacity greater than 500 cars, the requirements of § 22-523(5)(B)(1) may be modified by the Supervisors to provide separation into units at intervals of six rows of parking stalls, with each unit capacity no greater than 150 cars.
 - (4) The applicant may request the Township to permit an alternative design which achieves the purposes of these parking area requirements as well or better than the requirements herein. The final decision to permit an alternative design shall be made by the Board of Supervisors.
- C. The primary plant materials used shall be shade or canopy trees chosen from the list of plant materials in § 22-515. These trees shall be planted in the planting strips at a spacing equal to the minimum spacing primary for the type of tree.
- D. Additional planting is encouraged and may include a variety of ornamental trees, shrubs and ground covers chosen from the list of plant materials in § 22-151, provided that:
 - (1) At the ends of planting strips at driveway intersections, drivers' visibility shall be maintained by limiting planting for the end 35 feet.
 - (2) At the ends of planting strips between rows of parking spaces, visibility shall be maintained by limiting planting for the end 20 feet.
 - (3) Limiting planting shall mean:
 - (a) No more than one shade or canopy tree within the area.
 - (b) No shrubs or ground cover plants exceeding two feet in height.
 - (c) No evergreen trees.
- E. The specific purposes to be served by these requirements are:

- (1) To add visual character and improve the appearance of large parking areas by reducing their massiveness into smaller units.
 - (2) To provide shade for parked cars.
 - (3) To reduce random vehicular flow across parking areas.
 - (4) To permit a high level of visibility for these uses (stores, offices) for which visibility is an important factor.
 - (5) To facilitate snow removal and storm drainage and to conserve energy in construction and resurfacing operations by permitting relatively large units of paving surface no obstructed by numerous, small, barrier island areas.
6. Driveways/Access Aisles. The following requirements apply to all driveways/access aisles within all sites proposed for land development as well as to other sites proposed for development which will provide parking capacity for 50 or more cars:
 - A. A smooth transition shall be provided between the driveway section required for access to a public street and the driveway(s) required for internal site circulation.
 - B. The width of entrance and exit drives shall be:
 - (1) A minimum of 12 feet for one-way use only.
 - (2) A minimum of 24 feet for two-way use.
 - (3) A maximum of 35 feet at the street line and 54 feet at the curbline.
 - C. Storefront driveways in shopping centers shall have a minimum paved width of 35 feet to allow one lane in each direction and a drop-off/pick-up lane along the sidewalks.
 - D. Driveways along other nonresidential buildings shall have a minimum paved width of 26 feet, except where a drop-off/pick-up lane is proposed, the width shall be 35 feet.
 - E. Wherever feasible, internal circulation driveways shall extend from access drives in locations which permit and encourage entering traffic to turn and enter the parking aisles without first traveling along a building front driveway. This feature is intended to reduce the volume of vehicular traffic along building front driveway to make it safer for pedestrian traffic. Refer to Appendix C (Part 8 of this chapter) for illustration of this concept.
7. Parking Space and Driveway Dimensions.

- A. Parking space and parking aisle driveway dimensions shall be in compliance with the following standards except when reduced in compliance with subsection (2) herein:

Angle of Parking	Parking Space		Aisle Width	
	Depth	Width	One-Way	Two-Way
90°	19'	9.5'	20'	24'
60°	21'	10'	18'	20'
45°	19'	10'	15'	18'

- B. Where appropriate, parallel parking may be provided utilizing a stall width of eight feet and a minimum length of 22 feet.
- C. Where vehicles may overhang, a planting strip or other landscaped area provided in compliance with this chapter, the depth of the row of parking spaces may be reduced up to three feet; provided, the planting strip or other landscaped area is increased an equal amount. Refer to Figure 3 (Part 8 of this chapter) for this concept.
- D. A minimum of 20 feet of open space shall be provided between the outside wall of any multiple family dwelling, or nonresidential building and any parking space to provide access for fire fighting equipment unless waived by the Township.

§ 22-524. Alleys. [Ord. 158, 12/20/1994, § 524]

1. Alleys may be permitted upon approval of the Board of Supervisors in village townhouse developments as a means of providing direct off-street parking and access for narrow lots.
2. Alleys are intended to provide access to the rear of residential lots for services and onlot parking.
3. Frontage on an alley shall not be construed to satisfy the requirements of the Zoning Ordinance [Chapter 27] for frontage on a street.
4. No parking shall be provided for, or permitted within, the cartway of the alley.
5. Street systems which contain alleys shall be designed to discourage through traffic on the alleys.
6. Any portion of an alley located between two points of ingress and egress shall provide rear access to no more than 50 dwelling units.
7. Alleys may only intersect secondary or primary streets.

