

Chapter 22

Subdivision and Land Development

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Part 1**Title, Purpose, Interpretation, and Separability****§22-101. Title.**

An ordinance establishing rules, regulations and standards governing the subdivision and land development of land within the Borough of Ivyland, setting forth the procedures to be followed by the Borough Council and Borough Planning Commission in administering these rules, regulations and standards and setting forth the penalties for violations thereof.

(*Ord. 12/6/1995*, §100)

§22-102. Short Title.

This Chapter shall be known as the “Ivyland Borough Subdivision and Land Development Ordinance.”

(*Ord. 12/6/1995*, §101)

§22-103. Purpose.

This Chapter is adopted for the following purposes:

- A. To assist orderly, efficient and integrated development.
- B. To provide coordination of existing streets and public utilities with new facilities.
- C. To provide for efficient and orderly extension of community services and facilities.
- D. To ensure conformance of land utilization with good planning criteria and in conformance with the Pennsylvania Municipalities Planning Code, 53 P.S. §10101 *et seq.*, and the Ivyland Borough Zoning Ordinance [Chapter 27].
- E. To promote the health, safety, and general welfare of the residents of the Borough of Ivyland.
- F. To secure equitable handling of all subdivision and land development plans by providing uniform procedures and standards for observance by subdividers and by the Borough.
- G. To facilitate the goals and community objectives as set forth in the Ivyland Borough Zoning Ordinance [Chapter 27].

(*Ord. 12/6/1995*, §102)

§22-104. Interpretation.

1. The provisions of this Chapter shall be held to be the minimum requirements to meet the above-stated purposes. Where the provisions of this Chapter impose greater restrictions than those of any statute, other ordinance, or regulation, the provisions of this Chapter shall prevail. Where the provisions of any statute, other ordinance or regulation impose greater restrictions than those of this Chapter, the provisions of such statute, ordinance or regulation shall prevail.

2. This Chapter does not repeal, abrogate, annul or any way impair or interfere with existing provisions or other laws or ordinances, except those specifically or explicitly repealed by this Chapter, or any restrictions placed upon property by covenant, deed or other private agreement unless repugnant hereto.

3. From and after the effective date of this Chapter, any subdivision or land development for which application is made shall be in conformity with this Chapter and all standards and specifications adopted as part of such Chapter.

4. No parcel containing any deed restriction or previous plan restriction forbidding subdivision of that parcel may be further subdivided.

(Ord. 12/6/1995, §103)

Part 2**Applicability and Penalties****§22-201. Effect of Ordinance and Applicability.**

1. This Chapter requires that all plans for the subdivision or land development, as defined herein, of land lying in the Borough of Ivyland be submitted for approval to the Borough Council of Ivyland. All such plans shall be reviewed by the Ivyland Borough Planning Commission and the Bucks County Planning Commission and any other reviewing agencies specified by this Chapter prior to submission to Borough Council. It shall be unlawful for the owner or any other person, firm or corporation owning or controlling any land in the Borough, to change any lot line, subdivide any lot, tract, or parcel of land, or to lay out, construct, open or dedicate for public use or travel any street, sanitary or storm sewer, drainage facility or other facility in connection therewith, for the common use of occupants of buildings located within the subdivision or land development, unless:

A. Final plans of such subdivision or land development shall have been prepared in accordance with all licensing laws of the Commonwealth of Pennsylvania.

B. Final plans of such subdivision or land development have been submitted to and approved in writing thereon by the President and Secretary of the Ivyland Borough Council.

C. Final plans of such subdivision or land development have been reviewed and signed by the Bucks County Planning Commission.

D. Final plans of such subdivision or land development have been recorded in the Bucks County Recorder of Deeds Office in Doylestown, Pennsylvania.

E. The improvements required by the Borough Council in connection therewith have either been constructed or the Borough Council has been assured of proper completion by the deposit of funds or securities in escrow, sufficient to cover the cost of the required improvements, as determined by the methods set forth herein.

F. Such other reasonable conditions as may be imposed by Borough Council are met.

2. Before the approval of a subdivision or land development plan by the Borough, the applicant shall submit a copy of the proposed plan to the Bucks County Planning Commission and the Commission may make a report thereon to the Borough of Ivyland. If the Bucks County Planning Commission wishes to submit a report to Borough Council, such report must be submitted to the Ivyland Borough Planning Commission within 30 days of the submission of the plan to the Bucks County Planning Commission or within such further time as may be agreed by Borough Council. Plans shall also be submitted to the Bucks County Conservation District.

(Ord. 12/6/1995, §200)

§22-202. Penalties.

1. In addition to other remedies, the Borough may institute and maintain appropriate actions by law or in equity to restrain, correct or abate violations, to prevent unlawful construction, to recover damages and to prevent illegal occupancy of a building, structure or premises. The description by metes and bounds in the instrument of transfer or other documents used in the process of selling or transferring shall not exempt the seller or transferor from such penalties or from the remedies provided herein.

2. The Borough may refuse to issue any permit or grant any approval necessary to further improve or develop any real property which has been developed or which has resulted from a subdivision of real property in violation of an ordinance adopted pursuant to the Pennsylvania Municipalities Planning Code, 53 P.S. §10101 *et seq.*, as amended. This authority to deny such a permit or approval shall apply to any of the following applicants: (A) the owner of record at the time of such violation; (B) the vendee or lessee of the owner of record at the time of such violation without regard as to whether such vendee or lessee had actual or constructive knowledge of the violation; (C) the current owner of record who acquired the property subsequent to the time of violation without regard as to whether such current owner had actual or constructive knowledge of the violation; (D) the vendee or lessee of the current owner of record who acquired the property subsequent to the time of violation without regard as to whether such vendee or lessee had actual or constructive knowledge of the violation. As an additional condition for issuance of a permit or the granting of an approval to any such owner, current owner, vendee or lessee for the development of such real property, the Borough may require compliance with the requirements that would have been applicable to the property at the time that the applicant acquired an interest in such property.

3. *Sale of Lots; Issuance of Building Permits; Erection of Buildings.*

A. No lot in a subdivision may be sold nor any improvement constructed thereon, and no permit to erect, alter or repair any building upon land in a subdivision or land development may be issued unless and until the improvements required by the Borough Council in connection therewith have either been constructed or guaranteed as hereinafter provided; and, the subdivision or land development plan has been approved by the Borough Council and recorded in the Bucks County Recorder of Deeds Office.

B. No building in a subdivision or land development which depends upon the improvement of any street or streets herein provided for, for ingress and egress, shall be permitted to be occupied before improvements are substantially completed from a now existing paved street to and across the front of the land on which the building is located, or to a sufficient depth along the side of the land to service any driveway, or parking spaces, or in the case of streets of insufficient width, until such widening of said street has been completed. No building in a subdivision or land development which depends upon any other improvements reasonably necessary for occupancy shall be permitted to be occupied before those improvements are substantially completed.

C. No building depending upon public water and sewer facilities, shall be permitted to be occupied before such facilities are fully provided and operational.

4. Any person, partnership, or corporation who shall violate any of the provisions

of this Chapter shall, upon being found liable therefor in a civil enforcement proceeding commenced by the Borough, pay a judgment of not more than \$500 plus all court costs, including reasonable attorney fees incurred by the Borough as a result thereof. No judgment shall commence or be imposed, levied or payable until the date of the determination of a violation by the magisterial district judge. If the defendant neither pays nor timely appeals the judgment, the Borough may enforce the judgment pursuant to the applicable rules of civil procedure. Each day that a violation continues shall constitute a separate violation unless the district justice determining that there has been a violation further determines that there was a good faith basis for the person, partnership or corporation violating this Chapter to have believed that there was no such violation, in which event there shall be deemed to have been only one such violation until the fifth day following the date of the determination of a violation by the district justice and thereafter each day that a violation continues shall constitute a separate violation. [*Ord. 2011-3*]

(*Ord. 12/6/1995*, §201; as amended by *Ord. 2011-3*, 11/9/2011)

Part 3

Definitions

§22-301. General.

1. Unless otherwise expressly stated, the following terms shall for the purpose of this Chapter have the meanings given herein.

2. For the purpose of this Chapter, words and terms used herein shall be interpreted as follows:

A. Words in the present tense include the future.

B. Words used in the singular include the plural, and words in the plural include the singular.

C. The word “person,” “subdivider,” “owner,” or “applicant” includes a corporation, association and a partnership as well as an individual.

