

L M T  
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ARTICLE 1:  
GENERAL  
PROVISIONS

## 135-1. GENERAL PROVISIONS

### 1.1. Enactment

This Chapter has been enacted in conformance with the provisions of the Pennsylvania Municipalities Planning Code, Act No. 247 of 1968 and the Pennsylvania Stormwater Management Act P.L. 864 (Act 167), as amended.

### 1.2. Contents

This Chapter contains regulations which include, but are not limited to the following:

- A. Provisions for the filing, processing, review, and approval of all subdivision and land development plans;
- B. Design standards and guidelines for the overall layout, configuration, and placement of lots, roads, open space, parks, public facilities and other physical improvements on property to promote orderly development compatible with the Lower Merion Township Comprehensive Plan;
- C. Engineering and technical standards, including appropriate financial guarantees, governing the manner by which various improvements including streets, bridges, common facilities, water supply and sewage facilities infrastructure, stormwater management facilities, landscaping, walkways, lighting and other improvements are properly constructed.

### 1.3. Purpose & Intent

- A. To accomplish the coordinated development of the Township of Lower Merion thereby ensuring the overall public health, safety, and welfare of the community.
- B. To promote sustainable, efficient, and integrated development harmonious with the existing built and natural environment.
- C. To require sites suitable for building purposes and human habitation in keeping with the standards of quality existing in the Township and to alleviate peril from natural disasters or other menace.
- D. To ensure that streets and sidewalks throughout and bordering a subdivision or land development shall be coordinated with existing streets, sidewalks, parks, and other public amenities of the Township; and shall be of such widths and grades, and in such locations as deemed necessary to efficiently accommodate pedestrian accessibility, safety, prospective vehicular and bicycle traffic and parking; and emergency apparatus.
- E. To provide for adequate/proper drainage, water supply, sewage disposal and other appropriate utility services and connections.
- F. To encourage creation and preservation of open spaces for recreation, light and air and maintenance of the natural amenities characteristic of the Township and its residential, commercial and public areas.
- G. To ensure conformance of subdivision and land development plans with the Comprehensive Plan, and Official Map, and to ensure coordination of intergovernmental public improvement plans and programs.



- H. To ensure equitable treatment of all subdivision and land development proposals by providing uniform procedures and standards.
- I. To provide an open and transparent review process with opportunities for public input.
- J. To ensure that developments are environmentally sound by requiring preservation of the natural features of the areas to be developed to the greatest extent practicable, to maintain the economic well-being of the Township and to prevent unnecessary or undesirable blight, runoff and pollution.

#### 1.4. Interpretation

In the interpretation and application of the provisions of this chapter, said provisions shall be deemed to be the minimum requirements necessary for the promotion and protection of the public health, safety and welfare. Where the provisions of this chapter and all standards and specifications implementing it impose greater restrictions upon subdivision or land development than those of any other chapter of this Code or any regulation or any applicable land subdivision agreement, the provisions of this chapter and its standards and specifications shall be controlling. Where the provisions of any statute, other chapter of this Code or regulation or applicable land subdivision agreement impose greater restrictions upon subdivision or land development than this chapter, the provisions of such statute, other chapter of this Code or regulation or applicable land subdivision agreement shall be controlling.

#### 1.5. Jurisdiction

Lower Merion Township shall with the recommendation of the Planning Commission, review and act upon as appropriate all subdivision and land development plans as defined below and in Section 2.2 of this ordinance which are located entirely or in part of the Township of Lower Merion.

- A. Subdivision and Land Development. No subdivision or land development of any lot shall be effected, and no street, alley, sanitary sewer, storm drain, 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 thereon, except in accordance with the provisions of this chapter.
- B. Sale of Lots, Issuance of Building Permits, or Erection of Buildings. No lot in a subdivision or land development may be sold, leased, mortgaged or otherwise transferred; no permit to erect any building on land in a subdivision or land development may be issued; and no building may be erected or lot development effected in a subdivision or land development unless and until a subdivision plan or land development plan has received final approval and, where required, been recorded.
- C. Condominiums. No provision of this Ordinance shall be construed to prohibit condominium ownership as permitted by the applicable enabling legislation of the Commonwealth of Pennsylvania.

#### 1.6. Waiver of Requirements

Where, owing to special conditions, a literal enforcement of any of the requirements of this chapter would be unreasonable, would cause undue hardship or where an alternative standard can be demonstrated to provide equal or better results, the Board of Commissioners

may make such reasonable exception thereto as will not be contrary to the public interest and that the purpose and intent of this Chapter is observed. All requests for modifications shall be provided in writing and be part of the application for subdivision and/or land development. In the request for a modification, the applicant shall:

- A. State the ground and facts of unreasonableness or hardship on which the request is based or demonstrate that an alternative standard can provide equal or better results;
- B. List the provision(s) of the Chapter involved;
- C. State the minimum modification necessary.

# ARTICLE 2: DEFINITIONS

## 155-2.1 DEFINITIONS

### 2.1. Language Interpretations

The present tense includes the future. The singular number includes the plural, and the plural, the singular. The word "person" includes a corporation, a partnership and any other legal entity, as well as an individual. The word "building" includes the word "structure" and shall be construed as if followed by the words "or part thereof." The words "shall" or "will" are mandatory, and the word "may" is permissive. References to codes, ordinances, resolutions, plans, maps, governmental bodies, commissions or agencies or officials are to codes, ordinances, resolutions, plans, maps, governmental bodies, commissions or agencies or officials of the Township of Lower Merion as in effect or office from time to time, including amendments thereto or revisions or successors thereof, unless the text indicates another reference is intended.

### 2.2. Definition of Terms

Unless otherwise expressly stated, the following words and phrases shall be construed throughout this chapter to have the meanings indicated in this section:

**ALLEY:** A strip of land over which there is a municipally or privately owned easement, on which no dwellings or commercial buildings front, serving as the secondary means of access to two or more lots.

**BLOCK-** A unit of land bounded by streets or combination of streets, railroad right-of-way, waterway, or any other barrier to the continuity of development.

**BUILDING LINE:** The line which establishes the minimum depth of front yard measured from the right-of-way line, as required by Chapter 155 of the Code.

**BUFFER, LANDSCAPE OR BUFFER AREA:** A designated area at the perimeter of a lot, densely landscaped its full width with trees and shrubs, as a visual and ambient screen to protect residential property from impacts of other uses.

**CALIPER:** The diameter of a tree measured by the American or U.S.A. Standard for Nursery Stock (ANSI) or U.S.A.S. Z60.1 of the American Association of Nurserymen, as amended.

**CARTWAY:** The portion of a street or right-of-way, paved or not paved, which is used or intended for use by vehicular traffic.

**CLEAR SIGHT TRIANGLE:** A triangular-shaped portion of land established at street intersections in which nothing is erected, placed, planted, or allowed to grow in such a manner as to limit or obstruct the minimum required sight distance of motorists entering or leaving the intersection.

**CODE OF REGULATIONS:** Such governing regulations as are adopted pursuant to Chapter 155, Zoning, and Chapter 135, Subdivision, and Land Development, and the Unit Property Act for the regulation and management of condominium properties, including amendments thereof, and as may be adopted from time to time.

## 2.2. Definition of Terms (continued)

**COMMUNITY FACILITIES:** Buildings, parks, playgrounds or public works owned or operated by the Township, buildings or playgrounds owned or operated by the Lower Merion School District, and fire stations.

**COMPREHENSIVE PLAN:** The plan, consisting of maps, charts and textual matter, including recommendations for the continuing development of the Township and adopted by the Board of Commissioners of the Township.

**CONDOMINIUM:** Real estate, portions of which are designated for separate ownership and the remainder of which is designated for common ownership solely by the owners of those portions and organized in accordance with the Pennsylvania Uniform Condominium Act, 68 Pa.C.S.A. § 3101 et seq.

**CONSERVATION:** The planned management of a natural feature to prevent its exploitation, destruction or neglect.

**COUNCIL:** A board of a condominium association.

**COUNTY:** Montgomery County, Pennsylvania.

**CUL-DE-SAC:** A street with one end open for public vehicular, bicycle, and pedestrian access and the other end terminating in a vehicular turnaround.

**DBH:** The diameter of a tree at breast height, measured 4.5 feet from the ground surface

**DECLARATION:** The instrument by which the owner of property submits it to the provisions of the Unit Property Act.

**DEVELOPER:** Any person, firm or corporation which performs or undertakes to perform development.

**DRAINAGE RIGHT-OF-WAY:** The land required for the installation and/or maintenance of storm sewers, drainage ditches or retention basins.

**DRIVEWAY:** A point of access to one or more lots along a street frontage, intended for use by vehicles.

**DWELLING UNIT:** Any structure or part thereof designed for and occupied exclusively as a residence for a single family.

**ELECTRIC VEHICLE:** A vehicle that operates, either partially or exclusively, on electrical energy from the electrical grid, or an off-grid source, that is stored on board for motive purposes.

**ELECTRIC VEHICLE CHARGING LEVELS - Level 1:** a method that provides charging for an EV battery using a 120V single-phase electric service with a 15A or 20A circuit breaker. This method is considered slow speed charging and does not require any special EV charging equipment.

**ELECTRIC VEHICLE CHARGING LEVELS - Level 2:** a method that provides charging for an EV battery using a 240V/208V single-phase or three-phase electric service with a 40A to 100A circuit breaker. This method is considered medium speed charging and requires the installation of specialized EV charging equipment at the EVCS.

## 2.2. Definition of Terms (continued)

**ELECTRIC VEHICLE CHARGING LEVELS - Level 3:** a method also known as direct current fast charging (DCFC) that provides charging for an EV battery using a 480V three-phase electric service. This method is considered high speed and requires the installation of highly specialized, high-powered EV charging equipment as the EVCS and in the EV.

**ELECTRIC VEHICLE CHARGING STATIONS:** A public or private parking space that is served by battery charging station equipment that has as its primary purpose the transfer of electric energy (by conductive or inductive means) to a battery or other energy storage device in an EV.

**ELECTRIC VEHICLE PARKING SPACE:** Any designated parking space that is provided to allow EV access and use of an EVCS.

**ELECTRIC VEHICLE READINESS:** Pre-construction installation of dedicated electric circuits and wiring runs to minimize the post construction cost and effort required to install a charger.

**ENGINEER:** A person licensed by the Commonwealth of Pennsylvania to engage in the practice of engineering and/or land surveying.

**GRADE:** The slope of a street, parcel of land, utility lines, drainageways, specified in percent (%) and shown on plans.

**HISTORIC RESOURCE:** See § 155-2.1.

**HISTORIC SITE:** See § 155-2.1.

**HYDRIC SOILS:** Soils which in their natural, undrained state are wet frequently enough at or near the surface to periodically produce anaerobic conditions, thereby influencing plant species composition and/or growth on such soils.

**IMPROVEMENT:** Elements of the physical environment, including: buildings, grading, paving, restoration of existing paving damaged by construction, walkways, curbs, gutters, street signs, fire hydrants, water mains, gas mains, sanitary sewers, on-site sewage disposal facilities, storm drainage facilities, retention basins, bridges, sidewalks, crosswalks, monuments, street shade trees, buffer planting and streetlights.

**INTERIOR STOREFRONT DRIVE AISLE:** Drive aisle interior to a site on which a portion of a building fronts. Typically applies to shopping center uses.

**LAND DEVELOPMENT:** Improvements involving: two or more residential buildings, or one or more nonresidential structure, regardless of number of occupants; subdivision of land for the use of two or more existing or prospective occupants with streets, building groups, common areas, leaseholds, condominiums, or other features. Excluded from land development are: the conversion of an existing single-family detached dwelling or single-family semi-detached dwelling into not more than three residential units, unless such units are intended to be a condominium; the additions of an accessory building, including farm buildings, on a lot with an existing principal building.

## 2.2. Definition of Terms (continued)

**LAND DEVELOPMENT COMMITTEE:** The Committee composed of the heads of departments of the Township or their designee and such other Township employees as appointed by the Township Manager.

**LAND SUBDIVISION AGREEMENT:** An agreement between the Township and the then owner(s) of a property, executed during the subdivision or land development approval process, which describes conditions of approval. These conditions shall remain in effect regardless of any transfer of ownership.

**LOT:** A tract or parcel of land as defined by the description set forth in the deed or other instrument vesting title in the owner of record or other instrument dividing or allocating land, air rights or subsurface rights below the surface of the land, or a combination of tracts or parcels merged by use.

**LOT DEVELOPMENT:** Any construction for which a building permit is required under Chapter 62 of this Code, or any other activity affecting land or modifying land from its natural condition.

**LOT WIDTH:** The measure of a Lot taken on a straight line between two points on the side Lot lines equidistant from the Street line.

**MAINTENANCE GUARANTY:** Any security which may be required of a developer by the Township in connection with the final acceptance by the Township of improvements installed by the developer. Such security may include but is not limited to maintenance bonds, surety agreements or other collateral.

**MOBILE HOME:** A transportable, single-family dwelling intended for permanent occupancy, office or place of assembly, contained in one unit or in two 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 so that it may be used without a permanent foundation.

**MOBILE HOME LOT:** A lot in a mobile home park, improved with the necessary utility connections and other appurtenances necessary for the erections thereon of a single mobile home, which lot is leased by the park owner to the occupants of the mobile home erected on the lot.

**MOBILE HOME PARK:** A parcel of land under single ownership which has been planned and improved for the placement of mobile homes for non-transient use, consisting of two or more mobile home lots.

**NARROW LOT:** Any lot abutting a street which has less than the required width at the street line or at any point between the street line and a point 25 feet beyond the proposed building.

**OFFICIAL HIGHWAY MAP:** The most currently adopted map depicting the routes of vehicular travel within the Township, which is part of the Township of Lower Merion General Comprehensive Plan, adopted by the Board of Commissioners, which depiction of such routes only is hereby incorporated by reference in this chapter and shall be as much a part of this chapter as if fully described herein; provided, however, that said depiction may be amended from time to time in accordance with the terms of Chapter 107.

## 2.2. Definition of Terms (continued)

**OFFICIAL MAP:** The maps designated in Chapter 107 hereof as the Official Map of the Township of Lower Merion.

**ON-STREET LOADING AND UNLOADING ZONE:** Designated space along the street frontage of a property for the short-term parking of vehicles for loading and unloading of goods or passengers.

**PERFORMANCE GUARANTY:** Any security which may be required of a developer by the Township in lieu of a requirement that certain improvements be made before the Township approves the developer's subdivision plan or land development plan. Such security may include but is not limited to performance bonds, escrow agreements, surety agreements or other collateral.

**PLANNING AGENCY:** The Lower Merion Township Planning Commission and the Building and Planning Department of Lower Merion Township. Each planning agency shall have those duties assigned to such agency in the Township Code.

**REAR LOT:** A lot which has less than the required width at the street line and at the building line but which meets the minimum lot width at the point of the proposed building closest to the street and extending the full depth of the building plus 25 feet.

**RIGHT-OF-WAY:** A public or private easement for land, air space above the land, or area below the surface used for vehicular, pedestrian, transit or other right of passage, including a street, alley or crosswalk.

**SOIL VOLUME:** The quantity of soil needed to support the health and vigor of shade trees or other woody plants such as flowering trees and shrubs required in the planting plan.

**SIGHT DISTANCE:** The calculated distance of unobstructed view along the centerline of a street from a point ten (10) feet back from the pavement edge of the intersecting road and at the driver's eye-height of four (4) feet above the road surface.

**SINGLE-ACCESS STREET:** Any street which is served by only one intersection with a through street, including single-access loop streets and cul-de-sac streets.

**SPECIMEN TREE:** A unique, rare or historically important plant or tree specifically selected by the Shade Tree Commission of the Township as one which most typically represents a whole class or group in shape, form, or any other worthy characteristic.

**STATE:** The Commonwealth of Pennsylvania.

**STORM DRAINAGE AREA:** The area of land surface, expressed in acres or a percentage thereof, which slopes in such a manner so as to carry the precipitation which flows over the land surface, during and for a short time after a storm, to a common low point.

**STREET:** A right-of-way, publicly or privately owned, serving as a means of vehicular and pedestrian travel, furnishing access to abutting properties



## 2.2. Definition of Terms (continued)

and shown on the Official Highway Map of the Township, but not including an Alley, common driveway, or access easement.

**STREET, MINOR (LOCAL):** Local routes shown on the Official Highway Map serving as a means of vehicular travel primarily to give access to abutting properties and not intended to carry through traffic.

**STREET, TERTIARY ARTERIAL:** Routes shown on the Official Highway Map serving as means of vehicular travel connecting local neighborhoods and minor roads to secondary systems, providing access to abutting properties and not intended to carry through traffic except to the nearest secondary road.

**STREET, SECONDARY ARTERIAL:** Feeder or collector street shown on the Official Highway Map serving as means of vehicular travel linking local communities, connecting neighborhoods to primary arterials and designed to distribute traffic from local generators to tertiary arterials and minor streets.

**STREET, PRIMARY ARTERIAL:** Through routes shown on the Official Highway Map serving as means of vehicular travel linking local regions with each other and with points of access to expressways, carrying a heavy flow of traffic but with controlled access from intersecting streets and abutting properties.

**STREET, FREEWAY ARTERIAL:** Regional routes shown on the Official Highway Map serving as means of vehicular travel connecting major population centers and carrying high volumes of traffic for considerable distances at maximum safe speed.

**STRUCTURE:** Any form or arrangement of building materials involving the necessity of providing proper support, bracing, tying and anchoring to a fixed location on or below the surface of the ground.

**STRUCTURAL SOIL:** Soil mix that is a load-bearing matrix of coarse stone aggregate, topsoil, and binding polymer that can be extended out under impervious pavement from landscape areas to increase rootable soil volume.

**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 of access or residential dwelling, shall be exempted. "Subdivision" shall also include the merger of two or more lots into a lesser number of lots and the mortgage of less than all of a lot.

**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 has been posted pursuant to § 135-7 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.

## 2.2. Definition of Terms (continued)

**TOWNSHIP:** The Township of Lower Merion.

**UNIFORM CONDOMINIUM ACT:** 68 Pa.C.S.A. § 3101 et seq., Pennsylvania Act of July 2, 1980, P.L. 286, No. 82, and any amendments or successor legislation thereto.

**VERGE:** A strip separating a sidewalk from the curb consisting of grass, landscaping, street furniture, or decorative paving.

**WATERCOURSE:** Any natural or artificial swale, stream, channel, drain or culvert in which waters flow continuously or intermittently.

**WETLAND:** Those areas 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 soil conditions; or as further defined and delineated by the United States Army Corps of Engineers, the United States Environmental Protection Agency or the Pennsylvania Department of Environmental Protection.

**WILDLIFE HABITAT:** A community of plants that provide food, water, cover, nesting and foraging or feeding conditions necessary to maintain population of animals.

## 2.3. Abbreviations

ASCE - American Society of Civil Engineers

ASLA - American Society of Landscape Architects

ASTM - American Society for Testing Materials

AWWA - American Water Works Association

COE - Army Corps of Engineers

DEP - Pennsylvania Department of Environmental Protection

DRBC - Delaware River Basin Commission

EPA - Federal Environmental Protection Agency

IES - Illuminating Engineering Society

ITE - Institute for Traffic Engineers

PADOT - Pennsylvania Department of Transportation

MCCD - Montgomery County Conservation District

MCHD - Montgomery County Health Department

MCPC - Montgomery County Planning Commission

ULI - Urban Land Institute

USCGS - United States Coast and Geodetic Survey

USGS - United States Geological Survey

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ARTICLE 3:  
PLAN FILING,  
PROCESSING AND  
REVIEW

### 135-3. PLAN FILING, PROCESSING AND REVIEW

#### 3.1. Applicability

The standards, requirements, and procedures contained in this Article shall govern the filing and processing of all applications for subdivision and/or land developments in the Township of Lower Merion.

#### 3.2. Types of Plans

All applications for subdivision and/or land development shall be classified as Tentative Sketch Plans, Preliminary Plans, Final Plans, or Minor Plans, as further regulated herein. Figure 3.1 graphically presents the general plan processing procedure.

##### A. Tentative Sketch Plans.

- (1) When required. A tentative sketch plan shall be required when the proposed development equals or exceeds eight dwelling units or five acres of land or when the plan includes nonresidential development. When a tract is proposed for development within an Open Space Preservation District, applicants shall submit two sketch plans. In all other cases, a tentative sketch plan shall be considered optional.
- (2) A Tentative Sketch Plan shall be submitted in accordance with the requirements of Section 3.4, Sketch Plan Requirements and Section 3.5, Sketch Plan Review Procedure.

##### B. Preliminary Plans.

- (1) One of the following plans, as appropriate, shall be filed with the application:
  - (a) Preliminary subdivision plan. The preliminary subdivision plan is to be filed whenever approval is sought to subdivide a parcel of land, unless a lot line change plan may properly be used. The conservation plan is required for parcels of land of five acres or more.
  - (b) Preliminary lot line change plan. The preliminary lot line change plan is to be filed whenever approval is sought to shift lot lines or to merge lots (subject to the exemption provided to merged lots by § 135-4.4H hereof).
  - (c) Preliminary land development plan. The preliminary land development plan is to be filed whenever land development approval is sought. The conservation plan is required.
- (2) A Preliminary Plan is required to be filed for all proposals for subdivision and/or land development in accordance with the requirements of Section 3.6 and Section 3.7, Preliminary Plan Requirements and Section 3.4, Preliminary Plan Review Procedure.

##### C. Final Plans.

- (1) When required. When all conditions of approval required by the preliminary plan approval have been obtained as required by this chapter, the developer will prepare a final plan showing all lot lines, improvements and other features

## 3.2. Types of Plans (continued)

of the subdivision or land development and shall submit the same to the Building and Planning Department for confirmation of compliance with such conditions and approval. If there are no conditions of approval, the preliminary plan may be submitted as the final plan. Upon obtaining the approval of the Building and Planning Department or the Board of Commissioners, the developer will record the final plan, with evidence of such approval, in the office for the recording of deeds for Montgomery County.

- (2) A Final Plan is required to be filed for all proposals for subdivision and/or land development in accordance with the requirements of Section 3.9, Final Plan Requirements, and Section 3.10, Final Plan Review Procedure.

## D. Minor Plans.

- (1) Minor Plans may be filed and processed only for Second Stage Plans or Amendment Plans as characterized herein, in accordance with the standards and requirements in this Section 3.8.
- (2) Applications which qualify as Minor Plans may be submitted for concurrent Final Plan processing and approval, in accordance with the standards and requirements of Section 3.8, Minor Plan Submission Requirements and Review Procedure.

## E. Land Development Waiver Plan.

- (1) Where, owing to special conditions, the requirements to gain approval of a land development would result in unnecessary hardship or where this requirement does not serve the purpose for which it was designed, the Board of Commissioners may waive this requirement, upon a finding that as will not be contrary to the public interest. A Waiver Plan can be granted.
  - (a) Plan requirements are outlined in Table 3.1.
  - (b) A plan shall be submitted and approved by the Board of Commissioners. A copy of the plan with conditions shall be kept on file with the Building and Planning department.

## F. Condominium declaration plan. In addition to all other requirements set forth in this chapter, and not in conflict with the requirements of this article or the Pennsylvania Uniform Condominium Act, a declaration of condominium and plats and plans for any proposed condominium, whether to be created by new construction or by conversion of existing structures, shall be reviewed by the Lower Merion Township Building and Planning Department, in accordance with the requirements set forth in this article, prior to submission of any such documents for recording to the Recorder of Deeds of Montgomery County. It is the purpose of this article to ensure that all condominiums comply with the provisions of the Lower Merion Township Code relating to subdivision and land development. While recognizing that under the Pennsylvania Uniform Condominium Act the creation of a condominium does not, in and of itself, constitute a subdivision or land development, the Township of Lower Merion also recognizes that the creation of a condominium may be a subdivision or land development. By requiring submission of condominium declarations and plats and plans, the Township of Lower Merion will ensure compliance with its subdivision and land development regulations.

## G. Campus Plan [RESERVED]

### 3.3 Formal Application & Acceptance for Filing.

#### A. Initial applications.

- (1) All formal applications for approval of a preliminary subdivision or land development plan or tentative sketch plan required by § 135-3.2.A above shall be made by the developer filing an application form, to be supplied by the Building and Planning Department, with the Director of Building and Planning. The application shall be accompanied by all required plans and documents and all required filing fees. Copies of all plans and documents shall also be submitted in a digital format suitable to the Township.
- (2) The Director of Building and Planning shall have seven business days from the date of submission of an application to check the plans and documents to determine if on their face they are in proper form and contain all information required by this chapter. If defective, the application may be returned to the applicant with a statement of rejection, within the seven-day period; otherwise, it shall be deemed accepted for filing as of the date of submission. Acceptance for filing shall not, however, constitute a waiver of any deficiencies or irregularities. The applicant may appeal a decision by the Director of Building and Planning under this section to the Board of Commissioners.

#### B. Amendments and corrections to applications.

- (1) All amendments to applications and all corrections or revisions shall be submitted in writing by the developer to the Director of Building and Planning. The nature and reason for the changes shall be set forth and, if required, the developer's proposal for rescheduling the Township Planning Commission review.
- (2) The Director of Building and Planning shall have seven business days from the date of submission to examine amended or corrected applications to determine whether such amended or corrected applications result in a substantial amendment to the plan or in the filing of a plan so changed as to be considered a new plan. If the Director of Building and Planning determines that the amended or corrected application constitutes a substantial amendment, he shall so inform the applicant that the Township shall consider the ninety-day review procedure to have been restarted as of the date of the filing of the substantial amendment. If the Director of Building and Planning determines that the amended or corrected application constitutes a new plan, he shall so inform the applicant and shall inform the applicant that a new application and new fees are required. The applicant may appeal a decision by the Director of Building and Planning under this section to the Board of Commissioners.

#### C. Information dissemination. When an application is accepted for filing, the Director of Building and Planning shall forward complete sets of the application, including plans and all appropriate documentation, to the Board of Commissioners, Township Planning Commission, the Township Engineer, the Montgomery County Planning Commission, an applicable adjacent municipality, the Lower Merion School District, Historic Architecture Review Board, Historic Commission, and/or the Environmental Advisory Committee, if applicable.



### 3.4 Tentative Sketch & Preliminary Plan Review Process

#### A. Submission and review by Township staff.

- (1) Review by the Director of Building and Planning. The Director of Building and Planning shall review the application documents to determine if they are in compliance with this chapter, Chapter 135, Subdivision and Land Development, and Chapter 155, Zoning, Chapter 88, Historic Districts, Chapter 101, Natural Features Conservation, the Township planning objectives and accepted planning standards. He shall prepare a written report stating his findings and recommendations.
- (2) Review by the Township Engineer. The Township Engineer shall review the application documents to determine if they are in compliance with this chapter and with Chapter 121, Stormwater Management and Erosion Control, and Chapter 149, Watercourses, applicable state and federal statutes and regulations, other applicable Township ordinances, Township standards and good engineering practices. He shall prepare a written report stating his findings and recommendations.
- (3) Review by the Land Development Committee. The Land Development Committee shall review the application documents and reports prepared by Township officials or otherwise submitted. The Land Development Committee shall thereafter forward their comments to the applicant
- (4) The preliminary subdivision or land development plan, complying with all applicable requirements, shall be filed with the Director of Building and Planning for approval within 12 months from the date of the approval of the tentative sketch plan. Failure to comply with the time limitation herein provided shall make the approval of the tentative sketch plan null and void unless an extension of time is granted in accordance with this section. The twelve-month period may be extended by the Board of Commissioners upon application by the applicant filed in writing within said twelve-month period upon demonstration of the following:
  - (a) That one or more conditions existent at the time of tentative sketch plan approval have changed.
  - (b) That such change of circumstances was beyond the applicant's control and has prevented submission of the preliminary plan within the twelve-month period.
  - (c) That such circumstances have been overcome or will be overcome in the foreseeable future.

- #### B. Submission of plan revisions. When any modifications to the plans are requested by the Director of Building & Planning, the Land Development Committee and/or the Township Engineer, a full set of revised plans shall be submitted to the Building and Planning Department not later than noon, 17 days prior to the date of the first hearing before the Township Planning Commission, or at noon 18 days prior thereto when the 17th day falls on a holiday; provided, however, that if said modifications result in a substantially different plan, a new formal application process shall be required which shall follow all of the procedures and time requirements set forth herein. Changes shall be highlighted on the plans.

## 3.4. Tentative Sketch &amp; Preliminary Plan Review Process (continued)

## C. Notice, closing of record.

- (1) Notice. When a subdivision or land development application is to be reviewed by the Township Planning Commission, notice of the date and time of the hearing shall be posted by the applicant on each street frontage of the property involved for at least 14 consecutive days immediately prior to and including the day of the Township Planning Commission hearing. Such notice shall be clearly visible to the public, shall be on forms provided by the Building and Planning Department and shall contain, in legible print, all the information therein required. No subdivision or land development plan shall be considered until proper posting has occurred. Posted notices shall be promptly removed after the date of the Township Planning Commission hearing.
- (2) Closing of file. The application record shall be closed at noon 17 days before the Township Planning Commission hearing, or at noon 18 days prior thereto when the 17th day falls on a holiday, to allow the Township staff and the public sufficient time to examine and study the plans and all appropriate documentation. No changes or amendments to the application shall be received after this date unless the applicant shall apply for a rescheduling of the hearing before the Township Planning Commission and make suitable provision for an extension of the review time; provided, however, that nothing herein shall preclude any individual from giving testimony or comments with respect to the application at a public meeting open for discussion with respect thereto.
- (3) Submission of additional copies of plans. Prior to the date set forth in Subsection C(2) above, the applicant shall submit such additional copies of the plans, together with all appropriate documentation, so that the Township shall have full sets of plans and all appropriate documentation in electronic and paper format as required by the Building & Planning Department.
- (4) Second Stage Plans required by the Planning Commission in accordance with Subsection E(2) herein shall also adhere to the procedures set forth in Subsection C(1), (2) and (3) of this section.

## D. Advisory Board review. The Historical Commission or the Board of Historical Architectural Review, pursuant to Chapter 88, shall review the plans and shall submit their comments to the Planning Commission where the property is located in an Historic Resource Overlay District and/or a local historic district. Where applicable, the Environmental Advisory Council and Shade Tree Commission will also submit its comments.

## E. Planning Commission review.

- (1) The date set for review shall be given to the applicant after consultation with the Director of Building and Planning. Should the Township Planning Commission request any modifications to the plans as a result of the first hearing, any revised plans, together with all appropriate documentation, shall be submitted to the Building and Planning Department not later than 17 days prior to the next Township Planning Commission meeting or at noon 18 days prior thereto when the 17th day falls on a holiday, at which the plans will be reviewed again. After review by the Township Planning Commission, the Commission shall transmit the plan to the Board of Commissioners, with its recommendations. In the case of a recommendation for disapproval, the Planning Commission's recommendation shall cite the specific requirements of the Township Code which have not been met.
- (2) Building and driveway locations are a concern of the Planning Commission

## 3.4. Tentative Sketch &amp; Preliminary Plan Review Process (continued)

in the preservation of natural features. If these locations are not known at the time of application, the Planning Commission may approve the preliminary plan subject to the applicant submitting at a future time a Second Stage plan showing building and driveway locations. Such a plan must be submitted and approved before application for a building permit.

- (3) If the Planning Commission deems that the proposed improvements, including building and driveway locations, are necessary to determine whether the proposed subdivision or land development is in compliance with this chapter, the Board of Commissioners will require this information before recommending approval of the preliminary plan. The failure to present such information, unless waived by the Board of Commissioners, shall constitute a separate and distinct basis for denying a subdivision and/or land development plan application, except as provided for in E(2) above.
- F. Action by Board of Commissioners. The Board of Commissioners shall act upon the plan application not later than 90 days following the date of the regular meeting of the Planning Commission next following the date on which the application is deemed accepted for filing under § 135-3.3 of this chapter, provided that should the next regular meeting of the Planning Commission occur more than 30 days following the date the application is deemed accepted for filing, said ninety-day period shall be measured from the 30th day following the day the application has been deemed accepted for filing.
- G. Procedure following the Board of Commissioner's Decision. The decision of the Board of Commissioners shall be in writing and shall be communicated to the applicant personally or mailed to the applicant's representative at their at his last known address not later than 15 days following the decision or not later than the last day of the aforesaid ninety-day period, whichever day shall first occur. One of the following procedures will be followed, depending on the type of decision:
  - (1) Tentative sketch plans shall be subject to approval or disapproval by the Board of Commissioners only if submission of tentative sketch plans is required under Subsection 135-3.2.A. Board action shall take place in accordance with time limitations set forth in § 135-3.4.F . In all other cases, tentative sketch plans shall not be subject to approval or disapproval by the Board of Commissioners as such plan submissions are optional and are for the benefit of the applicant.
  - (2) Denial. If the Board of Commissioners shall disapprove the plan, the reasons therefor will be set forth in writing. The applicant may resubmit the plan for approval, in which case they shall do so in accordance with the requirements, including additional fees, of this chapter, after modifying the plan to conform to requirements of the disapproval report and/or letter.
  - (3) Approval. If there are no conditions of approval, the preliminary plan may be submitted as the final plan.
  - (4) Approval Subject to Conditions. If the Board of Commissioners approves a plan, conditioned upon the performance of any act or the obtaining of any other approval or permit by the applicant, the applicant shall be given the opportunity to accept or reject the conditions within 10 days of receipt of the formal approval letter listing the conditions . The approval of the plan shall be rescinded automatically without action of the Board of Commissioners, at the end of the 10 days from the date at which the conditional approval was received by the applicant, upon either the applicant's failure to execute the written acceptance or upon rejection of such conditions by the applicant, in

## 3.4. Tentative Sketch &amp; Preliminary Plan Review Process (continued)

either case the application shall be deemed to be denied. Written notice will be provided to the applicant in the following manner:

- (a) Specify the conditions of approval and request the applicant's written agreement to the conditions.
- (b) State that the plan approval shall be rescinded automatically upon the applicant's failure to accept or reject the conditions within 30 days following the decision by the Board of Commissioners to grant conditional approval.

## H. Effect of approval.

- (1) Approval shall confer upon the applicant the following rights for a five-year period from the date of such approval:
  - (a) The general terms and conditions under which the approval was granted will not be changed.
  - (b) No subsequent change or amendment in the zoning, subdivision or other governing ordinance or plan shall be applied to affect adversely the right of the applicant to commence and to complete the development in accordance with the terms of the approval.
  - (c) If final plan approval is required by § 135-3.2.C, said applicant may submit, on or before the expiration date, the whole or parts of said preliminary plan for final plan approval.
- (2) Where final plan approval is preceded by preliminary approval, the five-year period shall be counted from the date of the preliminary approval.
- (3) Where the landowner has substantially completed the required improvements as depicted upon the final plan within the five-year limit, or any extension thereof as may be granted by the Board of Commissioners, amendments to municipal ordinances enacted subsequent to the date of the filing of the preliminary plan shall not modify or revoke any aspect of the approved final plan pertaining to zoning classification, density, lot, building, street or utility location.
- (4) In the case of a preliminary plan calling for the installation of improvements beyond the five-year period, the applicant shall file a schedule with the preliminary plan delineating all proposed sections as well as deadlines within which applications for final plan approval of each section are intended to be filed.
  - (a) The applicant shall update said schedule annually on or before the anniversary of preliminary plan approval until final plan approval of the final section has been granted.
  - (b) Any modification in the aforesaid schedule shall be subject to the approval of the Board of Commissioners in its discretion.
  - (c) Each section in any residential subdivision or land development, except for the last section, shall contain a minimum of 25% of the total num-

### 3.4. Tentative Sketch & Preliminary Plan Review Process (continued)

ber of dwelling units depicted on the preliminary plan, unless a lesser percentage is approved by the Board of Commissioners.

- (5) Provided that the applicant has not defaulted with regard to or violated any of the conditions of the preliminary plan and approval, including compliance with the applicant's schedule of submission of final plats for the various sections required by § 135-10, then the protections afforded by substantially completing the improvements depicted upon the final plat within five years as stated in § 135-3.4(6) shall apply. For any section or sections, beyond the initial section, in which the required improvements have not been substantially completed within the five-year period, the aforesaid protections shall apply for an additional term or terms of three years from the date of final plan approval for each section. Failure of the applicant to adhere to the aforesaid schedule of submission of final plans for the various sections shall subject any such section to any and all changes in zoning, subdivision and other governing ordinances enacted by the Township subsequent to the date of the initial preliminary plan submission.