8. Alley length shall not exceed a distance of 600 feet as measured between two points of ingress and egress.
9. Alleys shall be centered on a rear or side lot line and shall be designed with a twenty-foot-wide easement and a paved cartway width of 12 feet. Except where specifically approved by the Board of Supervisors, all alleys shall be designed for one-way traffic. Where two-way traffic is permitted by the Board of Supervisors, a cartway width of 20 feet shall be provided.
10. Parking shall be limited to a distance not to exceed 30 feet from the alley centerline.

§ 22-525. Recreational Facilities and Land. [Ord. 158, 12/20/1994, § 525; as amended by Ord. 229, 1/16/2007]

1. General Requirements.
 - A. For all residential subdivision of 25 or more dwelling units, recreational facilities shall be provided unless waived by the Board of Supervisors.
 - B. Recreation facilities shall be constructed on open space within detached clustered subdivisions and performance standard developments.
 - C. Amount of land.
 - (1) For all residential subdivisions and land developments, the applicant shall provide 1,500 square feet of recreation land per dwelling unit.
 - (2) For all nonresidential subdivisions and land developments, the applicant shall provide 1,500 square feet of recreation land per 4,000 square feet of building area (herein defined as the area occupied by buildings to the extremities of all rooflines).
 - D. 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 side of the recreation area shall abut a street for a minimum distance of 50 feet for access by emergency and maintenance vehicles and parking facilities where deemed necessary by the Township.
 - E. 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.

- F. 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.
 - G. 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.
 - H. 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 East Rockhill Township.
 - I. East Rockhill 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 East Rockhill Township, shall be owned and maintained by a homeowners association or other method acceptable to the Township.
 - J. All proposed recreation areas and facilities shall be reviewed by the East Rockhill Township Park and Recreation Board pursuant to § 22-306 of this chapter.
 - K. Sites designated for recreational land shall not contain lands with natural resources required to be protected in accordance with the Zoning Ordinance,³ stormwater management facilities, or lands designated for any other purpose except for the provisions of § 27-1900 of the Zoning Ordinance.
 - L. Sites designated for recreational land shall be readily accessible to all development residents or, in the case of recreational land dedicated to the Township, shall be easily and safely accessible to the general public. At least one side of the recreational land shall abut a street for a minimum distance of 50 feet for access by emergency and maintenance vehicles and parking facilities where deemed necessary by the Township.
 - M. The land dedicated to the Township for park and recreation purposes need not be a part of the land development or subdivision. It may be located on a separate parcel of land, provided that the Board, in its sole discretion, determines that the land so dedicated is appropriate in the particular circumstances.
2. Minimum Recreation Facility Requirements.
- A. The following table lists facilities required by this section:

³Editor's Note: See Ch. 27, Zoning.

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

B. 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 feet high. The gate shall be self-closing and self-latching.

C. Sitting areas, including benches, shall be provided for the convenience of persons supervising the children.

D. Shade trees shall be provided for sitting and play areas; gazebo or picnic-type shelters may be used in addition to shade trees.

E. 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.

F. Minimum dimensional standards shall be as follows:

(1) Minimum Area. 2,500 square feet within the fenced areas. Applicants shall provide a landscaped buffer area around the fenced area, a minimum of 10 feet in depth.

(2) 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.