D. The word “lot” includes “plot” and “parcel.”

E. The word “Commission” and the words “Planning Commission” always mean the Ivyland Borough Planning Commission.

F. The word “municipality” and the word “Borough” always mean the Borough of Ivyland.

G. The words “Zoning Ordinance” always refer to the Zoning Ordinance of the Borough of Ivyland [Chapter 27], as amended.

H. The word “street” includes “road,” “lane,” “avenue,” and “highway” and shall mean the whole or any part thereof, and shall include bridge or culvert, cartway, gutter, curb, sidewalk, and the whole legal width of the right-of-way.

I. The words “shall” and “will” are mandatory; the word “may” is permissive.

3. *Definitions.*

Agent—any person other than the subdivider or land developer who, acting for the subdivider or land developer, submits to the Borough subdivision or land development plans for the purpose of obtaining approval thereof.

Alley—a right-of-way providing secondary vehicular access to the side or rear of two or more properties.

Applicant—a land owner or developer, as hereinafter defined, who has filed an application for subdivision or land development, including his heirs, successors or assignees.

Application for development—every application, whether preliminary or final, required to be filed and approved prior to start of construction or development including, but not limited to, an application for a building permit, for the approval of a subdivision plan or for the approval of a land development plan.

Block—an area bounded by streets, or by a combination of streets and public parks, open space, railroad right-of-way, or boundary lines of the Borough.

Building—a structure having a roof which is used or intended to be used, for the shelter or enclosure of persons, animals, or property. The word “building” shall

include any part thereof.

Building line, front—the line parallel or concentric to the street right-of-way line at a distance therefrom equal to the depth of the front yard required for the zoning district in which the lot is located.

Building line, rear—a line parallel to the rear lot line at a distance from the rear lot line equal to the depth of the minimum rear yard required.

Building line, side—a line parallel to the side lot line at a distance therefrom equal to the depth of the minimum side yard required.

Cartway—that portion of a street or alley intended for vehicular use, not include any shoulder area.

Cross-walk or interior walk—a right-of-way or easement for pedestrian travel across or within a block.

Clear sight triangle—a triangular shaped area 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 sight distance of motorists entering or leaving the intersection.

Cul-de-sac—a street with one end open for public vehicular and pedestrian access, and the other end terminating in a vehicular turnaround.

Design storm—the magnitude of precipitation from a storm event measured in probability of occurrence and duration, and used in computing stormwater management control systems.

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

Development—any man-made change to improved or unimproved real estate including, but not limited to, buildings or other structures, the placement of mobile homes, streets and other paving, utilities, mining, dredging, filling, grading, excavation, or drilling operations.

Development plan—the provisions for development including a plat of subdivision, all covenants relating to use, location and bulk of buildings and other structures, intensity of use or density of development, streets, ways and parking facilities, common open space and public facilities. The phrase “provisions of the development plan” shall mean the written and graphic materials referred to in this definition.

Drainage facility—any ditch, gutter, pipe, culvert, storm sewer, basin or structure designed, intended or constructed for the purpose of diverting or controlling surface water from, or carrying surface waters off, streets, public rights-of-way, parks, recreation areas, or any part of any subdivision, land development or contiguous land areas.

Driveway—a minor vehicular access between a street and a parking area or garage within a lot or property.

Dwelling—a residential building containing one or more dwelling units.

Dwelling unit—any room or group of rooms located within a residential building and forming a single, habitable unit with facilities used or intended to be used for

living, sleeping, cooking and eating by one family.

Easement—a grant of one or more of the property rights by the property owner to and/or for the use by the public, a corporation, the Borough or other governmental authority, or another person or entity.

Erosion—the removal of surface materials by the action of natural elements.

Half or partial street—a street parallel and adjacent to a property line having a lesser right-of-way width than required for satisfactory improvement and use of the street.

Impervious surface—surfaces which do not absorb water, including all buildings, parking areas, driveways, roads, sidewalks, and any areas of concrete, asphalt and packed stone, and any other areas determined to be impervious by the Borough Engineer.

Improvements—those physical additions, installations, and required changes such as streets, curbs, sidewalks, water mains, sewers, drainage facilities, public utilities, driveways, parking areas, landscaping, buffers, street lights, monuments, and other appropriate items required to render land suitable for the use proposed.

Land development—

(1) The improvement of one or two or more contiguous lots, tracts or parcels of land for any purpose involving:

(a) A group of two or more residential or nonresidential buildings, whether proposed initially or cumulatively, or a single nonresidential building on a lot or lots regardless of the number of occupants or tenure.

(b) The division or allocation of land or space, whether initially or cumulatively, between or among two or more existing or prospective occupants by means of, or for the purpose of streets, common areas, leaseholds, condominiums, building groups or other features; but not including the following:

1) The addition of a nonresidential accessory building of 500 square feet or less to be used for storage or other incidental purposes and which does not create the need for more than three additional parking spaces under the terms of the Borough Zoning Ordinance [Chapter 27].

(2) A subdivision of land.

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

Lot area—the area contained within the property lines of the lot shown on a subdivision plan or required by this Chapter, excluding any area within an existing or designated future street right-of-way, and excluding any area required as open space under this Chapter and excluding any area within a stormwater detention facility or drainage easement.

Owner—the owner of record of a parcel of land.

Parking space—an open space or a garage on a lot used for parking motor vehicles, and to which there is access from a street or alley.

Plan, final—a complete and exact subdivision or land development plan,

prepared as for official recording, to define property rights and proposed streets and other improvements.

Plan, preliminary—a subdivision or land development plan showing all those items required by this Chapter and prepared as a basis for consideration prior to the preparation of a final plan.

Plan, record—an exact copy of the approved final plan on opaque linen of standard size prepared for necessary signatures and recording with the Bucks County Recorder of Deeds.

Plan, sketch—an informal presentation of a proposed land development or subdivision which may be discussed with the Planning Commission prior to a formal application for subdivision or land development.

Reverse frontage lot—a lot extending between and having frontage on a major street and a minor street with vehicular access solely from the latter.

Review—an examination of a plan to determine compliance with this Chapter, the Zoning Ordinance [Chapter 27], and other pertinent requirements.

Right-of-way—a strip of land occupied or intended to be occupied by a street, alley, crosswalk, sanitary or storm sewer, stream, drainage ditch, or for any other use, including that area deemed necessary by Borough ordinance to accommodate future street improvements. Every right-of-way hereafter established and shown on a final record plan is to be separate and distinct from lots or parcels adjoining such right-of-way and not included with the dimensions of areas of such lots or parcels.

Right-of-way, future—the right-of-way width required for the expansion of existing streets to accommodate future traffic loads; or, a right-of-way established to provide future access to or through undeveloped land.

Runoff—the surface water discharge or rate of discharge of a given watershed after a fall of rain or snow that does not enter the soil but runs off the surface of the land.

Sedimentation—the process by which mineral or organic matter is accumulated or deposited by moving wind, water or gravity. Once this matter is deposited (or remains suspended in water), it is usually referred to as sediment.

Sewage facility—any sewer, sewage system, sewage treatment works or part thereof designed, intended or constructed for the collection, treatment or disposal of liquid waste, including industrial waste.

Sight distance—the length of roadway, measured along the centerline, which is visible to the driver of a passenger vehicle at any given point on the roadway when the view is unobstructed by traffic.

Slope—the face of an embankment or cut section; any ground whose surface makes an angle with the plane of the horizon. Slopes are expressed in a percentage of vertical distance per 100 feet of horizontal distance.

Street—a public or private way used or intended to be used for passage or travel by vehicles and pedestrians and to provide access to abutting properties.

Street line—the dividing line between the street and the lot. The street line shall be the same as the legal right-of-way line or, where established by ordinance

or other means, the future right-of-way line.

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

Subdivision—the division 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 purposes, whether immediate or future, of lease, partition by the court for distribution to heirs or devisees, transfer of ownership or building or lot development.

Subdivision, minor—the division of a single lot, tract or parcel of land into two residential lots, tracts, or parcels of land for the purpose, whether immediate or future, of leasing or transfer of ownership or of building development; provided, the proposed lots, tracts or parcels of land thereby created have frontage on an improved public street or streets; and, provided further, that there is not created by the subdivision any new street or streets, the need for improvements, easement or the need thereof.

Substantially completed—where, in the judgment of the Borough Engineer, at least 90 percent (based on the cost of the required improvements for which financial security was posted pursuant to 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.

Tree protection area—an area that is radial to the trunk of a tree. The tree protection area shall be 15 feet from the trunk of the tree to be protected, or the distance from the trunk to the dripline, whichever is greater. Where there is a group of trees, the tree protection area shall be the aggregate of the protection areas for individual trees.