### 3.5. Tentative Sketch Plan Requirements

#### A. Purpose.

- (1) To inform the Township of Lower Merion of an applicant's intent to subdivide and/or develop a property, and graphically show the concepts and extent of the proposal.
- (2) To allow the Township of Lower Merion to provide advice and guidance to an applicant so that:
  - (a) Overall layout and circulation issues can be resolved prior to preparation of Preliminary Plans.
  - (b) The Preliminary Plan approval process may then be able to proceed more efficiently.
- (3) To show how a tract of land may be further subdivided or developed in cases where only a portion of a property is currently under an active proposal.
  - (a) This plan shall show a logical and efficient pattern of roads, lots, and/or buildings, as appropriate for the type of plan proposed, and shall not be acceptable if it proposes lotting or development that would adversely impact floodplain, steep slopes, or other important site features.

#### B. Tentative Sketch Plan Information

- (1) Basic Plan Information, including Existing Features and Proposed Features and lotting plan are outlined in Table 3.1.
- (2) Drafting Standards- The tentative sketch shall be based upon Tax Map information at a scale not less than 50 feet to the inch and shall show the entire tract on one sheet.

### 3.6. Preliminary Land Development Plan and Preliminary Lot Line Change Plan Requirements

#### A. Drafting Standards - The scale shall be no smaller than 100 feet to the inch. Dimen-

### 3.6. Preliminary Land Development Plan and Preliminary Lot Line Change Plan Requirements (continued)

sions shall be in feet and decimals, and bearings shall be in degrees, minutes, and seconds.

- B. Basic Plan Information, including Existing Features and Proposed Features and lotting plan are outlined in Table 3.1.

### 3.7 Preliminary Subdivision Plan Requirements

- A. Drafting Standards - The scale shall be a minimum of 50 feet to the inch.
- B. Basic Plan Information, including Existing Features and Proposed Features and lotting plan are outlined in Table 3.1.

### 3.8 Minor Plan Requirements. As outlined in Section 3.2D above.

- A. Second Stage Plans
  - (1) Drafting Standards - The scale shall be a minimum of 50 feet to the inch.
  - (2) Basic Plan Information, including Existing Features and Proposed Features and lotting plan are outlined in Table 3.1.
- B. Amendment Plan shall follow the plan requirements of the original plan submitted, as described above. The plan shall follow the procedures outlined in Section 3.2B.

### 3.9. Final Plan Requirements

- A. Final Plan shall be submitted demonstrating compliance with procedures outlined in 3.10 below, and the following:
  - (1) Drafting Standards - The scale shall follow the plan requirements of the original plan submitted, as described above, as well as the requirements as specified by the Recorder of Deeds of Montgomery County .
  - (2) Basic Plan Information, including Existing Features and Proposed Features and lotting plan are outlined in Table 3.2, for the original plan submitted as well as the required signatures and certifications.
  - (3) Improvement Construction Plan - When required. An improvement construction plan is required whenever an improvement, as defined herein, but not including buildings, is shown on an approved plan to be constructed or installed.
    - (a) The improvement construction plan shall be filed with the Director of Planning, accompanied by an application for approval.
    - (b) The sanitary sewer plans and drainage plans will also be reviewed by the Department of Public Works. Improvement construction plans will be acted upon finally by the Director of Building and Planning.
    - (c) In the event that there are to be changes in the contour of any land proposed to be subdivided, developed or changed in use by grading, excavating or the removal or destruction of the natural topsoil, trees or other vegetative covering thereon, the developer shall comply with Chapter 121, Stormwater Management and Erosion Control, of this Code.

## 3.9. Final Plan Requirements (continued)

- (d) Whenever the storm drainage area above a contemplated storm drainage improvement contains an area of 1/2 of one square mile or more and whenever there are any proposed improvements in or near a stream or floodplain, a permit must be obtained from the Pennsylvania Department of Environmental Protection, Bureau of Water Quality Management, Division of Dams and Encroachments, before an improvement construction permit will be issued by the Township. Whenever an improvement or new street or driveway access is contemplated within the right-of-way of a state highway, a Pennsylvania Department of Transportation permit must be obtained before an improvement construction permit will be issued by the Township.
- B. Approval. Upon approval of the improvement construction plan the Township Engineer will so certify thereon, and the Director of Building and Planning will issue an improvement construction permit authorizing the construction of the improvements. The copies with the certification of approval thereon shall be distributed as follows:
  - (1) One copy will be returned to the registered engineer or surveyor who prepared the plan.
  - (2) One copy and the permit will be given to the applicant.
  - (3) One copy will be retained in the subdivision file of the Township.
  - (4) Two copies will be retained by the Township Engineer.
  - (5) One copy will be used by the Township Inspector.
  - (6) One copy will be forwarded to the Philadelphia Suburban Water Company.
  - (7) One copy will be forwarded to the Philadelphia Electric Company.
- C. Disapproval. If the Township Engineer and Director of Building and Planning shall disapprove the plan, the reasons therefor will be set forth in writing and will be given to the developer, who may, within 30 days thereafter, appeal to the Planning Commission. The appeal will be considered by the Commission, and its recommendation will be forwarded to the Board of Commissioners, whose decision will be final.
- D. Effect of approval. The permit will become void if work is not commenced within six months, provided that a single extension of six months may be granted by the Township Engineer upon written request.
- E. Completion certificate. After satisfactory completion of the work, the guaranty will be released, the completion certificate on the permit will be endorsed by the Township Secretary, and the Township Engineer will endorse the plan accordingly.
- F. Record Plan
- G. Construction Record Plan- Construction record plans of all street improvements shall be filed at the completion of construction and before any dedication for public use. A full list of dedicated features shall be clearly defined and included on the plan. These shall be printed and shall be filed with the Director of Public Works. Such plans shall be filed prior to release of the guaranty and issuance of the completion certificate by the Township Engineer as set forth in § 3.9E of this article.

## 3.9. Final Plan Requirements (continued)

- (1) The construction record plan shall show, but it not limited to, the following information:
  - (a) Horizontal location of all surface and underground construction.
  - (b) Monuments
  - (c) Metes and bounds of all right-of-way and easements
  - (d) Profile showing elevations of the ground, top of structures and inverts of all manholes, inlets and drainage structures.
  - (e) Plans are to be prepared in the same detail and to the same standards as the Improvement Construction Plan, as outlined in Chart X.

## H. Certifications

## 3.10. Final Plan Filing and Review Procedures

- A. The final plan, complying with all applicable requirements, shall be filed with the Director of Planning for a final approval within 12 months from the date of the approval of the preliminary plan. Failure to comply with the time limitation herein provided shall make the approval of the preliminary plan null and void unless an extension of time is granted in accordance with this section. The twelve-month period may be extended by the Board of Commissioners upon application by the applicant, filed in writing, within said twelve-month period upon demonstration of the following;
  - (1) That one or more conditions existent at the time of preliminary plan approval have changed.
  - (2) That such change of circumstances was beyond the applicant's control and has prevented submission of the final plan within the twelve-month period.
  - (3) That such circumstances have been overcome or will be overcome in the foreseeable future.
- B. Paper prints of the plan of the size and number as specified by the Recorder of Deeds of Montgomery County shall be submitted to the Township Engineer along with an and electronic copy of the plans in a format approved by the Building and Planning Department.
- C. All final plans must conform with final approval and must be recorded with the office of the Recorder of Deeds of Montgomery County within 90 days after final approval.
- D. Certifications. When approved, the Final Plan must show:
  - (1) The signature and seal of the registered Engineer and Surveyor certifying that the plan represents his/her work; that the monuments shown thereon exist as located; that the dimensional and geodetic details are correct and that the survey has been prepared in accordance with the "Pennsylvania Engineer, Land Surveyor, and Geologists Registration Law," PL 913, No. 367.
  - (2) The signature of the applicant certifying ownership of the property and intent to record the plan.



### 3.10. Final Plan Filing and Review Procedures (continued)

- (3) The signature of the Lower Merion Township Secretary, certifying that the Board of Commissioners approved the Final Plan on the date shown.
    - (a) Spaces shall be provided for the signatures of the Board of Commissioners whose signatures are required.
    - (b) Space shall be provided for the signature of the Lower Merion Township Engineer and the Chairman of the Lower Merion Township Planning Commission.
  - (4) A blank space or appropriate certification language shall be provided for the stamp and seal of the Montgomery County Planning Commission, located along the right-hand edge of the plan, measuring three and one-half (3 ½") inches wide and two and one-half (2 ½") inches tall.
- E. Approval of final plans shall not be deemed to constitute acceptance by the Township of any streets or other public improvements which are offered for dedication.

### 3.11. Recording the Final Plan

- A. Within ninety (90) days following Final Plan approval or ninety (90) days following the delivery of the signed plans to the applicant by the Township or following completion of conditions imposed for such approval, the applicant shall record the Final Plan in the Office of the Recorder of Deeds of Montgomery County.
- B. In accordance with the Pennsylvania Municipalities Planning Code, whenever Final Plan approval is required by a municipality, the Recorder of Deeds shall not accept any plan for recording unless it contains the official approval of Lower Merion Township and certification of review by the County Planning Commission.
- C. Prior to recording, the applicant shall present the approved plan to the Montgomery County Planning Commission for its stamp and seal, with one paper copy given to the County Planning Commission for its files.

### 3.12. Other Approvals

The applicant is responsible for making the appropriate applications for various federal, state, county, and Township permits or other approvals from governments or private utilities or service providers. These should be sought in a timely manner that fits into the overall plan review and approval process described in this Article. To the extent that the applicant is required to modify the plan as a result of permits or other approvals, the applicant is still required to comply fully with the Township Subdivision and Land Development and Zoning Codes.

**TABLE 3.1 PLAN REQUIREMENTS**

	TENTATIVE SKETCH PLAN	PRELIM SUBDIVISION PLAN	5 ACRES + PRELIM SUBDIVISION PLAN	PRELIM LOT LINE CHANGE PLAN	PRELIM LAND DEVELOPMENT PLAN	5 ACRES + PRELIM LAND DEVELOPMENT PLAN	DE MINIMUS PLAN/LAND DEVELOPMENT WAIVER	RESIDENTIAL SECOND STAGE PLAN	INSTITUTIONAL CAMPUS PLAN	INSTITUTIONAL CAMPUS PLAN IMPLEMENTATION PHASED PLAN
<b>INFORMATION REQUIRED</b>										
<b>SIGNATURES &amp; CERTIFICATIONS</b>										
Signature and seal of Engineer		•	•	•	•	•				
Signature and seal of Engineer or Surveyor	•	•	•		•	•		•	•	•
<b>LOT LINES, BOUNDARIES, LOCATION, AREA</b>										
Project narrative	•	•	•	•	•	•	•	•	•	•
The name of the Property owner	•	•	•	•	•	•	•	•	•	•
The location of property lines and names and addresses of owners within 200 ft	•	•	•	•	•	•			•	•
Lines to be changed shown as dotted lines.	•	•	•	•	•	•			•	•
The property being Subdivided or developed shall be shown using courses and distances, including new lines of each lot if applicable.	•	•	•	•	•	•		•	•	•
A key map at a scale of one inch equals 2,000 feet, clearly showing the location of the proposed subdivision or land development within the Township and in relation to major streets and political boundaries.	•	•	•	•	•	•	•	•	•	•
Net lot area to the right-of-way line of the street for each lot.	•	•	•	•	•	•	•	•	•	•
The gross lot area of the lot or tract	•	•	•	•	•	•	•	•	•	•
The survey shall not have an error of closure greater than one part in 5,000.		•	•	•	•	•		•	•	
Existing utility easements, conservation easements, floodplain easement, and rights-of- way; and recreational areas within the land to be subdivided and or developed.	•	•	•	•	•	•	•	•	•	•
Proposed easements for the construction and maintenance of sanitary sewers		•	•		•	•	•	•	•	•
Any land to be dedicated for public use or offered for dedication for parks, recreation areas, schools, and additional rights-of-way of streets shall be shown in color.		•	•		•	•			•	•
The location of existing and proposed survey monuments with references to them.		•	•	•	•	•			•	•

**TABLE 3.1 PLAN REQUIREMENTS (CONTINUED)**

	TENTATIVE SKETCH PLAN	PRELIM SUBDIVISION PLAN	5 ACRES + PRELIM SUBDIVISION PLAN	PRELIM LOT LINE CHANGE PLAN	PRELIM LAND DEVELOPMENT PLAN	5 ACRES + PRELIM LAND DEVELOPMENT PLAN	DE MINIMUS PLAN/LAND DEVELOPMENT WAIVER	RESIDENTIAL SECOND STAGE PLAN	INSTITUTIONAL CAMPUS PLAN	INSTITUTIONAL CAMPUS PLAN IMPLEMENTATION PHASED PLAN
<b>INFORMATION REQUIRED</b>										
<b>LOT LINES, BOUNDARIES, LOCATION, AREA (CONTINUED)</b>										
The zoning district and requirements and existing and proposed conditions in percentage and square feet.	•	•	•	•	•	•	•	•	•	•
Zoning classification and district boundary lines for subject site and abutting properties	•	•	•	•	•	•	•	•	•	•
Prior use and proposed use	•	•	•	•	•	•	•	•	•	•
Building setback lines established by the zoning code with dimensions.	•	•	•	•	•	•	•	•	•	•
Yield plan submittal requirements are subject to the requirements of a Tentative Sketch plan.	•	•	•		•	•			•	•
Location of existing structures and similar features on the property and any part of the land to be subdivided or developed	•	•	•	•	•	•	•	•	•	•
The proposed location of buildings by measurement to property and street lines.	•	•	•	•	•	•	•	•	•	•
Soil classification by the United States Department of Agriculture Soil Conservation Service, as shown in the document entitled "Soil Survey Montgomery County, Pennsylvania," dated April 1967. In addition to the soil symbol shown on the plan and the area in acres for each, the following shall also be provided from the above documents as characteristic of each soil type: (a) Soil name; (B) Percent of land slope. (C) Depth to seasonal high water; (D) Depth to bedrock; (E) Erodibility class; (F) Limitations of soil type, including load-bearing capacity, drainage and plant growth; (G) Hydrological classification, as set forth in the Soil Conservation Service Engineering Field Manual; Highly acid or highly erodible soils.	•	•	•		•	•			•	•
The location, species and size of existing trees alone and in groves	•	•	•		•	•		•	•	•
The location, species and size of existing and proposed street trees.	•	•	•		•	•	•	•	•	•
Existing understory vegetation	•	•	•		•	•			•	•
Location of trees and or vegetated areas proposed to be removed or disturbed	•	•	•		•	•	•	•	•	•
Actual driplines of all trees	•	•	•		•	•	•	•	•	•

**TABLE 3.1 PLAN REQUIREMENTS (CONTINUED)**

	TENTATIVE SKETCH PLAN	PRELIM SUBDIVISION PLAN	5 ACRES + PRELIM SUBDIVISION PLAN	PRELIM LOT LINE CHANGE PLAN	PRELIM LAND DEVELOPMENT PLAN	5 ACRES + PRELIM LAND DEVELOPMENT PLAN	DE MINIMUS PLAN/LAND DEVELOPMENT WAIVER	RESIDENTIAL SECOND STAGE PLAN	INSTITUTIONAL CAMPUS PLAN	INSTITUTIONAL CAMPUS PLAN IMPLEMENTATION PHASED PLAN
<b>INFORMATION REQUIRED</b>										
<b>WATERCOURSES</b>										
Watercourses (and direction of flow) through the tract(s) and within 200 feet of tract.	●	●	●		●	●	●	●	●	●
Riparian buffer of watercourse(s), 50 feet, twenty five from each bank of the water body. (135-4.7G)	●	●	●	●	●	●	●	●	●	●
Wetlands and wetland buffer(s), twenty-five (25') from perimeter (135-4.7F)	●	●	●	●	●	●	●	●	●	●
Estuaries	●	●	●	●	●	●	●	●		
<b>STORMWATER</b>										
Rate of runoff from the site.		●	●		●	●			●	●
Destination of runoff water and method of controlling downstream effects.		●	●		●	●			●	●
Aquifer recharge and discharge areas		●	●		●	●			●	●
Chemical additives to runoff water on the site		●	●		●	●			●	●
Submission of an erosion and sediment control plan		●	●		●	●		●	●	●
Area(s) to be set aside for stormwater management.	●									
The <b>impact</b> of the proposed action on drainage and runoff			●		●	●			●	●
<b>UTILITIES</b>										
Existing sanitary sewers including lateral connections within the property and adjacent to the property	●	●	●	●	●	●		●	●	●
Proposed sanitary sewers and grease traps (where applicable) within the property.		●	●	●	●	●		●	●	●
Dimensions of existing sanitary sewers.		●	●		●	●		●	●	●
Existing and Proposed on-site sewage disposal facilities, including a description and location on the site of the system.	●	●	●	●	●	●		●	●	●

**TABLE 3.1 PLAN REQUIREMENTS (CONTINUED)**

	TENTATIVE SKETCH PLAN	PRELIM SUBDIVISION PLAN	5 ACRES + PRELIM SUBDIVISION PLAN	PRELIM LOT LINE CHANGE PLAN	PRELIM LAND DEVELOPMENT PLAN	5 ACRES + PRELIM LAND DEVELOPMENT PLAN	DE MINIMUS PLAN/LAND DEVELOPMENT WAIVER	RESIDENTIAL SECOND STAGE PLAN	INSTITUTIONAL CAMPUS PLAN	INSTITUTIONAL CAMPUS PLAN IMPLEMENTATION PHASED PLAN
<b>INFORMATION REQUIRED</b>										
<b>UTILITIES (CONTINUED)</b>										
If on-site sewage disposal will be required on any portion of the land, the requirements of the Pennsylvania Department of Environmental Protection must be complied with. The applicant must submit documentation/ soil testing that demonstrates the newly created lot can support an on-site sewage disposal system.		•	•							
The location of refuse and recycling storage and disposal both during and after construction.		•	•		•	•	•		•	•
Existing gas mains	•	•	•		•	•			•	•
Proposed gas mains		•	•		•	•			•	•
Existing water mains and private wells	•	•	•		•	•				
Proposed water mains and sources. The source and adequacy of water to be provided to the site	•	•	•		•	•			•	•
The <b>impact</b> of the proposed action on groundwater quality			•		•	•			•	•
Existing Fire Hydrants	•	•	•		•	•			•	•
Proposed or relocated Fire Hydrants		•	•		•	•			•	•
Proposed storm water drainage within the property and adjacent to the property					•	•				
Location and Dimensions of existing storm drains	•	•	•		•	•		•	•	•
Location and dimension of proposed Storm Drains		•	•		•	•		•	•	•
Location of proposed underground utilities including electric and any transformer locations		•	•		•	•		•	•	•
Location of existing underground utilities including electric and any transformer locations	•	•	•		•	•		•		
Underground conduits or structures		•	•		•	•		•	•	•

**TABLE 3.1 PLAN REQUIREMENTS (CONTINUED)**

	TENTATIVE SKETCH PLAN	PRELIM SUBDIVISION PLAN	5 ACRES + PRELIM SUBDIVISION PLAN	PRELIM LOT LINE CHANGE PLAN	PRELIM LAND DEVELOPMENT PLAN	5 ACRES + PRELIM LAND DEVELOPMENT PLAN	DE MINIMUS PLAN/LAND DEVELOPMENT WAIVER	RESIDENTIAL SECOND STAGE PLAN	INSTITUTIONAL CAMPUS PLAN	INSTITUTIONAL CAMPUS PLAN IMPLEMENTATION PHASED PLAN
<b>INFORMATION REQUIRED</b>										
<b>STREETS, ROADWAYS, CONNECTIONS</b>										
Proposed curb within the property and adjacent to the property		•	•		•	•	•	•	•	•
Street dimensions, including center-line courses, distances and curve data; paving widths and curblines; right-of-way and curblines radii at intersections; street location tie-ins by courses and distances to the nearest intersection of existing and planned streets and alleys		•	•		•	•	•	•	•	•
The location, names and widths of existing and proposed streets and alleys, including those shown on the Official Map, and existing and proposed street signage locations	•	•	•		•	•	•	•	•	•
Location and dimension of existing and proposed sidewalks, crosswalks and pedestrianways.	•	•	•		•	•	•	•	•	•
Cross-section and center-line profiles of all new streets, sidewalks, and pedestrianways.		•	•		•	•				
The proposed location, and width of private driveway approaches to streets.	•	•	•		•	•			•	•
The proposed grade of private driveway approaches to streets.		•	•		•	•	•	•		
A profile of any proposed driveway when the maximum grade of the driveway is over 8%.	•	•	•		•	•				
Tentative grades of proposed streets extended to an existing street or to a point 200 feet beyond the boundaries of the subdivision.		•	•		•	•				
The location and names of railroads	•	•	•		•	•	•	•	•	•
If the plan covers only a portion of the applicant's entire holdings, the prospective future street system and lot layout for the entire tract shall be indicated.	•	•	•		•	•			•	•
Where the property is designated on an Official Map, the plan shall contain the information shown on the enacted Official Map and set forth in § 107-5A, Map elements	•	•	•		•	•	•		•	•
The location of quarries and other topographical features which may affect the location of proposed streets	•	•	•		•	•			•	•
Existing and proposed lighting, street lighting, and identify ownership and maintenance responsibilities		•	•		•	•				

**TABLE 3.1 PLAN REQUIREMENTS (CONTINUED)**

	TENTATIVE SKETCH PLAN	PRELIM SUBDIVISION PLAN	5 ACRES + PRELIM SUBDIVISION PLAN	PRELIM LOT LINE CHANGE PLAN	PRELIM LAND DEVELOPMENT PLAN	5 ACRES + PRELIM LAND DEVELOPMENT PLAN	DE MINIMUS PLAN/LAND DEVELOPMENT WAIVER	RESIDENTIAL SECOND STAGE PLAN	INSTITUTIONAL CAMPUS PLAN	INSTITUTIONAL CAMPUS PLAN IMPLEMENTATION PHASED PLAN
<b>INFORMATION REQUIRED</b>										
<b>TOPOGRAPHY, CONTOURS</b>										
Existing and proposed drainage patterns.	•	•	•		•	•	•	•	•	•
Contours at two-foot intervals whenever the developer proposes to make any changes in grade in a subdivision. An erosion and runoff control plan shall be submitted in accordance with the requirements of Chapter 121 of this Code.		•	•		•	•		•	•	•
Proposed contours at two-foot intervals and proposed changes in grade clearly defined. The standards set forth in Chapter 121 of this Code are to be followed.					•	•		•	•	•
Slopes greater than 10%	•	•	•		•	•	•	•	•	•
Slopes greater than 15%	•	•	•		•	•	•	•	•	•
Slopes greater than 25%	•	•	•		•	•	•	•	•	•
The proposed elevations of all lot property corners.		•	•		•	•		•	•	•
Maximum and minimum existing elevation of the site.	•	•	•		•	•		•	•	•
Maximum and minimum proposed elevation of the site.	•	•	•		•	•		•	•	•
The location of the one-hundred-year floodplain limit line as shown on the Lower Merion Floodplain Maps and FEMA's Flood Insurance Rate Map.	•	•	•	•	•	•	•	•	•	•
<b>HISTORIC/SCENIC &amp; ENVIRONMENTAL SENSITIVE AREA</b>										
Where the property is a contributing resource in an historic district or is a resource listed in the Historic Resource Inventory, the applicant shall submit an historic resource impact study, as provided in Chapter 155, Article VII.	•	•	•		•	•			•	•
The <b>impact</b> of the proposed action on sites, buildings, objects and structures of historic significance.			•		•	•			•	•
The developer shall indicate the natural features of the land as outlined in § 135-4.1B, together with a statement indicating which, natural features would be changed or affected by the subdivision plan and/or the development of the property.	•	•	•		•	•			•	•
For institutional, commercial, or industrial uses noise levels, above existing levels, expected to be generated at the site (source and magnitude), during and after construction.			•		•	•			•	•

**TABLE 3.1 PLAN REQUIREMENTS (CONTINUED)**

	TENTATIVE SKETCH PLAN	PRELIM SUBDIVISION PLAN	5 ACRES + PRELIM SUBDIVISION PLAN	PRELIM LOT LINE CHANGE PLAN	PRELIM LAND DEVELOPMENT PLAN	5 ACRES + PRELIM LAND DEVELOPMENT PLAN	DE MINIMUS PLAN/LAND DEVELOPMENT WAIVER	RESIDENTIAL SECOND STAGE PLAN	INSTITUTIONAL CAMPUS PLAN	INSTITUTIONAL CAMPUS PLAN IMPLEMENTATION PHASED PLAN
<b>INFORMATION REQUIRED</b>										
<b>HISTORIC/SCENIC &amp; ENVIRONMENTAL SENSITIVE AREA (CONTINUED)</b>										
All subdivision and development proposals containing at least 50 lots, or at least 50 dwelling units, or at least five acres, whichever is the lesser, located in a special flood hazard area on the Flood Insurance Rate Map where base flood elevation data are not available, shall be supported by hydrologic and hydraulic engineering analyses that determine base flood elevations and floodway information. The analyses shall be prepared by a licensed professional engineer in a format required by FEMA for a Conditional Letter of Map Revision or Letter of Map Revision. Submittal requirements and processing fees shall be the responsibility of the applicant.	•	•	•		•	•			•	•
<b>OTHER PLANS/IMPACT</b>										
Any other information the Board of Commissioners, Planning Commission, Township Engineer, or planning staff may require to properly review the subdivision.	•	•	•	•	•	•	•	•	•	•
<b>ARTICLE 8</b>										
A traffic impact study and parking analysis documenting the items outlined in (view Section 135-8.2), if required.		•	•		•	•			•	•
Transportation Demand Management Plan (view Section 135-8.4), if required.					•	•			•	•
A conservation plan inventory containing the information set forth in Article 8.6.	•		•		•	•				
<b>CAMPUS PLAN ADDITIONAL INFORMATION</b>										
Illustrative Plan									•	•
Regulating Plan									•	•
Landscape Plan									•	•
Mobility and Parking Plan									•	•
Building, Landscape, and Ambience Guidelines									•	•
Quantitative Data									•	•
Public Process Statement									•	•
Public Benefits Plan and/or Statement									•	•



**TABLE 3.2 PLAN REQUIREMENTS - FINAL PLANS**

	IMPROVEMENT CONSTRUCTION PLAN	CONSTRUCTION RECORD PLAN	FINAL PLANS (SAME REQ'S AS PRELIM + ANY CONDITIONS OF APPROVAL)
<b>INFORMATION REQUIRED</b>			
<b>SIGNATURES &amp; CERTIFICATIONS</b>			
Signature and seal of Engineer	•	•	•
Signature and seal of Engineer or Surveyor	•	•	•
Certificates required by the Montgomery County Recorder of Deeds on the approved plan			•
Notorized signature of Applicant/Owner			•
Signature of Township Secretary			•
Signature and Seal of Township Engineer			•
<b>LOT LINES, BOUNDARIES, LOCATION, AREA</b>			
The name of the Property owner	•	•	•
The location of property lines and names and addresses of owners within 200 ft			•
Lines to be changed shown as dotted lines.			•
The property being Subdivided or developed shall be shown using courses and distances, including new lines of each lot if applicable.			•
A key map at a scale of one inch equals 2,000 feet, clearly showing the location of the proposed subdivision or land development within the Township and in relation to major streets and political boundaries.			•
Net lot area to the right-of-way line of the street for each lot.			•
The gross lot area of the lot or tract			•
The survey shall not have an error of closure greater than one part in 5,000.			•
Existing utility easements, conservation easements, floodplain easement, and rights-of- way; and recreational areas within the land to be subdivided and or developed.			•
Proposed easements for the construction and maintenance of sanitary sewers			•
Any land to be dedicated for public use or offered for dedication for parks, recreation areas, schools, and additional rights-of-way of streets shall be shown in color.			•
The location of existing and proposed survey monuments with references to them.	•	•	•
The zoning district and requirements and existing and proposed conditions in percentage and square feet.			•

TABLE 3.2 PLAN REQUIREMENTS - FINAL PLANS (CONTINUED)

INFORMATION REQUIRED	IMPROVEMENT CONSTRUCTION PLAN	CONSTRUCTION RECORD PLAN	FINAL PLANS [SAME REQ'S AS PRELIM + ANY CONDITIONS OF APPROVAL]
<b>LOT LINES, BOUNDARIES, LOCATION, AREA (CONTINUED)</b>			
Zoning classification and district boundary lines for subject site and abutting properties			●
Prior use and proposed use			●
Building setback lines established by the zoning code with dimensions.			●
Location of existing structures and similar features on the property and any part of the land to be subdivided or developed			●
The proposed location of buildings by measurement to property and street lines.			●
Soil classification by the United States Department of Agriculture Soil Conservation Service, as shown in the document entitled "Soil Survey Montgomery County, Pennsylvania," dated April 1967. In addition to the soil symbol shown on the plan and the area in acres for each, the following shall also be provided from the above documents as characteristic of each soil type: (a) Soil name; (B) Percent of land slope. (C) Depth to seasonal high water; (D) Depth to bedrock; (E) Erodibility class; (F) Limitations of soil type, including load-bearing capacity, drainage and plant growth; (G) Hydrological classification, as set forth in the Soil Conservation Service Engineering Field Manual; Highly acid or highly erodible soils.			●
The location, species and size of existing trees alone and in groves			●
The location, species and size of existing and proposed street trees.	●	●	●
Existing understory vegetation			●
Location of trees and or vegetated areas proposed to be removed or disturbed			●
Actual driplines of all trees			●
<b>WATERCOURSES</b>			
Watercourses (and direction of flow) through the tract(s) and within 200 feet of tract.			●
Riparian buffer of watercourse(s), 50 feet, twenty five from each bank of the water body. (135-4.7G)			●
Wetlands and wetland buffer(s), twenty-five (25') from perimeter (135-4.7F)			●
Estuaries			●
<b>STORMWATER</b>			
Rate of runoff from the site.			●
Destination of runoff water and method of controlling downstream effects.			●

**TABLE 3.2 PLAN REQUIREMENTS - FINAL PLANS (CONTINUED)**

	IMPROVEMENT CONSTRUCTION PLAN	CONSTRUCTION RECORD PLAN	FINAL PLANS [SAME REQ'S AS PRELIM + ANY CONDITIONS OF APPROVAL]
<b>INFORMATION REQUIRED</b>			
<b>STORMWATER (CONTINUED)</b>			
Aquifer recharge and discharge areas			●
Chemical additives to runoff water on the site			●
Submission of an erosion and sediment control plan			●
<b>UTILITIES</b>			
Existing sanitary sewers and lateral connections within the property and adjacent to the property	●	●	●
Proposed sanitary sewers within the property, plan and profile included	●	●	●
Dimensions of existing sanitary sewers.	●	●	●
Existing and Proposed on-site sewage disposal facilities, including a description and location on the site of the system.			●
If on-site sewage disposal will be required on any portion of the land, the requirements of the Pennsylvania Department of Environmental Protection must be complied with. The applicant must submit documentation/soil testing that demonstrates the newly created lot can support an on-site sewage disposal system.		●	●
The location of refuse and recycling storage and disposal both during and after construction.			●
Existing gas mains	●	●	●
Proposed gas mains	●	●	●
Existing water mains and private wells	●	●	●
Proposed water mains and sources. The source and adequacy of water to be provided to the site	●	●	●
Existing Fire Hydrants	●	●	●
Proposed or relocated Fire Hydrants	●	●	●
Location and dimensions of existing storm drains	●	●	●
Location and dimensions of proposed storm drains	●	●	●
Location of proposed underground utilities, including all electric and transformers	●	●	●
Location of existing underground utilities, including all electric and transformers	●	●	●
Underground conduits or structures	●	●	●

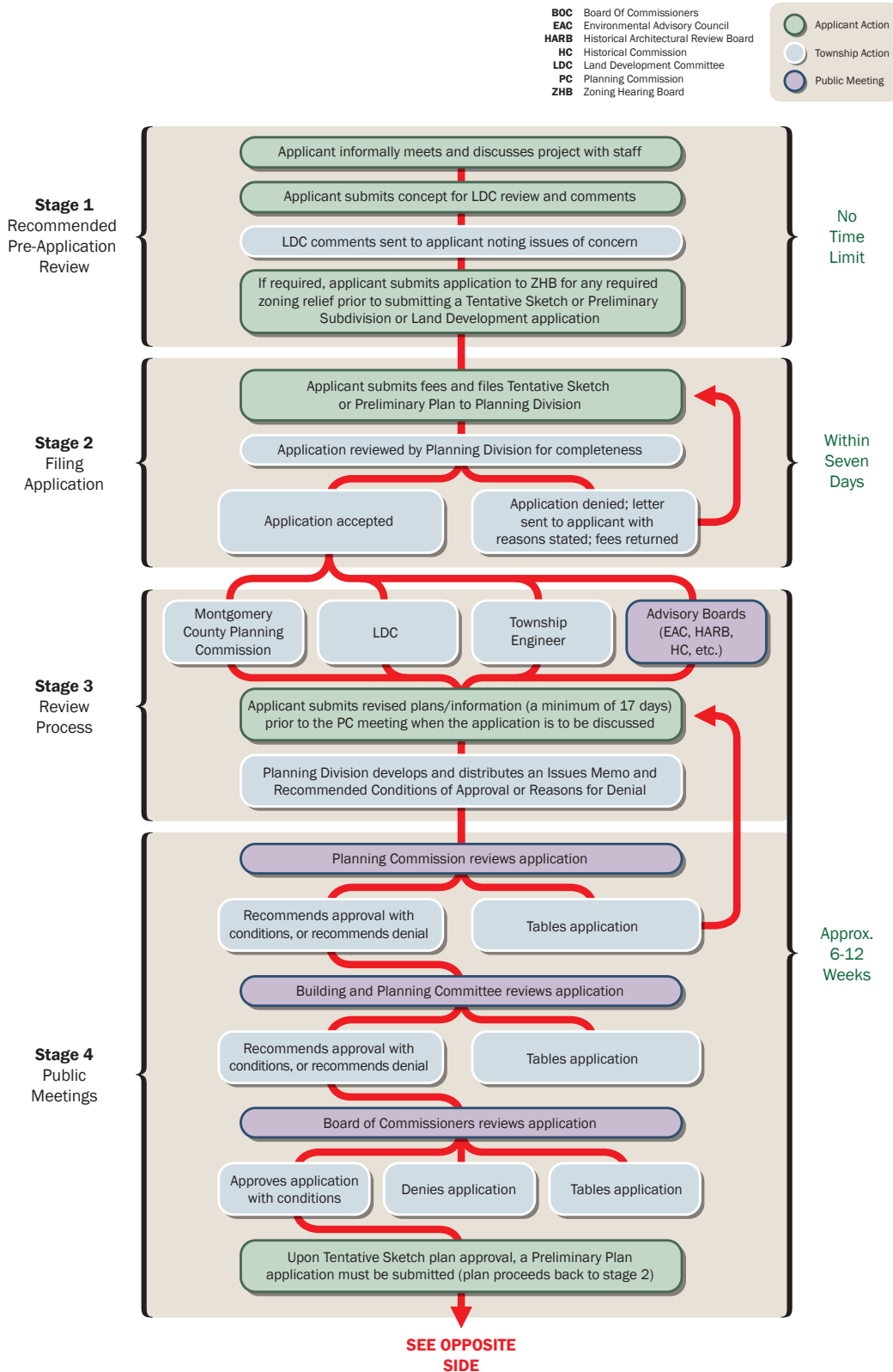
TABLE 3.2 PLAN REQUIREMENTS - FINAL PLANS (CONTINUED)