- G. Locations. At convenient, centralized intervals requiring not longer than a one-thousand-foot 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% nor more than 2% grade, and shall be well-drained so that they are suitable for use in good weather.
 - E. Playfields must be fenced if desired by the Township.
 - F. Sitting areas must be provided along the perimeter if desired by the Township.
 - G. Minimum dimensional standards shall be as follows:
 - (1) Minimum area: 25,000 square feet.
 - (2) Minimum 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 five 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-foot-high fencing.
 - D. Basketball courts shall be fenced with a minimum six-foot-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., four feet by 75 feet).
 - B. A toddler's pool shall be provided.
 - C. The pool shall be surrounded by a paved, nonslip surface, a minimum of eight 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%.
 - E. A permanent building shall be provided for bathrooms and life-guard/supervisor room.
 - F. The entire facility shall be surrounded by a minimum six-foot-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.
7. Consolidation of Facilities. Applicants are required to provide the numbers and types of facilities 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 twenty-five-thousand-square-foot playfields into one fifty-thousand-square-foot area to permit larger fields for softball, football, soccer or other field 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.
8. Alternative to dedication.
- A. Fee in lieu of dedication.
 - (1) Where, upon agreement with the applicant, it is determined that the dedication of all or any portion of the land area required for park and recreation purposes is not feasible because of the size, shape, location, access, topography or other features of the land, or any need of the Township, the applicant shall pay to the Township a fee in lieu of dedication of any such land. The fee shall not apply to any existing dwelling units or nonresidential building involved in the subdivision and/or land development.
 - (2) The amount of the fee shall be specified in the schedule of fees adopted by resolution of the Board.

- (3) Fees required under this section shall be paid prior to the recording of the approved final plan or as determined by the Board. In the case of a phased development, fees shall be paid prior to the recording of the approved final plan for each phase.
- (4) The fees shall be expended in the zoning district within which the subdivision and/or land development is located, unless the applicant and the Township agree otherwise.

§ 22-526. Lighting. [Ord. 158, 12/20/1994, § 526]

- 1. Lighting shall be provided along public streets, within parking facilities and recreational facilities as required by the Township Board of Supervisors. Glare shall be controlled in accordance with Zoning Ordinance [Chapter 27] nuisance standards.
- 2. Lighting plan shall be prepared in accordance with § 22-403(9).
- 3. Suggested values for average horizontal footcandles (HFC) of roadway illumination for midblock segments are:
 - A. Commercial Areas (High Pedestrian Activity). 2 HFC (22 lux).
 - B. Intermediate Areas (Moderate Pedestrian Traffic). 1.4 HFC (15 lux).
 - C. Residential Areas (Low Pedestrian Activity). 1 HFC (11 lux).
- 4. Typically 5,800 lumen lights spaced at 250 feet will establish an average illumination of 1.5 HFC pending mounting height and obstructions such as street trees.
- 5. Illumination within intersection areas (considered all pavement within the inner crosswalk lines) should be equal to the sum of the recommended levels of the two intersecting streets as listed in the following table:

Predominant Land Use	Collector		
	Arterial Route	Street	Local Street
Single-Family Area	2.0 HFC	1.6 HFC	1.4 HFC
Multiple-Family Area	2.8 HFC	2.3 HFC	2.0 HFC

- 6. Intensity of illumination for parking facilities and recreational facilities shall be determined by East Rockhill Township on a case-by-case basis pending actual needs to accommodate the facility.
- 7. Lighting shall be installed at developer's expense. The developer shall also be responsible for all costs involved in lighting public facilities/streets until such time that public facilities/streets are accepted or condemned as public facilities/streets by the Township.

§ 22-527. Easements. [Ord. 158, 12/20/1994, § 527]

1. Easements for storm sewer, sanitary sewer, utilities and drainage shall be a minimum of 20 feet wide.
2. Easements for site access and driveways shall be a minimum of 25 feet wide.
3. To the fullest extent possible, easements shall be adjacent to or centered on rear and side lot lines.
4. Nothing shall be permitted to be constructed, placed, planted, set or put within the area of any easement that will interfere with the extended use of the easement, the facilities for which the easement was established, or maintenance of the easement and/or facilities.
5. Driveways shall be centered within access easements unless topographic conditions do not permit same.
6. No easement or right-of-way for any purpose whatsoever shall be recited or described in any deed unless the same has been shown on an approved subdivision or land development plan.

§ 22-528. Traffic Calming. [Ord. 214, 10/18/2005, § XXVIII]

1. General. Traffic calming measures are mainly used to address speeding and high cut-through traffic volumes on neighborhood streets. These issues can create an atmosphere in which nonmotorists are intimidated, or even endangered, by motorized traffic. Additionally, high cut-through volumes can become an increased concern when larger commercial vehicles are involved. Along with the additional amount of traffic generated within the neighborhood, cut-through motorists are often perceived as driving faster than local motorists. By addressing high speeds and cut-through volumes, traffic calming can increase both the real and perceived safety of pedestrians and bicyclists, and improve the quality of life within the neighborhood.
2. Implementation. Traffic calming techniques shall be incorporated into design of all new residential streets unless, upon review of the design plan and proposed calming, it is determined by the Board of Supervisors that traffic calming is not warranted.
3. Design. Traffic calming measures and design guidelines shall be in accordance with Pennsylvania Department of Transportation Publication 383, dated January 2001, as amended. In particular, consideration should be given to the following traffic calming techniques:
 - A. Textured crosswalk.
 - B. Raised crosswalk.
 - C. Speed humps/speed tables.