Waiver—a modification of the requirements of this Chapter as defined and regulated by §22-501 of this Chapter.

Water facility—any water works, water supply works, distribution system or part thereof designed, intended or constructed to provide or distribute potable water.

Wetlands—those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soils conditions; or those areas of lands defined as wetlands in either (1) The United States Army Corps of Engineers, *Wetlands Delineation Manual*; or (2) The Pennsylvania Department of Environmental Protection “Wetlands Identification and Delineation,” Chapter 105, “Dam Safety and Waterways Management” rules and regulations, 25 Pa.Code, Chapter 105, whichever results in the more extensive delineation of wetlands. [Ord. 2011-3]

Woodlands—areas, groves or stands of trees with a continuous canopy covering an area of $\frac{1}{4}$ acre or greater.

Yard—a space open to the sky on the same lot with a building or structure which is unoccupied except for accessory uses or structures to the extent specifically permitted by this Chapter, and extending along a lot line or a street line

inward to the principal use or structure. The size of the required yard shall be measured at the shortest distance between any part of the structure and a lot line or street line.

Front yard—the open unoccupied space between the front building line and the street right-of-way line for the full width of the lot.

Side yard—the open unoccupied space extending from the front yard to the rear yard between the side building line and the side lot line.

Rear yard—the open unoccupied space between the rear building line and the rear lot line for the full width of the lot.

(Ord. 12/6/1995, §301; as amended by Ord. 2011-3, 11/9/2011)

Part 4

Procedure for Subdivision and Land Development

§22-401. General.

1. In order to discharge the duties imposed by law, the Ivyland Borough Council has adopted the following procedures which shall be observed by all applicants for subdivisions and/or land developments.

2. A pre-submission sketch plan may be submitted to the Borough for review at any time. The purpose of such plans is to afford the applicant an opportunity to consult informally with the Planning Commission before the preparation of the formal preliminary plans and formal application for approval.

3. The table below indicates the required plans for the different type of plan applications.

Type of Application	Pre-Submission Sketch Plan	Preliminary Plan	Final Plan
Minor Subdivision	Suggested	Not required	Required
Major Subdivision	Suggested	Required	Required
Land Development	Suggested	Required	Required
Lot Line Change	Suggested	Not required	Required

(Ord. 12/6/1995, §400)

§22-402. Preliminary Plan Procedure for Subdivisions or Land Development Plans.

A preliminary plan will be required for all major subdivisions and land developments in the Borough of Ivyland. Minor subdivisions and lot line changes may submit minor final plans only. The preliminary plan and all information and procedures relating thereto shall be in compliance with the applicable provisions of the Ivyland Borough Zoning Ordinance [Chapter 27] and this Chapter. The requirements of preliminary plans are set forth in Part 7 of this Chapter. The procedure for preliminary plan approval is as follows.

A. The applicant prepares a preliminary plan and application. The applicant submits copies of the preliminary plan and application to the Borough at least 14 calendar days in advance of the Ivyland Borough Planning Commission meeting.

(1) The application shall be made on forms available at the Borough office and shall be received at the Borough office.

(2) The application shall be accompanied by a statement from the appropriate agency indicating that the proposed subdivision or land development will be served with public water.

(3) The application shall be accompanied by a statement from the appropriate agency indicating that the proposed subdivision will be served with public sanitary sewers.

(4) The application shall be accompanied by a specified fee and deposit. Such fees shall include the reasonable and necessary charges for the Borough Engineer and other professional consultants to review the plans, in accordance with a fee schedule set by resolution of the Borough Council.

(5) The application shall be accompanied by 18 sets of the preliminary subdivision and/or land development plans and data prepared in accordance with this Chapter.

B. Upon submission of a preliminary plan, the Zoning Officer shall determine if the application is complete and accept the application or determine if the application is incomplete and shall not accept the application.

C. The Borough shall distribute copies of the preliminary plan, data, and application to Borough Council, Borough Planning Commission, Borough Engineer, Borough Solicitor and Borough files.

D. The applicant shall be responsible for distributing plans, fees, and application forms to the other appropriate agencies having jurisdiction including, but not limited to, the Warminster Municipal Authority, the Bucks County Department of Health, Bucks County Conservation District, and the Bucks County Planning Commission. If required, the plans shall also be submitted to the Pennsylvania Department of Transportation and the Pennsylvania Department of Environmental Protection.

E. The Borough Engineer, following receipt of the plans from the Borough, shall:

(1) Review all aspects of the plan submission including all engineering considerations and compliance with Borough ordinances. In his review, the Borough Engineer shall determine the adaptability of the project to Borough design standards and shall apply such judgment and specification interpretation as may be necessary to clarify the intent of all engineering considerations.

(2) Prepare a report for the Planning Commission and Borough Council.

F. Following receipt of the complete plan submission, the Borough Planning Commission shall:

(1) Receive and review the applicant's submission.

(2) Listen to applicant's presentation.

(3) Receive and review the report by the Bucks County Planning Commission, and other agencies or persons submitting a report.

(4) Receive and review the report by the Borough Engineer.

(5) Discuss submission with the applicant.

G. Following a review of the applicant's submission, and discussion of the submission with the applicant, the Planning Commission shall:

(1) Evaluate the applicant's submission and presentation, the County Planning Commission's report and the Borough Engineer's report.

(2) Determine whether the preliminary plans meet the objectives and requirements of this Chapter and the Borough Zoning Ordinance [Chapter 27]. No recommendation will be made on the plan application until any variances or special exceptions needed for compliance with the Borough Zoning

Ordinance [Chapter 27] have been granted by the Borough Zoning Hearing Board.

(3) Submit a report on the plan for use by the Borough Council, such report to be contained within the Commission's regular minutes or as a separate report at the discretion of the Planning Commission.

The Planning Commission shall study the practicability of the preliminary plan taking into consideration the requirements of the community and the best use of the land being developed and/or subdivided. Particular attention will be given to the arrangement, location and width of streets, their relation to the topography of the land, sewage disposal, drainage, lot sizes and arrangement, and the future development of adjoining lands as yet unsubdivided.

H. Following receipt of the Borough Planning Commission's report and within 90 days following the date of the first regular Planning Commission meeting which follows the date the application is filed, the Borough Council shall:

(1) Receive and review the applicant's submission, listen to the applicant's presentation and discuss the project with the applicant.

(2) Receive and review the reports by the Borough Planning Commission, the Bucks County Planning Commission, the Borough Engineer, and other agencies or officials who have submitted a report.

(3) Evaluate the applicant's submission, presentation, the discussion with the applicant, the Borough Engineer's report and the Planning Commission's report.

(4) Determine whether the preliminary plan meets the objectives and requirements of this Chapter.

(5) Express its approval of the plan, stating the conditions of such approval, if any, or its disapproval, stating the reasons therefor. If the Borough Council attaches conditions to the approval of any plan, the applicant must accept and agree to all such conditions or the plan will be denied based on noncompliance with Chapter requirements. If a preliminary plan is conditionally approved as aforesaid, it shall not be given final approval by the Borough Council until all conditions are met and corrected on the final plan.

(6) Within 15 calendar days following the decision, the Borough Council shall communicate in writing to the applicant:

(a) The specific changes, if any, they will require in the plan.

(b) The character and extent of the required public improvements.

(c) The amount and terms of the performance bond or other security which the Borough Council will require, among other conditions in the public interest, and prerequisites to the approval of the final plan to be submitted subsequently.

(7) Failure of the Borough Council to render a decision and communicate it to the applicant within 90 days following the receipt of the application and in the manner required by the Pennsylvania Municipalities Planning Code, 53 P.S. §10101 *et seq.*, shall be deemed an approval of the application in terms as presented, unless the applicant has agreed in writing to an extension of time or change in the prescribed manner of the presentation of communication of

the decision; in which case, failure to meet the extended time or change in manner of the presentation of communication shall have like effect.

(*Ord. 12/6/1995, §401*)

§22-403. Final Plan Procedure.

1. A final plan shall be submitted conforming to the changes recommended during the preliminary plan procedure. The final plan and all information and procedures relating thereto shall, in all respects, be in compliance with the provisions of this Chapter and the Zoning Ordinance of the Borough of Ivyland [Chapter 27]. Requirements for final plans for subdivisions and land developments are set forth in Part 7 of this Chapter.

2. Procedure for the approval of the final plan shall be identical to the procedure outlined in §22-402 of this Chapter for preliminary plans.

3. If approved, two exact copies of the approved final plan on linen plus one paper print shall be submitted for signatures as set forth in this Chapter. One linen copy shall be recorded and one linen copy shall be retained by the Borough.