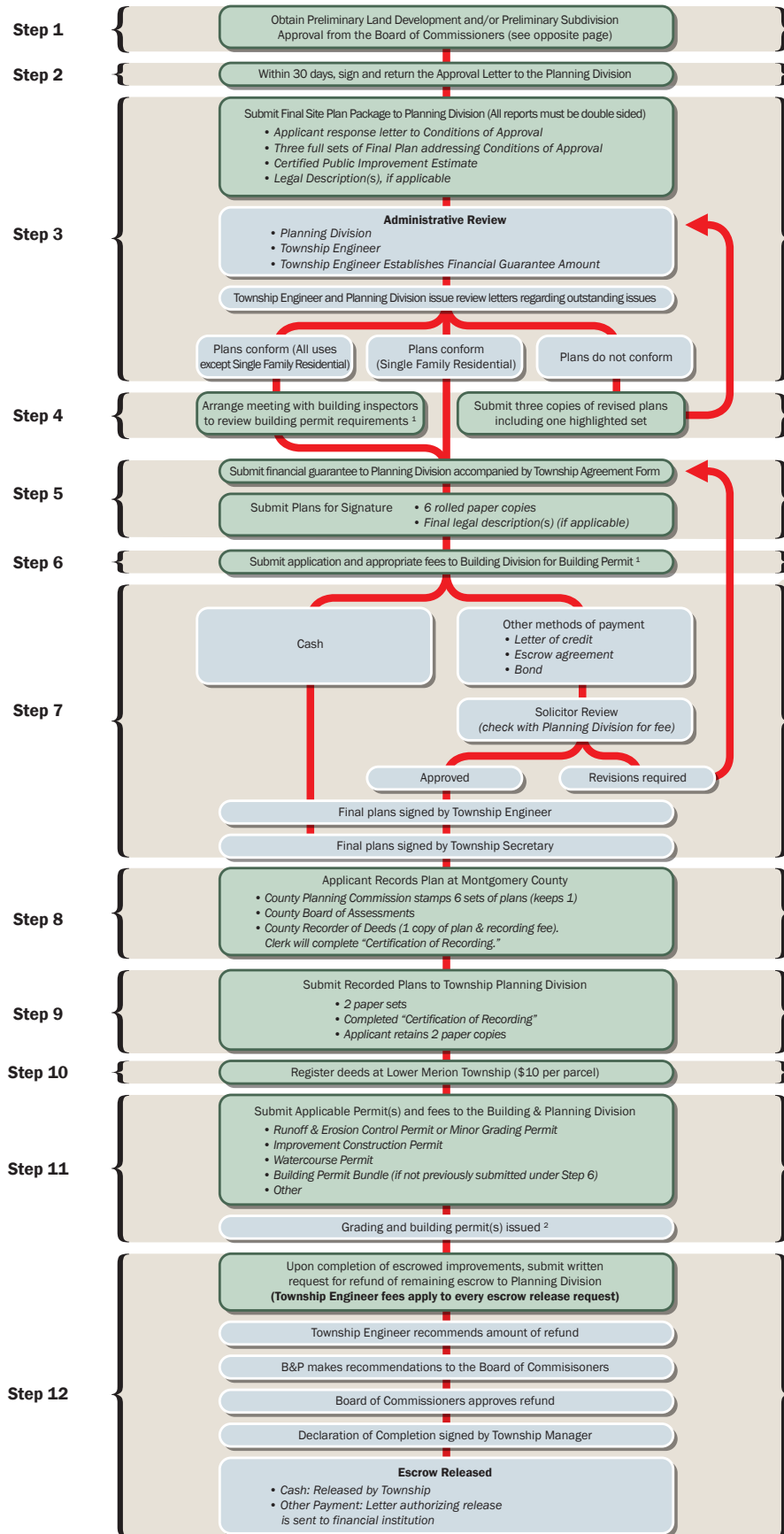
	IMPROVEMENT CONSTRUCTION PLAN	CONSTRUCTION RECORD PLAN	FINAL PLANS [SAME REQ'S AS PRELIM + ANY CONDITIONS OF APPROVAL]
<b>INFORMATION REQUIRED</b>			
<b>STREETS, ROADWAYS, CONNECTIONS</b>			
Proposed curb within the property and adjacent to the property	●	●	●
Street dimensions, including center-line courses, distances and curve data; paving widths and curblines; right-of-way and curblines radii at intersections; street location tie-ins by courses and distances to the nearest intersection of existing and planned streets and alleys	●	●	●
The location, names and widths of existing and proposed streets and alleys, including those shown on the Official Map, and all street signage locations, existing and proposed	●	●	●
Location and dimension of existing and proposed sidewalks, crosswalks and pedestrianways.	●	●	●
Cross-section and center-line profiles of all new streets, sidewalks, and pedestrianways.	●	●	●
The proposed location, and width of private driveway approaches to streets.	●	●	●
The proposed grade of private driveway approaches to streets.	●	●	●
A profile of any proposed driveway when the maximum grade of the driveway is over 8%.	●	●	●
Tentative grades of proposed streets extended to an existing street or to a point 200 feet beyond the boundaries of the subdivision.	●	●	●
The location and names of railroads	●	●	●
If the plan covers only a portion of the applicant's entire holdings, the prospective future street system and lot layout for the entire tract shall be indicated.	●	●	●
Where the property is designated on an Official Map, the plan shall contain the information shown on the enacted Official Map and set forth in § 107-5A, Map elements	●	●	●
The location of quarries and other topographical features which may affect the location of proposed streets	●	●	●
Existing and proposed lighting, street lighting, and identify ownership and maintenance responsibilities	●	●	●

**TABLE 3.2 PLAN REQUIREMENTS - FINAL PLANS (CONTINUED)**

	IMPROVEMENT CONSTRUCTION PLAN	CONSTRUCTION RECORD PLAN	FINAL PLANS [SAME REQ'S AS PRELIM + ANY CONDITIONS OF APPROVAL]
<b>INFORMATION REQUIRED</b>			
<b>TOPOGRAPHY, CONTOURS</b>			
Existing and proposed drainage patterns.			●
Contours at two-foot intervals whenever the developer proposes to make any changes in grade in a subdivision. An erosion and runoff control plan shall be submitted in accordance with the requirements of Chapter 121 of this Code.			●
Proposed contours at two-foot intervals and proposed changes in grade clearly defined. The standards set forth in Chapter 121 of this Code are to be followed.			●
Slopes greater than 10%			●
Slopes greater than 15%			●
Slopes greater than 25%			●
The proposed elevations of all lot property corners.			●
Maximum and minimum existing elevation of the site.			●
Maximum and minimum proposed elevation of the site.			●
The location of the one-hundred-year floodplain limit line as shown on the Lower Merion Floodplain Maps and FEMA's Flood Insurance Rate Map.			●

FIGURE 3.1 SUBDIVISION & LAND DEVELOPMENT PROCESS





<sup>1</sup> Applicants are encouraged to meet with the Building Inspectors to review the architectural plans (if applicable) and to initiate the Building Permit review process in the order listed above; however, steps 4 and 6 are not necessarily required to be followed in the sequence listed above.

<sup>2</sup> Building Permits will not be issued until the plans have been recorded and the appropriate permits have been obtained through the Planning Division.

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# ARTICLE 4: DESIGN STANDARDS

## 135-4. DESIGN STANDARDS

### 4.1. General Standards

The following principles, standards, and design requirements shall be used in the evaluation of all subdivision and land development proposals. Other design requirements as established in the Chapter 155, Zoning or other chapters shall be used in addition to the following:

- A. All portions of a tract shall be designated as to its use, such as lots, roads, open space, parking areas, etc.
  - (1) Developers shall include the following in the subdivision or land development design:
    - (a) Provision of adequate rights-of-way and improvements.
    - (b) Easements for storm and sanitary sewer facilities in those areas that cannot be immediately joined to the existing storm and sanitary sewer systems of the Township.
    - (c) When required by the Board of Commissioners, reservation of areas and easements for crosswalks, pedestrian access, bikeways and/or bridle trails appropriate to the proposed subdivision or land development.
  - (2) Community facilities shall be considered in the approval of subdivision and land development plans. Areas reserved for such facilities should be adequate to serve the additional dwellings or other buildings contemplated by the subdivision or land development.
- B. Developments shall preserve scenic areas, open spaces, historic sites and structures, natural features of the land and other community assets.
  - (1) Every subdivision or land development plan shall be designed to preserve and protect the natural features of the land, including existing grades and contours, bodies of water and watercourses, large trees standing alone or in groves, street shade trees and specimen trees, scenic and historic points, pedestrian walks and bridle trails that have been in public use and other community assets.
  - (2) The burden shall be on the developer to justify any material changes in the natural features of the land by satisfactory proofs that subdivision or land development would not be feasible without such changes and that there are no practical alternatives. The fact that subdivision or land development would involve greater expense or less density because of the maintenance of certain natural features will not in and of itself be considered a justification of changes in such features,
    - (a) Every subdivision or land development plan shall be designed to preserve and protect historic sites and structures. The burden shall be on the developer to justify any material changes in historic sites and structures by satisfactory proof that subdivision or land development would not be feasible without such changes and that there are no practical alternatives which would permit the preservation of this historical nature of the property. The fact that subdivision or land development would

## 4.1. General Standards (continued)

involve greater expense or less density because of the maintenance of historic sites and structures will not in and of itself be considered a justification for material changes or alterations to such historic sites or structures.

- (b) Preservation of the community. To protect and maintain air and noise level quality, open space, aesthetic quality and the social and economic stability of all parts of the Township and to coordinate subdivision and land development with existing nearby neighborhoods, the Board of Commissioners may impose reasonable buffer requirements when any of the following conditions may reasonably be expected to occur as a result of the proposed subdivision or land development:

- [1] Substantial changes in the level or quality of air pollutants or the number of people affected by air pollution.
- [2] Substantial changes in the level of noise or vibration or the number of people affected by noise or vibration.
- [3] Substantial changes in the site views from nearby premises or in the degradation of the privacy of nearby premises.

- C. Plans shall be designed to avoid excessive disturbance of vegetation and movement of earth, as outlined as 4.7 and Natural Features Conservation Chapter 101.
- D. Development and disturbance of floodplain land areas shall be governed by additional standards contained in this Chapter, Chapter 155, Zoning, and the applicable Building Codes.
- E. The improvements shall be constructed, installed, and guaranteed, at no expense to the Township, as part of plan approval, including, but not limited to, streets, curbs, sidewalks, water and sewage facilities, stormwater management facilities, street lights, fire hydrants, road signs, monuments, lot pins, utilities, and shade trees.
- F. The standards contained within this Article are the minimum standards and requirements for the protection of the health, safety, and welfare of the residents of the Township and are to be used in all subdivisions and land developments. In addition, the Township reserves the right to require standards in excess of the minimum requirements if warranted to protect the health, safety, and general welfare of the community.

## 4.2. Conformance with Plans

- A. All subdivisions and land developments shall conform to the Official Highway Map, the design standards set forth in this article and all other pertinent sections of this Code.
  - (1) The construction specifications for all improvements shall be those contained in the Lower Merion standards and specifications for improvement construction.
  - (2) Where literal compliance with the standards herein specified is impractical, the Board of Commissioners may modify or adjust the standards to permit reasonable utilization of property while at the same time securing substantial conformance with the objectives of this article.

#### 4.2. Conformance with Plans (continued)

- B. Comprehensive Plans. Proposals for land development or subdivision shall be generally consistent with the Township's Comprehensive Plan, especially as to the use of land, intensity of development, transportation, community facilities, and resource protection. Residential development should also be consistent with the housing element of the plan. All proposals should be located in areas designated for development in the future land use plan element and be serviced by currently available infrastructure or infrastructure that will be developed concurrent with the development.
- C. Other Plans. Proposals shall be generally consistent with the appropriate state, regional, county, and the adopted comprehensive plan and other plans. Where regional facilities are proposed in the plan, such as highways, effort shall be made to preserve needed right-of-way for future infrastructure projects in the proposed land development or subdivision.
- D. Public Service Improvements. Proposals shall be consistent with the location and timing of public service improvements, such as water and sewage facilities, in accordance with the appropriate infrastructure plans governing those facilities. In addition, the location of public service facilities as outlined in a capital improvement program or official map should be considered.

#### 4.3 Site Organization

Proposed land developments and subdivisions shall be designed to address the opportunities and limitations present on a site and its adjacent surroundings. The plan shall use site opportunities to enhance the overall quality of the development and lessen potential negative impacts upon a site and the surrounding community. The physical, social, and psychological needs of the users of the site should be evaluated and appropriately incorporated into the final subdivision layout or site design. The impacts of the proposed development on the natural environment and surrounding land uses shall be given a high priority and made an integral part of the overall design for the land development and subdivision. The following site organization guidelines shall be used:

- A. Site Improvement Layout. The buildings shall be placed in consideration with the site's topography, existing vegetation, and surrounding land uses, taking into account energy conservation, solar access, and pertinent natural features.
- B. Existing Natural Features. Existing natural features should be recognized and integrated into the site layout. Natural features such as streams, hillsides, wetlands, unique habitat, woodlands, and similar natural resources should be considered strong design determinants and be incorporated into the overall site plan to strengthen the unique quality of the land.
- C. Open Space and Scenic Views. The placement of open space and preservation of scenic views should be a fundamental design decision. Open space lands should provide for a variety of benefits including recreation, natural resource protection, scenic views and vistas, and buffers for site elements and land uses.
- D. Circulation. Movement within a site and access to the site should be designed for the safety and convenience of various types of users. Cross access between properties and joint access are encouraged to improve circulation and improve access safety.
- E. Relationship to Surrounding Uses. The proposed design should complement appropriate surrounding uses through building setbacks, buffers, and separation

#### 4.3. Site Organization (continued)

of uses. Various potential negative impacts upon surrounding land uses including noise, light, and loss of privacy should be mitigated.

- F. Sustainable Development. The development of a site should use methods that reduce energy, water, and fuel consumption needs of the property. Opportunities to utilize renewable energy sources, conserve, and reuse water resources, and reduce fuel consumption should be considered.
- G. Health Hazards. The configuration of a subdivision or land development should reduce potential health hazards to the future users of the subdivision or land development and to the community as a whole.
- H. Concept Development Plan. Where an applicant seeks approval for the development of a portion of a tract with the intent that the remainder would be developed at a future date, the applicant shall submit with the initial application a concept development plan showing with specificity the portion of the tract intended for current development, and showing in concept form the manner in which the balance of the tract might be fully developed in conformance with Township regulations.
  - (1) The intent of such a submittal is to enable the Township to review the basic site design concept, to advise the applicant as to potential problems and concerns that full development of the site would entail, and to assure that the current development of the property properly anticipates the future development with respect to land use, traffic movement, parking, building placement, required infrastructure, and impact on abutting properties, when proper planning techniques are applied.
  - (2) The concept development plan must present a comprehensive overview of potential uses to which the property can be put in conformance with current Township codes. The failure to present such a plan, unless waived by the Board of Commissioners, shall constitute a separate and distinct basis for denying a subdivision and/or land development plan application.

#### 4.4 Lots

- A. Lot Size and Width. Each lot shall comply with the minimum area and width requirements of Chapter 155, Zoning and be generally sufficient in size and shape to adequately accommodate the development or use proposed for it.
  - (1) Lots that contain natural restrictions such as wetlands, water bodies, steep slopes, or other features shall be made large enough to provide suitable area for the intended use of the lot without requiring encroachment upon natural amenities.
  - (2) Lots with existing or planned public improvements such as fuel pipe lines, underground utility easements, stormwater detention basins, high voltage power lines, or other facilities should be sized to allow suitable room for the intended use of the lot without requiring encroachment on the public facilities or easements.
- B. Lot Depth, side lines and irregular configuration.
  - (1) A lot may not be created whose depth is greater than 2.5 times its width.
  - (2) A lot may not be created which is excessively irregular unless reasonably dictated by the topography of the land, other natural feature, or the existing

## 4.4. Lots (continued)

configuration of an adjacent lot. An excessively irregular lot is one which is not four sided or which has a boundary line the length of which is more than 2.5 times the length of the opposite or adjacent boundary line.

- (3) The side lines of a lot shall be at right angles or radial to the right-of-way lines.
  - (4) Any portion of a lot not permitted to be included in the required lot area as provided in § 155-3.13A of the Township Code shall be disregarded in determining compliance with the standards created by this subsection.
- C. Narrow lots may be created only when authorized by the Board of Commissioners as a conditional use under the provisions of § 155-3.13A of the Code of the Township of Lower Merion.
  - D. No lot shall be approved for a subdivision where the access crosses a floodplain district, unless approved by the Zoning Hearing Board, or where access could be gained only by violating the standards for driveways contained within this chapter or where the lot does not contain sufficient legal buildable area for the intended use.
  - E. All lots must conform to the zoning district requirements applicable to the parcel being subdivided.
  - F. Survey Monuments: All subdivisions and land development shall be monumented as directed by the Township Engineer. Permanent survey monuments shall be of stone or concrete and located on the right-of-way lines at corners, at angle points and as otherwise required. Monuments shall be indicated on all plans. They shall be placed after a new street has been completed. The center line of all new streets shall be marked with spikes and referenced to permanent monuments or structures.
  - G. Benchmarks. The Township has established a system of 150 bench marks giving elevation throughout the area based on the National Geodetic Vertical Datum of 1929 (NGVD29). Information as to location and elevations of these bench marks is available upon request made to the Lower Merion Department of Public Works. All contours and elevations shown on plans must be based on this system.
  - H. Adjacent lots owned by the same person may be consolidated by recording a deed describing the lots as a single parcel, without subdivision plan approval, where the only change being made to a lot line is the elimination of one or more of them, subject to administrative review by the Building and Planning Department. This exemption from the approval procedures set forth in this chapter shall be subject to the following:
    - (1) A statement must be placed in the deed acknowledging that it is a deed of consolidation intended to merge the lots and that any future independent use of the lots would require subdivision approval.
    - (2) The application to register the deed shall constitute an application to amend the Township's plan of properties to show the consolidation.
    - (3) Prior to registering such deed, the Planning and Community Development Director shall notify the Zoning Officer of the consolidation.
    - (4) Each deed submitted for registration and recording shall have attached thereto a plan prepared, signed and sealed by a registered surveyor showing the metes and bounds, gross and net (after deducting the rights-of-way of

4.4. Lots (continued)

any public or private street) areas and error of closure of the consolidated lot. The error of closure shall not be greater than one part in 5,000.

- (5) Upon merger by deed, use or subdivision approval, adjacent lots shall lose their separate identity for all purposes relating to their development.

4.5 Blocks

- A. Block length and width of acreage within boundary roads shall be such as to accommodate the size of lot required in the area by Chapter 155 of this Code to provide for convenient access, circulation control and safety of street traffic.
- B. In blocks over 1,000 feet long, pedestrian crosswalks may be required in locations deemed necessary by the Board of Commissioners.
- C. For commercial, group housing or industrial use, block size shall be sufficient to meet all area and yard requirements for such use.

4.6 Recreation and Community Amenities

- A. Official Map- RESERVED

- B. Public Gathering Space (PGS)

(1) Dimensions & Placement:

(a) All contiguous PGS areas on a property shall be considered as one PGS.

(b) The maximum number of separate PGSs on any lot is three.

(c) Size and shape:

[1] The size of the PGS shall be as required in the Chapter 155, Zoning.

(d) Depth and Width:

[1] A minimum of 80% of the PGS shall be 40 feet in depth.

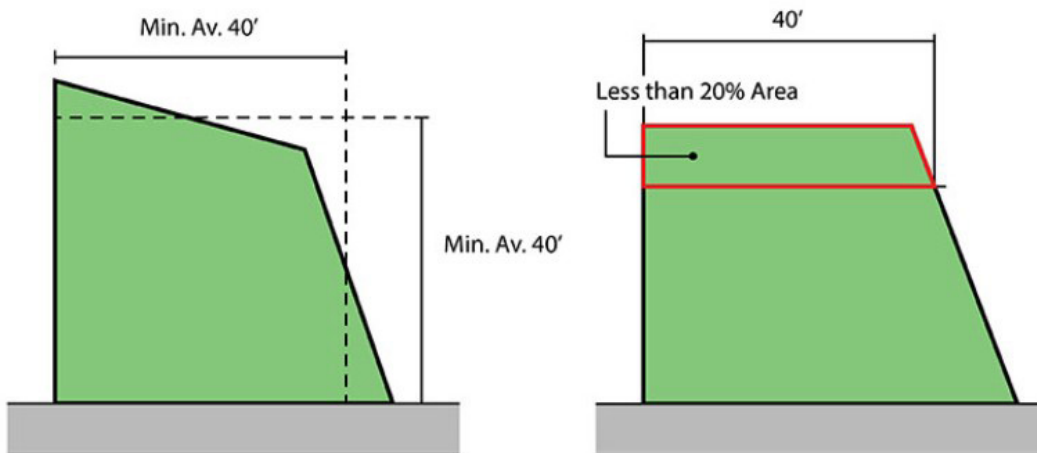


Figure 4.6.1 Minimum Depth Percentage Measurement

## 4.6. Recreation and Community Amenities (continued)

- [2] The average width of the PGS shall not be greater than three times the average depth of the PGS.

## (e) Location:

- [1] The PGS shall be integral to the development and designed as a focal point.
- [2] The PGS shall be generally regular in shape, be oriented towards the Street Line or Pedestrian way, and easily and directly accessible from adjoining buildings and pedestrian ways
- [3] The PGS shall be entirely open to the air and no portion of a building, other than a balcony, shall project over the PGS.
- [4] The PGS shall not be used for parking, loading, or motor vehicle access.
- [5] If the development includes commercial uses, such uses shall be directly connected to the PGS.

## (2) Access

## (a) Public Easement:

- [1] The PGS, when approved, shall be permanently set aside as such by a recorded covenant in form acceptable to the Township Solicitor to guarantee public access to the PGS.

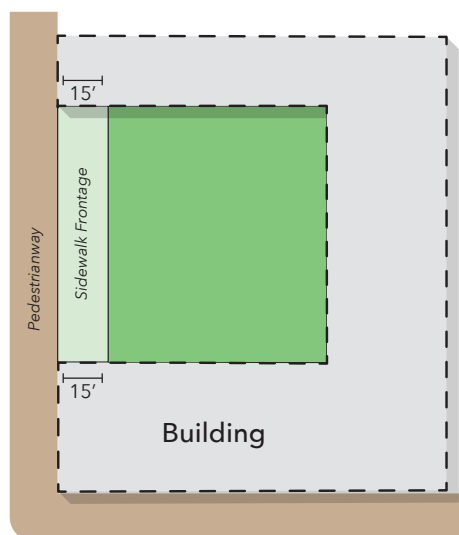


Figure 4.6.2 Sidewalk Frontage Zone

- (b) Frontage: To facilitate pedestrian access to a PGS the following shall apply to the area of the PGS located within 15 feet of a street line or pedestrian way:
  - [1] At least 50 percent of such area shall be free of obstructions.
  - [2] The remaining 50 percent of such area, only the following obstructions shall be allowed:



## 4.6. Recreation and Community Amenities (continued)

- [a] Public space signage, railings for steps, trash receptacles, trees and fixed or movable seating and tables, bicycle racks planting walls or trellises, knee walls, water features and artwork.
- (c) Grade: The PGS shall be located at the same level of adjoining sidewalks, pedestrian ways and streets. Minor changes in elevation shall be permitted where a PGS fronts on streets with slopes greater than 2.5 percent along the frontage.
- (d) Obstructions.
  - [1] No exhaust vents or mechanical equipment are permitted on any PGS or on any building wall fronting upon the PGS, unless separated from it by a barrier sufficient to substantially, visually and audibly, conceal their presence and operation.
    - [a] Air intake vents or shafts shall be permitted within a PGS, provided that such vents are concealed from public view by planting or other design features and that such vents do not impair visibility within the PGS area.
  - (e) The PGS shall be open to the public whenever the development is open to the public. An hours of access plaque or sign shall be visible from a public way indicating the hours of public access to the PGS.
- (3) Amenities:
  - (a) Seating:
    - [1] Standards for seating within the PGS are intended to facilitate the provision of abundant, comfortable and accessible seating throughout the PGS, including, more specifically, as follows:
      - [a] to provide a broad variety of seating types and configurations;
      - [b] to accommodate individual users engaged in solitary activities as well as groups engaged in social activities;
      - [c] to provide a comfortable and safe seating surface by providing smooth, even and level surfaces with rounded edges;
      - [d] to incorporate, to the maximum extent possible, a combination of fixed benches, movable chairs, seating with backs, seat walls and ledges, and seating steps;
      - [e] to provide ample opportunity for social seating as a basic seating type that consists of seats that are placed in close proximity and at angles to one another or in facing configurations that facilitate social interaction.
    - [2] A minimum of one linear foot of seating for each 30 square feet of PGS area shall be required.
      - [a] At least 50 percent of required seating shall have backs.

## 4.6. Recreation and Community Amenities (continued)

- [b] All PGS shall provide at least two different types of seating.
  - {1} PGS greater than 5,000 square feet in area shall provide a minimum of three different types of seating.
  - {2} PGS greater than 10,000 square feet in area shall provide movable seating as one of the required seating types.
- [c] Movable seating shall be provided where feasible to allow users to customize their experience.
- (b) Shade: The PGS shall provide shade where seating is provided by using one or more of the following elements: canopies, trellises, plantings, and umbrellas.
- (c) Trees & Plantings: The provisions of this Section are intended to facilitate a combination of landscaping elements in order to provide comfort, shade and textural variety.
  - [1] A maximum of 30 percent of the plaza shall be landscaped with trees, shrubs, and plantings with year-round interest.
  - [2] All PGS shall a minimum of one (1) shade tree shall be provided per 250 square feet of PGS. The size and species selection of the shade tree shall comply with Article 5.
  - [3] A minimum of 50 percent of required trees shall be planted flush-to-grade or planted at grade within planting beds with no raised curbs or railings. Trees planted flush-to-grade shall be surrounded by a porous surface (such as grating or open-joint paving) that allows water to penetrate into the soil.
- (d) Lighting & Electrical Power:
  - [1] Pedestrian-scaled lighting shall be provided within the PGS and along sidewalks or internal pedestrian pathways connecting to the PGS. Special attention should be provided in lighting steps and other changes in elevation and areas under tree canopies and permitted canopies within the PGS.
  - [2] A lighting schedule, including fixtures, wattage and their locations and designs shall be provided and comply with the Lighting Code, Chapter 105.
  - [3] Electrical power shall be supplied to the PGS.
- (e) Litter Receptacle:
  - [1] Trash and recycling containers shall be distributed throughout the PGS.
- (f) Bicycle Parking
  - [1] A minimum of six (6) of the required bike parking spaces shall be provided within the PGS. For PGS greater than 3,500 square

## 4.6. Recreation and Community Amenities (continued)

feet in size, one (1) bike parking space shall be provided per 500 square feet of PGS area, or portion thereof.

## (4) Maintenance:

- (a) The developer shall be responsible for the maintenance of the PGS including, but not limited to, the location of permitted obstructions, litter control, maintenance of required lighting levels, and the care and replacement of furnishings and vegetation within the PGS. The developer shall record a covenant on the property in a form acceptable to the Township Solicitor to guarantee this requirement.

## C. Recreation Land Dedication Criteria and Standards

## (1) Purpose.

- (a) In order to meet the recreational needs of future inhabitants of developments and subdivisions in the Township, recreational land shall be dedicated for the use of the residents by a permanent means acceptable to the Township Solicitor.
- (b) The land or fees, or combination thereof, are to be used only for the purpose of providing, acquiring, operating or maintaining park or recreational facilities reasonably accessible to the development.

## (2) Applicability. This chapter shall apply under the following circumstances for subdivision and land development which involves residential, mixed-use, or commercial development:

- (a) Residential. Any single-use residential subdivision or land development comprising more than three building lots or residential units.
- (b) Mixed-Use. Any mixed-use land development comprising more than three residential units and/or 10,000 square feet or more of new building area.
- (c) Commercial. Any commercial development that results in 10,000 square feet or more of new commercial building area.

## (3) Minimum Recreation Land Dedication; In-Lieu Options.

- (a) Residential and Mixed-Use Development. Fifteen percent (15%) of the tract area shall be set aside as a recreational area.
- (b) Commercial Development. Ten percent (10%) of the tract area shall be set aside as recreational area.

[1] Required public gathering space, as outlined in Section 4.6 cannot be counted in this percentage.

- (c) In lieu of such dedication, and upon agreement with the Township, the developer may construct recreational facilities, pay to the Township a fee in an amount set forth in Chapter A167 hereof, privately reserve land, or a combination of the above, for park or recreation purposes.

## 4.6. Recreation and Community Amenities (continued)

- (4) Park and recreational land or facilities standards. Any park or recreational land or facilities shall be subject to the following, which provisions shall apply as well to all fees heretofore paid and currently held pursuant to this section:
  - (a) The land to be used for park and recreational facilities shall be in accordance with the principles and standards contained in the Township's recreation plan and/or open space plan and meet the following criteria:
    - [1] The land shall be well drained and suitable for physically active recreational purposes.
    - [2] The average slope of the land shall be less than 6%.
    - [3] The area set aside cannot have displaced a wetland.
    - [4] If an existing park or trail is contiguous, the land dedicated shall connect to the existing park or trail.
    - [5] The land shall have appropriate and adequate access for maintenance purposes and for use by pedestrians.
    - [6] Whenever possible, the area set aside shall be along the outer boundaries of the tract to allow for future dedication of open space on adjacent land.
  - (b) Where a developer requests the Township's agreement to permit the construction of recreational facilities in lieu of the dedication of land for recreational purposes as required by this section, such facilities shall meet the following minimum criteria in addition to those others imposed by the Township:
    - [1] The recreational facilities must be in addition to those otherwise required to be constructed.
    - [2] The recreational facilities must be outdoors and not under a roof.
    - [3] The primary use of the facilities must be for active recreational activities.
    - [4] The area of the proposed recreational facilities will be used to measure the degree to which the required 15% of the tract area to be set aside has been satisfied.
- (5) Administration of Fees.
  - (a) A fee authorized under this section shall, upon its receipt by the Township, be deposited in an interest-bearing account, clearly identified as reserved for providing, acquiring, operating or maintaining park or recreation facilities. Interest earned on such accounts shall become funds of that account.
  - (b) Upon request of any person who paid any fee under this section, the Township shall refund such fee, plus interest accumulated thereon from the date of payment, if the Township has used the fee paid for a purpose other than the purposes set forth in this section.

## 4.6. Recreation and Community Amenities (continued)

- (c) Fees due hereunder are payable at the time of application for a building permit for the residential unit(s).

## 4.7 Preservation and Protection of Existing Vegetation

All subdivisions and land developments shall be laid out in such a manner as to minimize the removal and/or disturbance of healthy trees, shrubs, and other vegetation on the site. Special consideration shall be given to mature specimen trees and ecologically significant vegetation.

- A. Every effort shall be made to avoid removal of trees having a caliper of six inches or greater from the property in the process of subdividing, land developing, grading or installing improvements. Where, in the judgment of the Board of Commissioners, such removal is unavoidable, the applicant shall install required replacement trees in such locations and of such size, variety and quantity as the Board of Commissioners shall direct having the goal of ensuring their viability.
- B. The applicant shall prove to the satisfaction of the Township that vegetation removal for the desired development is minimized. A written document or plan may be requested to be provided by a registered landscape architect or other qualified professional showing that no more functional layouts are possible and no alternative clearing or grading plan would reduce the loss of mature trees, tree masses, and woodlands, as determined by the Director of Building and Planning.
- C. Notwithstanding the six-inch-caliper limitation, no substantial area of smaller trees or shrub cover shall be removed without the provision of comparable replacement as approved by the Board of Commissioners. A plan and a statement of material to be removed and/or demolished shall be submitted for approval.
- D. Removal or disturbance of vegetation in environmentally sensitive areas, including wetlands, floodplains, steep slopes, riparian corridors, wildlife habitats, and ecologically significant woodlands as identified in the Montgomery County Natural Areas Inventory shall be undertaken only as permitted under Chapter 155-7.5, Zoning.
- E. Lots in the LDR, MDR, and I Districts shall comply with the requirements of § 155-7.5, Wooded Lot Overlay District, of Chapter 155.
- F. Wetland Protection. The presence of hydric soils may indicate wetlands. When hydric soils are indicated on the site, a wetlands study shall be conducted in accordance with the federal Corps of Engineers Wetlands Delineation Manual (1987 Manual).
  - (1) The area of wetlands as defined by the U.S. Army Corps of Engineers and the Commonwealth of Pennsylvania in accordance with Section 404 of the Federal Clean Water Act of 1977 and the Pennsylvania Clean Streams Act shall be preserved in subdivisions and land developments.
  - (2) A twenty-five (25')-foot setback shall be maintained around the perimeter of all wetlands. This area will be known as the Wetland Buffer. No removal of vegetation, except the selective removal of dead trees and or noxious vegetation in the wetland area or buffer shall take place without the specific permission of the Township.
  - (3) Additional planting and restoration of the wetland corridor shall be in compliance with all of the provisions in Article 5 and more specifically Section 5.6B.
- G. Riparian Corridor Management. Whenever a pond, watercourse, stream, or intermittent stream as identified by the USGS is located within a development site, it shall remain open in its natural state and location.

## 4.7. Preservation and Protection of Existing Vegetation (continued)

- (1) Unless otherwise described in Chapter 155, Zoning or separate code, a fifty (50') foot buffer (twenty-five (25') feet from each bank of the water body) shall be maintained along all intermittent or perennial water courses and ponds. This buffer area will be known as the Riparian Corridor. No removal of vegetation, except for removal of dead trees and shrubs or periodic mowing of existing lawns or fields, shall take place within this buffer area without the specific permission of the Township.
  - (2) No stormwater detention basins shall be allowed within the twenty-five (25') foot buffer zone.
  - (3) Additional planting and restoration of the riparian corridor shall be in compliance with all of the provisions in Article 5 and more specifically Section 5.6B.
  - (4) Within any Riparian Corridor, no construction, development, use, activity, or encroachment shall be permitted, except flood retention dams, culverts and bridges, approved by the Township Engineer and approved by the Pennsylvania Department of Environmental Protection for those watercourses which drain an area of more than 1/2 square mile.
    - (a) In all other cases, a Corridor Management Plan shall be submitted and approved by the Township and the impacts of such development are mitigated by the implementation of the Corridor Management Plan.
      - [1] The developer shall submit to the Township Engineer, a corridor management plan prepared by qualified design professional, which fully evaluates the effects of any proposed uses on the Riparian Corridor.
      - [2] The corridor management plan shall identify the existing conditions (vegetation, one-hundred-year floodplain, soils, slopes, etc.), all proposed activities, and all proposed management techniques, including any measures necessary to offset disturbances to the Riparian Corridor.
      - [3] The plan shall be approved as part of the subdivision and land development process.
- H. Grading. Lots shall be laid out and graded to provide positive drainage away from buildings. Wherever practicable, water shall be drained to the street rather than to cross lots contained within the proposed subdivision or land development.
- (1) Additional water caused by subdivision or land development may not be drained directly onto an adjoining property without the express written consent of the adjoining property owner. Whenever any person, firm or corporation paves, fills, strips, grades or regrades any land or disturbs, modifies, blocks, diverts or affects the natural land or subsurface flow of stormwater or constructs, erects or installs any drainage dam, ditch, culvert, drainpipe or bridge on any premises in the Township of Lower Merion, plans must be submitted to and approved by the Township Engineer. The requirements of Chapter 121 of this Code must be met.

#### 4.8 Preservation of Existing Structures and Historic Features

- A. Existing Buildings. The following regulations shall apply as they affect parcels upon which buildings exist at the time of the subdivision or land development:
  - (1) The subdivision of a tract which creates nonconforming yards for existing buildings contrary to the requirements of Chapter 155, Zoning will not be approved. Nonconforming front yards may be approved if necessary to obtain proper street alignment.
  - (2) Alterations and replacements will be permitted within the existing structure, but exterior extensions of the building must conform to the requirements of Chapter 155, Zoning.
  - (3) In cases where the principal building use has not been as a dwelling, its conversion to a dwelling shall comply with all of the requirements of Chapters 62 and Chapter 155, Zoning.
- B. The design of subdivisions and land developments shall preserve notable structures containing cultural and historic features, as identified in Chapter 88, Historic Districts and Chapter A180 Historic Resource Inventory, wherever reasonably possible.
- C. No subdivision proposal will be approved with a property line extending through any portion of an existing building, except where that property line follows a party wall separating semi-detached or attached units, in accordance with the Chapter 155, Zoning.