- D. Gateways.
- E. Curb extension/bulb outs.

PART 6

REQUIRED IMPROVEMENTS AND GENERAL STANDARDS**§ 22-601. Intent. [Ord. 158, 12/20/1994, § 601]**

1. The required land improvements shall be designed, furnished and installed by the developer in accordance with the provisions of these regulations, the improvements construction standards of the Township as adopted by this Chapter as Appendix A (Part 8 of this Chapter) which shall be considered a part hereof and other codes of the Township. They shall be installed before the final plan is approved or, in lieu thereof, financial security shall be posted and agreements to install improvements shall be approved concurrent with the approval of final plans.
2. The developer shall dedicate all land required for rights-of-way and easements within the subdivision and land development, and furnish and install all improvements to provide a complete and coordinated system of streets and utilities for the neighborhood in accordance with the Township Comprehensive Plan, the Township Official Map, the Township Zoning Ordinance [Chapter 27], this Chapter and neighboring approved developments.

§ 22-602. Required Improvements. [Ord. 158, 12/20/1994, § 602]

1. All improvements shall be dedicate without cost to the Township as required by this Chapter and/or as stipulated in the improvements agreement and in a manner approved by the Township consistent with sound construction methods. This includes:
 - A. Grading.
 - (1) Grading of roadways and street rights-of-way and grading of slopes adjacent to roadways and street rights-of-way.
 - (2) Grading of all drainage swales on public or private property and grading of individual lots to establish positive drainage away from buildings and eliminate low spots.
 - (3) Implementation and maintenance of soil erosion control and sedimentation control facilities.
 - (4) Replacement of topsoil and vegetative restoration in disturbed areas not stabilized with building, paving or other nonvegetative ground cover.
 - (5) Removal of temporary soil erosion and sedimentation control facilities when they are no longer required.

- B. Street or road subbase, base and paving.
- C. Curbs and gutters.
- D. Sidewalks, crosswalks, pathways and bike paths.
- E. Underground facilities for electric, telephone and television cable lines.
- F. Storm sewers and drainage facilities.
- G. Public sanitary sewer system.
- H. Public or centralized water supply and distribution system including but not limited to wells, pumping equipment, water laterals, submains, storage tanks and equipment systems (if required).
- I. Street name signs at all street intersections and official traffic control signs and markings.
- J. Permanent monuments and lot pins.
- K. Fire hydrants.
- L. Street trees, landscaping.
- M. Open space improvements and/or recreational facilities, buffer or screen plantings.
- N. Street lights.

§ 22-603. Construction of Facilities. [Ord. 158, 12/20/1994, § 603; as amended by Ord. 214, 10/18/2005, § XXIX]

1. The developer shall construct and install, at no expense to the Township, the improvements specified in this Chapter. Construction and installation of such facilities and utilities shall be subject to inspection by appropriate Township, public agency or public utility officials during the progress of the work and shall be in conformance with the improvements construction standards contained in Appendix A (Part 8 of this Chapter).
2. During the construction and installation of all facilities and utilities required by this Chapter, the developer shall insure that access to the job site from a public road shall be kept clear and free of all obstructions and otherwise in a passable condition to all areas of the job site for emergency, fire and police vehicles. In the event of a dispute, passable access for the foregoing purposes shall be determined by the Township Engineer.
3. Prior to construction, developer shall provide financial security to guarantee that existing Township roads, utilities, or other public facilities are not

damaged during the construction and installation of utilities, structures, building, or other improvements on the job site. Financial security may be by cash, letter of credit, triparty restrictive loan agreement, or such other financial security as approved by the Township. The amount of financial security shall be determined by the Township Engineer, and in the event that the developer disagrees with the amount of security, the parties shall resolve such disagreement in accordance with § 22-606(6) of this Chapter.