(*Ord. 12/6/1995, §402*)

§22-404. Recording of Final Plan.

1. The final plan as approved and signed by the Borough Council shall, within 90 days of the date of approval, be recorded by the applicant at his expense in the Office of the Recorder of Deeds of Bucks County. The applicant shall provide to the Borough a book and page stamped copy or other satisfactory evidence of recording before the Borough will issue building permits. Plans submitted for recording by the Bucks County Recorder of Deeds shall officially note that the plans have been reviewed by the Bucks County Planning Commission. The Borough Council may extend the 90-day period upon written application by the applicant.

2. Effect of Recording.

A. After a subdivision or land development plan has been duly recorded, the streets, parks and other public improvements shown thereon shall be considered to be a part of any Official Map which is adopted by the Borough in accordance with Article IV of the Municipalities Planning Code, 53 P.S. §10101 *et seq.*

B. Streets, parks and other public improvements shown on a subdivision or land development plan to be recorded may be offered for dedication to the Borough by formal notation thereof on the plan or the applicant may note on the plan that such improvements have not been offered for dedication to the Borough.

C. Every street, park or other improvement shown on a subdivision or land development plan that is recorded shall be deemed to be a private street, park or improvement until such time as it has been offered for dedication to the Borough and accepted by resolution and recorded in the Bucks County Courthouse or until it has been condemned for use as a public street, park or other improvement.

D. All expenses and costs of maintaining all improvements prior to dedication including, but not limited to, snow plowing shall be the responsibility of the developer.

E. Recording of the final plan shall not constitute and shall not be construed

as a waiver of any provision of the Borough's Zoning Ordinance [Chapter 27].
(*Ord. 12/6/1995*, §403)

Part 5**Design Standards****§22-501. Application.**

1. The following subdivision and land development principles, standards and requirements will be applied by the Borough Council in evaluating plans for proposed subdivisions and land developments.

2. The standards and requirements outlined herein shall be considered minimum standards and requirements for the promotion of the public health, safety, morals and general welfare.

3. Where literal compliance with the standards specified herein is clearly impractical, the Borough Council may modify or adjust the standards to permit reasonable utilization of property while securing substantial conformance with the objectives of these regulations.

4. All requests for a modification shall be in writing and shall accompany and be a part of the application for development. The request shall state in full the grounds and facts of unreasonableness or hardship on which the request is based, the provision or provisions of the Chapter involved, and the minimum modification necessary. The request for modification may be referred to the Planning Commission for advisory comments.

(Ord. 12/6/1995, §500)

§22-502. General Standards.

1. All portions of a tract being subdivided or developed shall be taken up in lots, streets, public lands or other proposed uses so that remnants and landlocked areas shall not be created.

2. Reserve strips controlling access to lots, public rights-of-way, public lands or adjacent private lands are prohibited.

3. Lot lines shall follow municipal boundary lines rather than cross them.

4. Developers are required to preserve trees, groves, waterways, scenic points, historic spots and other community assets and landmarks.

5. Subdivisions and land developments shall be laid out so as to avoid the necessity for excessive cut or fill.

6. Improvement construction requirements shall be completed under the construction specifications of the Borough of Ivyland, the specifications of the Pennsylvania Department of Transportation, Department of Environmental Protection, the Bucks County Conservation District, or other appropriate agencies or specifications included herein, whichever shall result in the most restrictive interpretation of this Chapter and which standard exacts the highest quality.

(Ord. 12/6/1995, §501)

§22-503. Streets.

1. *General Standards.*

A. Proposed streets shall further conform in all respects to the Official Map of the Borough of Ivyland, as may be adopted, or to such other street plans or parts thereof as have been officially prepared and adopted.

B. Proposed streets shall further conform to such County and State street and highway plans as have been prepared, adopted and/or filed as prescribed by law and to the requirements of a general plan of the area as developed.

C. Streets shall be logically related to topography so as to produce reasonable grades, satisfactory drainage and suitable building sites.

D. If lots resulting from original subdivision are large enough to permit further subdivision or if a portion of the tract is not subdivided or proposed for development, adequate street rights-of-way to permit further subdivision or development shall be provided.

E. Dead-end streets shall be prohibited except as stubs to permit future street extension into adjoining tracts, or when designed as cul-de-sacs.

F. Stub streets greater in length than one lot depth shall be provided with a temporary turnaround to the standards required for cul-de-sacs or shall be paved to the full width of the right-of-way for the last 75 feet of their length.

G. Streets that are extensions of or obviously in alignment with existing streets shall bear the names of the existing streets. Street names shall not be repeated within the Borough or adjacent areas, and all street names shall be subject to the approval of the Borough Council.

H. Private streets are prohibited.

2. *Cul-de-Sac Streets.*

A. A permanent or temporary cul-de-sac exceeding 500 feet in length may be approved only if conditions of the tract warrant a longer cul-de-sac.

B. Cul-de-sacs shall have at the closed end a turnaround with a right-of-way having a minimum outside radius of not less than 60 feet and shall be paved to a radius of not less than 48 feet.

C. Cul-de-sacs shall have a minimum length of 250 feet.

D. Drainage of cul-de-sacs shall be toward the open end where feasible.

3. *Street Standards.*

A. Street right-of-way widths and cartway widths shall have a minimum of a 50-foot right-of-way and a 26-foot paved cartway where on-street parking is prohibited and a 60-foot right-of-way and 36-foot cartway where on-street parking is permitted. Streets under the jurisdiction of the Pennsylvania Department of Transportation shall have the right-of-way and cartway required by PennDOT.

B. Where a subdivision abuts or contains an existing street of inadequate right-of-way width, additional right-of-way width shall be dedicated to conform to the standards set by the Borough.

C. Paving of all public and private streets shall be as follows:

(1) 1½ inches of bituminous wearing course, ID-2.

(2) 5 inches bituminous concrete base course.

(3) 6-inch subbase.

D. Six-inch pavement base drain shall be installed along both sides of all streets except where combination storm sewer and underdrain can be accomplished.

4. *Street Alignment.*

A. Whenever street lines are deflected in excess of 5 degrees, connection shall be made by horizontal curves.

B. To insure adequate sight distances, minimum centerline radii for horizontal curves shall be 150 feet.

C. A long radius curve shall be preferred in all cases to a series of curves and tangents.

D. The approaches to an intersection shall follow a straight course for at least 50 feet.

E. Any applicant who encroaches within the legal right-of-way of a State highway is required to obtain a highway occupancy permit from the Pennsylvania Department of Transportation, Permits Office, Doylestown, Pennsylvania. No plan which will require access to a highway under the jurisdiction of the Pennsylvania Department of Transportation shall be finally approved unless the plan contains a notice that a highway occupancy permit is required pursuant to §420 of the Act of June 1, 1945, P.L. 1242, No. 428, 36 P.S. §670-420, known as the "State Highway Law," before driveway access to a State highway is permitted. The plan shall be marked to indicate that access to the State highway shall be only as authorized by a highway occupancy permit. The Borough shall not be held liable for damages to persons or property arising out of the issuance or denial of a driveway permit by PennDOT.

F. The applicant shall obtain a letter from the Pennsylvania Department of Transportation indicating that the plan has been reviewed and approved in concept and that traffic considerations, driveways, and the discharge of water on the road right-of-way have been approved.

5. *Street Grades.*

A. Centerline grades shall not be less than 1 percent on local streets and not less than ½ percent on collector roads.

B. Vertical curves shall be used at changes of grade exceeding 1 percent and shall be designed in relation to the extent of the grade change and to provide the following adequate sight distances.

(1) For overcrests (summits), each 1 percent difference in gradients shall use 32-foot length of curve.

(2) For undercrests (sags), each 1 percent difference in gradients shall use 25-foot length of curve.

C. Where the grade of any street at the approach to an intersection exceeds 4 percent, a leveling area shall be provided having not greater than 4 percent for a distance of 40 feet measured from the nearest right-of-way in the intersecting street.

D. Maximum grade within any intersection shall not exceed 1 percent on the

stop street.

6. *Street Intersections.*

A. Streets shall be laid out to intersect as nearly as possible at right angles. No street shall intersect another at an angle of less than 60 degrees.

B. Multiple intersections involving junction of more than two streets shall be avoided.

C. Clear sight triangles shall conform to the following regulations:

(1) On any corner lot, no wall, fence or other structure shall be erected or altered and no hedge, trees, shrubs or other growth shall be maintained which may cause danger to traffic on a street or public road by obscuring the view. A clear sight triangle of 25 feet, measured along the right-of-way lines of intersecting streets, shall be maintained, within which such structures or planting shall be limited to a height of not more than 2 feet above the street grade, except that tree branches may fall in the clear sight triangle provided that they are either lower than 2 feet or higher than 8 feet above grade level.