#### 4.9. Complete Streets and Context Sensitive Design

- A. New and Existing Streets General Design Standards. All new streets and additions to existing streets shall:
  - (1) be designed in accordance with Lower Merion Township standards as provided in the Lower Merion Site Design and Construction Standards Manual and this chapter. Lower Merion Township may accept or refuse dedication of any street.
  - (2) conform with the Circulation Element of the Lower Merion Township Comprehensive Plan and county or state highway plans, and be designed to conform with the existing street system and Official Highway Map.
  - (3) provide appropriate access between abutting tracts of land for immediate or future use.
  - (4) conform to existing topography to assure reasonable grades, alignment and drainage, appropriate access to lots, limiting the depth of public infrastructure, and to minimize regrading and removal of vegetation.
  - (5) be designed to continue existing streets at equal or greater right-of-way and/or cartway width.
  - (6) include curbs and sidewalks installed along all existing and proposed public and private streets and common parking areas.

#### 4.9. Complete Streets and Context Sensitive Design (continued)

- (7) have shoulders that are graded to the full width of the right-of-way and provision made for slopes beyond the right-of-way.
  - (8) No street may be created within a tract that would impose on an abutting property an increased setback requirement under the provisions of Chapter 155, Zoning.
- B. Private Streets.
- (1) Private streets shall be designed and constructed in conformance with all design and engineering regulations of the Township Code and this chapter that apply to public streets, unless otherwise provided herein.
  - (2) Whenever dedication of a street is not accepted by the Board of Commissioners, the applicant shall submit, and record with the plan, a covenant addressing the ownership, access rights, and maintenance responsibilities for that street.
- C. Street Classification based on Functional Classification of Roads Map. Every street, road, or highway within Lower Merion Township shall be classified by its function as shown in Map C7 Functional Classification Map in the township comprehensive plan, and shall be subject to the requirements for its classification as contained in this Article. The classifications are as follows:
- (1) General. The design standards for each road classification are contained in Table 4.9.1 Road Design Standards and standard street cross-section diagrams corresponding to each functional class.
  - (2) Freeways. A freeway is a multi-lane, divided highway with fully-controlled access provided only at grade-separated interchanges. Freeways serve the largest volumes of high-speed vehicular traffic through the region.



4.9. Complete Streets and Context Sensitive Design (continued)

- (3) **Primary Arterial Streets.** Primary arterial streets move traffic across the community and to accommodate higher-intensity commercial, residential, and institutional land uses. Cartway is for the exclusive use by motorized vehicles. To improve efficiency and safety of vehicular travel, curb cuts from adjacent land uses should be consolidated. Bicycles and pedestrians should be accommodated on wide, multi-use side paths separated from traffic by at least a four- to five-foot wide landscaped verge. Intersections with secondary and tertiary arterial streets should receive additional design features, including bump outs, crosswalks and signage, to improve traffic safety. On-street parking on primary arterial streets should only be permitted in commercial districts. Transit riders should be accommodated at highly-visible, dedicated locations. Transit stops should incorporate SEPTA’s design guidelines.

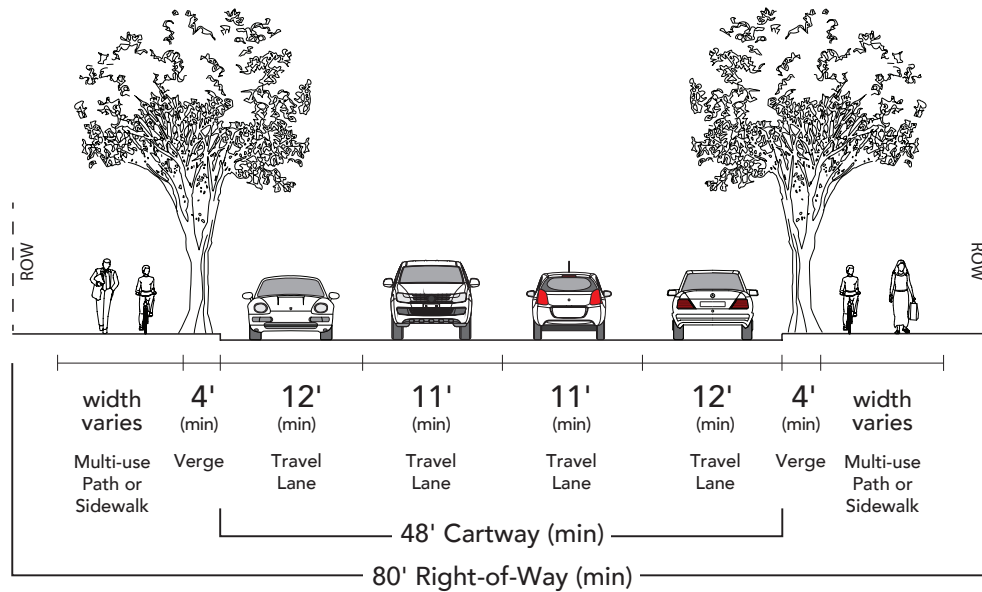


Figure 4.9.1 Section: Primary Arterial Streets

4.9. Complete Streets and Context Sensitive Design (continued)

- (4) Secondary Arterial Streets. Secondary arterial streets move traffic across the community and may include concentrations of higher intensity commercial, residential and institutional land uses in addition to low density residential uses. To improve efficiency and safety of vehicular travel, curb cuts from adjacent land uses should be consolidated, particularly through commercial districts. Dedicated left turn lanes may be considered on secondary arterial streets through commercial districts to create pedestrian-scaled/neighborhood-oriented shopping environments. Bicycles and pedestrians should be accommodated on sidewalks measuring a minimum of five feet in width separated from traffic by a landscaped verge at least five feet in width. Intersections with primary and tertiary arterial streets should receive additional design features, including bump outs, crosswalks, accessible ramps, and signage, to improve traffic safety. On-street parking should be considered in commercial districts, where feasible. On-street parking on secondary arterial streets through residential districts should be limited and clearly striped if permitted. Transit riders should be accommodated at highly-visible, dedicated locations. Transit stops should incorporate SEPTA’s design guidelines.

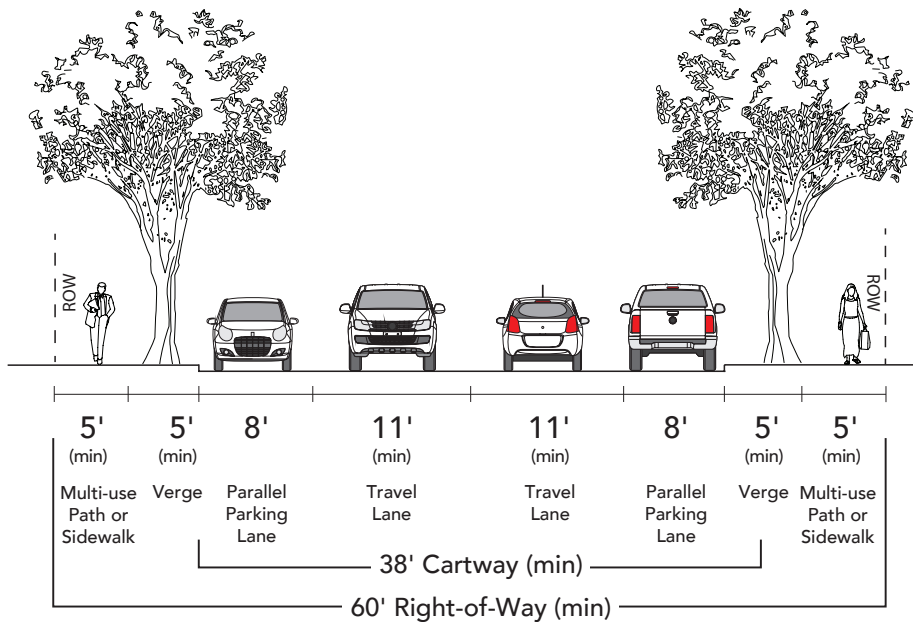


Figure 4.9.2 Section: Secondary Arterial Streets

4.9. Complete Streets and Context Sensitive Design (continued)

- (5) Tertiary Arterial Streets. Tertiary arterial streets connect vehicular traffic from low-density residential neighborhoods with primary and secondary arterial streets. Tertiary arterial streets should support low-density residential and neighborhood-oriented land uses including libraries, parks, community centers and locally-scaled institutional uses. Tertiary arterial streets function as crucial segments in the Township’s bicycle network. To promote bicycle mobility, and to calm traffic through residential neighborhoods, travel lanes should be striped on all tertiary arterial streets. Pedestrians should be accommodated on five-foot wide sidewalks, preferably separated from the cartway by a minimum four-foot wide landscaped verge. Intersections with primary arterial streets, secondary arterial streets and higher-volume local roads should receive additional design features, including bump outs, crosswalks, and signage, to improve traffic safety. On-street parking should be permitted where practical. On-street parking on tertiary arterial streets should be clearly striped, if permitted.

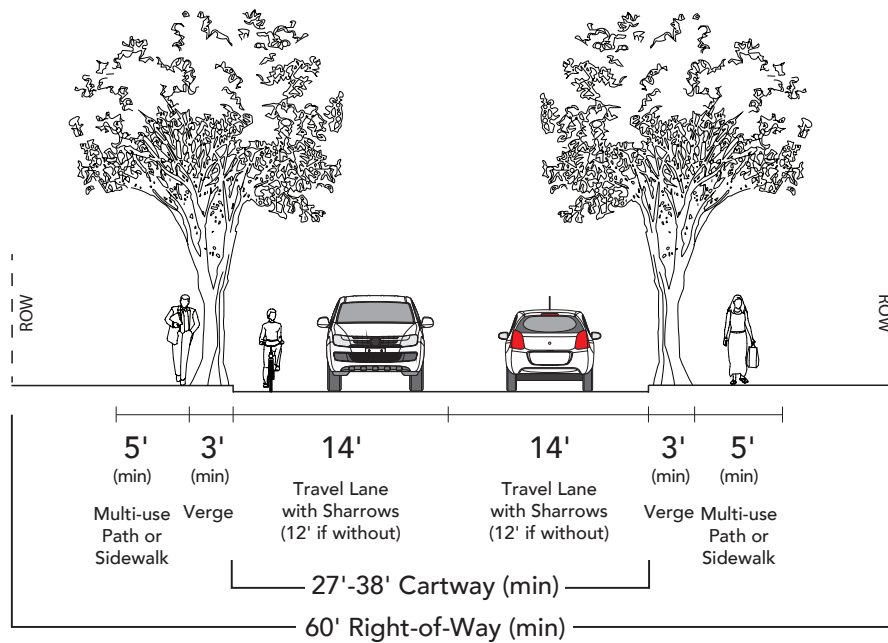


Figure 4.9.3 Section: Tertiary Arterial Streets

## 4.9. Complete Streets and Context Sensitive Design (continued)

- (6) Local (Minor) Streets. Local (minor) streets accommodate vehicles, bicycles, and pedestrians through residential neighborhoods. Local streets primarily accommodate low density residential and neighborhood-oriented land uses. Local (minor) streets function as the core of the Township's bike network. Pedestrians should be accommodated on five-foot wide sidewalks, preferably separated from the cartway by a minimum three-foot wide landscaped verge. Intersections with primary arterial, secondary arterial, and tertiary arterial streets should receive additional design features, including bump outs, crosswalks, and signage in order to calm traffic and enhance pedestrian safety. On-street parking should be permitted where practical.

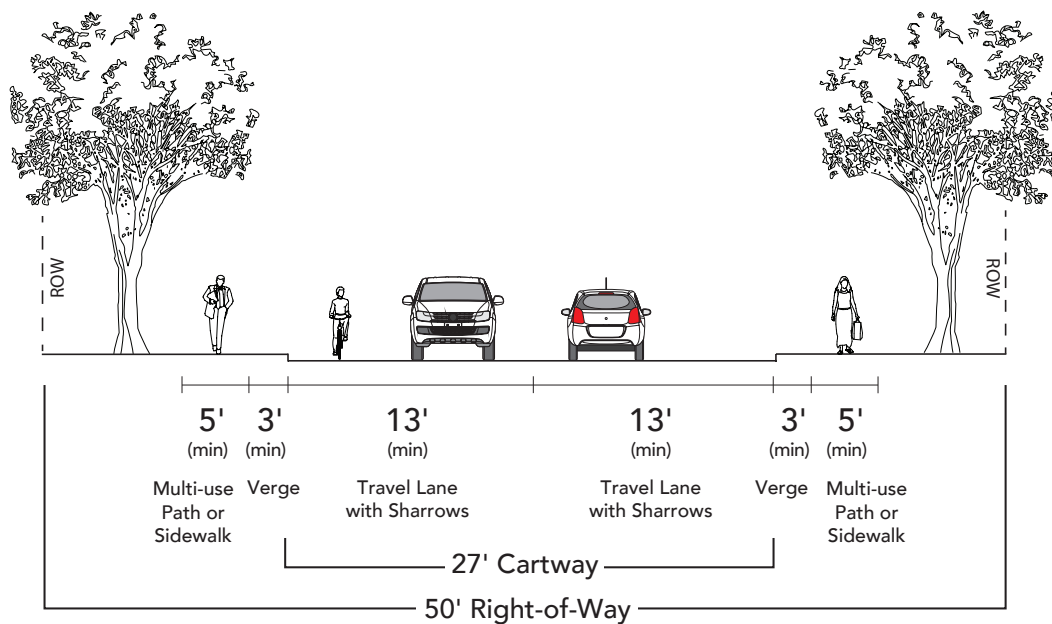


Figure 4.9.4 Section: Local (Minor) Streets

- (7) Alleys. Alleys are small service roads which provide a secondary access to lots, buildings, and/or off-street parking and loading and unloading facilities. Alleys greater than 600 feet in length are discouraged. Greater widths may be required if necessitated by the proposed use.
- An adequate turning area shall be provided at any end of an alley which is not an intersection with a street or another alley.
  - No fences, hedges, shrubbery, walls, planting, or other obstructions shall be located within the right-of-way.
  - Intersections of right-of-way lines shall be rounded by a tangential arc, the minimum radius of which shall be 25 feet, and the edge of the paving at intersections shall be rounded by a tangential arc, the minimum radius of which shall be 25 feet.
  - Reasonable sight distance shall be provided at intersections with streets.

## 4.9. Complete Streets and Context Sensitive Design (continued)

TABLE 4.9.1 ROAD DESIGN STANDARDS

FUNCTIONAL CLASSIFICATION OF ROAD	MINIMUM RIGHT-OF-WAY WIDTH	MINIMUM CARTWAY WIDTH	VERGE	PEDESTRIAN AMENITIES <sup>1,2</sup>
PRIMARY ARTERIAL STREET	80 ft.	48 ft.	4 ft. min.	Sidewalk; 8 ft. min.
SECONDARY ARTERIAL STREET	60 ft.	38 ft.	5 ft. min.	Sidewalk; 5 ft. min.
TERTIARY ARTERIAL STREET	60 ft.	27 to 38 ft.	4 ft. min.	Sidewalk; 5 ft. min.
LOCAL (MINOR) STREET	50 ft.	27 to 30 ft.	3 ft. min.	Sidewalk; 5 ft. min.
LOCAL (MINOR) STREET IN OPEN SPACE OVERLAY DISTRICT	34 ft. (45 ft. required for public dedication)	20 ft.	3 ft. min.	Sidewalk; 5 ft. min.
ALLEY	33 ft. <sup>3</sup>	16 ft. <sup>3</sup>	N/A	N/A

1. Additional sidewalk width may be required in areas where higher volumes of pedestrian traffic are anticipated.

2. A sidewalk of the minimum width specified shall be provided unless a public multi-purpose pathway is required by Chapter 155, Zoning, of the Township Code, in which case the applicable standards in Chapter 155 shall apply.

3. Greater widths may be required if necessitated by the proposed use in the opinion of the Township Engineer.

D. Context Sensitive Street Design for Main Street Focus Areas. [RESERVED]

E. Curbing. Curbing shall be installed along all existing and proposed public and private streets, common driveways, and common parking areas, and shall be constructed in accordance with the Township of Lower Merion Site Design and Construction Standards Manual.

- (1) The Board of Commissioners may waive or deter the curbing requirements, in full or partially, in the following situations:
  - (a) When utilizing an approved stormwater management technique. Grass swales and infiltration trenches along streets are encouraged in appropriate locations in the Township provided that pedestrian safety and traffic circulation is addressed.
  - (b) When adjoining sections of a road do not have curbing and in the opinion of the Township Engineer it would be preferable to install the curbing at the same time that curbing is installed along the adjoining sections of the roadway.
  - (c) When adjoining sections of the road do not have curbing and in the opinion of the Director of Building & Planning the installation of curbing would detract from the street's established character.
  - (d) When the lots abutting the street have an average net area of at least 45,000 square feet and an average minimum frontage of at least 130 feet.
  - (e) When it can be demonstrated for Open Space Overlay District developments that the intent of Chapter 155, §155-8.2.A will be furthered.

## 4.9. Complete Streets and Context Sensitive Design (continued)

- (f) When the installation of curbing is deemed to be unnecessary by the Director of Public Works.
  - (2) Handicap accessible curb cuts that meet the requirements of the American Disabilities Act (ADA) shall be installed at all Intersections where sidewalks or trails are provided or proposed.
- F. Sidewalks and Verges. Sidewalks, and other pedestrian amenities, shall be installed along all existing and proposed public and private streets, common driveways, and common parking areas according to the following standards.
  - (1) Sidewalks shall be provided along all existing and proposed public and private streets according to the dimensions in Table 4.9.1 Road Design Standards, based on the functional classification of the road, or Table 4.9.3 Single-Access Street Design Standards. Any sidewalk not described in Table 4.9.1 or Table 4.9.3 shall be a minimum of five (5) feet wide.
  - (2) All sidewalks shall be constructed in accordance with the Township of Lower Merion Site Design and Construction Standards Manual as well as the following:
    - (a) The grade and paving of the sidewalk shall be continuous across driveways, except in certain cases where heavy traffic volume dictates special treatment.
    - (b) The grade and alignment of all sidewalks shall be approved by the Township Engineer.
  - (3) The Board of Commissioners may defer the sidewalk requirements, in full or partially, in the following situations:
    - (a) When the subject property is shown to be outside of the priority areas for sidewalk installation shown in Map C16 Prioritized Pedestrian Improvement Map in the township comprehensive plan.
    - (b) When an off-road pedestrian pathway can be shown to be more desirable, such as when steep slopes or other natural features or physical constraints make the installation of sidewalk impracticable, or when using open space areas, provided that the following standards are met:
      - [1] Appropriate connections are provided between the off-road pedestrian pathways and the surrounding pedestrian origins and destinations and existing sidewalk on abutting properties, if applicable.
      - [2] The off-road pedestrian pathway shall be constructed to meet the following standards:
        - [a] The path shall be paved with asphalt a minimum of 2.5" thick with a minimum aggregate subbase of four (4) inches.
        - [b] An alternative material that provides an adequate walking surface, such as concrete or other similar paver systems, may be approved by the Township Engineer.

## 4.9. Complete Streets and Context Sensitive Design (continued)

- [3] The off-road pedestrian pathway shall be maintained by the property owner.
  - [4] An easement guaranteeing public access to the off-road pedestrian pathway shall be provided.
- (c) Within open space preservation developments where it can be demonstrated that the intent of Chapter 155, §155-7.2 will be furthered.
  - (d) When adjoining sections of the road do not have sidewalks and in the opinion of the Township Engineer it would be preferable to install the sidewalks at the same time sidewalks are installed on adjoining sections of the road.
  - (e) When the installation of sidewalks is deemed to be unnecessary by the Director of Building & Planning to be unnecessary; however, alternative methods of providing for pedestrian circulation through the property should be provided, as appropriate.
- (4) In addition to the required sidewalk, a verge shall be provided along all existing and proposed public and private streets according to the dimensions in Table 4.9.1 Road Design Standards, based on the functional classification of the road, or Table 4.9.3 Single-Access Street Design Standards.
    - (a) The verge shall be provided between the curb line, or edge of the cartway, and the sidewalk.
    - (b) Verges shall be maintained as a landscaped strip between the sidewalk and the curb. If landscaping is impractical at the site, brick pavers or similar surface may be used at the discretion of the Board of Commissioners.
    - (c) Verges may contain street trees and other landscaping. Verges can also be used for stormwater management features such as rain gardens, provided a maintenance agreement is signed between the property owner and the township.
    - (d) Verges may contain street lights, trash receptacles, mailboxes, or newspaper boxes. No obstacle in the verge may reduce the required sidewalk width for use by pedestrians.
    - (e) If benches are provided within the verge, they must be placed a minimum of three (3) feet from the curb. Otherwise, benches must be placed at the back of the sidewalk.
- G. Crosswalks.
    - (1) Crosswalks shall be clearly delineated at all intersections where there is a sidewalk or trail connection and marked to the width of the largest contributing sidewalk or trail. In no case shall a crosswalk be less than five (5) feet wide.
    - (2) Crosswalks and their transition to adjacent sidewalks or trails shall be designed to facilitate access and use by persons that are physically disabled, in compliance with the Americans with Disabilities Act (ADA).

#### 4.9. Complete Streets and Context Sensitive Design (continued)

- (3) Crosswalk patterns, materials, and colors shall be consistent with applicable Township and PennDOT standards.
- (4) Pedestrian signalization shall be provided at intersections where traffic signals exist.
- (5) Where a crosswalk is located on an arterial street or at a mid-block location, the Board of Commissioners may require one or more of the following measures as described in the Pennsylvania Traffic Calming Handbook giving consideration to the recommendation of the Township Engineer, the Public Works Director, and the Traffic Safety Unit.
  - (a) High-visibility or decorative crosswalks.
    - [1] High-visibility crosswalks shall comply with PennDOT Publication 111 standards for Type C - Perpendicular crosswalks.
    - [2] Decorative crosswalks shall comply with PennDOT Publication 111 standards for decorative crosswalks as well as the following standards:
      - [a] All decorative crosswalks shall consist of stamped asphalt with an eight (8) inch cross-section from top to bottom with seven (7) inches 25 mm Superpave base course and 1.5-inches of 9 mm wearing course.
      - [b] Final details for any decorative crosswalk proposed in any Township right-of-way shall be subject to the approval of the Public Works Department prior to installation.
  - (b) Curb extensions, bulb-outs, or raised medians.
  - (c) Raised speed table crosswalks.
  - (d) Other pedestrian safety method deemed to be appropriate by the Board of Commissioners as recommended by the Township Engineer.
- (6) The responsibility of maintaining crosswalks shall be contained in a covenant filed against the abutting property.

#### H. Trails and Pathways.

- (1) Trails and pathways shall have adequate access for use by all residents/occupants of the development or, preferably, the general public.
- (2) The Board of Commissioners may request, as a condition of Final Plan approval, public easements or rights-of-way for the use of pedestrians, bicyclists and/or equestrians in the following situations:
  - (a) When a subdivision or land development lies adjacent to a park, school, or other pedestrian destination,
  - (b) When a trail is shown in the township's adopted open space or recreation plans,



## 4.9. Complete Streets and Context Sensitive Design (continued)

- (c) Where the right-of-way continues an existing trail or bridle path,
  - (d) Where the right-of-way will connect with an existing right-of-way on an adjoining property, or
  - (e) Where the right-of-way will extend to another street or alley, or to the boundary line of a property capable of further subdivision and there is no convenient alternate access route.
- (3) When a subdivision or land development includes or abuts an existing or a proposed trail, the applicant shall make provision for the continued recreational use of the trail subject to alterations of the course of the trail within the boundaries of the development under the following conditions:
- (a) Such rights-of-way may, at the option of the developer, be located adjacent to existing or proposed lot lines or in such a manner as to minimize any obstruction to the development.
  - (b) Existing rights-of-way may be relocated reasonably if a connection with a right-of-way on an adjoining property is maintained.
  - (c) The proposed alteration will not diminish the trail design and function.
  - (d) Where an existing trail runs coincidentally with the paved road intended for use by motorized vehicles, landscaping and other physical structures shall be used to increase the separation between the trail and the road.
- (4) Trails shall be a minimum of six (6) feet wide with an additional cleared area of two (2) feet on either side. Where multiple types of users are anticipated, such as pedestrians and bicyclists, additional trail width should be provided so that the trail is a minimum of 12 feet wide with an additional cleared area of four (4) feet on either side.
- (5) For phased developments, a development timeline shall be provided as part of the final plan submission, subject to the approval of the Director of Building & Planning, describing when the trail or pathway will be provided relative to other site improvements and occupancy of the site.
- (6) When trails are intended for public use, they shall be protected by a permanent access easement or right-of-way on the properties on which they are located. Unless otherwise provided for in Chapter 155, Zoning, the width of the easement or right-of-way in which the trail is located shall be a minimum of 12 feet. The language of the easement shall be to the satisfaction of the Township Solicitor.
- (7) No trail shall be designed with the intent to accommodate motorized vehicles except for emergency or maintenance access.
- I. Bicycle Amenities.
- (1) Bicycle amenities, including bicycle lanes, sharrows, and multipurpose pathways shall be located as consistent with the township comprehensive plan and any Official Map adopted by the Board of Commissioners.

#### 4.9. Complete Streets and Context Sensitive Design (continued)

- (2) General Standards. All bicycle amenities shall comply with the following general standards:
  - (a) Bicycle lanes and sharrows shall be designed and dimensioned to comply with all applicable PennDOT and FHWA Manual on Uniform Traffic Control standards. Multipurpose pathways shall be designed and dimensioned to comply with the design standards contained in Chapter 155, Zoning, of the Township Code.
  - (b) Bicycle amenities shall be marked with appropriate pavement markings, reflectors, and signage in accordance with all applicable FHWA Manual on Uniform Traffic Control and PennDOT standards.
  - (c) Where the roadway narrows, signage and pavement markings shall be added to warn drivers and bicyclists to help them avoid bicycle-automobile conflicts.
- J. On-Street Loading and Unloading Zones.
  - (1) On-street zones for designated short-term loading and unloading are encouraged for all developments with 100 feet or more of street frontage on an arterial street, unless otherwise required by Chapter 155, Zoning, of the Township Code. All on-street loading and unloading zones shall comply with the following standards:
    - (a) An on-street loading and unloading zone shall be equal in size to three (3) on-street parking spaces.
    - (b) Where on-street parking is either existing or proposed, the on-street loading and unloading zone shall be provided by designating on-street parking spaces.
    - (c) Where on-street parking is not either existing or proposed, the on-street loading and unloading zone may be providing by creating an inset space along the curbline, provided the minimum required sidewalk with is maintained.
    - (d) On-street loading and unloading zones shall be clearly identified with signage and/or pavement markings.
- K. Bus Stop and Shelters Design Guidelines for Fixed Route Public Transit Service.
  - (1) The applicant shall notify and coordinate with SEPTA and the Township Director of Building and Planning to determine if a bus stop is appropriate when the proposed subdivision or land development meets any one of the following criteria:
    - (a) Located along an existing or planned fixed route public transit service.
    - (b) Has a character, magnitude, or location that will have substantial effect upon the health, safety, or welfare of citizens in more than one municipality and could be considered a development of regional significance and impact, such as regional shopping centers, industrial or commercial parks, warehouses, residential developments, regional entertainment or recreation centers, hospitals or medical care facilities, and educational institutions.

## 4.9. Complete Streets and Context Sensitive Design (continued)

- (c) The proposed land development that meet any one of the following characteristics, which are consistent with Transportation Impact Study warrants included in PennDOT's Transportation Impact Study Guidelines:
  - [1] Site is expected to generate 3,000 or more average daily trips or 1,500 vehicles per day.
  - [2] During any one-hour time period of any day of the week, the development is expected to generate 100 or more vehicle trips entering the development or 100 or more vehicle trips exiting the development.
  - [3] For existing sites being redeveloped, the site is expected to generate 100 or more additional trips entering or exiting the development during any one-hour time period of any day of the week.
  - [4] In the opinion of the Director of Building and Planning, the development or redevelopment is expected to have a significant impact on the transportation system, even if the above warrants are not met.
- (2) The location and design of a bus stop shall be reviewed and approved by SEPTA. SEPTA shall provide written documentation certifying that a location is an existing or potential future bus stop.
- (3) The location and design of a bus stop, including conformance with other approved township ordinances and construction standards, shall be reviewed and approved by the Director of Building and Planning.
- (4) On-street parking and loading zones shall be prohibited or limited at the bus stop to avoid obstructing the curbside in the area of the bus stop and provide sufficient space for the bus to pull to the ADA loading pad and/or curb.
- (5) Bus stop infrastructure for fixed route bus stops shall be designed and constructed in accordance with ADA requirements.
- (6) ADA loading pads that are integrated with the adjacent sidewalk shall be maintained in compliance with requirements for the maintenance of adjacent sidewalk as specified in Chapter 133, Streets and Sidewalk, of the Township code.
- (7) Bus stop infrastructure shall comply with all provisions of Chapter 155, Zoning.
- (8) ADA Loading Pads. An accessible loading pad shall be provided adjacent to the curb or roadway edge where the front doors of a fixed route bus service open to receive and discharge passengers at a designated bus stop. A second loading pad located at the rear door of the bus may be required.
  - (a) All ADA loading pads shall be provided at curb-height to accommodate bus wheelchair lifts and/or ramps. A street-level ADA loading pad may be provided as an alternative with approval from the transit agency and municipality.

## 4.9. Complete Streets and Context Sensitive Design (continued)

- (b) All ADA loading pads shall be connected via an ADA accessible route to adjacent pedestrian infrastructure, such as a sidewalk, path, or multi-use trail. ADA loading pads may be integrated with the sidewalk or other pedestrian infrastructure. A stand-alone ADA loading pad with an ADA accessible route to the nearest roadway or public right-of-way may be provided as an alternative with approval from the transit agency and municipality.
- (c) Minimum clear area of the ADA pad for boarding and alighting, which is five (5) feet measured parallel to the roadway and eight (8) feet measured perpendicular to the roadway, shall be provided and shall not obstruct utility poles, fire hydrants, street furniture, overhangs, trees, shrubs, and similar obstacles.
- (d) Slope. Parallel to the roadway, the slope of the loading pad shall be the same as the roadway, to the maximum extent practicable. Perpendicular to the roadway, the slope of the loading pad shall not be steeper than two percent (2%).
- (e) Minimum construction standards.

[1] The ADA loading pad shall have a firm, stable, and slip resistant surface, preferably concrete built consistent with the minimum construction standards for sidewalks as specified in Chapter 133, Streets and Sidewalk, of the Township code or asphalt consistent with the minimum construction standards for paths and multi-use trails as specified in the Township of Lower Merion Site Design and Construction Standards Manual.

## (9) Bus Shelters.

- (a) All aspects of the bus shelter shall comply with ADA requirements, including but not limited to access points, clearance and circulation within the shelter, and seating
- (b) The bus shelter shall be integrated with the ADA loading pad or connected to the ADA loading pad via an ADA accessible route.
- (c) A bus shelter includes a roof or canopy and may be enclosed on up to three sides with partial enclosure of a fourth side permitted for protection against wind or other weather elements. A bus shelter may be integrated with the structure of an adjacent building or externally attached.
- (d) For security and safety purposes, the majority of the side and rear panels of the shelter shall be constructed of a clear, shatter resistant material.
- (e) Bus stop passenger information signs may be provided within or on a bus shelter and shall be considered exempt from municipal sign ordinance requirements.
- (f) Any lighting for a bus shelter shall be installed in such a manner to provide adequate visibility during darkness for patrons of the transportation system. The lighting shall be installed in such a way so that the source of light shall be shielded from all abutting residential properties and

## 4.9. Complete Streets and Context Sensitive Design (continued)

- traffic along the roadway where the shelters are located. The lighting shall not conflict with any traffic control devices.
- (g) Bus shelters shall be installed according to the manufacturer's design specifications.
  - (h) Location.
    - [1] The shelter shall be located near the front end of the bus stop zone to minimize the distance to access and board the bus.
    - [2] Roadway asphalt stabilization measures along the cartway shall be installed at discretion of Public Works
    - [3] The shelter shall not obstruct the required minimum clear area of the ADA loading pad for boarding and alighting.
    - [4] The shelter shall be within fifty (50) feet of the ADA loading pad.
    - [5] The location of a bus shelter shall not interfere with horizontal clearance for access and maintenance, including pedestrian traffic along a sidewalk or curb ramps. A minimum clearance of four (4) feet shall be maintained around the shelter but may be reduced to two (2) feet for the distance between the back of the shelter and a building face, wall, or similar vertical barrier.
    - [6] The shelter, including roof or panels, shall be located a minimum of four (4) feet from the curb or roadway edge.
    - [7] On-street parking shall be restricted within a minimum ten feet (10') from any bus shelter vi) The location of the bus shelter shall conform to clear sight triangles and other minimum sight distance requirements for driveways and intersections.
    - [8] The shelter shall provide a clear view of the roadway and approaching bus.
  - (i) Dimensions.
    - [1] The minimum clear floor area of thirty (30) inches by forty-eight (48) inches shall be provided within the perimeter of the shelter.
    - [2] The minimum shelter opening of thirty-six (36) inches shall be provided.
  - (j) Foundation.
    - [1] The bus shelter shall be anchored and attached to a concrete foundation with a slope that is not greater than 1:48.
    - [2] Specifications for the bus shelter and foundation shall be consistent with the manufacturer's specifications (if applicable) and approved by the transit agency and municipality.

#### 4.9. Complete Streets and Context Sensitive Design (continued)

##### (10) Bus Stop Street Furniture

- (a) Bus stop street furniture may include, but is not limited to, bus passenger benches, leaning rails, waste receptacles, and bicycle racks.
- (b) Bus stop street furniture shall not obstruct the required minimum clear area of the ADA loading pad for boarding and alighting
- (c) The location of bus stop street furniture shall not interfere with horizontal clearance for access and maintenance, including pedestrian traffic along a sidewalk.
- (d) The location of street furniture shall conform to clear sight triangles and other minimum sight distance requirements for driveways and intersections.
- (e) Furniture shall be anchored securely to prevent unauthorized movement and shall be able to be relocated or replaced by those authorized to maintain the furniture.
- (f) Bus Stop Passenger Benches.
  - [1] Benches shall be ADA compliant in terms of dimensions and construction.
  - [2] Benches shall be placed facing the roadway and outside of boarding and alighting areas and pedestrian routes.
  - [3] Benches shall be installed on a firm, stable, and slip resistant surface.
  - [4] Benches shall be located a minimum of four (4) feet from the curb or roadway edge.

##### (11) Bus Stop Signs

- (a) Bus stop signs, including bus stop location signs and bus stop passenger information signs, installed and maintained by the transit agency shall be permitted within the public right-of-way and on private property and shall be considered a governmental sign.
- (b) Bus Stop Location Signs
  - [1] Bus stop location signs shall be placed to clearly identify the location where passengers access fixed route public transit service. The bus stop sign shall be located in close proximity, but not within the ADA loading pad.
  - [2] The sign post shall be located a minimum of two (2) feet from the curb or roadway edge.
  - [3] The minimum and maximum vertical clearance from the ground to the bottom of the sign shall be seven (7) feet and eight (8) feet, respectively.

## 4.9. Complete Streets and Context Sensitive Design (continued)

- [4] The sign shall be visible to approaching buses and other traffic, as well as pedestrians on the sidewalk. It shall not be blocked by trees, signs, or other obstacles.
- [5] Bus stop location signs shall be mounted on either their own post or on another existing pole or bus shelter to minimize clutter or conflicts. Bus stop location signs shall not be mounted on the same pole as a traffic control device.

## (12) Bus Stop Passenger Information Signs

- (a) Bus stop information signs shall not obstruct pedestrian access routes or the required minimum clear area of the ADA loading pad for boarding and alighting.
- (b) Bus stop information signs shall be either mounted on the same post or pole as the bus stop signs or shall be integrated with the bus shelters.