4. If public streets are damaged by construction activity during installation of utilities, structures, buildings, or other improvements on the job site, the developer shall make repairs as determined by the Township Engineer. All repairs shall be completed within five days of notice from the Township Engineer. Vehicular control/advisory signage shall be installed as determined by the Township during the period prior to roadway repair. If repairs are not completed within five days of notice, the Township, at its sole discretion, may require all work to cease and desist on the job site until repairs are satisfactorily completed.

§ 22-604. General Standards. [Ord. 158, 12/20/1994, § 604; as amended by Ord. 192, 4/18/2000]

1. The following principles of subdivision and land development, general requirements and the minimum standards of design shall be observed by the developer in all instances.
 - A. It is the developer's responsibility to comply with all applicable plans, ordinances, statutes, regulations, etc., of East Rockhill Township, Bucks County, Commonwealth of Pennsylvania and United States of America.
 - B. Proposed subdivisions and land development shall be coordinated with existing nearby development so that the area as a whole may develop harmoniously. Provision shall be made to assure that the street patterns included in a proposed subdivision shall complement existing or proposed streets shown on the current official Township Street and Road Map and on nearby approved developments.
 - C. Standards incorporated in this Chapter. In those cases where precise design standards are not specified in this Chapter, or other Chapter adopted by East Rockhill Township, design standards of the following organizations shall govern where applicable.
 - (1) Roads and Streets. Pennsylvania Department of Transportation, American Association of State Highway and Transportation Officials, Institute of Transportation Engineers, Transportation Research Board, U.S. Transportation, Federal Highway Administration and East Rockhill Township.

- (2) Sanitary Sewer. Pennsylvania Department of Environmental Protection, Bucks County Department of Health and East Rockhill Township.
- (3) Water. Pennsylvania Department of Environmental Protection, Bucks County Department of Health, Perkasie Borough Authority, North Penn Water Authority, Delaware River Basin Commission and East Rockhill Township.
- (4) Soil and Erosion Control. Bucks County Soil Conservation District and Department of Environmental Protection, U.S. Department of Agriculture Soil Conservation Service and East Rockhill Township.
- (5) General Engineering. American Society of Civil Engineers, Army Corps of Engineers, Federal Emergency Management Association and East Rockhill Township Engineer.

§ 22-605. Completion of Improvements. [Ord. 158, 12/20/1994, § 605]

No plat shall be finally approved unless the streets shown on such plat have been improved as required by this Chapter and any walkways, curbs, gutters, street lights, fire hydrants, trees, water mains, sanitary sewers, storm sewers and other improvements as may be required by this Part have been installed in accordance with this Chapter.

§ 22-606. Guaranties to Complete Improvements and Financial Security. [Ord. 158, 12/20/1994, § 606]

1. In lieu of the completion of any improvements required as a condition for the final approval of a plat, including improvements or fees required pursuant to § 509(i) of the Municipalities Planning Code, this Chapter shall provide for the deposit with the Township of financial security in an amount sufficient to cover the costs of such improvements or common amenities including, but not limited to, roads, stormwater detention, and/or retention basins and other related drainage facilities, recreational facilities, open space improvements, or buffer or screen plantings which may be required.
2. When requested by the developer, the governing body shall furnish the developer with a signed copy of a resolution or letter of contingent approval indicating approval of the final plat contingent upon the developer obtaining satisfactory financial security which must be presented to the Township within 90 days. The resolution or letter of contingent approval shall expire and be deemed to be revoked if the financial security agreement is not executed within 90 days unless a written extension is granted by the governing body.
3. Without limitation as to the types of financial security which the Township may approve, which approval shall not be unreasonably withheld, Federal or

Commonwealth chartered lending institution irrevocable letters of credit and restrictive or escrow accounts in such lending institutions shall be deemed acceptable financial security for the purposes of this Section. Such financial security shall be posted with a bonding company or Federal Commonwealth chartered lending institution chosen by the party posting the financial security; provided, that said bonding company or lending institution is authorized to conduct such business within the Commonwealth. Such security shall provide for, and secure to the public, the completion of any improvements fixed in the formal action or accompanying agreement for completion of such improvements.