D. Streets entering opposite sides of another street shall be laid out either directly opposite one another or with a minimum offset of 125 feet between their centerlines.

E. Minimum curb radii at street intersections shall be 20 feet.

7. *Street Access.* Private driveways shall be located not less than 40 feet from the intersection corner of corner lots and shall provide access to the street of lower classification when a corner lot is bounded by streets of two different classifications.

8. *Sight Distance.* Whenever a proposed street intersects a major street which carries more traffic than the proposed street, the lower traffic street shall be made a stop street. The stop street shall also be designed to provide a minimum corner sight distance of 10 feet for every mile per hour of design speed on the major road. If the design speed on the major road is 35 mph, then the sight distance shall be 350 feet, measured from the center of the intersection of the two streets.

(Ord. 12/6/1995, §502)

§22-504. Grading and Drainage.

1. Blocks and lots shall be graded to secure proper drainage away from buildings and to prevent the collection of stormwater in pools.

2. All drainage provisions shall be of such design as to carry surface water to the nearest practical and adequate street, storm drain or natural watercourse. Developers must carry surface waters to the nearest practical storm drain or natural watercourse.

3. The developer shall construct and/or install such drainage structures and/or pipes as are necessary to prevent erosion damage and to satisfactorily carry off surface waters.

4. No excavation shall be made with a cut face steeper than 4:1 except where a concrete or stone masonry wall, constructed in accordance with approved standards, is provided to support the face of the excavation.

5. No fill shall be made which creates any exposed surface steeper in slope than four horizontal to one vertical, except when a concrete or stone masonry wall,

constructed in accordance with approved standards, is provided to support the face of the embankment.

6. The top or bottom edge of the slopes shall be a minimum of 5 feet from property or right-of-way lines of streets or alleys in order to permit the normal rounding of the edge without encroaching on the abutting property.

7. In the design of storm sewerage systems, the future use of undeveloped areas upstream shall be taken into account in calculating pipe size.

(*Ord. 12/6/1995, §503*)

§22-505. Erosion and Sediment Control.

1. The landowner or applicant shall not modify, fill, excavate or regrade land in any manner so close to a property line as to endanger or damage any adjoining public street, sidewalk, alley or any other public or private property without supporting and protecting such property from settling, cracking, erosion, sediment, or other physical damage or personal injury might result.

2. No material shall be placed in any drainage structure in such a manner as to obstruct free flow.

3. All plans and specifications accompanying applications shall include provisions for both interim (temporary) and ultimate (permanent) erosion and sediment control. No subdivision or land development plan which involves earthmoving shall be approved unless there has been an erosion and sedimentation plan approved by the Borough Engineer and the Bucks County Conservation District that provides for minimizing erosion and sedimentation and an improvement bond or other acceptable security is deposited with the Borough in the form of an escrow guaranty which will ensure installation and completion of the required improvements.

A. The design, installation and maintenance of erosion and sediment controls shall be accomplished in accordance with the rules as contained in the standards and specification of the Bucks County Conservation District, the local designee for the Pennsylvania Department of Environmental Protection, Bureau of Soil and Water Conservation. No earthmoving or other land shaping operations shall commence prior to the construction of erosion and sediment control protection in accordance with the recommendations and approval of the Bucks County Conservation District and the Borough.

B. All graded surfaces shall be seeded, sodded and/or planted or otherwise protected from erosion within 20 days of breaking ground, and shall be watered, tended and maintained until growth is well established at time of completion and final inspection.

(*Ord. 12/6/1995, §504*)

§22-506. Lots.

1. Lot dimensions and areas shall not be less than specified by provisions of the Zoning Ordinance of Ivyland Borough [Chapter 27].

2. Residential lots shall front on a public street, existing or proposed.

3. Double-frontage lots are prohibited, except where employed to prevent vehicular access to major traffic streets.

4. Side lot lines shall be substantially at right angles or radial to street lines.
5. No remnants of land shall remain after subdivision.
6. A subdivision of a tract which creates nonconforming side and rear yard requirements for existing buildings will not be approved.
7. No subdivision will be permitted that creates a lot which cannot be developed or built upon under the terms of this or any other Borough ordinance.
(*Ord. 12/6/1995, §505*)

§22-507. Easements.

1. Easements with a minimum width of 20 feet shall be provided as necessary for utilities. If a wider easement is required by the utility provider, then the wider dimension shall be provided.
2. To the fullest extent possible, easements shall be centered on or adjacent to rear or side lot lines.
3. Nothing shall be permitted to be placed, planted, set, or constructed within the area of an easement. The area shall be kept as lawn.
4. All easements shall be defined by metes and bounds.
(*Ord. 12/6/1995, §506*)

§22-508. Curbs.

1. Curbs shall be provided along all streets.
2. Along the existing street on which a subdivision or land developer abuts, curbs shall be constructed and the existing paved cartway shall be widened to the curb. The location of curbing along a street shall be determined by the width of the required cartway of the road as established by the Borough.
3. Curbs shall be constructed in accordance with the design standards and specifications in Appendix of this Chapter.
(*Ord. 12/6/1995, §507*)

§22-509. Parking Facilities.

1. Automobile parking facilities shall be provided off-street in accordance with the requirements of the Borough Zoning Ordinance [Chapter 27].
2. At no time shall angle or perpendicular parking be permitted along public streets. All parking lots and bays permitting parking other than parallel shall be physically separated from the street and confined by curbing or other suitable separating device.
3. No less than 10 percent of a nonresidential or multi-family parking area shall consist of landscaped areas within the parking lot limits.
4. No less than 5 feet of open space shall be provided between the edge of any parking area and the outside wall of the nearest building.
5. Parking area dimensions shall be no less than those listed in the following table. Handicapped parking spaces shall be designed in accordance with the most current Federal and State regulations for parking for disabled persons.

Angle of Parking	Parking		Driveway Width	
	Stall Width	Stall Depth	One-Way	Two-Way
90 degrees	10 feet	20 feet	20 feet	24 feet
60 degrees	10 feet	21 feet	18 feet	21 feet
45 degrees	10 feet	21 feet	15 feet	18 feet
Parallel	8 feet	22 feet	12 feet	18 feet

6. Parking lots shall be designed to provide backup area for the end stalls of the parking area.

7. Parking areas shall be designed so that each motor vehicle may proceed to and from the parking space provided for it without requiring the moving of any other motor vehicle.

8. No less than 5-foot radius of curvature shall be permitted for all curb lines in all parking areas.

9. Except at entrance and exit drives, all parking areas shall be set back from the future right-of-way line and from all property lines a distance which conforms to the requirements of the Borough Zoning Ordinance [Chapter 27]. The distance between this required setback and the future cartway shall be maintained as a planting strip.

10. All automobile parking areas shall be paved and constructed in accordance with the standards established by Ivyland Borough.

11. The depth and width of lots reserved or laid out for commercial and industrial uses shall be adequate to provide for the off-street parking generated by the use.

12. The layout of every parking area shall be such as to permit safe and efficient internal circulation in accordance with accepted traffic engineering principles and standards.

13. Entrances and exits to and from off-street parking areas shall be located so as to minimize interference with street traffic.

14. Pedestrian crosswalks and refuge islands shall be provided at intervals along the length of each parking area as specified by Borough Council.

15. All public parking areas shall be adequately lighted during after-dark operating hours. All light standards shall be located on the raised parking islands or around the perimeter and not on the parking surfaces.

16. *Parking Lot Paving Standards.* Paving shall be in accordance with the street paving standards indicated in the Appendix of this Chapter, except that the following specifications shall apply:

- A. 1½ inches of Bituminous surface course.
- B. 4 inches of Bituminous concrete base course.
- C. 4 inches of granular sub-base on graded and compacted surface.

(Ord. 12/6/1995, §508)

§22-510. Sidewalks.