## L. Street Alignment

- (1) Streets shall be adjusted to the contour of the land so as to produce usable lots and streets of reasonable grade, alignment, and drainage. Sight distance, horizontal, and vertical curvature, super-elevation, and maximum and minimum street grades shall be determined by the Township Engineer in compliance with the standards contained in A Policy on Geometric Design of Highways and Streets, published by the American Association of State Highway Transportation Officials (AASHTO), most recent edition, or PennDOT standards, whichever is more suitable to site conditions. In addition, the following standards and guidelines shall be complied with:
  - (a) Minimum horizontal and vertical curvature for all streets shall conform with the standards in AASHTO Manual for the Design of Highways and Streets, as well as the following general standards:
    - [1] Horizontal curves shall be used at all changes in alignment in excess of 20°.
    - [2] Reverse curves shall be separated by tangents of 50 feet or more.
    - [3] Vertical curves shall be used at changes in grade of more than 1%. The length of the curve shall approximate 50 feet on arterial streets and 25 feet for local (minor) streets for each 1% of change in grade. Over summits or in sumps, vertical curves shall not produce excessive flatness of grade.
    - [4] Long radius, gentle curves shall be used rather than shorter radius curves connected by tangents, particularly where truck traffic is anticipated.
    - [5] Curve-tangent relationships shall follow accepted engineering guidelines for safety and efficiency. For example, minimum radius curves shall not be used at the ends of long tangents.
    - [6] Minimum radii of the center line on horizontal curves shall be 232 feet on arterial streets and 100 feet on local (minor) streets.

## 4.9. Complete Streets and Context Sensitive Design (continued)

- [7] Super-elevation and additional width shall be used for curves of less than 600 feet radii on arterial streets and of less than 300 feet radii on local (minor) streets.
- (b) Minimum Sight Distance Triangle diagrams
- (c) Street grades shall comply with the following and shall be measured along the centerline of the street, unless noted otherwise below:
  - [1] The minimum grade for all streets shall be 1%.
  - [2] Grades in excess of 5% are to be avoided on all streets wherever practicable.
  - [3] The maximum grade shall be 7% for arterial streets and 10% for local (minor) streets.
  - [4] Curve-grade combinations shall follow accepted engineering guidelines for safety and efficiency. For example, a combination of minimum radius horizontal curves and maximum grades will not be approved.
  - [5] The grade within 50 feet of any side of an intersection, or the outer perimeter of a turnaround, shall not exceed 3%. The grade shall be measured along the curb or flow lines of the street.
- M. Street Intersection Design. All street intersections shall be governed by the standards of this section and the appropriate PennDOT and AASHTO Standards.
  - (1) Primary and Secondary Arterial Streets. Wherever practicable, the number of intersections with primary and secondary arterial streets shall be kept to a minimum and shall have a minimum spacing according to Table 4.9.2. Street Alignment and Intersection Standards above.
  - (2) Number of Streets. No more than two streets shall intersect at the same point.
  - (3) Three-Way/Four-Way Intersections. Three-way or "T" intersections should be used instead of four-way intersections involving local (minor) streets intersecting arterial streets unless the four-way intersection would promote necessary and desirable traffic movements or where traffic signals or four-way stop signs are proposed.
  - (4) Angle of Intersections.
    - (a) All intersection approaches shall be designed at 90-degree angles for a minimum of 50 feet from the edge of the cartway.
    - (b) Where angled intersections are used they should be no less than 65 degrees and designed so that the heavier traffic flow will make the obliquely angled turn rather than the acutely angled turn.
  - (5) Grading. The shoulders shall be graded to the full width of the right-of-way and provision made for slopes beyond the right-of-way.
  - (6) Improvements to Existing Intersections. When existing streets intersect at odd angles or have more than four approaches, the applicant shall improve the



4.9. Complete Streets and Context Sensitive Design (continued)

**TABLE 4.9.2 ROAD DESIGN STANDARDS**

FUNCTIONAL CLASSIFICATION OF ROAD	MAXIMUM INTERSECTION SPACING	MINIMUM CLEAR SIGHT TRIANGLE	CORNER RADIUS <sup>1</sup>
PRIMARY ARTERIAL STREET	600 ft.	100 ft.	35 ft.
SECONDARY ARTERIAL STREET	600 ft.	100 ft.	30 ft.
TERTIARY ARTERIAL STREET	300 ft.	75 ft.	25 ft.
LOCAL (MINOR) STREET	300 ft.	75 ft.	20 ft.

1. All radii specified herein must be increased if large trucks, fire trucks, or other emergency vehicles would have difficulty with ingress or egress as determined by the Township Fire Marshall.

intersection, to bring it into compliance with this Chapter, as appropriate. For state and county highways, improvements shall comply with the requirements of the appropriate agency having jurisdiction over the road.

- (7) Radii of Pavement and Right-of-Way at Intersections. Wherever practicable, right-of-way lines shall intersect at right angles and shall be rounded by a tangential arc having a minimum radius of ten (10) feet.
- (8) Curbs. Wherever practicable, curblines shall be rounded by a tangential arc, the minimum radius of which shall be as indicated in Table 4.9.2. Street Alignment and Intersection Standards. The grade lines of the curb at intersections shall intersect if the tangents are extended.
- (9) Sight Distance and Clear Sight Triangle. All intersections shall provide clear sight distance in compliance with the standards within Chapter 441 (Access to and Occupancy of Highways by Driveways and Local Roads), Title 67 of the Pennsylvania Code, and AASHTO standards.
  - (a) The calculated minimum sight distance shall be measured along the centerline of the street from a point ten (10) feet back of the pavement edge of the intersecting road and four (4) feet above the road surface.
  - (b) If the minimum required sight distance cannot be achieved, the township may exercise one or more of the following options:
    - [1] Prohibit left turns by exiting vehicles.
    - [2] Restrict turning movements to right turns in and out of a driveway.
    - [3] Require installation of a right turn acceleration lane or deceleration lane.
    - [4] Require installation of a separate left turn standby lane.
    - [5] Alter the horizontal or vertical geometry of the roadway.
    - [6] Deny access to the road.
    - [7] Provide intersection controls as determined by the Township Engineer

## 4.9. Complete Streets and Context Sensitive Design (continued)

- [8] Proper sight lines shall be maintained at intersections of streets. There shall be measured along the center line, a minimum clear sight triangle of 75 feet from the point of intersection. No building or other obstruction will be permitted in this area. Any obstruction to sight shall be removed at the time the street is permitted in this area. Any obstruction to sight shall be removed at the time the street is graded, or at the time a building or structure is erected on the adjacent lot, whichever occurs first .
- (10) The Board of Commissioners may waive the street intersection requirements, in full or partially, under one or more of the following conditions:
  - (a) When changes made on the applicant's land will not improve the intersection's deficiencies.
  - (b) When other road improvements are already planned which would correct the problem without changes required of the applicant.
  - (c) When not required by PennDOT where the intersections are under their jurisdiction.
- (11) Street intersection spacing shall be in compliance with the regulations contained in this section, measured from centerline to centerline.
  - (a) The applicant shall prepare a Vehicular Access Analysis, for all street intersections proposed along arterial streets.
  - (b) The spacings listed in Table 4.9.2. Street Alignment and Intersection Standards shall be considered minimum spacing. Where greater spacing is required in compliance with AASHTO or PennDOT standards, the greater spacing distances shall be applied, as determined by the Township Engineer.
  - (c) Offset Intersections. In any case where the centerlines of street intersections are, or would be, within 150 feet of each other, they shall be made to coincide by relocating the street within the applicant's land, unless additional problems of sight distance or other safety-related problems would be created. As an alternative, relocation further away from the offset intersection may be done in compliance with the intersection spacing requirements contained herein, when approved by the Board of Commissioners upon recommendation of the Township Engineer.

## N. Single-Access Street Standards.

Any street which is served by only one intersection with a through street shall be considered a single-access street, regardless of the street's configuration within the proposed subdivision or land development.

- (1) Single-access streets shall be classified as one of the following:
  - (a) Single-access loop streets.
  - (b) Cul-de-sac streets.

## 4.9. Complete Streets and Context Sensitive Design (continued)

- (2) Single-access street intersections with through streets:
  - (a) Single access streets shall be established beginning at a three-way intersection perpendicular to a through street.
  - (b) Four-way intersections may be created using two permanent single access streets intersecting directly opposite one another along a through street, when the through street is a local street.
- (3) The minimum right-of-way and paving widths for single-access streets shall be as specified in Table 4.9.3. Single-Access Street Design Standards below unless otherwise approved by the Board of Commissioners upon recommendation of the Township Engineer and Public Works. In determining the number of dwelling units, the following standards shall apply:
  - (a) Both existing and proposed dwelling units are counted.
  - (b) The two corner lots at the intersection of a proposed single-access street with an existing street are counted, whether or not they utilize the single-access street for access.
- (4) Single-Access Loop Streets:
  - (a) Shall not exceed 2,000 feet in length, measured from the intersection with the through street, along the entire centerline around to its intersection with itself.
- (5) Cul-de-Sac Streets:
  - (a) A cul-de-sac street will not be approved when a through street is practicable. The developer shall have the burden of showing the impracticability of the through street in order to justify a cul-de-sac. Criteria that may be considered when evaluating whether a through street would be impracticable, include but are not limited to:
    - [1] The presence of significant natural features, such as floodplain, steep slopes, or woodlands, which would be impacted by the construction of a through street.
    - [2] The lack of existing streets in the vicinity for the proposed through street to connect to.
    - [3] If it is determined that a through street is impracticable, alternative means of providing non-vehicular access to adjacent streets shall be considered, where applicable.
  - (b) New cul-de-sac streets shall not extend from any other existing single-access street.
  - (c) Cul-de-sac streets shall be a minimum of 250 feet and a maximum of 800 feet long. Measurement of the length shall be made from the centerline of the abutting through street to the centerline of the turnaround, measured along the cul-de-sac street's centerline. Additional paving width shall be installed as determined necessary by the Township Engineer for cul-de-sac streets exceeding 400 feet in length.

## 4.9. Complete Streets and Context Sensitive Design (continued)

**TABLE 4.9.3 SINGLE-ACCESS STREET DESIGN STANDARDS**

<b>NUMBER OF LOTS OR DWELLING UNITS SERVED BY THE SINGLE-ACCESS STREET</b>	<b>MINIMUM RIGHT-OF-WAY WIDTH</b>	<b>MINIMUM CARTWAY WIDTH</b>
<b>LESS THAN 8 LOTS IN LDR1 AND LDR2 ZONING DISTRICTS</b>	50 ft.	20 ft.
<b>LESS THAN 8 LOTS IN LDR3, LDR4, MDR1, MDR2, AND MDR3 ZONING DISTRICTS</b>	45 ft.	27 ft.
<b>LESS THAN 8 LOTS IN COMMERCIAL CENTER AND LIGHT INDUSTRIAL ZONING DISTRICTS</b>	45 ft.	27 <sup>1</sup> ft.
<b>8 OR MORE LOTS IN ANY ZONING DISTRICT, EXCEPT OSOD</b>	45 ft.	27 <sup>1</sup> ft.
<b>OPEN SPACE OVERLAY DISTRICT (OSOD)</b>	45 ft.	20 ft.

1. The Township Engineer may require additional width of paving in commercial center and light industrial zoning districts in accordance with AASHTO standards

- (d) Vehicular Turnaround. Cul-de-sac streets shall have a vehicular turnaround at the closed end with a right-of-way radius of at least 50 feet, and a paved radius of at least 40 feet, except as provided below.
- [1] Alternative vehicular turnaround designs are encouraged to improve traffic flow and overall design of the subdivision.
  - [2] If an off-set bulb turnaround is used, the bulb should be configured to the left of the approaching road center line.
  - [3] Landscaped cul-de-sac islands are encouraged and shall conform to the following standards.
    - [a] Landscaped cul-de-sac islands shall be located within the bulb of a cul-de-sac and be concave for use as part of the stormwater management infrastructure.
    - [b] Landscaped cul-de-sac islands shall have a maximum radius of 24 feet and be surrounded by paving on all sides.
    - [c] Landscaped cul-de-sac islands shall be designed to allow for emergency vehicle access into the cul-de-sac street.
    - [d] Efforts should be made to retain the existing vegetation on the site within the landscaped cul-de-sac island.
    - [e] Landscaping proposed within a cul-de-sac island shall be established for responsibility of maintenance.
  - [4] Parking may be prohibited on the cul-de-sac street by order of the Fire Marshall.

## 4.9. Complete Streets and Context Sensitive Design (continued)

- (e) No more than five (5) lots shall have frontage on the circular turnaround portion of a cul-de-sac street, and no more than five (5) driveways shall have access to the circular turnaround portion unless an expanded radius and island is incorporated into the turn around.
  - (f) A permanent easement for snow removal may be required at cul-de-sac bulb. The easement shall have a minimum length along the right-of-way line of 40 feet and a depth of 15 feet. When curbing is required, a curb depression shall also be placed in this easement area. No shrubbery, fence, mailbox, or any other obstruction shall be placed within the easement to hinder the placement of the snow.
  - (g) Shall be served by an appropriately located and constructed emergency access way when required by the Fire Marshall using the following standards:
    - [1] Minimum cartway width shall be ten (10) feet.
    - [2] Pavement shall satisfy the standards of Township Engineer.
    - [3] Emergency access ways shall be maintained through properly recorded easements or deed restrictions which at a minimum prohibit the planting of any vegetation except grass within the access way.
    - [4] May be made available for pedestrian access.
  - (h) Shall be identified by a standard warning sign stating "No Outlet" when deemed appropriate by the Township Engineer to help avoid mistaken turning movements.
0. Street Signs and Names.
- (1) Street Signs. The developer shall erect a street sign or street signs at every intersection. At intersections where streets cross, there shall be at least two such street signs and at the intersections where one street ends or joins another street, there shall be at least one sign. They shall be four-way signs of such material, size, height, and location as specified by the Township Engineer and in conformity with the existing signs already established in the township. Street signs for existing and new streets shall be furnished and erected by the Lower Merion Department of Public Works at the developer's expense.
  - (2) Street Names. Street names shall conform to the requirements of Chapter 133, Streets and Sidewalks, of the Township Code and the following standards:
    - (a) Street names should bear a reasonable relationship to significant natural features or the history of the community.
    - (b) Names for all new streets must be shown on all plans.
- P. Driveway Access.
- (1) Any new driveway proposed to be installed, and any driveway proposed to be widened or enlarged, must comply with the requirements in this section.

## 4.9. Complete Streets and Context Sensitive Design (continued)

- (2) No driveway location, classification, or design shall be considered finally approved by the Township unless highway occupancy or access permits have been granted by the state, county, and/or Township and Preliminary Plan approval has been granted by the Board of Commissioners for the subdivision and/or land development which the driveway(s) will serve.
- (3) No more than five (5) dwelling units may share a common driveway.
- (4) Driveway Intersections with Streets:
  - (a) When a lot adjoins streets of different classes as shown on the Functional Classification of Roads Map, the driveway shall provide access to the street of lesser classification unless this requirement is waived by the Board of Commissioners for reasons of sight distance, incompatibility of traffic, grading, drainage, or other major reasons.
  - (b) Driveways shall provide adequate sight distance in compliance with the standards established by PennDOT and AASHTO.
  - (c) Driveways shall not cause or contribute to:
    - [1] Hazards to the free movement of normal street traffic;
    - [2] Traffic congestion on the street; or
    - [3] Interference with the design, maintenance, and/or drainage of the street.
  - (d) Driveways shall be designed and constructed in compliance with Chapter 441 (Access to and Occupancy of Highways by Driveways and Local Roads) of Title 67 of the Pennsylvania Code, unless Township standards are more restrictive.
  - (e) Driveways serving individual parcels of land may be prohibited where such intersections would create congestion, interference, and/or hazards to traffic flow and safety by reason of street grades, vegetation, frequency of driveway intersections, limited sight distances, and/or high speed traffic flow. In such cases, the Board of Commissioners may permit reasonable alternative forms of vehicular access to the parcel of land by other means which are legally and technically suitable in the opinions of the Township Solicitor and Engineer.
- (5) Number and Spacing of Driveways . To facilitate safe and efficient access between streets and driveways, the number of driveways permitted to serve individual parcels of land shall be kept to the minimum needed to adequately serve the parcel in question.
  - (a) Shared access between adjoining lots should be considered prior to constructing any new driveway. Crossover easements are required and must be noted on the plan and included in all affected deeds.
  - (b) Where feasible, a driveway shall be aligned with access points on the opposite side of the street.

## 4.9. Complete Streets and Context Sensitive Design (continued)

- (6) Distance from Street Intersections . Driveways shall be located as far from street intersections as is reasonably possible, but no less than the following distance from the point of the intersection between two street centerlines:
    - (a) Driveways serving a single-family detached unit: 75 feet
    - (b) All other driveways: 100 feet
  - (7) Stopping Areas. Regardless of the driveway classification, all driveways shall be provided with a stopping area 20 feet in length within which the grade shall not exceed 5% measured behind the right-of-way line. The stopping area shall be measured as follows:
  - (8) Maximum Grade for Driveways. Excessive driveway grades that may create a hazard at either street or interior terminus will not be permitted.
    - (a) Residential driveways shall not exceed 10% grade.
    - (b) All other driveways shall not exceed 8% grade.
  - (9) Sight Distance Determinations. Sight distances at intersections of new driveways with existing roads shall be determined in accordance with the standards in §4.1.m.9.
  - (10) Driveways Longer than 200 feet. Driveways which exceed 200 feet in length frequently present difficulties in and impediments to the delivery of municipal and emergency services and present difficulties in vehicular passage. Therefore, the Board of Commissioners may impose one or more of the following additional construction requirements to alleviate such difficulties and impediments as it determines necessary for proposed driveways which exceed 200 feet in length:
    - (a) Driveways which exceed 200 feet in length shall be constructed to Township road standards and shall have a minimum width of ten (10) feet.
    - (b) Pull-outs shall be installed at intervals of no more than 200 feet and shall have dimensions of nine (9) feet by 19 feet.
    - (c) Driveways which exceed 400 feet in length shall be constructed with a turnaround using a "Y" or a "T" or a circular configuration with a 25-foot radius at the terminus.
    - (d) Driveways which exceed 600 feet in length shall have private hydrants installed at such intervals as shall be mandated by the Fire Marshal for local (minor) streets.
    - (e) If literal compliance with any of the foregoing requirements would be impractical, the Board of Commissioners may modify or adjust such requirements to permit reasonable utilization of property while at the same time securing substantial conformance with the objectives of this section.
- Q. Parking and Related Internal Drive Aisles. Parking and related internal drive aisles shall be governed by the following regulations.

#### 4.9. Complete Streets and Context Sensitive Design (continued)

- (1) Purpose. The specific purposes to be served by these requirements are:
  - (a) To add visual character and improve the appearance of parking areas by reducing their massiveness into smaller units.
  - (b) To integrate parking areas into the pedestrian circulation system.
  - (c) To provide shade for parked cars and reduce heat islands, stormwater runoff, and air pollution.
  - (d) To reduce random vehicular flow across parking areas.
  - (e) To permit a high level of visibility for those uses for which visibility is an important factor.
  - (f) To facilitate snow removal and storm drainage, and to conserve energy in construction and resurfacing operations, by laying out the paving surface with minimal obstructions.
- (2) General.
  - (a) Off-street parking facilities shall be provided in compliance with the parking requirements of Chapter 155, Zoning, of the Township Code, as well as the regulations contained herein.
  - (b) Parking spaces designed for the exclusive use by disabled persons shall be installed in all parking lots as close and convenient to building entrances as is reasonable. The specific number and locations of handicapped stalls shall be in conformance with the Americans with Disabilities Act (ADA).
  - (c) Construction materials for off-street parking areas, including driveways used as required parking, shall only consist of concrete, pervious concrete, concrete wheel-strips with grass, asphalt, or pavers.
  - (d) Provisions for pedestrian safety within a parking lot shall be required by providing sidewalks, delineated crosswalks, traffic calming devices, and other measures.
  - (e) Innovative stormwater management controls that encourage infiltration of stormwater runoff on-site such as rain gardens and porous pavement shall be incorporated into parking lot design, as required in Article 5 herein.
  - (f) The allowance and configuration of on-street parking on Township roads shall be as permitted by the Board of Commissioners as recommended by Director of Public Works.
- (3) All Parking Lots.
  - (a) Parking shall not be permitted along driveways which serve as the entrance(s) or exit(s) to parking areas with a capacity of 50 vehicles or more. A minimum driveway length of 50 feet shall be provided between the road ultimate right-of-way line and the first parking space or internal driveway intersection in parking lots with 50 vehicles or more.



## 4.9. Complete Streets and Context Sensitive Design (continued)

- (b) Parking areas shall be set back from tract boundary lines and ultimate right-of-way lines in compliance with the requirements of Chapter 155, Zoning, of the Township Code. In any case not regulated by Chapter 155, Zoning, of the Township Code, parking areas shall be in compliance with Article 5. Landscape Standards.
  - (c) Dead-end parking areas are discouraged and shall not be used when the required parking capacity can be accommodated in a layout that permits more convenient vehicular movements. Up to 30 parking spaces may be located in a dead-ended parking area, only if a suitable turnaround area is provided at the closed end.
  - (d) Emergency access shall be reviewed by the Township Fire Marshall subject to compliance with the International Fire Code.
- (4) Parking Lot Dimensions.
- (a) The minimum size of all parking stalls and aisles shall be consistent with requirements of Chapter 155, Zoning, of the Township Code and Americans with Disabilities Act (ADA) provisions, where applicable.
- (5) Shared Access. When required by the Board of Commissioners, applicants shall create agreements for shared vehicular access as the preferred means of reducing the total number of curb cuts for traffic safety and congestion reasons.
- (a) When two (2) or more abutting lots share an access driveway, the driveway should be designed as the main access to those lots, and one or more existing access driveways shall be closed.
  - (b) Where development of three (3) or more adjoining parcels consolidates vehicular access into one shared driveway, that driveway may be upgraded into a medium volume driveway according to PennDOT standards.
  - (c) Shared access driveways may be located entirely on one (1) lot or split along a common lot line.
  - (d) Shared parking agreements shall comply with §155-8.2.(b) of the Township's Zoning Code.
- (6) Drive Aisles within Sites Proposed for Non-Residential Development. The following requirements apply to all drive aisles within all sites proposed for non-residential land development.
- (a) Interior storefront drive aisles within shopping center developments shall be a minimum paved width of 28 feet to allow one lane in each direction and a drop-off/pick-up lane along the sidewalks. The following additional standards shall apply to interior storefront drive aisles:
    - [1] Sidewalks with a minimum width of eight (8) feet shall be provided.
    - [2] Street trees shall be provided in compliance with §135-5.1.
    - [3] A verge with a minimum width of four (4) feet shall be provided and shall alternate between landscaping and hardscaping.

## 4.9. Complete Streets and Context Sensitive Design (continued)

- [4] Parallel parking is encouraged along interior storefront driveways.
- (b) Drive aisles along other non-residential buildings shall be a minimum paved width of 22 feet, except where a drop-off/pick-up lane is proposed.
- (7) Pedestrian Pathways and Crosswalks. The following requirements shall apply to all surface parking lots where ten (10) or more new parking spaces are proposed.
  - (a) Pedestrian access to each building on-site from adjacent public sidewalks, the street, and all areas of the parking lot shall be physically delineated and provided through the installation of sidewalks and defined crosswalks.
  - (b) Pedestrian Pathways.
    - [1] Pedestrian pathways shall be clearly separated from vehicular use areas with sidewalks, landscaping, a change in grade, or a change in paving material.
    - [2] Pedestrian sidewalks in parking areas shall be barrier-free, and a minimum of five (5) feet wide. Additional width may be needed in some areas with heavy pedestrian traffic.
    - [3] At least one (1) pedestrian route shall be provided that provides access from the far end of the parking lot to the main entry of a building to facilitate pedestrian movement.
  - (c) Crosswalks. Where a pedestrian circulation route within the parking area crosses a vehicular drive aisle, a crosswalk with a differing paving material, continental-style crosswalk markings, or a speed table shall be provided.

## R. Electric Vehicle Charging Stations (EVCS).

- (1) Electric Vehicle Capable Standards.
  - (a) For any new development or redevelopment requiring more than 25 additional parking spaces sufficient space and capacity shall be provided to support the operation of Level 2 EVCS for at least 20% of the additional parking spaces, with a dedicated branch circuit and overcurrent protection for each Level 2 EVCS.
  - (b) For any new development or redevelopment of a parking structure, all parking spaces located within the parking structure shall be made EVCS capable with conduit installed throughout the structure and electrical subpanels sized to accommodate a Level 2 EVCS for each parking space.
  - (c) It is strongly encouraged, but not required, that all new single-family and multifamily dwellings with garages be constructed to provide a 220-240-volt/40 amp outlet or support either a dual port 30-amp system or a fast AC 80-amp single port system on a dedicated circuit and in close proximity to designated vehicle parking to accommodate the potential future hardwire installation of a Level 2 EVCS.

## 4.9. Complete Streets and Context Sensitive Design (continued)

- (d) It is strongly encouraged, but not required, that all new, expanded and reconstructed single-family dwelling garages provide a 220-240-volt/40 amp outlet or support either a dual port 30-amp system or a fast AC 80-amp single port system on a dedicated circuit and in close proximity to designated vehicle parking to accommodate the potential future hardwire installation of a Level 2 EVCS.
- (2) EV Parking Capacity and Minimum Required Parking Requirements.
- (a) For any new development or redevelopment with at least ten (10) parking spaces serving residential uses, at least 10% shall be Electric Vehicle Parking Space (EVPS) served by a Level 1 or Level 2 EVCS connection.
  - (b) For any new development or redevelopment requiring 25 additional parking spaces, at least five (5) percent shall be EVPS served by a Level 2 EVCS connection.
    - [1] At least one (1) EVPS, or 10% of the EVPS provided to meet this requirement, whichever is greater, shall be available for public use.
  - (c) For any new development or redevelopment requiring 250 parking spaces, at least one (1) percent shall be an EVPS served by a Level 3 EVCS connection.
    - [1] This requirement is in addition to other Level 1 and Level 2 EVPS connection requirements.
    - [2] The Level 3 EVCS shall be available for public use.
  - (d) For developments with both residential and nonresidential uses (mixed-use), EV parking capacity and minimum parking requirements shall be calculated based on the proportional number of parking spaces allocated to each use.
  - (e) EV parking capacity and minimum parking requirements are calculated on the parking spaces required for the development.
- (3) Electric Vehicle Charging Station Standards
- (a) Installation of EVCS shall meet the requirements of all applicable Electrical Codes and Building Codes.
  - (b) EVCS cords shall be retractable or have a place to hang the cord and connector above the pedestrian surface. Any cords connecting the charger to a vehicle shall be configured so that they do not cross a driveway, sidewalk, or passenger unloading area.
  - (c) EVCS outlets and connectors shall be mounted to comply with all relevant Americans with Disabilities Act (ADA) requirements.
  - (d) Where EVCS equipment is provided within an adjacent pedestrian circulation area, such as a sidewalk or accessible route to the building entrance, the charging equipment must be located so as not to interfere with accessibility requirements.

## 4.9. Complete Streets and Context Sensitive Design (continued)

- (e) EVCS pedestals shall be designed to minimize their potential damage by accidents and vandalism and to be safe for use in inclement weather.
  - (f) EVCS shall be protected from vehicle impacts by curbs, wheel stops, bollards or other physical barriers. The EVCS shall be offset a minimum of 24 inches clear from the physical barrier.
- (4) Electric Vehicle Parking Space (EVPS) Design and Location
- (a) The minimum dimensions for any EVPS shall be in accordance with parking spaces as outlined in Chapter 155, Zoning.
  - (b) EVPSs shall be located in parking spaces which are desirable and convenient to incentivize the use of electric vehicles.
  - (c) Any EVPS available for public use shall be marked with a sign indicating that their use is either reserved for EVs or preferred for use by EVs.
  - (d) The following information shall be posted at each EVCS:
    - [1] Voltage and amperage levels;
    - [2] Hours of operation and time limits;
    - [3] Usage fees, if any;
    - [4] Safety information;
    - [5] Contact information to facilitate reporting when equipment is not operating correctly or other issues.
  - (e) Site lighting shall be provided of the area where an EVCS is installed, unless the parking area is limited to daytime use only.

## 4.10 Utilities

All new electric, telephone and communication service facilities, both main and service lines, shall be provided by underground cables, installed in accordance with the prevailing standards and practices of the utility or other companies providing such services, except where it is demonstrated to the satisfaction of the Board of Commissioners that the underground installation herein required is not feasible because of the physical condition of the lands involved. All proposed underground cables which are within the right-of-way of a street shall be located as specified by the Board of Commissioners.

## A. Water Service and Fire Hydrants.

- (1) An adequate public water supply shall be provided by the developer for the proposed use and for fire control.
- (2) The design for public water supply facilities shall be in accordance with PADEP Water Supply Manual, the specifications of the utility providing water service.
- (3) Fire hydrants shall be provided by the developer and installed subject to approval of locations by the Township.

## 4.10. Utilities (continued)

- (a) Furthermore, in the event that a fire hydrant or hydrants are installed to service public or private streets in a subdivision or land development, the developer shall deposit funds or securities in escrow sufficient to cover the cost of the annual fire hydrant rental charge imposed by the water utility provider for a prospective period of 10 years of hydrant rental.
    - (b) The developer shall be responsible for the continued payment imposed by the water utility provider.
  - B. Sanitary Sewers. All sanitary sewer systems and sewage and industrial waste treatment works shall comply with the rules and regulations established by the Department of Environmental Resources of the Commonwealth of Pennsylvania, as amended and revised.
    - (1) Wherever practicable, sanitary sewers shall be installed and connected to the Township sanitary sewer system. If outfall sewers are not available but are planned and have been shown in the ten-year growth area as set forth in the 537 Sewage Facilities Plan of the Township, a system of sewers, together with all necessary laterals extending from the main sewer to the street right-of-way line, shall be installed and capped. The Board of Commissioners may waive the above requirements for lots of one acre or larger or in open space preservation developments if the following criteria can be met.
      - (a) The requirements of on-site sewage disposal facilities below are met.
      - (b) Funding and administrative provisions assuring long-term operation and maintenance are provided.
      - (c) Sewage disposal is accomplished through land treatment technologies capable of recharging groundwater aquifers
    - (2) If sanitary sewers are not to be installed initially, easements shall be provided on the preliminary, final and lot location plans and shall show the dedication of appropriate easements across private property for later construction and maintenance of sewers, except where such requirements are waived under Subsection B above. Any deed given for the transfer of a lot in a case where an easement for a sanitary sewer is provided on a recorded plan must contain a legal description of the easement and a provision that the owner is liable for the cost of the sewer when constructed.
    - (3) Sanitary sewer pipe shall be sized for full flow from the tract. Larger pipe size may be required to accommodate future extensions.
    - (4) Minimum grades shall be 0.4% except at terminal runs, which shall be 1%.
    - (5) Manholes shall be placed at every point where the sanitary sewer line changes direction in line or grade. In no instance shall the spacing exceed 400 feet. Manhole frames, covers, buckets and steps may be obtained from the Township.
    - (6) Materials. Lateral connections to each lot shown on the preliminary plan shall be installed to the right-of-way line of the street prior to road paving. Each building shall have a separate connection to the Township sewer on the lot or in the abutting street, except that garages accessory to dwellings may be connected to the dwelling line.

## 4.10. Utilities (continued)

- (7) On-site sewage disposal facilities. Whenever it is impracticable to connect with Township sewers, on-site sewage disposal facilities may be permitted upon application and approval by the Sewage Enforcement Officer of the Township of Lower Merion and the Pennsylvania Department of Environmental Resources.
- (a) Such facilities shall be so located as to permit easy and economical connection to the sewer system of the Township when sewers are installed, except where this requirement is waived under Subsection A above.
- (b) The type of private sewage disposal system to be installed shall be determined by the results of percolation tests, soil classification and depth of water table, which shall be determined according to the size of the lot.
- (c) Proof of the adequacy of such facilities shall be furnished by a registered professional engineer or other qualified person. The reports of such tests shall be required at each disposal area, except for large tracts involving more than one disposal system, in which case the prescribed tests shall be made in the amount of one per acre or as designated by the Sewage Enforcement Officer and the Pennsylvania Department of Environmental Protection.

## 4.11 Stormwater Management and Drainage

- A. Stormwater management. Whenever an increase in volume and/or rate of runoff will occur as the result of subdivision or land development, the developer will be required to provide adequate stormwater management facilities in accordance with Chapter 121 of this Code and provide financial security for the completion of those facilities as set forth in this chapter. The design of all stormwater management facilities shall be in accordance with Chapter 121 of this Code and submitted to the Township Engineer for review and, when required, to the Pennsylvania Department of Environmental Protection or the United States Department of Agriculture, Soil Conservation Service. Where retention basins and/or other facilities are required, the responsibility for the continued maintenance and operation of the retention basins and/or other facilities shall be the obligation of the property owner or the home owners association, as applicable. Any deed given for the transfer of a lot where stormwater piping and/or a retention facility is provided on a recorded lot shall refer to such structures and facilities and provide that the maintenance and operation shall be the continued responsibility of the property owner or the home owners association, as applicable. A fence four feet in height with a self-closing gate surrounding the retention basin may be required as directed by the Lower Merion Township Engineer.
- B. Special drainage problems.
- (1) Unnatural drainage. Whenever construction stops or concentrates the natural flow of storm drainage in such a way as to affect adjoining properties, approval of the owners must be obtained in writing. Approval of plans by the Township does not authorize drainage affecting adjoining properties.
- (2) Water originating from other than natural sources, such as swimming pools, air-conditioning units, sump pumps or other dry-weather flow, wherever practicable, shall be discharged into natural watercourses on the property

## 4.11. Stormwater Management and Drainage (continued)

or connected to the storm drainage system of the Township. These facilities may not be used for toxic drainage.

- C. Runoff computations. Computation of the rate of flow at any given location shall be based on the rational formula:

$$Q = CIA$$

Where:

Q=Volume in cubic feet per second.

C=Runoff factor.

I=Intensity of rainfall in inches per hour.

A=Watershed area in acres.

In setting the value of the runoff coefficient "C," consideration will be given to the physical features of the drainage basin and the best available data on the future density of development of the drainage basin. In no case shall it be less than 0.40 in a developed area.

- D. The intensity of the storm shall be based on the following:
- (1) As a minimum, a twenty-five year storm shall be used at low points with a relief swale.
  - (2) As a minimum, all inlet and culvert designs shall be based on a twenty-five-year storm.
  - (3) As a minimum, a one-hundred-year storm will be used in connection with Chapter 121 of this Code. The Rainfall-Intensity-Duration-Frequency Curve for Philadelphia presented in Technical Paper No. 25, prepared by the United States Department of Commerce Weather Bureau, a copy of which is available for public inspection at the office of the Township Engineer, shall be used.
- E. Standard headwalls shall be installed on all pipes and, additionally, trash bars shall be installed on all pipes equal to or greater than 24 inches diameter.
- F. Pipeline design. Storm sewer pipelines shall be designed by either of the two methods described in Subsection F(1) and (2) below. Both shall be based on the Manning equation and shall utilize the friction factors:

n= 0.012 smooth-lined corrugated plastic pipe

n=0.015 concrete pipe.

n=0.021 corrugated metal pipe.

The minimum allowable pipe size is 15 inches.

- (1) Pipeline submerged.
  - (a) This method is based on the assumption that, when the storm sewer system is under maximum load, the hydraulic gradient will be at or above the crown of the pipe and that flow in the lines will be controlled by head differentials between structures or other locations where the system is open to the ground surface, such as inlets or outlets, manholes and stream inlets and outlets. The head of water above the crown of any

## 4.11. Stormwater Management and Drainage (continued)

pipe can range from zero feet to a point which will not cause surface flooding.

- (b) The slope of the hydraulic gradient in any section of storm sewer between opening to the surface shall be calculated on the assumption that the pipe is flowing full at a constant velocity and at the required capacity.
- (c) The elevation of the hydraulic gradient at any point in the pipe shall be no lower than the crown of the pipe and no higher than the surface of the ground.
- (d) The elevation of the hydraulic gradient at any point where the system opens to the surface, such as an inlet or manhole, shall be no higher than one foot below the surface of the ground.
- (e) Head losses at inlet structures, manholes, cleanouts, etc. shall be based on formulas provided by the Federal Highway Administration's HEC-22 - Urban Drainage Design Manual; Energy Losses. Where the inlet and outlet pipe sizes are not the same, the elevation of the hydraulic gradient shall be dropped an amount based on the following formula:

$$H=0.2 \text{ inches} + 0.8 (D2-D1)$$

Where:

D1=The diameter of inlet pipe.