4. Amount of Financial Security. The amount of financial security shall be equal to 110% of the estimated cost of the required improvements for which financial security is to be posted. The cost of the required improvements shall be estimated as of 90 days following the date scheduled for the completion of said improvements. Annually, the Township may adjust the amount of the financial security by comparing the actual cost of the improvements which have been completed and the estimated cost for the completion of the remaining improvements as of the expiration of the 90th day after either the original date scheduled for completion or rescheduled date of completion. Subsequent to such said adjustment, the Township may require the developer to post additional security in order to assure that the financial security equals 110%.
5. Basis for Establishing Amount of Security.
 - A. The amount of financial security required shall be based upon an estimate of the cost of completion of the required improvements, submitted by an applicant or developer and prepared by a professional engineer licensed as such in this Commonwealth and certified by such engineer to be a fair and reasonable estimate of such cost. The Township, upon the recommendation of the Township Engineer, may refuse to accept such estimate for good cause shown. If the applicant or developer and the Township are unable to agree upon an estimate, then the estimate shall be recalculated and recertified by another professional engineer licensed as such in this Commonwealth and chosen mutually by the Township and the applicant or developer. The estimate certified by the third engineer shall be presumed fair and reasonable and shall be the final estimated. In the event that a third engineer is so chosen, fees for the services of said engineer shall be paid equally by the Township and the applicant or developer.
 - B. If the party posting the financial security requires more than one year from the date of posting of the financial security to complete the required improvements, the amount financial security may be increased by an additional 10% for each one-year period beyond the first anniversary date from posting of financial security or to an amount not exceeding 110% of the cost of completing the required improvements as reestablished on or about the expiration of the

preceding one-year period by using the above bidding procedure or as established by the Township Engineer. In the case where development is projected over a period of years, the Supervisors (or the planning agency) may authorize submission of final plans by section or stages of development, subject to such requirements or guarantees as to improvements in future sections or stages of development as it finds essential for the protection of any finally approved section of the subdivision or land development.

6. **Dispute Over Amount of Financial Security.** Whenever a dispute may arise between an applicant or developer and the Township in that neither party can reach an accord or the amount of financial security to be posted, the procedures set forth in § 509(g) of the Pennsylvania Municipalities Planning Code shall be employed.
7. **Contracts.** As a condition of final plan approval for all subdivisions or land developments, the applicant or developer shall enter into a written agreement with the Township in a manner and form approved by the Township Solicitor where they shall agree to:
 - A. Construct or cause to be constructed, at their own expense, all streets, curbs, sidewalks, fire hydrants, street lights, drainage facilities, street signs, monuments, capped sewers, parks and other improvements shown on said final plan when required to do so by the Board of Supervisors in accordance with the final plans, as finally approved, and in strict accordance with the standards and specifications of the Township.
 - B. Maintain, at their own cost, said streets, curbs, sidewalks, drainage facilities, street signs, parks, monuments, fire hydrants, street lighting, capped sewers and other improvements until the same are accepted or condemned by the Township for public use, and for a period of 18 months thereafter, to repair and reconstruct the same or any part of one of them when such repair or reconstruction shall be specified by the Board of Supervisors as necessary by reason of faulty construction, workmanship or materials and at or before acceptance of such improvements by the Township.
 - C. Install or cause to be installed, at their own expense and without any cost to the Township for any part of such installation, street lighting facilities on all streets within and abutting the subdivision or land development if proposed to be dedicated to the Township as required by this Section.
 - D. Obtain the easements and releases required when any street, drainage facility or other improvement wherein a subdivision abuts or traverses lands of persons other than the person holding legal title to the lands of the subdivision, at his own cost, and obtain from the owner of land so abutted or traversed full releases from all damages

which may change in grade, construction or otherwise of the street, drainage facility or other improvement, and such releases shall inure to the benefit not only of the owner of the subdivision but to the Township as well.

- E. Promptly reimburse to the Township reasonable attorneys and engineers fees in accordance with this Chapter.
- F. Construct or cause to be constructed, at their expense, road improvements along the frontage of the tract in accordance with this Chapter.
- G. Additional conditions as may be determined to be necessary by the Township Solicitor.