1. Sidewalks shall be provided along all new and existing streets.
2. The minimum width of sidewalks shall be 4 feet. There shall be a planting strip between the curb and the sidewalk which can be used for the location of underground utilities. Width, alignment and gradient of walks shall provide safety, convenience and appearance for pedestrian traffic. Small jogs in the alignment shall be avoided. Where there is no planting strip provided between the curb and sidewalk because the circumstances do not allow for it, the sidewalk shall be 5 feet in width.
3. The grades and paving of the sidewalks shall be continuous across driveways except where heavy traffic dictates otherwise.
4. The materials to be used for sidewalks shall be determined on the basis of the sidewalk materials on adjacent properties and may be concrete, slate or brick. The thickness and type of construction of all sidewalks shall be in accordance with the standards established by Ivyland Borough Council and as illustrated in the Appendix to this Chapter.
5. Sidewalks shall be laterally pitched toward the street at a slope not less than ¼ inch per foot to provide for adequate drainage. The alignment and gradient of walks shall be coordinated with the grading plan to prevent passage of concentrated surface water on or across the walk and to prevent the pocketing of surface water by walks.
6. At corners and pedestrian street crossing points sidewalks shall be extended to the curbline and shall be constructed with curb depressions to allow for access for disabled persons.
7. Sidewalks adjacent to parking areas shall be set back a minimum of 5 feet to prevent car overhang from restricting pedestrian movement along the sidewalk.

(Ord. 12/6/1995, §509)

§22-511. Planting.

1. Street trees shall be provided along all streets and placed 3 feet behind the right-of-way line of the streets so as not to interfere with the installation and maintenance of sidewalks and utilities, unless otherwise specified by Borough Council. Trees shall be a minimum of 2½ inch caliper and at intervals not to exceed 40 feet and shall be selected from the following street tree list:

- | | | |
|----------------|---|----------------------------|
| Acer campestre | - | Hedge maple |
| Acer rubrum | - | Red Sunset Maple |
| | - | Scarlet Sentinel Maple |
| | - | October Glory Maple |
| | - | Armstrong |
| | - | Autumn Flame |
| Acer saccharum | - | Green Mountain Sugar Maple |
| | - | Bonfire Sugar Maple |
| Betula alba | - | European White Birch |
| Betula nigra | - | River Birch |
| | - | Heritage Birch |

Carpinus betulus	-	European hornbeam
Fagus grandifolia	-	American Beech
Fagus sylvatica	-	European Beech
	-	Riversi Beech
	-	Tri-Colored Beech White Ash
Fraxinus americana	-	White Ash
	-	Autumn Purple Ash
Fraxinus lanceolata	-	Summit Ash
Fraxinus oxycarpa	-	Raywood Ash
Fraxinus pennsylvanica	-	Patmore Ash
Ginkgo biloba (Plant male form only)		
Gleditsia triacanthos		
Inermis	-	Shademaster Locust
	-	Skyline Locust
	-	Continental Locust
	-	Halka Locust
Liquidambar styraciflua	-	Sweet Gum
		Use only cultivar Rotundifolia (sets no fruit)
Nyssa sylvatica	-	Sour gum
Ostrya virginiana	-	Hop hornbeam
Platanus Acerfolia	-	London Plane Tree
	-	Bloodgood
Prunus cerasifera	-	Mt. St. Helens, Thundercloud
Prunus sargentii	-	Sargent cherry
		Recommended cultivar "Columnaris" for street tree use.
Prunus subhirtella	-	Higan cherry
		Recommended cultivars: Rosy (or Pink) Cloud, Whitcomb, others
Quercus phellos (Willow oak)		
Quercus alba	-	White Oak
Quercus borealis	-	Red Oak
Quercus coccinea	-	Scarlet Oak
Quercus palustris	-	Pin Oak
Ulmus parvifolia	-	Chinese elm, Lacebark elm
Zelkova serrata	-	Green Vase Zelkova
	-	Japanese Zelkova

2. *Buffers.* Where buffers are required along two different land uses and along the rear of reverse-frontage lots, an evergreen planting screen shall be used to provide an adequate visual barrier. Deciduous and semi-deciduous shrubs and trees may be used

with evergreens to provide an immediate effect and to provide accent and color. It is recommended that a landscape architect licensed by the Commonwealth of Pennsylvania be employed to insure the proper use and arrangement of plant material and to provide an aesthetically pleasing effect. The plant materials list that follows shall be used as a basis for plant selection.

Ornamental/Flowering Trees—Minimum size 8–10 feet in height

Amelanchier arborea/canadensis (Serviceberry, Shadbush)

	-	Autumn Sunset, Ballerina, Forest Prince, Princess Diana
Amelanchier gradiflora	-	Autumn Brilliance, Robin Hill
Cercidiphyllum japonica	-	Katsuratree
Chionanthus virginicus	-	Fringe tree
Cercis chinensis	-	Chinese redbud
Cornus kousa	-	Kousa dogwood
Cornus Mas	-	Cornelian Cherry
Comus Rubra	-	Red Flowering Dogwood
Crataegus Phaenopyrum	-	Washington Hawthorne
Franklinia alata	-	Franklinia
Magnolia virginiana	-	Swamp/ Sweetbay magnolia
Magnolia loebneri	-	Dr. Merrill Magnolia
Magnolia soulangiana	-	Saucer Magnolia
Magnolia stellata	-	Royal Star Magnolia
Magnolia virginiana	-	Sweet Bay Magnolia
Malesta monticola	-	Mountain silverbell
Malus	-	Flowering crabapple
Metasequoia glyptostrobades	-	Dawn redwood
Oxydendrum arboreum	-	Sourwood
Parrotia persica		
Prunus Cerasifera	-	Mt. St. Helens Plum
	-	Thundercloud Plum
Prunus hally jolivette		
Pyrus Calleryana	-	Bradford Pear
	-	Redspire Pear
	-	Whitehouse Pear
Prunus Kwanzan	-	Kwanzan Cherry
Prunus Serrulata	-	Shirofugen Cherry
	-	Yeodenis Cherry
Prunus Subhirtella Autumnalis	-	Autumn Cherry

Prunus Yeodensis	-	Yoshino Cherry
Stewartia pseudocamellia/koreana		
Tayodium disrichum	-	Bald cypress
Evergreens (4 feet high minimum)		
Abies fraseri	-	Fraser fir
Chamaecyparis lawsoniana	-	Lawson falsecypress
Cryptomeria japonica	-	Crisita
	-	Lobbi
Cypressocyparis leylandi	-	Leyland cypress
Ilex Opaca	-	American Holly
Ilex pedunculosa	-	Longstalk holly
Ilex x "Nellie Stevens"		
Junipecus chinensis	-	Juniper
Juniperus virginiana	-	Eastern Red Cedar
Lath decidua	-	European larch
Picea Abies	-	Norway Spruce
Picea Omorika	-	Siberian Spruce
Picea Pungens	-	Colorado Spruce
Pinus bungeana	-	Lacebark Pine
Pinus densifloca	-	Japanese red pine
Pinus nigra	-	Austrian Pine
Pinus parviflora	-	Japanese white pine
Pinus strobus	-	White pine
Pinus thunbergiana	-	Japonesse black pine
Pseudotsuga Menziesii	-	Douglas Fir
Taxus cuspidata "Capitate"	-	Japanese yew
Thuja occidentalis "Nigra"	-	Arborvitae
Thuia plicate	-	Western arborvitae
Tsuga Canadensis	-	Canada Hemlock
Hedge (4 feet high minimum)		
Crataegus Crusgalli	-	Cockspur Thom
Crataegus Intricata	-	Thicket Hawthorn
Crataegus Phaenopyrum	-	Washington Hawthorn
Euonymus Alatus	-	Winged Euonymus
Forsythia Intermedia	-	Border Forsythia
Rhamnus Frazula	-	Tallhedge Buckthorn
Syringa Chinensis	-	Chinese Lilac

Syringa Vulgaris	-	Common Lilac
Viburnum Alatus	-	Viburnum
Viburnum Sieboldii	-	Siebold Viburnum
Viburnum Tomentosum	-	Doublefile Viburnum
Shrubs—Minimum 3–4 feet in height		
Abelia grandiflora	-	Glossy abelia
Aronia arbutifolia	-	Red chokeberry
Buddleia	-	Butterfly Bush
Calycanthus floridus	-	Sweetshrub, Carolina allspice
Cephalotaxus harringtonia prostrata	-	Japanese plum yew
Clethra Alnifolia	-	Summer Sweet
Euonymus Alatus Compacta	-	Compact Burning Bush
Juniperus Virginiana	-	Upright Juniper
Pyracantha Lalandi	-	Laland Firethorn
Prunus Cistena	-	Purple Leave Sand Cherry
Speria Bumalda	-	Bridal Wreath
Taxus Capitata	-	Upright Yew
Taxus Hichsi	-	Hicks Yew
Thuja Occidentalis	-	American Arborvitae
Cyrilla racemifloca	-	Swamp cycilla, Leatherwood
Euonymus Alatus	-	Winged Euonymus
Hamamelis Vermalis	-	Vermal Witch Hazel
Hamamelis Virginiana	-	Common Witch Hazel
Fothergilla gardenii		
Hibiscus	-	Rose of Sharon
Ilex Verticillata	-	Winterberry
Rhamnus Frangula	-	Glossy Buckthorn
Viburnum Dentatum	-	Arrowwood Viburnum
Viburnum Lantana	-	Wayfaring tree Viburnum
Ilex x meserveae	-	Meserve hybrid hollies
Itea virginica	-	Sweetspire
Myrica pensylvanica	-	Bayberry
Nandina domestica	-	Heavenly bamboo
Symplocos paniculata	-	Sapphireberry
Viburnum plicatum var. tomentosum	-	Doublefile Viburnum
Viburnum x burkwoodii	-	Mohawk, Allegheny

3. Street trees and other required plant material shall not be planted until the

finished grading of the subdivision or land development has been completed.