D2=The diameter of outlet pipe.

If D1 is larger than D2, head loss = 0.2 feet

- (f) The minimum slope of any pipe shall be such that a minimum velocity of 2.5 feet per second shall be maintained when the pipe is flowing 1/4 full.
- (2) Pipeline flowing full.
- (a) This method is based on the assumption that the hydraulic gradient will match the inside top of the pipe when the system is under maximum hydraulic load.
  - (b) For this method, head losses through manholes, inlets, etc., shall be ignored.
  - (c) The minimum slope of any pipe shall be such that a minimum velocity of 2.5 feet per second shall be maintained when the pipe is flowing 1/4 full. When the pipe sizes change, the inside tops of the pipes shall be matched.
- G. Continuous profiles for each reach of pipe shall be plotted along with the location of the hydraulic gradient and the hydraulic information pertinent to each reach within the system. This information shall include the pipe size and type, the "n" factor, the slope of the hydraulic gradient, slope of the pipe, the design capacity and the velocity at the design capacity.



## 4.11. Stormwater Management and Drainage (continued)

- H. Inlets.
- (1) Single or PennDOT Type C (single/double) No. 1 open-mouth inlets shall be used on streets with grades of 4% or less. Double No. 1 open mouth inlets shall be used on streets of more than 4%.
  - (2) Sufficient inlets shall be located and constructed so as to collect all of the stormwater flow in the drainage area tributary to the inlet.
  - (3) The gutter of all inlets shall be set not less than two inches nor more than four inches below the gutter grade. The surface of the paving adjacent to the inlets shall be constructed to blend into the lowered gutter grade at the inlet in such a manner that sudden dropoff or dip at the inlet will not be created. The spread of runoff in the gutter is to be no more than half the width of one through traffic lane, when calculated for the 25-year frequency storm.
  - (4) Where surface water is collected from two directions at one street corner, inlets shall be placed at, or near, the tangent points of both ends of the radius. The use of an inlet in the radius shall not be allowed.
  - (5) Bicycle safe grates shall be utilized.
- I. Manholes shall be located at intervals of approximately 400 feet where pipe sizes of 24 inches or less are used and 600 feet apart for larger sizes. Inlets should be substituted for manholes where they will serve a useful purpose. Manhole and inlet castings may be obtained from the Lower Merion Department of Public Works.
- J. Open channel design- As referenced in PA DEP's Erosion and Sediment Pollution Control Program Manual; Chapter 6 – Runoff Conveyance BMPs.
- (1) Open channel design should be based on the following hydraulic considerations:
    - (a) Manning's equation.  
 $n = .015$  for best concrete lined ditch.  
 $n = .025$  for best unlined ditch.  
 $n = .03$  to  $.15$  for fair to poor natural streams and watercourses.
    - (b) Velocity.  

Excavation Material
Velocity
(feet per second)
Fine sand and firm loam
2.50 to 3.5
Stiff clay and hardpan
3.75 to 6.0
Concrete lined ditch
15
  - (2) Ample freeboard should be provided on all channels.
  - (3) The channel should be designed to conform, wherever possible, to the adjacent ground conditions. This means that it should not be projecting excessively above the surrounding ground or placed excessively below the surrounding ground.

## 4.11. Stormwater Management and Drainage (continued)

- (4) Continuous profiles for each reach of open channel shall be plotted along with the adjacent average ground and the hydraulic information pertinent to each reach within the system. This information shall include the type of channel lining, in the "n" factor, the width of the channel bottom, the side slopes, the water depth, the design capacity and the velocity at the design capacity.
  - (5) Open channels shall have a maximum side slope of 3 to 1 and shall have adequate slope protection as required by Chapter 121 of this Code.
- K. Bridges and culverts. Single-opening culverts are desirable. The design of culverts shall be such as to minimize the probability of debris accumulation. Bridges and culverts shall be designed to meet current Pennsylvania Department of Transportation standards to support expected loads and to carry expected flows. They shall be constructed for the full width of the right-of-way.
- L. The Pennsylvania Department of Environmental Protection Bureau of Water Quality Management, Division of Dams and Encroachments, requires a permit for construction or changes in a watercourse which drains an area of more than 1/2 square mile. No open watercourses shall be permitted within the right-of-way of any street.
- M. Location. Wherever practicable, storm drains shall be located behind the curb and within the right-of-way of the street. They shall be protected by a cover of at least 18 inches. The plan shall note that the continued maintenance of storm drains outside the street right-of-way shall be the continued responsibility of the property owner.
- N. Stormwater roof drains connected to stormwater infiltration BMP, where practicable. Stormwater roof drains and pipes immediately adjacent to a sidewalk shall not discharge water over a sidewalk but shall extend under the sidewalk to the gutter. Where accessible, the roof drain shall be connected with the storm drainage system of the Township.
- O. Underground wiring. All electric telephone, television and other communication service facilities, both main and service lines, shall be provided by means of underground cables, installed in accordance with the prevailing standards and practices of the utility and other companies providing such services.

ARTICLE 5:  
LANDSCAPE  
STANDARDS

**135-5. LANDSCAPE STANDARDS**

## 5.1. Street Trees

- A. Street trees shall be required along:
- (1) Both sides of all existing streets when they abut or lie within the proposed subdivision or land development.
  - (2) Both sides of all proposed streets, whether public or private.
  - (3) Both sides of access drives that serve five (5) or more residential dwelling units.
  - (4) Both sides of access drives that serve two (2) or more nonresidential properties or uses.
  - (5) Major walkways through parking lots and between nonresidential buildings, as recommended by the Director of Building and Planning.
- B. Street trees shall be located between the ultimate right of way line and the building setback line and shall meet the following standards:
- (1) Street trees shall be planted a minimum distance of six feet from the right of way of a public or private street, accessway driveway, or walkway. Trees shall be planted a maximum distance of 15 feet outside the ultimate right of way line.
  - (2) However, in certain cases, as follows, the Township may permit trees to be planted within the ultimate right of way:
    - (a) In densely built areas where planting areas may be located within the ultimate right of way.
    - (b) In verges where street trees are located, if minimum soil volume standards can be met, as specified in 5.8C.
    - (c) In cases where closely spaced rows of street trees may be desirable and future street widening is considered unlikely.
    - (d) Where there are existing trees along the road, new trees should supplement them.
  - (3) In nonresidential developments, trees shall be located within a planting area within the front yard setback, at least ten (10) feet in width, planted in grass or groundcover. In areas where wider sidewalks are desirable, or space is limited, tree-planting pits may be used. The minimum soil volume, as specified in 5.8C, shall be provided for each tree. Alternative Methods can be utilized to meet minimum soil volumes, as noted in 5.8 C(3).
  - (4) Street trees, planted within the right of way, shall be selected and located so as not to interfere with the installation and maintenance of sidewalks and utilities and shall comply with the general landscaping requirements in this Article and Chapter 128.

### 5.1. Street Trees (continued)

- (5) Tree species shall be selected based on appropriate growth rates and mature heights for use under or adjacent to overhead utility lines, as indicated in Chapter A177 and Chapter 128, where applicable. Species selection shall be approved by the Township Shade Tree Commission, where applicable.
  - (a) Species for street trees shall be selected with particular emphasis on hardiness, minimal need for maintenance and compatibility with other features of the site and surrounding environs and shall be acceptable to the Township Shade Tree Commission.
  - (b) Use of native species is encouraged.
- (6) Street trees shall be planted by the applicant to avoid conflicts with the right-of-way functions and with sight distance, while still permitting clear orientation of the trees to the street.
- (7) All trees planted near sidewalks shall be planted with deep root barriers to prevent cracked pavements and/or sidewalks; planting trees with tap roots rather than fibrous roots will help eliminate such cracking. The type of deep root barriers shall be approved by the Township Arborist.
- (8) Trees shall be planted at a rate of at least one (1) tree per 30 feet of public or private street frontage, access driveway, or walkway, or portion thereof. Trees shall be distributed along the entire length of the public or private street frontage, access driveway, or walkway, although they need not be evenly spaced.
- (9) Any improvements required as part of this section shall be provided above and beyond any landscaping required elsewhere in this Chapter or in Chapter 155, Zoning.
- (10) Trees located within the sidewalk shall be planted in tree pits or planting beds with a minimum opening of five (5) feet by five (5) feet. The minimum soil volume, as specified in 5.8C, shall be provided for each tree. Alternative Methods can be utilized to meet minimum soil volumes, as noted in 5.8 C(3).
- (11) Trees shall be guaranteed, as outlined in Article 7 and Natural Features Code Section 101-11.
- (12) Wherever provisions of Chapter 128 of this Code impose restrictions more extensive than those of this chapter, the provisions of Chapter 128 of this Code shall govern.

### 5.2. Buffer Plantings Design Guidelines

Buffer plantings shall be installed in subdivisions and land developments to integrate new development with its surroundings, to separate incompatible land uses by providing screening, to reduce wind, enhance environmental benefits, and to minimize or eliminate views to certain site elements in compliance with the following regulations:

- A. Use Requirements. Buffer plantings shall be required for the following types of development and as otherwise specified in Chapter 155 Zoning:
  - (1) All nonresidential development.
  - (2) All single-family detached development.

5.2. Buffer Plantings Design Guidelines (continued)

- (3) All multifamily, single family attached, and semi-attached development.
  - (4) All mobile home parks.
  - (5) Active recreational facilities
  - (6) Construction of any of the following items which exceeds 400 square feet in ground coverage:
    - (a) public utility facilities or structures
    - (b) waste collection, storage and/or treatment facilities
    - (c) any other structure of similar character or impact.
- B. An on site investigation by the design professional shall determine the adjacent land uses along each property boundary and street frontage. In the case of vacant land, the existing zoning shall be used. The existing or zoned uses shall be noted on the plan. In the case when several uses are allowed on a site, the most restrictive landscaping requirements identified in Table 5.2.1 below shall apply as determined by the Director of Building and Planning.

**TABLE 5.2.1 REQUIRED BUFFER TYPE**

		EXISTING USE			
		OFFICE/ INSTITUTIONAL/ PRIVATE RECREATION	COMMERCIAL/ MIXED USE/ INDUSTRIAL	MULTI- FAMILY/ SFA/ MHP	TWINS/ DUPLEXES/ SINGLE FAMILY DWELLINGS (SFD)
PROPOSED USE	OFFICE/INSTITUTIONAL	Softening	Softening	Filtering	Screening
	COMMERCIAL/MIXED USE/INDUSTRIAL	Filtering	Softening	Screening	Screening
	RESIDENTIAL	Softening	Filtering	Softening	Softening
	ACTIVE RECREATION	Softening	Filtering	Softening	Filtering

SFA = Single-family attached  
 MHP = Mobile Home Park  
 SFD = Single-family detached

## 5.2. Buffer Plantings Design Guidelines (continued)

- C. Buffer Area Design, Location, and Dimensions.
- (1) All Buffer Planting areas width are established by Chapter 155, Zoning. If not specified in Chapter 155, Zoning, a buffer planting area of not less than 10 feet in width shall be established.
  - (2) The buffer area may be included within the front, side, or rear yard setback.
  - (3) The buffer area shall be a continuous pervious planting area consisting of canopy trees, evergreen trees, small understory trees, and shrubs, with grass or groundcover. Arrangement of plant materials shall have a naturalistic appearance, with larger trees arranged closer to the boundary line, as space is available.
  - (4) The screening buffers shall provide immediate visual screening of 50% and 100% within two years of establishment of the planting, as determined by the Director of Building and Planning
  - (5) No paving shall be permitted within the buffer areas except for driveway crossing and/or walkways, as established in Chapter 155-3.10D, Zoning. No parking or parking area shall be permitted in the buffer areas.
  - (6) Stormwater basins and engineered rain gardens are permitted in the buffer area, provided that the visual screening requirements of the buffer are met.
  - (7) The buffer plantings shall be placed so that at maturity they will not obstruct a street or sidewalk.
- D. Minimum Plant Material Requirements. The following requirements are minimum standards; additional plant material, grading treatments, or architectural elements may be included in the plan.
- (1) Every 100 linear feet of property line or external street boundaries of the tract proposed for subdivision or land development shall be buffered with the following minimum quantities, types, and sizes of plant material:
    - (a) Where the length of the property line or street frontage being buffered is less than 100 feet, a proportional amount of plantings shall be provided according to Table 5.2.2 below.
    - (b) The minimum number of required plantings calculated from Table 5.2.2 below shall be rounded up to the nearest whole number.

## 5.2. Buffer Plantings Design Guidelines (continued)

TABLE 5.2.2 MINIMUM PLANTING REQUIREMENTS BY BUFFER TYPE

BUFFER TYPE		MINIMUM PLANTING REQUIREMENTS PER 100 LINEAR FEET
SOFTENING BUFFER*	OPTION 1	<ul style="list-style-type: none"> <li>• 1 canopy tree (2-2 1/2" min. caliper)</li> <li>• 2 understory trees (2-2 1/2" min. caliper)</li> <li>• 2 evergreen trees (8' min. ht.)</li> </ul>
	OPTION 2	<ul style="list-style-type: none"> <li>• 2 understory trees (2-2 1/2" min. caliper)</li> <li>• 15 shrubs (30" min. ht)</li> </ul>
FILTERING BUFFER		<ul style="list-style-type: none"> <li>• 2 canopy trees (2-2 1/2" min. caliper)</li> <li>• 2 understory trees (2-2 1/2" min. caliper)</li> <li>• 5 evergreen trees (8' min. ht.)</li> <li>• 5 shrubs (36" min. ht.)</li> </ul>
SCREENING BUFFER**	OPTION 1	<ul style="list-style-type: none"> <li>• 2 canopy trees (2-2 1/2" min. caliper)</li> <li>• 2 understory trees (2-2 1/2" min. caliper)</li> <li>• 8 evergreen trees (8' min. ht.)</li> <li>• 10 shrubs (36" min.. ht.)</li> </ul>
	OPTION 2	<ul style="list-style-type: none"> <li>• 12 upright mixed evergreen trees</li> <li>• 4 understory trees (2-2 1/2" min. caliper)</li> </ul>
	OPTION 3	<ul style="list-style-type: none"> <li>• An alternative planting design that will result in at least an equivalent degree of visual screening to one of the above screening buffers.</li> </ul>
LIMITED AREA BUFFER***	OPTION 1	<ul style="list-style-type: none"> <li>• 25 evergreen trees (8' min. ht.)</li> </ul>
	OPTION 2	<ul style="list-style-type: none"> <li>• 4-6 foot tall solid fence or wall, if in compliance with 155-3.7.</li> <li>• Perennials and grasses sufficient to screen 50% of the linear length of the proposed fence at the time of planting.</li> </ul>
	OPTION 3	<ul style="list-style-type: none"> <li>• An alternative planting design that will result in at least an equivalent degree of visual screening to one of the above limited Area Buffer.</li> </ul>

\* The softening buffer Option 2 can be utilized along the street frontages, with limited setbacks, when Street Trees are already proposed along the frontages. In all other cases, Softening buffer Option 1 should be installed.

\*\* A screening buffer must be adequate to visually screen the proposed land use or development from off-site view. Several different planting options could be used to create an effective buffer. Grading treatments and architectural features; such as walls and/or fences may be required in addition to the minimum planting quantities in order to effectively provide a visual screen.

\*\*\* The limited area buffer can be used where space for planting is severely restricted, where the width is less than 10 feet. The planting screen would be equivalent to an evergreen hedge planting. Alternative planting arrangements, such as shade or flowering trees with deciduous shrubs, could be considered in conjunction with a fence or wall, at the discretion of Director of Building and Planning.



## 5.2. Buffer Plantings Design Guidelines (continued)

- E. Mitigation of Visual Impacts. The use of a screening buffer planting shall be required to mitigate the adverse visual impacts that the proposed land uses or site elements have on the subject tract, adjoining properties, and the community in general. In addition to the requirements for buffer plantings as listed in Tables 5.2.1 and 5.2.2, the following proposed land uses and site elements, as outlined in 155-3.14, shall be screened from off-site with a screening buffer planting:
- (1) Dumpsters, generators, trash collection & disposal, recycling areas, junkyard, quarry, transfer stations, and mechanical equipment.
  - (2) Service and loading docks.
  - (3) Outdoor storage areas.
  - (4) Sewage treatment plants and pump stations.
  - (5) Utility installations, storage or holding tanks, mechanical housing for HVAC systems, electrical transformers and substations.
  - (6) Any other structure or fixture of similar character or impact.
- F. Alternative Compliance Options.
- (1) Existing topographic conditions, such as embankments or berms, in conjunction with existing or proposed vegetation, may be substituted for part of the required buffers at the discretion of Director of Building and Planning. The minimum visual effect shall be equal to or exceed that of the required buffer or screen.
    - (a) Where a berm is proposed in conjunction with a buffer, the required plantings shall be placed on the side of the berm facing the property line or right-of-way. All existing berms must be landscaped with trees and shrubs and mulched to the satisfaction of Director of Building and Planning.
  - (2) Architectural elements such as walls or fencing may be permitted to augment part of the landscape buffering requirements.
    - (a) Where a wall or fence is proposed in conjunction with a buffer, the required plantings shall be placed between the wall or fence and the property line or right of way.
  - (3) Existing vegetation in areas proposed to be buffers may be used or credited toward part or all of the landscaping buffer requirements, provided it is validated that the existing vegetation is native, noninvasive, healthy, and otherwise satisfies the preservation requirements of 135-4.7.
  - (4) Existing trees within the required buffer yard greater than six inches in caliper or greater than eight feet in height shall be preserved to the greatest extent feasible. Such trees may be counted towards required plant materials as determined by the Director of Building and Planning, Table 5.2.3 can be utilized for preserved trees:

## 5.2. Buffer Plantings Design Guidelines (continued)

**TABLE 5.2.3 PRESERVED TREE(S) CHART**

PRESERVED TREE (DBH) INCHES	NUMBER OF TREES CREDITED
6-9	Two (2)
10 to 18	Three (3)
18 to 24	Four (4)
24 to less than 30	Five (5)
30 or greater	Six (6)

## G. Maintenance Requirements.

- (1) All buffers shall be maintained into perpetuity by the property owner at their expense, assuring that the required plant material is kept in good condition, as outlined in Natural Features Code Section 101.11 and Article 7.
- (2) Plant materials required within the buffer area shall be assured by a performance guarantee, as outlined in Natural Features Code Section 101.11 and Article 7, posted with the Township in an amount equal to the estimated cost of the plant materials.
- (3) All buffers shall be maintained and kept clean of all debris, rubbish, weeds, and invasive plants.

## 5.3. Parking Lot Greening and Landscaping Standards

Parking lots should be effectively landscaped with trees and shrubs to reduce the visual impact of glare from headlights, and parking lot lights; to delineate driving lanes; and define rows of parking. Furthermore, parking lots should be adequately landscaped to provide shade in order to reduce the amount of reflected heat and to improve the aesthetics of parking lots.

## A. Intent. The intent of this section is as follows:

- (1) Promote and induce well-designed and sustainable parking lot design and retrofit designs which produce environmental benefits.
- (2) Incorporate appropriate native plants into the suburban environment to promote greater landscape resiliency and to enhance natural environments of the township.
- (3) Integrate stormwater management and landscape design by the use of plants to promote compliance with state water quality mandates and the Township's Stormwater Management Chapter through detention, treatment, infiltration and groundwater recharge of rainwater.
- (4) Shade paved surfaces to mitigate the urban heat island effect by planting large canopy trees with effective green space and using paving surfaces which minimize heat absorption.

## 5.3. Parking Lot Greening and Landscaping Standards (continued)

- (5) Improve the performance of existing parking lots in an equitable manner when a redevelopment or retrofit is proposed.
  - (6) Provide effective landscape buffers for visual screening and noise abatement of vehicular uses and parking, while enhancing the wildlife habitat provided by plantings and the natural landscape.
  - (7) Wherever possible, existing trees should be preserved in the parking lot landscape areas.
- B. Applicability. Unless otherwise expressly stated, the interior landscape parking lot and buffer requirements of this section shall apply to any of the following:
- (1) The construction or installation of new vehicular use areas.
  - (2) The expansion of existing vehicular use areas, if such repair, rehabilitation or expansion would increase the area of the vehicular use as provided for in Zoning Code Section 10.12F.
  - (3) The existing vehicular use areas which are accessory to an existing principal building, when such building or any portion thereof is expanded or enlarged, requiring additional new parking.
  - (4) The excavation, rehabilitation or in-place reconstruction of existing vehicular use areas if such work involves the full-depth pavement removal of, as provided within Zoning Code Section 10.12F.
  - (5) The construction or installation of new vehicular use areas with more than 20 parking spaces shall incorporate bioretention elements into the parking lot design, as described in section.
  - (6) If an existing parking lot does not meet the applicability above, existing parking lots should incorporate the standards below, to the greatest extent feasible to meet the intent of this section. Alternatives such as retrofitting existing island(s) with larger canopy trees and incorporating landscaping within void area(s) not used as parking stalls or aisles of existing parking lots should be explored.
- C. Interior Landscaping Area Standards. The following landscaping requirements are intended to promote shading and healthy vigorous growth of larger shade tree, canopy and understory trees, evergreen trees, shrubs, and ground covers, as well as to create generous physical space to accommodate rain gardens, or depressed absorbent areas for stormwater infiltration, and detention within the parking lot. The internal parking lot landscaping shall be provided according to the following standards:
- (1) Minimum interior landscaping area requirements. The minimum required interior landscaping area of parking areas shall be a percentage of the total vehicle use area (VUA) on a lot, as indicated in the graduated requirements of Table 5.3.1 below.

## 5.3. Parking Lot Greening and Landscaping Standards (continued)

**TABLE 5.3.1 INTERIOR LANDSCAPING REQUIREMENTS AS PERCENTAGE OF VEHICULAR USE AREA**

VEHICULAR USE AREA (VUA)	% OF VUA REQUIRED AS INTERIOR LANDSCAPING AREA
0 to 4,999 square feet	0%
5,000 to 14,999 square feet	6%
15,000 to 49,999 square feet	8%
50,000 square feet or greater	10%

- (2) Interior landscaping areas shall be composed of planting islands and planting strips, within which are planting areas. The sum of the surface areas which are pervious and composed of planting soil with the required depth and composition as required in this Chapter shall constitute the interior landscaping area.
  - (3) The minimum ground coverage and canopy coverage of planting material, as determined by the design canopy/ground coverage of the plant species proposed, shall be 85% of the designated interior landscaping area.
  - (4) The landscape architect shall provide the number and locations of planting areas, planting islands and planting strips delineated on the development plan, to satisfy the requirements above.
  - (5) The landscape architect shall also propose the number and species of plant materials to satisfy the requirements of C.3. above, provided that a minimum of one shade or canopy tree is provided in a planting island or planting strip for each 340 square feet of interior landscape areas provided or fraction thereof. Such shade or canopy trees shall be distributed throughout the parking lot to ensure well-distributed canopy coverage of the vehicular use areas.
  - (6) Parking lots with VUAs less than 5,000 square feet are exempt from interior landscape area requirements. However, the perimeter landscape and buffer landscape requirements of §5.3.D. and §5.3.E. below shall apply.
    - (a) If additional spaces or areas are added at a later date so that the lot is greater than 5,000 square feet, then the percentage of interior planting area required shall be calculated for all vehicular use areas on the site.
    - (b) Plantings shall be distributed throughout the entire interior where applicable in parking lot additions.
- D. Perimeter Landscape Buffer Requirements. For vehicular use areas of any size which are located in the side or rear setback of a property, or otherwise abut an adjacent property where no right-of-way intervenes, a 10-foot wide filtering buffer satisfying the requirements of 5.2 above shall be provided. If any of the proposed land uses or site elements of the property are already subject to a buffer requirement as required in 5.2 above or in Chapter 155 Zoning, the greater planting requirement shall apply.
- (1) Shared Access- When a shared access driveway is utilized as outlined in 135-

## 5.3. Parking Lot Greening and Landscaping Standards (continued)

4.9, the buffer may be modified as determined by the Director of Building and Planning.

- E. Street and Sidewalk Buffer Requirements. For vehicular use areas of any size abutting a public or private street or sidewalk the provisions of Chapter 155, zoning shall apply, specifically 155-3.5G, Streetscreens and 155-8.4, Parking Locations.
- F. Parking Landscaping Design Standards.
  - (1) General Standards. The following standards shall apply to all planting areas, planting islands, and planting strips provided to satisfy the requirements of this section.
    - (a) Tree islands and planting areas should be distributed throughout the parking lot to maximize tree canopy coverage over the entire parking lot. Large canopy trees shall be required to meet this requirement.
    - (b) Required planting areas encouraged be consolidated into larger islands to provide greater soil volumes for plants or to accommodate stormwater BMPs, provided that tree canopy coverage can still be achieved.
    - (c) When planting areas are provided within interior parking lot landscaping, including planting strips or planting islands, they shall have curbs, wheel stops, or bollards for protection to prevent erosion or automobile damage.
    - (d) To the greatest extent feasible, rainwater should be directed to the planting areas with curb cuts or inlets.
    - (e) At least 25% but no more than 50% of the plant materials shall be evergreen.
  - (2) Planting Areas. Any contiguous paved and curbed area greater than 50 square feet raised above and separated from the vehicular use area shall be provided with a planting area, which shall meet the General Landscape Standards in this Article.
  - (3) Planting Islands.
    - (a) Planting islands shall be placed so as to provide safe movement of traffic without interference with proper surface water drainage.
    - (b) All parking rows must be terminated by a planting island, provided that in such cases where accessible parking and gore areas are provided at the end of row, planting islands shall be accommodated elsewhere along the row in close proximity to the row end.
    - (c) The minimum size of each planting island shall be at least 340 square feet, and be located every 12th parking space. At the discretion of the Township Engineer and/or Director of Building and Planning, the ratio of parking spaces to planting areas required may be altered for reasons of public safety and/or to provide additional stormwater management.
    - (d) A planting area of at least 270 square feet shall be required in between compact parking spaces.

## 5.3. Parking Lot Greening and Landscaping Standards (continued)

- (e) In addition to any proposed trees, planting islands require a minimum of 85% ground coverage of low-growing shrubs, grasses, and/or groundcover plants, as determined by the design ground coverage of the plant species proposed.
  - (f) Plants shall be selected or pruned to limit vegetation at the ends of planting islands where vehicles turn to a maximum height of two (2) feet, in order to preserve sight distance. Trees may be planted in these areas, provided that branches are limbed up to a minimum height of seven (7) feet in order to preserve sight distance.
- (4) Planting Strips. Planting strips, as required below, shall have a minimum width of five (5) feet. In addition to any proposed trees, planting islands require a minimum of 85% ground coverage of low-growing shrubs, grasses, and/or groundcover plants, as determined by the design ground coverage of the plant species proposed.
- (a) Parallel rows of parking spaces, which are not separated by a drive aisle, shall be separated by a planting strip.
  - (b) A single row of parking spaces located parallel to and between two drive aisles, shall be separated from one of the drive aisles by a planting strip.
  - (c) Unless otherwise described in this Chapter, where required, all planting strips, noted in 5.3.F(6), shall be a minimum of 15 feet wide and run the length of the parking row. Unless designed to function as part of the stormwater management system, planting strips shall be underlain by soil mounded up to six (6) inches above the paved parking or drive area and shall be protected by curbs, wheel stops, or bollards.
- (5) Bioretention Elements in Parking Lots.
- (a) Bioretention and Rainwater Infiltration set aside area is required to be incorporated into the parking lot design, as noted above. The Township Engineer shall approve the functional design of the area(s) and determine if bioretention areas can be utilized to demonstrate compliance with Chapter 121, Stormwater.
  - (b) At a minimum, the area shall include one Large Canopy Tree OR Small Trees (Minimum 2-4) ornamental under 30 feet per 100 feet of Bioretention Areas; plus Shrubs/Grasses: a minimum of 6 shrubs/8 grasses per 200 Square feet of Bioretention Area.
- (6) Larger Non-Residential Parking Lots.
- (a) Lots with a capacity of from 50 to 100 cars shall require a planting strip around the perimeter and one planting island for every ten spaces within the perimeter of the lot.
  - (b) Parking lots for more than 100 cars shall be divided into sections no greater than 100 stalls each by planting strips. These planting strips shall be located parallel to the rows of parking, to serve the following purposes:

5.3. Parking Lot Greening and Landscaping Standards (continued)

- [1] To separate main access (entrance-exit) driveways from rows of parking spaces.
  - [2] To separate other major driveways (service drives, general internal circulation) from rows of parking spaces.
  - [3] To separate large parking areas into smaller units at intervals of not more than four (4) rows of parking stalls.
- (c) For parking areas with an ultimate capacity greater than 400 cars, the requirements may be modified by the Board of Commissioners to provide separation into units at intervals of six (6) rows of parking stalls, with each unit capacity no greater than 100 cars.
- G. Alternative design(s) which achieves the purposes of these parking area requirements may be requested, if determined that the alternatives satisfy the requirements herein. The final decision to permit an alternative design shall be made by the Director of Building and Planning.

5.4 Additional Plantings

The following standards shall apply to all subdivisions or land developments. The plantings required by this section shall be cumulative and in addition to plantings required by any other section of this chapter and Chapter 155, Zoning.

- A. All proposed developments in the MDR Residential Districts, Institutional (I) Districts, and Light Industrial (LI) Districts shall incorporate the following minimum plant materials in the landscaping areas adjacent to the proposed structure:
- (1) A minimum of 25% of the area between the building façade and the property frontage shall consist of pervious planting areas.
  - (2) Planting areas shall be a minimum of 150 square feet in area with a minimum depth of ten (10) feet.
  - (3) Five (5) deciduous or evergreen shrubs shall be planted for every 20 feet of proposed building façade facing a public street or parking lots, or portion thereof.
- B. All proposed residential lots shall plant a minimum number of canopy trees, based on their lot size, in compliance with the following chart. Existing trees to remain may satisfy all or part of this planting requirement.

**TABLE 5.4.1 ADDITIONAL PLANTING FOR SINGLE RESIDENTIAL LOTS**

LOT AREA	MINIMUM NUMBER OF CANOPY TREES REQUIRED
Less than 4,000 square feet	1
4,001 to 7500 square feet	2
7501 to 15,000 square feet	3
15,001 square feet or greater	4

## 5.4. Additional Plantings (continued)

- C. At the discretion of Director of Building and Planning based upon the recommendations of the Shade Tree Commission, if sufficient planting space is not available immediately adjacent to the proposed structure, required building façade plantings may be located on other areas of the tract.

## 5.5 Greening Standards

Development which is required to meet greening standards as specified in Chapter 155, Zoning, shall comply with the following regulations:

- A. Land development plans must contain elevations and conceptual sketches demonstrating compliance with the greening standards set forth herein.
- B. Any improvements or landscaping proposed as part of the greening standards shall be provided above and beyond any improvements or landscaping required elsewhere in this chapter and Chapter 155, Zoning.
- C. Any improvements or landscaping proposed as part of the greening standards shall be located where they are visible and accessible from a public walkway or sidewalk.
- D. The developer shall submit a maintenance plan describing how improvements will be managed, maintained, or replaced. The responsibility for maintenance and replacement shall rest with the owner of the property.
- E. Each addition and new construction project shall comply with the greening standards in Table 1 and provide the greening elements set forth in Table 2.
  - (1) The greening elements in Table 2 may be clustered or evenly spread along a property's frontage.
- F. The total number of points required in Table 1 for an application are determined by dividing the total lot frontage of the subject property by 25. This total is then multiplied by the amount column in Table 2.
- G. The following standards apply to the urban garden item in Table 2:
  - (1) A minimum of 60% of the urban garden area shall be landscaped with trees, shrubs and/or mixed plantings with year-round interest. Landscape Standards as established in this Article shall apply to the plantings in the urban garden.
  - (2) One seating space is required for each 50 square feet of urban garden area, or portion thereof. No additional points will be awarded for this item.
  - (3) Trash and recycling containers shall be provided in the urban garden area.
- H. The following standards apply to the plaza, square and courtyard item in Table 2:
  - (1) A minimum of 30% of the area shall be landscaped with trees, shrubs and/or mixed plantings with year-round interest. Landscape Standards as established in this Article shall apply to the plantings in the plaza, square and courtyard.
    - (a) One (1) tree is required for every 300 square feet of area, or portion thereof.



5.5. Greening Standards (continued)

- (2) Paving materials that may be used are limited to the following: unit pavers, paving stones or concrete.
  - (a) No more than 20% of the area may be concrete.
- (3) One seating space is required for each 50 square feet of plaza area, or portion thereof. No additional points will be awarded for this item.
- (4) No parking, loading or vehicular access is allowed other than for emergency vehicles.
- (5) Trash and recycling containers shall be provided throughout the area.
- (6) Shade shall be provided by trees, canopies/shade sail, trellises, or tables with umbrellas.
- (7) Whenever possible, the area shall be connected to outdoor cafes, restaurants or building entrances and located with maximum direct sunlight to a south or west direction.

**TABLE 5.5.1 REQUIRED GREENING STANDARDS**

	POINTS FROM CATEGORY A	POINTS FROM CATEGORY B	POINTS FROM CATEGORY C
Building Additions in Any Zoning District	6 points for each 25 linear feet of frontage, or portion thereof		
New Buildings in the BMV2, BMV3, and BMV4 Zoning Districts	6 points for each 25 linear feet of frontage, or portion thereof		
New Buildings in the BMV1, VC, TC, RHR, and CAD Zoning Districts	6 points for each 25 linear feet of frontage, or portion thereof		4 points for each 50 linear feet of frontage, or portion thereof

## 5.5. Greening Standards (continued)

**TABLE 5.5.2 STREETScape AND GREENING ELEMENTS**

CATEGORY	ITEM	POINTS
A	Window box or boxes along ground floor windows (minimum size of 6 inches deep, vertically and horizontally, planted with shrubs, groundcovers and/or flowers)	1 per 48 total inches of window boxes
A	Additional planting area including shrubs, trees, groundcovers and/or flowers.	2 per 40 square feet of additional planting area
A	Street planter (minimum size of 24 inches in diameter, planted with shrubs, groundcovers, and/or flowers)	1 per street planter
B	Public bench along street frontage (minimum length of 5 feet)	2 each
B	Trellis (minimum size 30 square feet, planted with vines and/or shrubs)	2 each
B	Arbor or pergola (minimum size of 8 feet high by 6 feet wide by 4 feet deep, planted with vines and/or shrubs)	3 each; not more than one per site.
B	Planting in curb extension (planted bulb outs/large planters with shrubs, groundcovers and/or flowers)	3 per 60 square feet of planting area
B	Window boxes or planters along upper story windows (minimum size of 6 inches deep, vertically and horizontally, planted with shrubs, groundcovers and/or flowers visible from the sidewalk)	3 per 48 total inches of window boxes
B	Public art/sculpture/mural	3 each; not more than one per site.
C	Urban garden (see additional requirements in this Article)	4 per 300 square feet of urban garden area
C	Water feature (fountain, waterfall, etc.)	4 each; not more than one per site.
C	Public plaza/square/courtyard (see additional requirements in this Article)	4 per 300 square feet of plaza/square/courtyard area
C	Bus shelter (see requirements in Article 4.)	6 each

## 5.6 Stormwater Basin and Natural Areas Planting

Landscaping shall be required in and around all stormwater management basins and natural areas according to the following:

- A. All areas of stormwater management basins, including basin floors, side slopes, berms, impoundment structures, or other earth structures, shall be planted with suitable vegetation such as naturalized meadow plantings or lawn grass specifically suited for stormwater basins.
  - (1) Trees and shrubs shall be planted in and around stormwater basins if they do not interfere in the proper function of the basin and no trees are planted within thirty (30') feet of an outlet/drain structure, emergency spillway, or dam. A minimum of two (2) trees and ten (10) shrubs per 100' linear feet of basin perimeter shall be planted in and around the basin.
    - (a) Plantings can be uniformly applied with 2-3 inches of shredded mulch or leaf compost. No wood chips are permitted.
  - (2) Naturalized ground cover plant species, such as wildflowers, meadows, and nonaggressive grasses specifically designed for the permanently wet, intermittently wet, and usually dry areas of stormwater basins, shall be seeded in the floors and slopes of the basin and meet the following requirements:
    - (a) The plantings provide a satisfactory continuous cover for all areas of the basin.
    - (b) The plantings do not interfere with the safe and efficient function of the basin as determined by the Township Engineer.
  - (3) Lawn grass areas may be sodded or hydro-seeded to minimize erosion during the establishment period. Once established, these turfgrass areas shall be maintained at a height of not more than six (6") inches.
  - (4) Stormwater basins shall be screened from adjacent properties using the buffer plantings standards according to Section 5.2.
  - (5) Landscaping for Stormwater Management Basins shall also comply with Stormwater Management and Erosion Control Section 121-4G, landscaping and the Pennsylvania Best Management Practices Manual (PA DEP).
- B. Additional vegetation shall be planted in natural resource protection areas, including riparian and wetland corridors, as required in Article 4.7, wherever existing trees do not meet the minimum tree planting requirements.
  - (1) Existing trees within natural resource areas shall be preserved and retained. Existing tree cover should be surveyed and inventoried to assess the need for any new plantings.
  - (2) Existing tree species included on the noxious/invasive plant species list, provided by DCNR, as well as species identified in Chapter 59, Grass and Weeds, should be removed where conditions warrant.
  - (3) Planting Requirements.