§ 22-607. Completion of Improvements. [Ord. 158, 12/20/1994, § 607]

1. A partial completion and release of financial security.
 - A. As the work of installing the required improvements proceeds, the party posting the financial security may request the Township Supervisors to release or authorize the release, from time to time, of such portions of the financial security necessary for payment to the contractor or contractor performing the work.
 - B. Any such request shall be in writing, addressed to the Supervisors, and the Supervisors shall have 45 days from receipt of such request within which to allow the Township Engineer to certify, in writing, to the Supervisors that such portion of the work upon the improvements has been completed in accordance with the approved plans.
 - C. Upon such certification, the Supervisors shall authorize release by the bonding company or lending institution of an amount as estimated by the Township Engineer fairly representing the value of the improvements completed or, if the Supervisors fail to act within said forty-five-day period, the governing body shall be deemed to have approved the release of funds as requested.
 - D. The Supervisors shall, prior to final release at the time of completion and certification by its engineer, require retention of 10% of the estimated cost of the aforesaid improvements for purposes of securing the maintenance bond on said improvements.
 - E. If the required financial security of 100 plus 10% is secured in separate accounts and the specified 10% remains secured for the life of the security agreement and the construction period or until dedication, then the 10% specified above shall not be retained from the requested partial release.

2. Completion of improvements and release from financial security.
 - A. When the developer has completed all of the necessary and appropriate improvements, the developer shall notify the Township, in writing, by certified or registered mail, of the completion of the aforesaid improvements and shall send a copy thereof to the Township Engineer.
 - B. The Township Supervisors shall, within 10 days after receipt of such notice, direct and authorize the Township Engineer to inspect all of the aforesaid improvements. The Township Engineer shall, thereupon, file a report, in writing, with the Supervisors and shall promptly mail a copy of the same to the developer by certified or registered mail. The report shall be made and mailed within 30 days after receipt by the Township Engineer of the aforesaid authorization from the Supervisors. The report shall be detailed and shall indicate approval or rejection of said improvements, either in whole or in part, and if said improvements or any portion thereof shall not be approved or shall be rejected by the Township Engineer, said report shall contain a statement of reasons for such nonapproval or rejection.
 - C. The Township Supervisors shall notify the developer, within 15 days of receipt of the Township Engineer's report, in writing, by certified or registered mail, of the action of said Township Supervisors within relation thereto.
 - D. If the Township Supervisors or Township Engineer fail to comply with the time limitation provisions contained herein, all improvements will be deemed to have been approved and the developer shall be released from all liability pursuant to the performance guaranty bond or other security agreement.
 - E. If any portion of said improvements shall not be approved, or shall be rejected by the Township Supervisors, the developer shall proceed to complete the same and, upon completion, the same procedure or notification, as outlined herein, shall be followed.
 - F. Upon satisfactory completion of all the necessary and appropriate improvements as approved by the Township Engineer and receipt by the Supervisors of the appropriate letter of certification of said improvements, the Supervisors shall release or authorize to be released the balance of the financial security minus the 10% as specified above. The 10% shall be retained until such time as the developer establishes additional financial security to ensure the structural integrity and functioning of the specified improvements as specified in § 608 herein.

§ 22-608. Maintenance Guaranties and Financial Security. [Ord. 158, 12/20/1994, § 608]

1. Where the Supervisors accept dedication of all or some of the required improvements following completion, the Supervisors shall require the posting of financial security as a maintenance guaranty to secure the structural integrity of said improvements, as well as the functioning of said improvements, in accordance with the design and specifications as depicted on the final plan for a term not to exceed 18 months from the date of acceptance of dedication. Said financial security shall be of the same type as otherwise required in this Section with regard to installation of such improvements, and the amount of the financial security shall not exceed 15% of the actual cost of installation of said improvements.
2. To secure release from the maintenance guaranty and financial security, the developer shall notify the Township Supervisors by certified or registered mail 90 days or as otherwise specified in the guaranty prior to the expiration date of said maintenance guaranty and request an inspection and written report by the Township Engineer as to the structural integrity and functioning of the specified improvements.
3. Upon receipt of said report and approval of the engineer of the structural integrity and functioning of said improvements, the Township Supervisors shall release or authorize release of the maintenance guaranty financial security.
4. If the specified improvements are not found acceptable to the Township Engineer, the developer shall correct the same to the satisfaction of the Township Engineer and Supervisors before the maintenance guaranty financial security is released.