(Ord. 12/6/1995, §510)

§22-512. Tree Protection.

1. Existing trees, shrubs, and plants shall be retained wherever feasible in subdivisions or land developments. Additional trees and new plant material shall be added for privacy, shade, and appearance. Areas meeting the definition of “woodlands” and large trees standing along with a diameter of 16 inches or more shall be preserved.

2. During construction, the tree protection area, as defined in Part 3 of this Chapter, shall be protected in the following manner:

A. *Protection from Mechanical Injury.* Prior to construction the tree protection area shall be delineated by the following methods:

(1) The tree protection area that is delineated on the site prior to construction shall conform to the approved development plans.

(2) All trees scheduled to remain shall be marked. Where groups of trees exist, only the trees on the edge need to be marked.

(3) A 48-inch high snow fence or other suitable fence, mounted on steel posts located 8 feet on-center, shall be placed along the boundary of the tree protection area which shall be maintained until all work and construction has been completed. Any damages to the protective fencing shall be replaced and repaired before further construction shall begin.

(4) Trees being removed shall not be felled, pushed or pulled into a tree protection area or into trees that are to be retained.

(5) Grade changes and excavations shall not encroach upon the tree protection area.

(6) No toxic materials shall be stored within 100 feet of a tree protection area, including petroleum based or derived products.

(7) The area within the tree protection area shall not be built upon nor shall any materials be stored there either temporarily or permanently. Vehicles and equipment shall not be parked in the tree protection area.

(8) When tree stumps are located within 10 feet of the tree protection area, the stumps shall be removed by means of a stump grinder to minimize the effect on surrounding root systems.

(9) Following any severance of roots, all tree roots that have been exposed or damaged shall be trimmed cleanly and covered temporarily with moist peat moss, burlap, or other biodegradable material to keep them from drying out until permanent cover can be installed.

(10) Sediment, retention and detention basins shall not be located in or discharge into the tree protection area.

(11) Trees shall not be used for roping, cables, signs or fencing. Nails and spikes shall not be driven into trees.

B. *Protection from Grade Change.*

(1) When the original grade cannot be retained at the tree protection area

line, a retaining wall shall be constructed outside the tree protection area.

(a) The top of the wall shall be 4 inches above the finished grade level.

(b) The wall shall be constructed of large stones, brick, building tile, concrete blocks, or treated wood beams not less than 6 inches by 6 inches. A means for drainage through the wall shall be provided so water will not accumulate on either side of the wall.

(c) Any severed roots as a result of excavation shall be trimmed so that their edges are smooth and are cut back to a lateral root if exposed.

C. *Trees Damaged During Construction.* Tree trunks and exposed roots damaged during construction shall be protected from further damage. Damaged branches shall be pruned according to National Arborist Association standards.

(Ord. 12/6/1995, §511)

§22-513. Protection of Soil.

1. *Topsoil.* Topsoil may be stockpiled during construction but shall be retained and replaced on the site rather than removed.

2. *Construction Material and Debris.* All construction waste and debris must be removed from the site and may not be buried on the site where the land development or subdivision is taking place.

(Ord. 12/6/1995, §512)

§22-514. Refuse Collection and Recycling Areas.

1. Collection and recycling stations shall be provided for garbage and trash removal and recycling for all nonresidential or multi-family developments.

2. Outdoor collection and recycling stations shall be screened from view and landscaped with a fence or enclosure at least 6 feet in height and surrounded except for necessary access points with an evergreen hedge.

(Ord. 12/6/1995, §513)

Part 6

Required Improvements

§22-601. Purpose.

1. The purpose of this Chapter is to establish and define the public improvements which will be required by Ivyland Borough Council to be constructed or cause to be constructed by the applicant. Inspection of improvements will be the responsibility of the Ivyland Borough Engineer.

2. All improvements will be constructed in accordance with the specifications of Ivyland Borough and this Chapter.

(Ord. 12/6/1995, §600)

§22-602. Application and Guarantee Requirements.

1. The improvements required by this Chapter are minimum requirements. Ivyland Borough reserves the right in any case to increase the same if conditions so warrant in order to protect the health, safety, and welfare of Borough residents.

2. Before the Borough Council shall cause its approval to be endorsed on the final plans of any subdivision or land development and as a requirement for the approval thereof, the developer shall enter into a written agreement with the Borough in the manner and form set forth by the Borough Solicitor, to guarantee the construction and installation of all improvements at the developer's expense required by this Chapter. When requested by the developer, in order to facilitate financing, the Borough Council shall furnish the developer with a signed copy of a resolution indicating approval of the final plan contingent upon the developer obtaining satisfactory financial security. The final plan or record plan shall not be signed nor recorded until the financial improvements agreement is executed. The resolution or letter of contingent approval shall expire and be deemed to be revoked if the financial security agreement is not executed within 90 days unless a written extension is granted by the Borough Council.

3. No plan shall receive final approval unless the streets shown have been improved to a permanently passable condition, or improved as may be required by this Chapter and any walkways, bikeways, curbs, gutters, street lights, fire hydrants, shade trees, water mains, sanitary sewers, storm drains and other improvements as may be required by this Chapter have been installed. In lieu of the completion of any improvements, the developer shall furnish to the Borough a bond with such surety as the Borough Council shall approve, in an amount sufficient to cover the costs of any improvements which may be required. Such bond, or other security, shall provide for and secure to the public the completion of any improvements which may be required on or before the date fixed in the formal action of approval or accompanying agreement for completion of improvements. The amount of financial security to be posted for completion of the required improvements shall be equal to 110 percent of the cost of completion estimated as of 90 days following the date of scheduled for completion by the developer. Annually the Borough may adjust the amount of the financial security by comparing the actual cost of the improvements which have been completed and the estimated cost for the completion of the remaining improvements as of the expiration

of the ninetieth day after either the original date scheduled of completion or a rescheduled date of completion. Subsequent to said adjustment, the Borough may require the developer to post additional security in order to assure that the financial security equals said 110 percent. Any additional security shall be posted by the developer in accordance with this Section.

4. The amount of financial security required shall be based upon an estimate of the cost of completion of the required improvements, submitted by an applicant and prepared by a professional engineer licensed as such in the Commonwealth of Pennsylvania and certified by such engineer to be a fair and reasonable estimate of such cost. The Borough, upon recommendation of the Borough Engineer, may refuse to accept such estimate for good cause shown. If the applicant or developer and the Borough are unable to agree upon an estimate, the procedures set forth in the Pennsylvania Municipalities Planning Code, Article V, §509(g), 53 P.S. §10509(g), shall be followed. If the developer requires more than 1 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 percent for each one year period beyond the first anniversary date from posting of financial security or to an amount not exceeding 110 percent of the cost of completing the required improvements as re-established on or about the expiration of the preceding 1 year period by using the above bidding procedure.

5. In the case where development is projected over a period of years, the Borough Council may authorize submission of final plans by section or stages of development subject to such requirements or guarantees as to improvements in future stages of development as it finds essential for the protection of any finally approved section of the development. As the work of installing the required improvements proceeds, the developer may request the Borough to release, from time to time, portions of the escrow fund, necessary for payment to the contractor performing the work. Any such request shall be in writing addressed to the Borough Council and the Council shall have 45 days from receipt of such request within which to allow the Borough Engineer to certify, in writing, to the Council that the improvements have been completed in accordance with the approved plan. If the Borough Council fails to act within the 45-day period, the Council shall be deemed to have approved the release of funds as requested. The Council may, prior to final release at the time of completion and certification by the Borough Engineer, require retention of 10 percent of the estimated cost of the aforesaid improvements.

6. Where the Borough accepts dedication of all or some of the required improvements following completion, the Borough may require the posting of financial security to secure structural integrity of the 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. The amount of this financial security shall not exceed 15 percent of the actual cost of installation of the improvements.