## 5.6. Stormwater Basin and Natural Areas Planting (continued)

- (a) New trees shall be planted at a minimum rate of fifteen (15') feet on center or one tree per 225 square feet in staggered rows or an equivalent informal arrangement within the riparian area.
- (b) New trees shall be a variety of sizes ranging from a minimum four (4') to five (5') foot branched whip to an approximate one and a half inch (1 ½") balled and burlapped planting stock.
- (c) New tree plantings shall be composed of native riparian tree species.
- (d) Tree plantings in riparian areas shall be located along the streambank to provide shade for the stream, soil erosion control and stormwater benefits, according to accepted stream bank restoration practices.

## 5.7 General Landscape Design Criteria

The following design criteria and specifications shall apply to all plants and landscaping provided in subdivisions and land developments regulated by this chapter.

- A. Plantings shall be placed in arrangements and locations to best mitigate the adverse impacts of the proposed site development. The required plant material shall be distributed over the entire length and width of any required buffer area.
- B. Plantings shall be spaced to comply with the visual mitigation requirements with consideration given to the provision for the future growth habits and mature sizes of selected plant species.
  - (1) The locations, dimensions and spacing of required plantings shall be adequate for their proper growth and maintenance, taking into account the sizes of such plantings at maturity and their present and future environmental requirements, such as moisture and sunlight (see Appendix Chapter A177, § A177-2.)
  - (2) In selecting locations for shade trees, consideration also shall be given to aesthetic qualities of the site and to the protection of solar access.
  - (3) Plantings shall be limited or carefully selected for locations where they may be disbursed or contribute to conditions hazardous to the public's safety. Such locations include but shall not be limited to the edges of parking areas, public street rights-of-way, underground and aboveground utilities and sight triangle areas required for unobstructed views at street intersections.
  - (4) Planting locations shall consider underground utilities and the need for repairing these utilities, together with the presence of overhead wires. No trees shall be planted closer than 15 feet from fire hydrants, streetlights or stop signs.
- C. Existing healthy trees, shrubs, or woodlands may be substituted for part of the plant material required by this chapter at the sole discretion of Director of Building & Planning provided such existing vegetation, in its existing location on the site, or in an appropriate transplant location on the site, fulfills the intent of the particular standard for which it is proposed to be substituted.
  - (1) The minimum quantities and/or visual effect of the existing vegetation shall be equal to or exceed that of any required landscape or screening buffer.

## 5.7. General Landscape Design Criteria (continued)

- (2) In order for existing vegetation to qualify, proof must be provided to demonstrate that adequate protection measures during construction, particularly in the plant's root zone, are incorporated into the plan, and comply with the standards of Article 4.7, Preservation and Protection of Existing Vegetation and Natural Features Code Section 101-6, Site Disturbance regulations.
- D. Plant materials shall meet the specifications of Section 5.8 below.
  - E. Planting plans shall be required; such plans shall be prepared by a landscape architect registered by the Commonwealth of Pennsylvania to engage in the practice of landscape architecture. In addition, planting plans shall include a planting schedule which summarizes the quantity, type, size and root conditions of all plantings. A compliance chart shall also be included, which demonstrates compliance with all of the requirements of this Article and any applicable Chapters.
  - F. In the event that an applicant requests a waiver from the landscaping requirements of this article on the basis that compliance with such requirements would represent an undue hardship, the granting of any such waiver may be conditioned upon the payment to the Township of a fee -in-lieu of planting such required landscaping in accordance with the following:
    - (1) The developer shall provide sufficient plans and documentation to establish what landscaping is to be waived and to permit the proper evaluation of the effect of the grant of the proposed waiver and the reasons for such waiver.
    - (2) The fee shall be based upon the value of the required landscaping that is to be waived. The calculation of which value shall be performed by a registered landscape architect licensed by the Commonwealth of Pennsylvania, and shall be based on the costs of materials, installation, relocation, and guaranty of the landscaping that is not to be installed.
    - (3) The fee-in-lieu of the provision of the required landscaping shall be used, unless the developer paying such fee shall agree otherwise, only for the purpose of providing for the planting of trees and other landscaping on Township owned lands or along the streets or highways of the Township.

## 5.8 Plant Material &amp; Planting Specifications

The following specifications shall apply to all plants and landscaping provided in subdivisions and land developments regulated by this chapter, and shall be demonstrated on the required landscape plans, which shall be prepared, signed, and sealed by a registered landscape architect, licensed by the Commonwealth of Pennsylvania.

- A. Plant Species Selection. Plant species selection shall be based on the following considerations:
  - (1) Any planting materials proposed, including but not limited to deciduous and evergreen trees, shrubs; herbaceous and woody perennials, groundcovers, and grasses, shall only be provided in conformance with 5.7, and shall only be chosen from the applicable Category (according to the proposed use of the plantings) from Appendix A177: Planting Materials and Specifications.
  - (2) Any species or cultivar listed in the List of Approved Plants may be used for another purpose other than the Category under which it is listed, provided such use receives the recommendation of the Township Shade Tree Commission, if applicable.

## 5.8. Plant Material &amp; Planting Specifications (continued)

- (3) Any plant materials proposed but not included in the List of Approved Plants shall only be approved by Director of Building & Planning provided the registered landscape architect demonstrates the alternative plant materials chosen satisfy at least one of the following conditions:
  - (a) The proposed plant materials more effectively implement the intent and goals of this chapter than all other applicable plant species in Appendix A177 ;
  - (b) The proposed plant materials have received a recommendation for approval from the Township Shade Tree Commission, if applicable; and
  - (c) If a non-native alternative is proposed, the design professional shall demonstrate that no native alternative is available for the desired planting location and the overall site design demonstrates compliance with Sections 5 and 6 below.
- (4) Invasive and Noxious Plants Prohibited.
  - (a) Invasive and "watch-list" species listed on any governmental list of invasive species, including the Pennsylvania Department of Conservation and Natural Resources' "DCNR Invasive Plant List," as well as species identified in Chapter 59, Brush, Grass and Weeds, shall be prohibited to be planted as part of any subdivision or land development in the Township.
  - (b) Such plants shall be required to be removed when present on a site under development and such plants shall not be used to satisfy any landscaping requirement of this chapter.
- (5) Minimum Native Species. A minimum of 80% of all planting material proposed shall be composed of native plants. Street Trees identified in Section 5.1 shall be excluded from this percentage calculation. Such requirement shall be based on the total number of individual plants proposed.
- (6) Minimum Species Diversity. A minimum variety of species per plant type (canopy tree, understory tree, evergreen trees, shrubs; herbaceous and woody perennials etc.) shall be required as follows. Compliance with this requirement shall be documented on the landscape plan.

**TABLE 5.8.1 MINIMUM SPECIES DIVERSITY REQUIREMENTS**

NUMBER OF PLANTS REQUIRED PER PLANT TYPE	MINIMUM NUMBER OF SPECIES REQUIRED PER PLANT TYPE	MAXIMUM % OF ANY ONE SPECIES PER PLANT TYPE
0-5	1	100%
6-15	3	50%
16-30	4	40%
31-50	6	30%
51-100	8	20%
100+	12	10%

## 5.8. Plant Material &amp; Planting Specifications (continued)

- (7) In addition, the registered Landscape Architect shall also consider the following when selecting plant species:
- (a) Existing site conditions and their suitability for the selected plants based on the site's soils, hydrology, and microclimate.
  - (b) Specific functional objectives of the plantings which may include but not be limited to visual screening, noise abatement, energy conservation, wildlife habitat, erosion control, stormwater management, and aesthetic value.
  - (c) Maintenance and replacement considerations such as hardiness, resistance to insects and disease, longevity, availability, and cost of plant materials.
- B. Plant Specifications.
- (1) All plants shall meet the minimum standards for health, form, and root condition and plantings shall conform to the standards of the publication American Standard for Nursery Stock, ANSI Z60.1, 2014 or later of the American Association of Nurserymen, as amended.
  - (2) All plant material shall be hardy and within the USDA hardiness Zone 7a applicable to Montgomery County, Pennsylvania. All plant material used on the site shall have been grown within the same USDA hardiness zone as the site and shall be nursery grown.
  - (3) The location, dimensions, and spacing of required plantings should be adequate for their proper growth and maintenance taking into account the sizes of such plantings at maturity and their present and future environmental requirements and tolerances including wind, moisture, and sunlight.
  - (4) Minimum plant size and spacing at time of planting shall meet Table 5.8.2.

**TABLE 5.8.2 MINIMUM PLANT SIZE AND SPACING REQUIREMENT**

PLANT TYPE	MINIMUM CALIPER AT TIME OF PLANTING	MINIMUM HEIGHT AT TIME OF PLANTING	MINIMUM SPACING AT TIME OF PLANTING
Understory tree	2-2.5 inches	12-14 feet (Multi-stem)	15-20 feet
Medium canopy tree	2-2.5 inches	12-14 feet (Multi-stem)	20-25 feet
Large canopy tree	2-2.5 inches	-	35-40 feet
Large shrub	-	36 inches	**
Small shrub	-	18-24 inches*	**
Evergreen tree	-	8 feet	**

\* excludes groundcover shrubs which can be shorter

\*\* dependent on estimated mature width

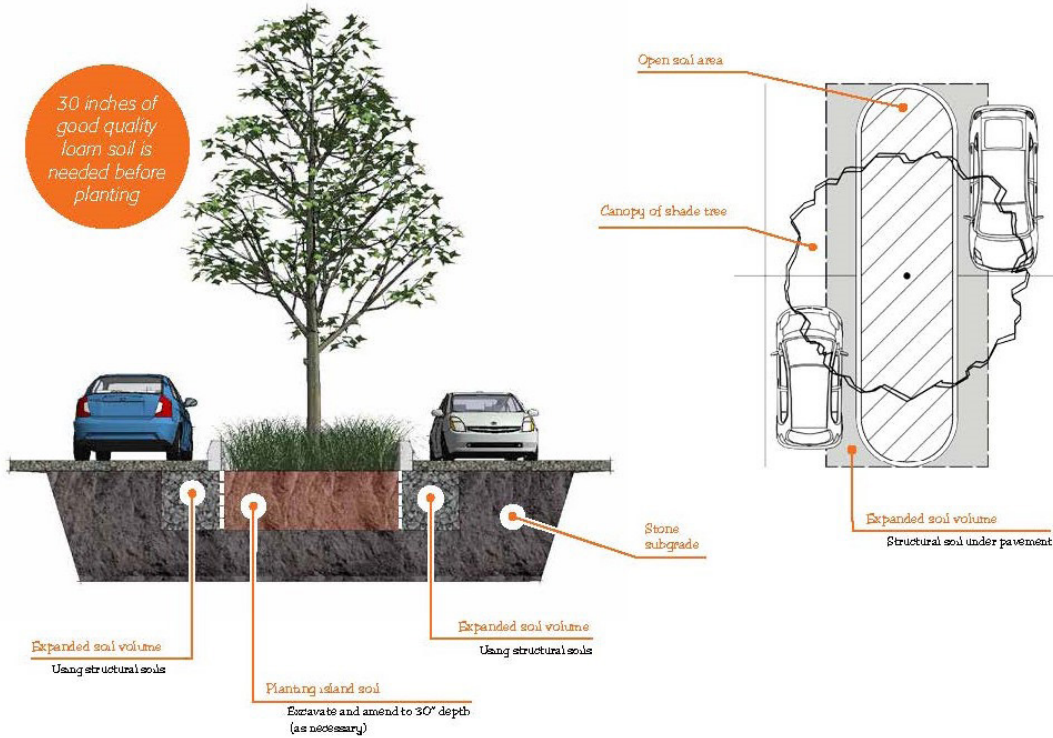
## 5.8. Plant Material &amp; Planting Specifications (continued)

- (5) Understory or ornamental trees, or large shrubs may be deciduous or evergreen and shall have a distinctive ornamental characteristic such as prominent flowers, fruit, habitat, foliage, or bark.
  - (6) Small shrubs may be evergreen or deciduous.
- C. Minimum Soil Volumes. The registered Landscape Architect shall provide details on the site plan that show a longitudinal section and depth of planting areas 1,000 square feet and under in area demonstrating compliance with minimum soil volume standards.
- (1) The following minimum soil volume per tree shall apply when such plant is proposed in any planting areas 1,000 square feet and under in area:
    - (a) Small canopy or evergreen tree: 600 cubic feet
    - (b) Medium canopy tree: 900 cubic feet.
    - (c) Large canopy tree: 1,200 cubic feet
  - (2) Planting Soil Composition. Planting soils shall be a loam soil capable of supporting a healthy vegetative cover, which is amended with composted organic material, such as mushroom compost or leaf mulch, resulting in an organic amended soil containing 20% to 30% organic material (compost), and 70% to 80% topsoil screened of rocks, sod, and debris. The minimum depth of the planting soil shall be 30 to 36 inches depending on the size of the individual planting. A soil improvement detail and notes, including the removal of all construction debris and existing compacted soil and the proposed soil improvement mix, should be provided with the landscape plan. Ensure trunk flare sits above finished grade; compact soil below root ball as necessary.
  - (3) Alternative Methods: The alternative methods are for limited street planting areas, where required soil volumes are unattainable without implementing these methods. If the minimum soil volumes cannot be achieved, as determined by the Director of Building and Planning, the following alternative options may be utilized:
    - (a) Structural Soil Composition (Figure 5.8.1). Structural soil shall be a mix of 80% AASHTO No. 57 stone and 20% loam soils. Such soil may be used to supplement planting soil volume, provided it satisfies all of the following conditions:
      - [1] Structural soils shall be used under impervious paving where the tree planting area is surrounded by paving for the purpose of expanding the soil volume to meet minimum soil volumes specified 5.8C above.
      - [2] Structural soils shall be entirely below pavement areas and shall not be exposed at the surface.
      - [3] Structural soils are located adjacent to planting soils.



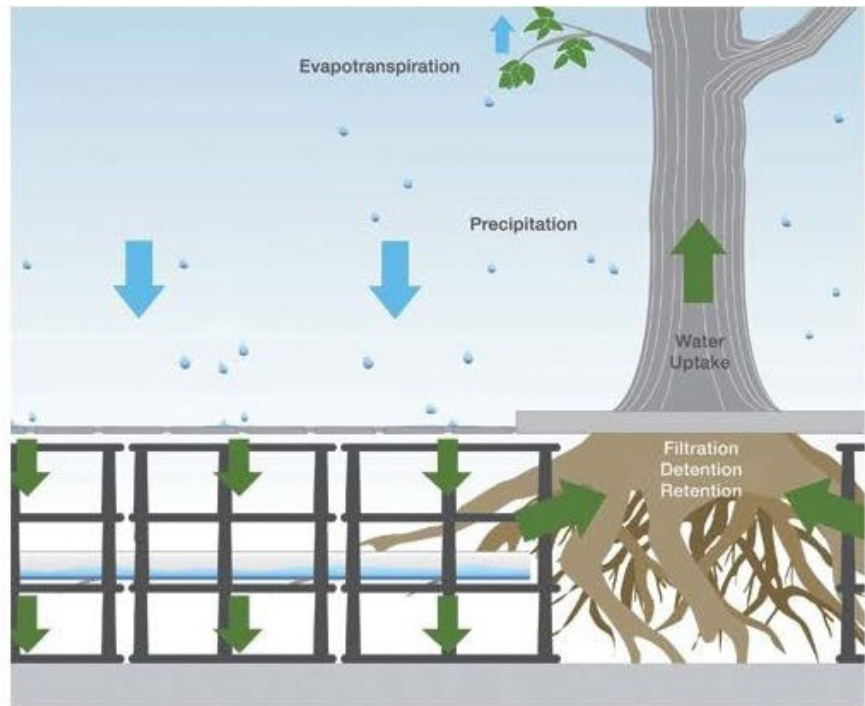
5.8. Plant Material & Planting Specifications (continued)

FIGURE 5.8.1 STRUCTURAL SOIL COMPOSITION



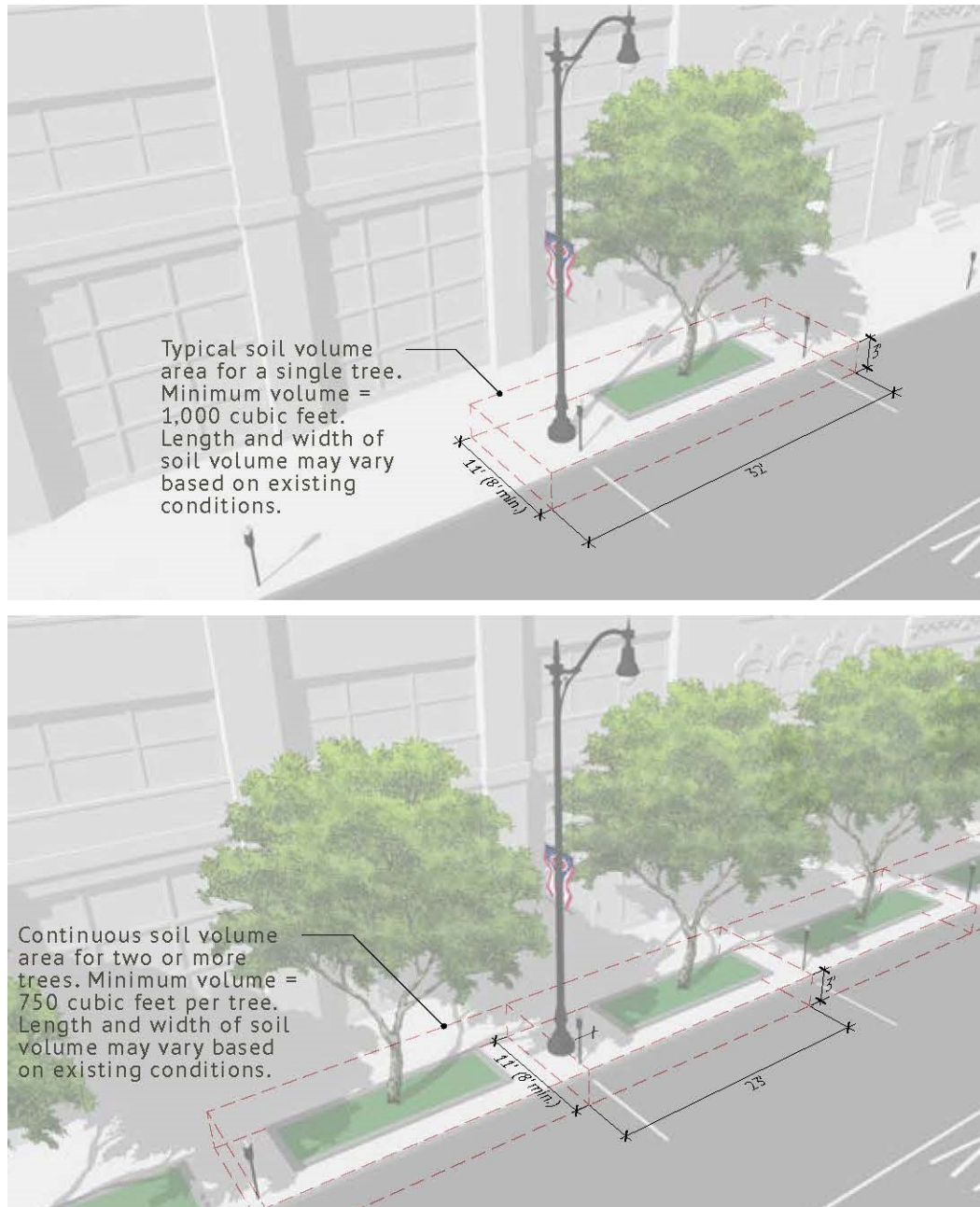
(b) Suspended Pavements System (Figure 5.8.2). A Tree/Pavement Support System may be utilized that supports the weight of the pavement and improves the urban tree health. The support structure, as well as a pervious flexible pavement, creates a void space for increased tree root/soil volume. The space shall be filled with a combination of structural soils and native excavated soil, provided that its quality material, or a specified soil mix.

FIGURE 5.8.2 SUSPENDED PAVEMENTS SYSTEM



## 5.8. Plant Material &amp; Planting Specifications (continued)

FIGURE 5.8.3 SHARED ROOT ZONE AREAS OR LINEAR TREE PLANTING



- (c) Shared Root Zone Areas or Linear Tree Planting (Figure 5.8.3). The system should allow the root systems of adjacent trees to join and share soil space where available. Structural soils shall be utilized beneath the sidewalk or hardscape, as noted above. The following minimum soil volume per tree shall apply when such plants are shared any planting areas:

- [1] Medium canopy tree; 750 cubic feet when clustered.
- [2] Large canopy tree; 900 cubic feet when clustered.

## 5.8. Plant Material &amp; Planting Specifications (continued)

- G. Maintenance. Prior to final approval of the site's landscape plan, the developer shall sign and record an operation and maintenance agreement or covenant, as outlined in Natural Features Code Section 101.11B. The agreement shall cover ongoing maintenance of all required plantings on the site in accordance with the approved plan. The agreement shall be subject to review and approval by the Township Solicitor.
- (1) It shall be the responsibility of all property owners to maintain all plantings and architectural elements to ensure a safe environment, as outlined in the Article and Chapter 101.11.
  - (2) Plantings shall be selected, located, and maintained so that they do not contribute to conditions hazardous to public safety. Such conditions include, but are not limited to, public street rights-of-way, underground and above ground utilities, and sight triangle areas required for unobstructed views at street intersections.
  - (3) Within required sight triangles, shrubs must be maintained at a maximum height of two (2) feet and trees must be maintained so that the lowest branches are a minimum of seven (7) feet above grade.
  - (4) Any plant materials that could endanger safety such as unstable limbs shall be removed and the plant materials shall be replaced if necessary.
  - (5) Maintenance guidelines for the plantings should be developed by a licensed landscape architect to be used by grounds maintenance personnel.

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ARTICLE 6:  
MOBILE HOME PARKS

**135-6. MOBILE HOME PARKS**

## 6.1. Governing Provisions

Subdivision or land development for purposes of mobile home parks shall be governed by and performed pursuant to all requirements of this chapter.

ARTICLE 7:  
IMPROVEMENT  
CONSTRUCTION  
REQUIREMENTS

**135-7. GENERAL PROVISIONS**

## 7.1. Applicability

Before the Final Plan is signed and made ready for recording or prior to the issuance of any permit needed for construction or occupancy of any subdivision or land development, all applicants are required to complete to the satisfaction of the Township or ensure the completion of all required public improvements in manner set forth in this Article.

## 7.2. Completion or Guarantee of Required Improvements

- A. No plan shall receive final approval unless the streets shown on such plan have been improved to a mud-free or otherwise permanently passable condition or been improved as may be required by this chapter, and any walkways, curbs, gutters, streetlights, fire hydrants, shade trees, landscape buffers, water mains, sanitary sewers, stormwater management and conveyance facilities and other improvements as may be required by this chapter have been installed in accordance with this chapter.
- B. No lot in a subdivision or land development may be sold, leased, mortgaged or otherwise transferred; no permit to erect any building on land in a subdivision or land development may be issued; and no building may be erected or lot development effected in a subdivision or land development unless and until a subdivision plan or land development plan has received final approval and, where required, been recorded.
- C. The Township may defer at the time of Final Plan approval, subject to appropriate conditions, the provision of any or all required improvements, as in its judgment, are not requisite in the interests of public health, safety and welfare, or which are inappropriate due to the inadequacy or non-existence of connecting facilities. A separate public improvement agreement may be required by the Township guaranteeing completion of any deferred improvement by the property owner at some later date.

## 7.3. Financial Security

- A. In lieu of the completion of any improvements required as a condition of the final approval of a plan, the developer may deposit with the Township financial security in an amount sufficient to cover the costs of any improvements or common amenities which may be required, including, but not limited to, roads, stormwater management, conveyance and other related drainage facilities, recreational facilities, sanitary sewers, lighting, open space improvements and/or buffer or screen plantings.
- B. The amount of such security to be posted for the completion of required improvements shall be equal to 110% of the cost of completion estimated as of ninety (90) days following the date scheduled for completion by the developer.
- C. The cost of the improvements shall be established by submission to the Board of Commissioners of a bona fide bid or bids from the contractor or contractors chosen by the party posting the financial security to complete the improvements or, in the absence of such bona fide bids, the costs shall be established by estimate prepared by the Township Engineer.



## 7.3 Financial Security (continued)

- D. 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 of 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. In the case where development is projected over a period of years, the Board of Commissioners 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 development.
- E. When requested by the applicant in order to facilitate financing, the Township shall furnish the applicant with a signed copy of a resolution indicating approval of the Final Plan contingent upon the applicant obtaining a satisfactory financial security. Final Plans will not be signed or recorded until the financial improvements agreement is executed. The resolution of contingent approval shall expire and be deemed to be revoked if the financial security agreement is not executed within ninety (90) days, unless a written extension is granted by Township.
- F. The Township at its option, may accept financial security in the form of cash escrow placed with the municipality, irrevocable letter of credit, escrow account, or surety bond with a bonding company or chartered lending institution chosen by the party posting financial security provided said institution or company is authorized to conduct such business in the Commonwealth of Pennsylvania.

## 7.4. Interpretation Release of Financial Security

The Township may release all or parts of the posted financial security as completion of improvements proceeds, in compliance with the applicable requirements of the Pennsylvania Municipalities Planning Code.

- A. As the work of installing the required improvements proceeds, the party posting the financial security may request the Board of Commissioners to release or authorize the release, from time to time, of such portions of the financial security necessary for payment to the contractor or contractors performing the work.
- B. Any such requests shall be in writing, addressed to the Board of Commissioners in care of the Township Building and Planning Department, and the Board of Commissioners shall have 45 days from receipt of such request within which to allow the Township Engineer to certify, in writing, to the Board of Commissioners that such portion of the work upon the improvements has been completed in accordance with the approved plan.
- C. Upon such certification, the Board of Commissioners shall authorize release by the bonding company or lending institution of an amount as estimated by the Township Engineer as fairly representing the value of the improvements completed or, if the governing body fails to act within said forty-five-day period, the Board of Commissioners shall be deemed to have approved the release of funds as requested.
- D. The Board of Commissioners may, prior to final release at the time of completion and certification by the Township Engineer, require retention of 10% of the estimated cost of the aforesaid improvements

#### 7.4 Interpretation Release of Financial Security (continued)

- E. Landscaping Security. The applicant shall be responsible for the full replacement of all dead or diseased trees or shrubs for eighteen (18) months after final acceptance and certification of project completion. Final inspection of landscaping shall be performed while trees are fully leafed out- typically May 1 through November 1.

#### 7.5. Incomplete Improvements

If the required improvements are not completely installed within the period fixed or extended by Township, the Township may take one or more of the following actions:

- A. Declare the financial security in default and require that all improvements be installed regardless of the extent of the building development at the time the agreement is declared in default;
- B. Suspend Final Plan approval until the development improvements are completed and record a document to that effect for the purpose of public notice;
- C. Obtain funds under the security and complete improvements;
- D. Assign the right to receive funds under the security to any third party, including a subsequent owner of the property wherein improvements were not completed in exchange for that subsequent owner's formal agreement to complete improvements;
- E. Exercise any other available rights under the Pennsylvania Municipalities Planning Code.

#### 7.6. Inspection of Work and Materials

- A. Notice. The Township Engineer shall be notified forty-eight (48) hours in advance of the commencement of any construction or installation operation to schedule an inspection by the Township. Construction and installation operations shall also be subject to inspection by the Township during the progress of the work. The applicant, developer, or builder shall pay the reasonable and necessary expenses for inspections in accordance with the Township's fee schedule.
- B. Improvement Specifications. All required road improvements should be constructed in accordance with the applicable provisions of the PADOT, Form 408, current edition, including the latest revisions and other applicable regulations. All other required improvements shall be constructed in accordance with Township specifications.
- C. Sample of Materials/Shop Drawings. During or after construction of any required improvement, if the Township requires a sample of materials or shop drawing, said sample or shop drawing shall be furnished by the appropriate contractor, in a form specified by the Township Engineer.
- D. Delivery Slips. Copies of all delivery slips for materials used in the construction of any storm sewers, sanitary sewers, roads, curbs, sidewalks, or any other facility within a Township right-of-way or easement or in areas proposed for future dedication to the Township shall be supplied to the Township upon request of the Township Engineer.

### 7.7. Conditions of Acceptance

- A. Sanitary sewers. Upon completion of construction of a sanitary sewer in accordance with the approved plans and sanitary drainage specifications and as approved by the Township Engineer, a deed of dedication for the sewer, prepared by the Township Solicitor, shall be submitted to the Public Works Committee, together with a certificate from the contractor evidencing payment for all labor and material costs. Adoption by the Board of Commissioners of a resolution accepting the deed and directing that it be recorded will constitute acceptance of the sewer by the Township.
- B. Streets and other improvements. The Township may, but shall not be required to, take over and make public any street or other improvement provided:
  - (1) The required improvements, utility mains and laterals and monuments shown on an approved plan or plans have been constructed and conform to Township standards and specifications.
  - (2) For an existing street, a petition signed by the owners of at least 51% of the frontage of the street in question requesting that the street and other improvements be taken over and made public is filed with the Township Secretary.
  - (3) It is established to the satisfaction of the Board of Commissioners that there is a need for the improvements to be taken over and made public.

### 7.8. Guarantee of Completed Improvements

Where the Board of Commissioners accepts dedication of all or some of the required improvements following completion, the Board of Commissioners may require the posting of financial security to secure 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.

### 7.9. Private Maintenance of Improvements

Where the maintenance of improvements is to be the responsibility of individual lot owners, a homeowners' association or similar entity, or an organization capable of carrying out maintenance responsibilities, the Township shall require that maintenance responsibilities be set forth in perpetual covenants or deed restrictions binding on the landowners' successors in interest, and may further require that an initial maintenance fund be established in a reasonable manner.

### 7.10. Required Contracts

Before the Township shall cause its approval to be endorsed upon the Final Plans of any subdivision or land development (except in the case of minor subdivisions) and as a requirement for the approval thereof, the Township may condition such approval, or otherwise require the agreement of the owners, to the following:

- A. To construct or cause to be constructed or installed, at the owners' expense, all streets, curbs, sidewalks, fire hydrants, street lights, stormwater facilities, water and

## 7.10 Required Contracts (continued)

sewer facilities, street signs, monuments, capped sewers, parks, landscaping, line painting, and other improvements shown the Final Plan when required to do so by Township in accordance with the Township standards and specifications.

- B. To maintain at the owners' expense all streets, curbs, sidewalks, stormwater facilities, water and sewer facilities, street signs, parks, monuments, fire hydrants, street lights, capped sewers, line painting, landscaping, and other improvements, until the same are accepted or condemned by the Township for public use, and for a period of eighteen (18) months thereafter to repair and reconstruct the same of any part of one of them when such repair or reconstruction shall be specified by Township as necessary by reason of faulty construction, workmanship, or materials, or the structural integrity or functionality of the improvements are not satisfactory as determined by the Township engineer.
- C. To pay all costs, charges, or rates, of the utility furnishing electric service for the lighting of the streets on or abutting said subdivision, from the lights installed by the owner, until such time as the streets shown on the subdivision plans shall be accepted as public streets of the Township by ordinance (or resolution) , and to indemnify and hold harmless the Township from and against all suit, actions, claims, and demands for electric service to the streets shown on said plans, or any part thereof, to the time that said streets shall be accepted as public streets of the Township in the manner hereinabove set forth.
- D. Pay the inspection fees required by the Township.
- E. To obtain the easements and releases required when any street, drainage facility or other improvement wherein a subdivision abuts or traverses land 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 the lands so abutted or traversed full releases from all damages which may change in grade, construction, or other-wise, of the street, drainage facility or other improvements and such releases shall insure to the benefit not only of the owner of the subdivision but to the Township as well.
- F. To promptly remove or cause to be removed snow from the streets as may be required for safe traverse of the streets prior to dedication.
- G. To promptly reimburse to the Township reasonable professional fees.
- H. To provide in a timely manner, all construction and shop drawings and plans including a full set of "as built" plans in paper and in appropriate electronic format as specified by the Township Engineer.
- I. Such other provision(s) as deemed necessary or desired by Township.

ARTICLE 8:  
SPECIAL STUDIES  
AND REPORTS

**135-8. SPECIAL STUDIES AND REPORTS**

## 8.1. Applicability

- A. The following special studies or reports to be developed by qualified professionals may be required to support and justify subdivision and land development proposals as required by this Ordinance and the Zoning Ordinance.

## 8.2. Traffic Impact Study

- A. Purpose & Intent. A transportation impact study shall be undertaken for all subdivision and land developments meeting the criteria to:
- (1) Enable the township to assess the impact of a proposed development on the local transportation system;
  - (2) Ensure that proposed developments do not adversely affect the transportation network and to identify any traffic problems associated with access from the site to the existing transportation network;
  - (3) Delineate solutions to potential problems;
  - (4) Present improvements to be incorporated into the proposed developments; and
  - (5) Enhance and utilize the existing transportation infrastructure capacity to reduce demands on the region's transportation network.
  - (6) Reduce congestion and improve the transportation system's efficiency by promoting the use of transit, bike, and pedestrian transportation modes.
- B. Qualifications of Preparer. The transportation impact study shall be prepared by a qualified traffic engineer and/or transportation planner with previous traffic study experience. The procedures and standards for the traffic impact study are set forth in paragraph 4. of this section utilizing the terminology contained in the Federal Highway Administration's Highway Capacity Manual.
- C. Submission Requirements.
- (1) A transportation impact study shall be required for all subdivisions and land developments that meet one or more of the following criteria:
    - (a) Residential: Twenty (20) or more dwelling units.
    - (b) Commercial: A commercial building(s) consisting of ten thousand (10,000) square feet or more of gross leasable floor area.
    - (c) Office: A development consisting of ten thousand (10,000) square feet or more gross leasable floor space.
    - (d) Industrial: A development consisting of twenty thousand (20,000) square feet or more gross leasable floor space.
    - (e) Institutional: Any new land development or addition of 4,000 sq. ft. or greater of building area to an existing use

## 8.2. Traffic Impact Study (continued)

- (f) Where special conditions exist, the Board of Commissioners or Staff may request the preparation of a transportation impact study for any other subdivisions or land development.
  - (g) Any non-residential land development when located within the City Avenue Special Services District or Rock Hill Road Overlay District
- (2) The transportation impact study shall contain, but not limited to, the following information:
- (a) General site description. The site description shall include the size, location, proposed land uses, construction staging and completion date of the proposed land development. If the development is residential, types of dwelling units and number of bedrooms shall also be included. A brief description of other existing and proposed land developments within the study area shall be provided.
  - (b) Transportation facilities' description. 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 or routes, all proposed ingress and egress locations, all internal roadway widths and rights-of-way, parking conditions, traffic channelization, and any traffic signals or other intersection control devices within the site. The site design shall be shown to maximize potential public transportation usage to and from the development, such as providing adequate turning radii at all access points to allow a bus to enter the development. Bus shelter and sign locations shall be designated where appropriate.
- (3) The report shall describe the entire external roadway system within the study area. Major intersections 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 highway improvements, 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 Regional Planning Commission (DVRPC), the Township Comprehensive Plan, the Roadway Sufficiency Analysis (if project is in a transportation service area), and from the Pennsylvania Department of Transportation. Any proposed roadway improvements resulting from proposed surrounding developments shall also be recorded.
- (4) Existing traffic conditions. Existing traffic conditions shall be measured and documented for all streets and intersections in the study area. Traffic volumes shall be recorded for existing average daily traffic, existing peak hour traffic and for the subdivision's peak hour of traffic. Complete traffic counts at all study area intersections shall be conducted, including vehicular, bicycle, and pedestrian counts, encompassing the peak highway and development-generated hour(s), and documentation shall be included in the report. A volume capacity analysis based upon existing volumes shall be performed during the peak hour(s) and the peak development-generating hour(s) for all roadways and major intersections in the study area. Levels of service shall be determined for each location. This analysis will determine the adequacy of the existing roadway system to serve the current traffic demand. Roadways and/or intersections experiencing levels of service D, E or F shall be noted as congestion locations.