§ 22-609. Remedies to Effect Completion of Improvements. [Ord. 158, 12/20/1994, § 609]

In the event that any improvements which may be required to have not been installed as provided in this Section or in accord with the approved final plan, the Supervisors are hereby granted the power to enforce any corporate bond or other security by appropriate legal and equitable remedies. If proceeds of such bond or other security are insufficient to pay the cost of installing or making repairs or corrections to all the improvements covered by said security, the repairs or corrections to all the improvements covered by said security, the Supervisors may, at their option, install part of such improvements in all or part of the subdivision or land development and may institute appropriate legal or equitable action to recover the monies necessary to complete the remainder of improvements. All of the proceeds, whether resulting from the security or from any legal or equitable action brought against the developer, or both, shall be used solely for the installation of the improvements covered by such security and not for any other purpose.

PART 7

ORDINANCE AMENDMENTS; PENALTIES**§ 22-701. Enactment of Amendments. [Ord. 158, 12/20/1994, § 701]**

1. Proposals for amendment, supplement, change, modification or repeal may be initiated by the Board of Supervisors or by the Planning Commission.
2. In case of an amendment other than that prepared by the Planning Commission, the Board of Supervisors shall submit each such amendment to the Planning Commission for recommendations at least 30 days prior to the date fixed for the public hearing on such proposed amendment. At least 30 days prior to the hearing on the amendment, the Township shall also submit the proposed amendment to the Bucks County Planning Commission for recommendations.
3. Within 30 days after adoption, the Board of Supervisors shall forward a certified copy of any amendment to the this Chapter to the Bucks County Planning Commission.

§ 22-702. Amendment Hearings. [Ord. 158, 12/20/1994, § 702]

1. Before voting on the enactment of an amendment, the Board of Supervisors shall hold a public hearing. No amendment shall become effective until after such hearing at which parties in interest and citizens shall have an opportunity to be heard.
2. Notice shall be given once each week for two successive weeks, the first notice being not more than 30 days, and the second notice not less than seven days in advance of such hearings and shall be published in a newspaper of general circulation in the Township. Such notice shall state the time and place of the hearing and shall include either the full text of the proposed amendment, or the title and a brief summary prepared by the Township Solicitor and setting forth all the provisions in reasonable detail. If the full text is not included:
 - A. A copy shall be supplied to a newspaper of general circulation in the Township at the time the public notice is published.
 - B. An attested copy of the proposed ordinance shall be filed in the County Law Library or other County office designated by the County Commissioners.

§ 22-703. Penalties. [Ord. 158, 12/20/1994, § 703]

1. Preventive Remedies. In addition to the right of the Township to enforce a subdivision or land development ordinance violation by means of an action in equity in the Court of Common Pleas of Bucks County, and other rights the

Township may have at law, including actions to recover damages and to prevent illegal occupancy of a building, structure or premises the Township may:

- A. Refuse to issue any permit or grant any approval necessary to further improve or develop any real property which has been developed or which has resulted from a subdivision of real property in violation of this Chapter. This authority to deny such a permit or approval shall apply to any of the following applicants:
 - (1) The owner of record at the time of such violation.
 - (2) The vendee or lessee of the owner of record at the time of such violation without regard as to whether such vendee or lessee had actual or constructive knowledge of the violation.
 - (3) The current owner of record who acquired the property subsequent to the time of violation without regard as to whether such current owner had actual or constructive knowledge of the violations.
 - (4) The vendee or lessee of the current owner of record who acquired the property subsequent to the time of violation without regard as to whether such vendee or lessee had actual or constructive knowledge of the violation.
 - B. As an additional condition for issuance of a permit or the granting of approval to any such owner, current owner, vendee or lessee for the development of real property which was subdivided in violation of this Chapter, the Township may require compliance with the conditions that would have been applicable to the property at the time the applicant acquired an interest in such property.
2. Enforcement Remedies. Any person, partnership or corporation who or which has violated the provisions of the this Chapter, upon being found liable therefore in District Justice Court, shall pay a judgment of \$500 plus all court costs, including reasonable attorney fees incurred by the Township as a result thereof. Each day that a violation continues shall constitute a separate violation, unless the District Justice determining that there has been a violation further determines that there was a good faith basis for the person, partnership or corporation violating this Chapter to have believed that there was no such violation, in which event there shall be deemed to have been only one such violation until the fifth day following the date of the determination of a violation by the District Justice and thereafter each day that a violation continues shall constitute a separate violation.

PART 8
APPENDICES⁴

§ 22-801. Appendices

The Appendices are included at the end of this chapter.

⁴Editor's Note: The Appendices are included at the end of this chapter.