## 8.2. Traffic Impact Study (continued)

- (5) Transportation impact of the development. Estimation of vehicular trips to result from the proposal shall be completed for both the street system and the development-generated peak hour(s). Vehicular trip generation rates to be used for this calculation shall be obtained from the Trip Generation Manual, published by the Institute of Transportation Engineers, 10th edition or subsequent editions, which is hereby adopted by the township. These development-generated traffic volumes shall be provided for the inbound and outbound traffic movements as estimated. The references source(s) and methodology followed shall be cited. These generated volumes shall be distributed to the study area and assigned to the existing streets and intersections throughout the study area. Documentation of all assumptions used in the distribution and assignment phase shall be provided. Traffic volumes shall be assigned to all access points. Pedestrian volumes shall also be calculated, if applicable. If school crossings are to be used, pedestrian volumes shall be assigned to each crossing. Any characteristics of the site that will cause unusual trip generation rates and/or traffic flows shall be noted.
- D. Analysis of transportation impact. The total future traffic demand based on full occupancy of the proposed subdivision or land development, shall be calculated. This demand shall consist of the combination of the existing traffic expanded to the completion year, the development-generating traffic, and the traffic generated by other proposed developments in the study area. A volume/capacity analysis shall also be conducted using the total future demand and the future roadway capacity. If staging of the proposed development is anticipated, calculations for each stage of completion shall be made. This analysis shall be performed using the peak highway hour(s) and peak development-generated hour(s) for all streets and major intersections in the study area. Volume capacity calculations shall be completed for all major intersections.
  - (1) All access points and pedestrian crossings shall be examined as to the feasibility of installing traffic signals. This evaluation shall compare the projected traffic and pedestrian volumes to the warrants for traffic signal installation. Levels of service for all streets and intersections shall be listed.
  - (2) Conclusions and recommended improvements. All streets and/or intersections showing a Level of Service below C shall be considered deficient, and specific recommendations for the elimination of these problems shall be listed. This listing of recommended improvements shall include, but not limited to, the following elements: Internal circulation design, site access location and design, external street and intersection design and improvements, traffic signal installation and operation, including signal timing, and transit design improvements.
  - (3) Existing and/or future public transportation 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.
  - (4) The listing of recommended improvements for both streets and transit shall include, for such improvement, the party responsible for the improvement, the cost and funding of the improvement, and the completion date for the improvement.
  - (5) The planning agencies shall review the transportation impact study to determine its adequacy in solving any traffic problems, which may occur due to the land development or subdivision and make recommendations to the Board of Commissioners and Staff.



## 8.2. Traffic Impact Study (continued)

- (6) The Board of Commissioners or Staff may decide that certain improvements contained in the study on or adjacent to the site are required for application plan approval and may attach these conditions to the preliminary approval. The improvement plans shall not be submitted to PennDOT until such plans are approved by the Board of Commissioners and Staff. This submittal to PennDOT shall be accompanied by comments of the planning agency and the Montgomery County Planning Commission.
- (7) The cost of the transportation impact study shall be paid by the applicant/developer.
- (8) When a project is located within a transportation service area designated by the Township as outlined in Section 135-11 ), the levels of service and other transportation criteria shall be as stated in the related Roadway Sufficiency Analysis. The specific impact fee for a specific new development or subdivision within the service area for road improvements shall be determined as of the date of land development or subdivision approval by multiplying the per trip cost established for the service area as determined under Section 135-11.18, as amended, by the estimated number of peak-hour trips to be generated by the new development or subdivision using generally accepted traffic engineering standards.
- (9) The following special studies or reports to be developed by qualified professionals may be required to support and justify subdivision and land development proposals as required by this Ordinance and the Zoning Ordinance.

## 8.3 Conservation Plan Analysis

The conservation plan overlay shall consist of a graphic representation and/or a narrative statement. It shall be of the same scale as the subdivision or land development plan submitted and shall show the total tract boundaries of the property being subdivided or developed and shall indicate features of the land.

- A. The purpose of the conservation plan overlay is to show existing conditions and disclose the environmental consequences of a proposed action by an applicant. This requirement is made in order to protect the natural environment with respect to water quality, water supply, soil erosion, pollution of all kinds, flooding and waste disposal.
- B. The intent is to preserve trees and vegetation, to protect watercourses, air resources and aquifers as far as is reasonably possible, consistent with the zoning of the tract.
- C. The conservation plan statement shall include the following items pertaining to a proposed subdivision or land development. These may be in a narrative or shown on plan when appropriate. The narrative and plan must be signed and sealed by a professional engineer.
- D. The following chart outlines the plan requirement for the conservation plan:

**TABLE 8.3.1 CONSERVATION PLAN REQUIREMENTS**

CONSERVATION PLAN	
<b>INFORMATION REQUIRED</b>	
<b>SIGNATURES &amp; CERTIFICATIONS</b>	
Signature and Seal of Engineer	•
<b>LOT LINES, BOUNDARIES, LOCATION, AREA</b>	
Project narrative	•
The name of the Property owner	•
A key map at a scale of one inch equals 2,000 feet, clearly showing the location of the proposed subdivision or land development within the Township and in relation to major streets and political boundaries.	•
Location of existing structures and similar features on the property and any part of the land to be subdivided or developed	•
Location of existing structures and similar features within 200 feet of any part of the land to be subdivided or developed	•
Soil classification by the United States Department of Agriculture Soil Conservation Service, as shown in the document entitled "Soil Survey Montgomery County, Pennsylvania," dated April 1967. In addition to the soil symbol shown on the plan and the area in acres for each, the following shall also be provided from the above documents as characteristic of each soil type: (a) Soil name; (B) Percent of land slope. (C) Depth to seasonal high water; (D) Depth to bedrock; (E) Erodibility class; (F) Limitations of soil type, including load-bearing capacity, drainage and plant growth; (G) Hydrological classification, as set forth in the Soil Conservation Service Engineering Field Manual; Highly acid or highly erodible soils.	•
The location, species and size of existing trees alone and in groves	•
The location, species and size of existing and proposed street trees	•
Existing understory vegetation	•
Actual driplines of all trees	•
<b>WATERCOURSES</b>	
Watercourses (and direction of flow) through the tract(s) and within 200 feet of tract. Including Ponds, springs, natural drainage swales, both perennial and seasonal	•
Riparian buffer of watercourse(s), 50 feet, twenty five from each bank of the water body. (135-4.7G)	•
Hydric soils, as depicted in the MC Soil Survey; and the existence of hydrophytic vegetation or hydrologic conditions.	•
Wetlands and wetland buffer(s), twenty-five (25') from perimeter (135-4.7F)	•
Estuaries	•

**TABLE 8.3.1 CONSERVATION PLAN REQUIREMENTS (CONTINUED)**

	CONSERVATION PLAN
<b>INFORMATION REQUIRED</b>	
<b>STORMWATER</b>	
Rate of runoff from the site.	•
Destination of runoff water and method of controlling downstream effects.	•
Aquifer recharge and discharge areas	•
Chemical additives to runoff water on the site	•
Submission of an erosion and sediment control plan	•
<b>UTILITIES</b>	
Existing sanitary sewers within the property and adjacent to the property	•
Existing and Proposed on-site sewage disposal facilities, including a description and location on the site of the system.	•
The location of refuse and recycling storage and disposal both during and after construction.	•
Existing water mains and private wells	•
Proposed water mains and sources. The source and adequacy of water to be provided to the site	•
The expected water requirements (gallons per day) for the site.	•
<b>TOPOGRAPHY, CONTOURS</b>	
Existing and proposed drainage patterns.	•
Contours at two-foot intervals whenever the developer proposes to make any changes in grade in a subdivision.	•
Proposed contours at two-foot intervals and proposed changes in grade clearly defined.	•
Slopes greater than 10%	•
Slopes greater than 15%	•
Slopes greater than 25%	•
Maximum and minimum existing elevation of the site.	•
Maximum and minimum proposed elevation of the site.	•
The location of the one-hundred-year floodplain limit line as shown on the Lower Merion Floodplain Maps and FEMA's Flood Insurance Rate Map.	•

**TABLE 8.3.1 CONSERVATION PLAN REQUIREMENTS (CONTINUED)**

CONSERVATION PLAN	
<b>INFORMATION REQUIRED</b>	
<b>HISTORIC/SCENIC &amp; ENVIRONMENTAL SENSITIVE AREA</b>	
Historic resources, including structures, ruins, sites, traces and relationship to the bounds of any National Register or Locally designated historic structure or district.	●
If applicable, the boundaries of the Schuylkill Scenic River Corridor, as designated by the Commonwealth of PA.	●
The developer shall indicate the natural features of the land as outlined in § 135-4.1B, together with a statement indicating which, natural features would be changed or affected by the subdivision plan and/or the development of the property.	●
The location of publicly used paths and bridle trails and the proposal for their continued use by easement or otherwise on property and within 200 feet of such.	●
Existing Wildlife Habitat. Where applicable, existing wildlife habitats and food sources shall be included.	●

- E. In addition to the plan items noted above, the impact of the proposed action shall be provided. This information is not required in the Tentative Sketch submission.
  - (1) The impact on the following shall be provided. The proposed action impact on:
    - (a) Adjacent properties;
    - (b) Sites, buildings, objects, and structures of historic significance;
    - (c) Traffic on adjacent streets;
    - (d) Air quality during and after construction;
    - (e) Drainage and Runoff;
    - (f) Groundwater Quality
    - (g) Surface-Water Quality and Condition; and
    - (h) In addition to the items above, for institutional, commercial and industrial the following shall also be included:
      - [1] Noise levels, above existing levels, expected to generated at the site (source and magnitude), during and after construction;
      - [2] Estimated quantity of solid waste to be developed on the site during and after construction.

## 8.3. Conservation Plan Analysis (continued)

- (2) The following information is required:
  - (a) A statement of impact upon critical area and of adverse impacts which cannot be avoided.
  - (b) Environmental protective measures, procedures and schedules to minimize damage to critical impact areas during and after construction.
  - (c) A list of all licenses, permits and other approvals required by municipal, county, or state law and the status of each.
  - (d) A listing of steps proposed to minimize environmental damage to the site and region during construction and operation.

## 8.4 Community Impact Assessment

- A. Purpose. To provide the Township officials information regarding physical and demographic changes caused by a proposed subdivision or land development.
- B. Intent. Community Impact Assessment Reports allow for greater insight for determination of impact caused by a proposed subdivision or land development. Impacts assessed include changes to the character of the community demographics, socioeconomics, services, infrastructure and facilities or assets.
  - (1) The Community Impact Assessment Report shall assess needs associated with the proposed subdivision or land development in relation to, the School District, Township finances, and community services, including libraries and park and recreation facilities, utilities, police, fire and emergency medical services.
  - (2) The Community Impact Assessment shall identify any necessary improvements to all such systems and services needed to accommodate or mitigate the impacts from the proposed subdivision or land development.
- C. Qualifications of Preparer.
  - (1) The Community Impact Assessment must be prepared by a certified planner(s) and/or professional(s) with appropriate education, training and experience to perform such an analysis. A report presenting the results of the Community Impact Assessment and the qualifications of the preparer of the Community Impact Assessment must be submitted with the development plan.
- D. Submission Requirements.
  - (1) Two copies, plus PDFs, of a Community Impact Assessment Report shall be submitted to the Township with the Preliminary Plan application.
  - (2) An application for subdivision and/or land development shall be considered incomplete without the required Community Impact Assessment Report. A Community Impact Assessment Report shall be required for the following:
    - (a) Residential subdivision with a net increase of twenty (30) or more dwelling units
    - (b) Any mixed-use development containing 10,000 sq. ft. or greater of commercial or retail building area

## 8.4. Community Impact Assessment (continued)

- (c) Nonresidential land development of greater than 3,000 sq. ft.:
  - [1] Shopping center.
  - [2] Commercial. A commercial building or buildings.
  - [3] Office.
  - [4] Industrial.
- E. Components. The Community Impact Assessment Report shall contain the following:
  - (1) Overview and Description.
    - (a) A description of the proposed project, including the proposed uses, number and sizes of buildings and lots, architectural renderings, phasing of the project and the extent of alterations and improvements to the site.
  - (2) Community Needs Inventory. An identification of the community facility needs associated with the users and/or residents of the proposed subdivision and/or land development. The community needs assessment shall indicate in narrative form the following types of services: schools, parks, recreation areas, libraries, hospitals and other health care facilities, fire protection, police protection, ambulance and rescue services. The assessment will indicate the demand for these facilities and services and the ability of the existing facilities and services to meet the demand.

## 8.5 Transportation Demand Management Plan

- A. Purpose. The purpose of the following provisions is to mitigate traffic and other general transportation impacts generated from new development projects through sustainable growth policies that reduce single-occupancy vehicle trips, increase accessibility to transit, improve mobility of pedestrians and bicyclists, address traffic congestion at peak periods, and minimize parking demand.
- B. Requirement thresholds. Compliance with TDM policies, as established through Township Resolution 2020-16, including the filing of a TDM Plan, shall be required when a proposed land development application consists of any of the following:
  - (1) Any proposed development determined from a Traffic Impact Assessment or Traffic Impact Study to either:
    - (a) increase delay to impacted study intersections of more than 1 second, with unmitigated significant traffic impacts, or
    - (b) the traffic generated by the proposed use, when combined with the current use, results in a level of service lower than C, or, if the level of service is already C or below, shall not alter such level of service for adjacent streets and/or the nearest intersections thereof.
  - (2) Mixed-use or multifamily building with 30 or greater units
  - (3) Newly established Institutional use, or addition to an existing use greater than 3,000 sq. ft.

## 8.5. Transportation Demand Management Plan (continued)

- (4) Industrial development totaling greater than 20,000 sq. ft.
  - (5) Commercial, retail or any business or services land development, or a combination thereof, totaling greater than 10,000 of Gross Floor Area
  - (6) Office development greater than 20,000 sq. ft.
  - (7) All proposed land development plans within 500' of the following intersections:
    - (a) Rock Hill Road and Belmont Avenue
    - (b) Lancaster Avenue and Remington Road
    - (c) City Avenue and Belmont Avenue
    - (d) St. Asaphs Road and Belmont Avenue
    - (e) City Avenue and Presidential Boulevard
    - (f) City Avenue and Lancaster Avenue
    - (g) S. Bryn Mawr Avenue and County Line Road/Haverford Road
    - (h) Rock Hill Road and Conshohocken State Road
    - (i) Bala Avenue and Union Avenue
- C. When required. A transportation demand management plan shall be filed with a preliminary plan and, if amended during preliminary plan process, a final plan.
- D. Transportation Demand Management Plan Information. The transportation demand management plan shall be submitted in electronic and paper format as required by the Department of Building & Planning and include the following information:
- (1) The plan shall include a listing of measures, procedures and schedules to minimize transportation demand and regional impacts on the transportation network.
  - (2) Project description.
    - (a) List of available public transit facilities and a map showing the distance and route from the primary building entrance to public transit facilities, including bus stops and commuter rail stations, within one half-mile (½) of the tract.
    - (b) The following elements shall be identified on the map:
      - [1] Sidewalks, trails, multipurpose paths, pedestrianways and crosswalks.
      - [2] Bicycle routes and bicycle facilities.
      - [3] Public parks.

## 8.5. Transportation Demand Management Plan (continued)

- [4] Grocery stores, shopping centers or other commercial destinations
  - [5] Institutional, public use or public healthcare establishments
  - [6] Description and location of any onsite public transit amenities, including bus shelters, benches, wayfinding signage and street furniture.
  - [7] Number, location and design of bicycle parking spaces on-site.
  - [8] Description of any available public or private shuttle service to or from the site, including a list of stops.
- (c) Location of preferential parking designation for carpool and/or vanpool, if provided.
  - (d) Location of on-site and/or electronic transportation information displays. On-site transportation information displays shall be located so as to be seen by the greatest number of tenants/employees. Information displayed shall include, without limitation:
    - [1] Current maps, routes, and schedules for public transit routes serving the development.
    - [2] Transportation information including the contact information for the regional ridesharing agency and local transit operators.
    - [3] Ridesharing promotional materials.
  - (e) Maps showing the location of regional trails and pedestrian paths.
  - (f) Bicycle routes and facility information.
  - (g) A listing of facilities available for bicyclists, carpoolers, pedestrians, transit riders, and vanpoolers at the development.
- (3) Transportation Demand Management Policy Implementation. In addition to the aforementioned project description requirements, the proposed plan shall also include information and explanation to indicate measures taken to implement TDM Policy solutions consistent with the Intent & Purpose of this Chapter.



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ARTICLE 9:  
ADMINISTRATION  
FEES AND  
ENFORCEMENT

**135-9. ADMINISTRATION FEES AND ENFORCEMENT**

## 9.1. General Administration

All provisions of this Chapter shall be administered by the Board of Commissioners or their officially designated representatives. All matters relating to this Chapter shall be submitted to the Lower Merion Township Director of Building & Planning who will handle the matter in accordance with the current Lower Merion Township policies, procedures and guidelines established by the Board of Commissioners.

## 9.2. Fees and Costs

The developer shall pay fees and costs to the Township as set forth in Chapter A167 Fees, as adopted and amended from time to time by the Board of Commissioners.

- A. Professional consultants' fees. The applicant will be required to deposit with the Township sums to be held in escrow until released for the payment of the Township's consultant fees, including the fees of the Township Solicitor, land planners, traffic consultants, landscape architects and all other professional consultants whose services are engaged with respect to reviewing plans, resolving issues and preparation of documents in conjunction with an application. Moneys escrowed for this purpose may be combined with sums escrowed for the payment of the Township Engineer's fees and costs.
- B. If the funds available for the payment of those fees and costs required by this article are or become inadequate to pay those fees and costs anticipated or incurred, the Township will send notice to the applicant to make an additional deposit. Until that deposit is made, permits for any work on the project may be withheld. If the deposit is not made within 20 days of the request therefor, any permits issued for work on the site may be suspended and site improvement escrow releases may be withheld. Any funds held in escrow on behalf of site improvements may be applied to the payment of costs and fees incurred or anticipated, at the discretion of the Director of Building and Planning.
- C. Escrow accounts for fees to conduct the necessary inspection and review services provided by the Township of Lower Merion during the construction of improvements approved in the final plan shall be established in accordance with Article 7: Improvement Construction Plan.
- D. Disputes. In the event the applicant disputes the amount of any such review fee, the fee dispute process established in the Pennsylvania Municipalities Code shall be followed.

## 9.3. Enforcement

## A. Violations and penalties.

- (1) Any person or partnership or corporation who or which, being the owner or agent of the owner of any lot, tract or parcel of land, shall lay out, construct, open or dedicate any street, sanitary sewer, storm sewer, water main or other improvements for public use, travel or other purposes or for the common use of occupants of buildings abutting thereon or who sells, transfers or agrees or enters into an agreement to sell any land in a subdivision or land development, whether by reference to or by other use of a plat of such subdivision or

## 9.3. Enforcement (continued)

land development or erect any building thereon, unless and until a final plat has been prepared in full compliance with the provisions of this chapter and of the regulations adopted hereunder and has been recorded as provided herein, or who shall violate any other provision of this Chapter, shall, upon being found liable therefor in a civil enforcement proceeding commenced by the Township, be subject to a fine or penalty of not more than \$500 plus all court costs, including reasonable attorney fees incurred by the Township as a result thereof. All fines collected for such violations shall be paid over to the Township. The description by metes and bounds in the instrument of transfer or other document used in the process of selling or transferring shall not exempt the seller or transferor from such penalties or from the remedies herein provided.

- (2) Any person, partnership or corporation who or which violates any provision of this chapter not referred to in Subsection 1 above shall, upon being found liable therefore in a civil enforcement proceeding commenced by the Township, be subject to a fine or penalty not exceeding \$500, plus all court costs, including the reasonable attorney fees incurred by the Township as a result thereof, to be collected as like fines or penalties are collectible.
- (3) No judgement shall commence or be imposed, levied or be payable until the date of determination of a violation by the district justice
- (4) If the defendant neither pays nor timely appeals the judgement, the Township may enforce the judgment pursuant to the applicable rules of civil procedure.
- (5) Each day that a violation continues shall constitute a separate violation, unless the district justice 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.

## B. Remedies.

- (1) In addition to the fines or penalties under § 135-9.4.A, the Board of Commissioners may refuse to issue any permit or grant any approval necessary to further improve any real property which has been developed or has resulted in violation to this Chapter. The Township may enforce the requirements or conditions imposed upon any subdivision or land development by injunctive proceeding. Any such requirements or conditions shall be binding on the developer and his successors and assigns, including a tenant or mortgagee acquiring an interest in a portion of or all of the subdivision or land development before or after the imposition of the requirements or conditions.
- (2) In addition to other remedies, the Township may institute and maintain appropriate actions by law or in equity to restrain, to correct or abate violations, to prevent unlawful construction, to recover damages and to prevent illegal occupancy of a building.

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ARTICLE 10:  
AMENDMENTS,  
VALIDITY, AND  
REPEALER

**135-10. AMENDMENTS, VALIDITY, AND REPEALER**

## 10.1. Amendment Procedure

The Township may, from time to time, amend, supplement, change, modify, or repeal this Chapter by proceeding in accordance with the Pennsylvania Municipalities Planning Code. The Township shall fix the time and place of a public hearing on the proposed amendment and cause public notice thereof to be given as follows:

- A. By publishing a notice thereof once each week for two successive weeks in a newspaper of general circulation within the Township. The first notice shall not be more than thirty (30) days or less than seven (7) days from the date of the hearing.
- B. The notice shall state the time and place of the hearing, the general nature of the proposed amendment and that full opportunity to be heard will be given to any citizen and all parties with an interest in attending such hearing.

## 10.2. Referral to Planning Commission

Any proposed amendment presented to the Board of Commissioners without written findings and recommendations from the Township Planning Commission and the Montgomery County Planning Commission shall be referred to these agencies for review at least 30 days prior to the public hearing of the Board of Commissioners. The Board of Commissioners shall not hold a public hearing upon such amendments until the required reviews are received or the expiration of 30 days from the date of referral, whichever comes first.

## 10.3. Validity

Should any section of this Chapter be declared to be invalid by a court of competent jurisdiction, such decision shall not affect the validity of the Chapter as a whole or any other part thereof.

## 10.4. Repealer

All Chapters and parts of Chapters inconsistent herewith are repealed upon the legally effective date of this Chapter.



ARTICLE 11:  
TRAFFIC IMPACT FEES

**135-11. TRAFFIC IMPACT FEES**

## 11.1. Purpose

The purpose of this article is to establish an impact fee program to ensure that the transportation system is available and adequate to support new growth and development. To advance this objective, there is hereby created an impact fee payable to the Township at the time of building permit issuance.

## 11.2. General Findings and Conditions

The Board of Commissioners hereby finds and declares that:

A. The conditions and standards for the determination and imposition of the impact fee set forth herein are those set forth in Act 209 of 1990, and any and all amendments thereto (hereinafter the "Act"), and consist of:

- (1) The recitals set forth above;
- (2) The analysis, advice and recommendations of the Transportation Services Advisory Committee;
- (3) The land use assumptions as adopted by the Board of Commissioners;
- (4) The Roadway Sufficiency Analysis as adopted by the Board of Commissioners;
- (5) The Transportation Capital Improvements Plan, as adopted by the Board of Commissioners; and
- (6) Such other conditions and standards as the Board of Commissioners may by resolution identify from time to time as being relevant and material to the imposition of an impact fee and consistent with the provisions of the Act and any amendments thereto.

B. The collection, disbursement and accounting of impact fees shall be administered by the office of the Township Manager, subject to review, oversight and control by the Township Board of Commissioners.

C. The time, method and procedure for payment of impact fees shall be as set forth in this article.

D. The procedure for credits against or refunds of impact fees shall be as set forth in this article.

E. Such exemptions as the Board of Commissioners shall choose to enact shall be as set forth in this article.

## 11.3. Definitions

The terms and definitions set forth in Section 502-A of the Act are hereby adopted and incorporated in this article by reference.

## 11.4. Imposition

There is hereby enacted an impact fee to be imposed upon new development for the purpose of off-site public transportation capital improvements authorized by the Act and

## 11.4. Imposition (continued)

as described in the Transportation Capital Improvement Plan adopted by the Board of Commissioners. Said impact fee shall apply to all new developments or subdivisions within each of the transportation service areas identified herein and shall be a condition precedent to final approval of a development or a subdivision plan or issuance of a building permit.

## 11.5. Uses

Impact fees collected pursuant to this article shall be expended for costs incurred for improvements attributable to new development and designated in the Transportation Capital Improvements Plan adopted by the Board of Commissioners for improvements within each of the transportation service areas in which the new development will be located. Additionally, such fees may be used for the acquisition of land and right-of-way, engineering, legal and planning costs, and all other costs, including debt service related to road improvements within the designated service area, and including such proportionate amount of the Roadway Sufficiency Analysis as is allowed under the provisions of the Act.

## 11.6. Documents adopted by Board of Commissioners

The following documents, previously adopted by the Board of Commissioners, are hereby incorporated by reference in this article:

- A. Land use assumptions as adopted by Township resolution.
- B. Roadway Sufficiency Analysis as adopted by Township resolution.
- C. The Transportation Capital Improvements Plan as adopted by Township resolution.
- D. The Impact Fee Schedule as established by Township resolution.

## 11.7. Special transportation studies.

- A. Where intended to assist in determining the appropriate amount of traffic impact fees, the Township may require the preparation of special transportation studies to determine the traffic generation or circulation patterns in new developments; provided, however, that no studies may be required where the proposed development will not require a deviation from the land use assumptions used to create the program.
- B. Any such studies required by the Township shall be submitted prior to the imposition of the impact fee and shall be considered in the determination of the fee.

## 11.8. Applicability.

This article shall be uniformly applicable to all development that occurs within a designated transportation service area.

## 11.9. Payment of fee required prior to issuance of building permit.

No building permit shall be issued for a development in a designated transportation service area, as herein defined, unless the applicant therefor has paid the impact fee imposed by and calculated pursuant to this article.

## 11.10. Calculation.

- A. The impact fee for transportation capital improvements shall be based upon the total costs of the road improvements included in the Transportation Capital

## 11.10. Calculation (continued)

Improvements Plan within a given transportation service area attributable to and necessitated by new development within the service area as defined, divided by the number of anticipated peak-hour trips generated by all new development consistent with the adopted land use assumptions and calculated in accordance with the Trip Generation Manual published by the Institute of Transportation Engineers, sixth or subsequent editions, which is hereby adopted by the Township, to equal a per trip cost for transportation improvements within the service area.

- B. The specific impact fee for a specific new development or subdivision within the service area for road improvements shall be determined as of the date of preliminary land development or subdivision approval by multiplying the per trip cost established for the service area as determined in § 135-11.18 hereof by the estimated number of peak-hour trips to be generated by the new development or subdivision using generally accepted traffic engineering standards.

## 11.11 Establishment of transportation service areas.

- A. Transportation service areas, as established herein, are shown on the Transportation Service Area Map to be maintained by the Building and Planning Department and described as follows:

- (1) The Rock Hill Road Transportation Service Area is hereby established to include the following properties: all properties fronting on Rock Hill Road from Conshohocken State Road to Belmont Avenue; all properties fronting on Belmont Avenue from Rock Hill Road to the Schuylkill Expressway; and all properties fronting on Old Belmont Avenue from Belmont Avenue to Jefferson Street.
- (2) The City Avenue Transportation Service Area is hereby established to include the following properties: all properties fronting on City Avenue from Orchard Way to the Schuylkill Expressway, Bala Avenue from City Avenue to Montgomery Avenue, St. Asaphs Road, Belmont Avenue from City Avenue to Righters Ferry Road, Righters Ferry Road from Belmont Avenue to Monument Road, Monument Road from City Avenue to Righters Ferry Road, and Presidential Boulevard from Monument Road to City Avenue.

- B. Additional transportation service areas or subareas or combinations of transportation service subareas may be designated by the Board of Commissioners from time to time consistent with the procedure set forth in this article and in consideration of the following factors:

- (1) The Comprehensive Plan;
- (2) Any standards for adequate public facilities incorporated in the transportation service area;
- (3) The projected build-out and timing of development areas;
- (4) The need for and cost of unprogrammed transportation improvements necessary to support projected development; and
- (5) Such other factors as the Board of Commissioners may deem relevant.

- C. Fees collected from development in each of the transportation service areas will be used exclusively to fund transportation improvement projects scheduled for that area.

11.12 Nonbinding estimate.

Prior to making an application for a building permit, an applicant may request a nonbinding impact fee estimate from the Township, which shall be based upon the maximum development potential of the site pursuant to existing zoning regulations, unless the applicant specified a lesser use of development.

11.13 Administration.

- A. The provisions of this article shall be liberally construed to effectively carry out its purposes which are hereby found and declared to be in furtherance of the public health, safety, welfare and convenience.
- B. Collection of impact fee. Impact fees due pursuant to this article shall be collected by the Township in the manner or manners prescribed herein prior to the issuance of a building permit.
- C. Establishment of fund. Upon receipt of impact fees, the Township Manager shall be responsible for the separate and proper accounting of such fees. All such fees shall be deposited in interest-bearing accounts in a bank authorized to receive deposits of the Township funds. Interest earned by each account shall be credited to that account and shall be used solely for the purpose specified for funds of such account.
- D. Establishment and maintenance of accounts. The Township Manager shall establish appropriate trust fund accounts and shall maintain records whereby impact fees collected can be segregated for each transportation service area.
- E. Maintenance of records. The Township Manager shall maintain and keep adequate financial records for each such account which shall show the source and disbursement of all revenues, which shall account for all monies received, and which shall ensure that the disbursement of funds from each account shall be used solely and exclusively for the provision of projects specified in the Transportation Capital Improvements Plan for the particular transportation service area.

11.14 Credit.

- A. Any applicant who shall perform, at their own expense and with the consent and agreement of the Board of Commissioners, off-site improvements, as herein defined, shall be eligible for a credit from the impact fee otherwise due in the amount of the actual cost of such off-site improvements as approved by the Township Engineer. Such one-time credit shall not exceed the amount of the impact fee.
  - (1) If the applicant wishes to make such improvements, they must enter into an agreement with the Township, prior to the issuance of any building permit. The agreement must establish the estimated cost of the improvement, the schedule for initiation and completion of the improvement, a requirement that the improvement be completed to Township and Pennsylvania Department of Transportation standards and design criteria and such other terms and conditions as deemed necessary by the Board of Commissioners. The Director of Building & Planning must review the improvement plan, verify costs and time schedules, determine if the improvement is an eligible improvement and determine the amount of the applicable credit for such improvement to be applied to the otherwise applicable impact fee prior to issuance of any building permit. In no event shall the Township provide a credit which is greater than the applicable impact fee. If, however, the amount of the credit is

## 11.14. Credit (continued)

calculated to be greater than the amount of the impact fee due, the applicant may use such excess credit toward the impact fees imposed on other building permits for development on the same site and in the same ownership.

- (2) An applicant shall be eligible for a credit from the impact fee otherwise due in an amount equal to the fair market value of land dedicated by the applicant and accepted by the Township for future right-of-way, realignment or widening of existing roadways.
  - (3) An applicant shall be eligible for a credit from the impact fee otherwise due in an amount equal to the value of any road improvement construction which is contained in the Transportation Capital Improvements Plan and which was performed at the applicant's expense.
- B. As a Transportation Demand Management Plan (TDM) provides an overriding public interest, any applicant who performs at their own expense and with the consent and agreement of the Board of Commissioners, a TDM Plan, as defined in this Chapter, shall be eligible for a credit from the impact fee otherwise due in an amount equal to the actual cost of such TDM Plan, as approved by the Director of Building & Planning. Such one-time credit shall not exceed the amount of the impact fee. Biennial reports will not receive a traffic impact fee credit.

## 11.15 Refunds.

- A. Impact fees collected pursuant to this article shall be refunded, together with interest earned thereon, to the payor of the fees under the following circumstances:
- (1) In the event the Township completes or terminates the Transportation Capital Improvements Plan and there remain undisbursed funds, the respective payors shall be entitled to a share of the fund balance in the same proportion as the payor's impact fee payment, plus interest earned bears to the total impact fees collected plus interest.
  - (2) In the event any specific transportation improvement project is completed at a cost to the Township less than 95% of the budgeted cost of the transportation improvement project, the Township shall refund an amount equal to the excess budgeted cost over actual cost to the payors, pro rata, plus accumulated interest.
  - (3) In the event the Township fails to commence construction within three (3) years of the scheduled construction date of the project as set forth in the Transportation Capital Improvements Plan, the Township shall refund the portion of the fee paid by any payor making written request therefor which is attributable to said project, with accumulated interest, provided no refund shall be paid with respect to any project actually begun prior to the receipt of such refund request.
  - (4) In the event the development for which impact fees were paid has not commenced prior to the expiration of the building permit issued therefor, the impact fees paid with accumulated interest shall be refunded to the payor. Further, if a building permit, after issuance, is altered in such a way as to reduce the indicated impact fee, the difference between the amount indicated and the amount actually paid shall be refunded. The payor, at their option may roll over the impact fees attributable to an expired building permit to cover fees incurred by a renewal of said expired permit.

## 11.15. Refunds (continued)

- B. With respect to refunds arising out of Subsection A(1) or (2) hereof, any funds unclaimed within one (1) year after notice as required by law shall be transferred to the general account of the Township, and the payor's entitlement to said refund shall lapse. It is the responsibility of the payor to provide the Township with the current address of their place of business.

## 11.16 Fee is additional and supplemental requirement.

The impact fee is additional and supplemental to, and not in substitution of, any other requirements imposed by the Township on the development of land or the issuance of building permits. Nothing herein contained shall be deemed to alter or affect the Township's existing ordinances and regulations regarding on-site improvements. In no event shall a property owner be obligated to pay for transportation capital improvements in an amount in excess of the amount calculated pursuant to this article; provided, however, that a property owner may be required to pay, pursuant to Township ordinances, regulations or policies, for other public facilities in addition to the impact fee for transportation improvements as provided for herein.

## 11.17 Retroactive application.

- A. Impact fees may be imposed on those projects involving development, and subdivision for which an application has been filed on or after the first publication of notice of the Township's intent to designate a Transportation Services Area; provided, however, that such retroactivity does not exceed 18 months after the adoption of the resolution that created the advisory committee in connection herewith.
- B. In retroactive applications, the per-trip fee may not exceed \$1,000 or the actual calculated fee, whichever is less.

## 11.18 Establishment of per trip cost.

The per trip cost for transportation service areas shall be as shown on Table 11.18.

**TABLE 11.18.1 ESTABLISHMENT OF PER TRIP COST**

SECTION	TRANSPORTATION SERVICE AREA	TRAFFIC IMPACT FEE PER PEAK HOUR TRIP	PEAK HOUR
11.18.A.	Rock Hill Road Transportation Service Area	\$3,149.26	Afternoon
11.18.B.	City Avenue Transportation Service Area	\$1,544	Afternoon

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