7. If financial security has been provided in lieu of the completion of improvements required as a condition for the final approval of a plan as set forth in this Section, the Borough shall not condition the issuance of building, grading or other permits relating to the construction of the improvement, including buildings, upon lots or land as depicted upon the final plan. Moreover, if an escrow fund has been established, occupancy permits for any building or buildings to be erected shall not be withheld

following the improvement of the streets providing access to and from existing public roads to such building or buildings to a permanently passable condition as well as the completion of all other improvements as depicted upon the approved plan, either upon the lot or lots or beyond the lot or lots in question if such improvements are necessary for the reasonable use of or occupancy of the building or buildings.

8. *Release from Improvement Bond.*

A. When the developer has completed all of the necessary and appropriate improvements, the developer shall notify the Borough by certified or registered mail, of the completion of the improvements and shall send a copy to the Borough Engineer. The Borough shall, within 10 days after receipt of such notice, direct and authorize the Borough Engineer to inspect all of the improvements. The Borough Engineer shall file a report with the Borough and shall mail a copy of the report to the developer. The report shall be made within 30 days after receipt by the Borough Engineer of the authorization from the Borough. This report shall indicate approval or rejection of the improvements, and if the improvements, or any portion thereof, shall not be approved by the Borough Engineer, this report shall contain a statement of reasons for such nonapproval.

B. The Borough shall notify the developer, within 15 days of receipt of the Engineer's report, in writing by certified or registered mail, of their actions in response to the Borough Engineer's review of improvements.

C. If the Borough or the Borough Engineer fails to comply with the time limitation provisions, all improvements will be deemed to have been approved and the developer shall be released from all liability, pursuant to its performance guarantee bond or other security agreement.

D. If any portion of the improvements shall not be approved or shall be rejected by the Borough, the developer shall proceed to complete the improvements and, upon completion, the same procedure of notification, as outlined, shall be followed.

E. The applicant shall reimburse the Borough for the reasonable and necessary expense incurred for the inspection of such improvements. Such reimbursement shall be based upon a schedule adopted by resolution and shall be reasonable and in accordance with the ordinary and customary fees charged by the Borough Engineer or consultant for work performed for similar services in the Borough, and in no event shall the fees exceed the rate or cost charged by the Borough Engineer or consultant to the Borough when fees are not reimbursed or otherwise imposed on applicants. In the event that the applicant disputes the amount of such expense in connection with inspection of improvements, the procedure set forth in the Pennsylvania Municipalities Planning Code, §510(g), subsections (1) through (5), 53 P.S. §10510(g)(1)–(5) shall be adhered to.

9. *Remedies for Completion of Improvements.* In the event that any improvements which may be required have not been installed as provided in this Chapter or in accordance with the approved final plan, the Borough shall enforce any corporate bond, or other security by appropriate legal and equitable remedies. If proceeds of such bond, or other security are insufficient to pay the cost of installing or making repairs to all the improvements covered by the security, the Borough may, at its option, install part of such improvements in all or part of the subdivision or land development and may

institute appropriate legal or equitable action to recover the moneys necessary to complete the remainder of the improvements. All of the proceeds whether resulting from the security or from any legal or equitable action brought against the developer, or both, shall be used solely for the installation of the improvements covered by such security, and not for any other Borough purposes.

(Ord. 12/6/1995, §601)

§22-603. Streets.

1. The construction of streets, roads, lanes and driveways as shown upon final plans and as contained in contract agreements shall in every respect conform to such requirements as Ivyland Borough may by this Chapter or other resolution require for the construction of streets.

2. *Specifications.* The performance and material specifications for improvements shall be those contained in Pennsylvania Department of Transportation's specifications Form 408 as last revised. The design and construction requirements shall be those indicated in the typical street cross section in the appendix of this Chapter.

3. All streets shall be graded to:

A. The grades shown on the street profiles and cross-section plan submitted and approved with the final plan.

B. The full width of the right-of-way.

4. Along the existing street on which a subdivision or land development abuts (hereinafter called a boundary street) improvements shall be made to the street. The improvements to the boundary street shall be determined by the width of the required cartway and built to the specifications established by Ivyland Borough.

(Ord. 12/6/1995, §602)

§22-604. Street and Traffic Control Signs.

The developer shall erect at every street intersection a street sign or street signs having thereon the names of the intersecting streets and traffic control signs as specified by the Borough Engineer. 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 such street sign. Street signs shall be of the size, design, materials, and colors required by the Borough and shall be installed prior to the issuance of an occupancy permit for the properties which are part of the subdivision or land development.

(Ord. 12/6/1995, §603)

§22-605. Street Lights.

1. Where appropriate, the applicant shall install or cause to be installed at the applicant's expense, street lights serviced by underground conduit in accordance with a plan to be prepared by the applicant's engineer and approved by the Philadelphia Electric Company and Borough Council. Provisions shall be made for energizing said lights prior to the issuance of an occupancy permit for the properties which are part of the subdivision or land development. The owner shall be responsible for all costs involved in lighting the street until such time that the streets are accepted or

condemned as public street by Borough Council.

2. Street lights shall be of the size, design, materials, and colors required by the Borough.

(Ord. 12/6/1995, §604)

§22-606. Monuments.

1. Monuments shall be placed at each change in direction of boundary; two to be placed at each street intersection and one on one side of each street at angle points and at the beginning and end of curves. Utility easements shall be monumented at their beginning and their end; and, areas to be conveyed for public use shall be fully monumented at their external boundaries.

2. Monuments shall be placed in the ground after final grading is completed, at a time specified by the Borough Engineer. The monument shall be precast concrete with a reinforced steel rod. The monument shall be at least 4 inches square at top and 6 inches at bottom and at least 24 inches in depth, with surface edges beveled.

3. The Borough Engineer shall check all monuments for accuracy or their accuracy shall be verified by the applicant's engineer. Accuracy shall be within .03 foot.

(Ord. 12/6/1995, §605)

§22-607. Stormwater Management and Surface Runoff Control.

1. *General.* The applicant shall construct or install such drainage structures, on site and off site, as necessary to:

A. Prevent erosion damage and to satisfactorily carry off or detain and control the rate of release of surface waters.

B. Encourage all runoff control measures to percolate the stormwater into the ground to aid in the recharge of groundwater on soils where infiltration is feasible and recharge of stormwater runoff is an option.

C. Carry surface water to the nearest adequate street, storm drain, detention basin, natural watercourse or drainage facility.

D. Take surface water from the bottom of vertical grades, to lead water away from springs, and to avoid excessive use of cross gutters at street intersections and elsewhere.

E. Handle the anticipated peak discharge from the property being subdivided or developed and the existing runoff being contributed from all land at a higher elevation in the same watershed.

F. Maintain the adequacy of the natural stream channels. Accelerated bank erosion shall be prevented by controlling the rate and velocity of runoff discharge to these watercourses, so as to avoid increasing the occurrence of stream bank overflow.

G. Preserve the adequacy of existing culverts. Bridges and similar structures shall be preserved by suppressing the new flood peaks created by new land development.

2. *Retention of Existing Watercourses and Natural Drainage Features.*

A. Whenever a watercourse stream, or intermittent stream is located within

a development site, it shall remain open in its natural state and location and shall not be piped.

B. The existing points of natural discharge onto adjacent property shall not be altered without the written approval by the affected landowners.

C. No stormwater runoff or natural drainage shall be so diverted as to overload existing drainage systems, or create flooding or the need for additional drainage structures on private properties or public lands.

D. The Borough Council may require the developer to provide a permanent easement along any watercourse located within or along the boundary of any property being subdivided or developed. The purpose of such easement shall be for the maintenance of the channel of any watercourse. The required width of such easement shall be determined by the Borough Engineer, U.S. Army Corps of Engineers, Pennsylvania Department of Environmental Protection or public agency having jurisdiction but, in no case, shall such easement be less than 50 feet in width.

3. *Design Criteria; General.*

A. *Water Quality Requirement.* Post-development runoff volume generated from the 1-year, 24-hour design storm must be controlled so that it is released over a minimum of 24 hours.

B. *Stormwater Runoff Peak Rate Requirements and Districts.*

(1) Watershed areas within the Borough require that the post-development peak rate of storm runoff be controlled to a specific percent of the predevelopment peak rate of storm runoff for design storms greater than the 1-year, 24-hour storm in order to protect downstream watershed areas, the percent to be determined by the Little Neshaminy Creek stormwater study. In no case, however, shall post-development peak rate storm runoff exceed predevelopment storm runoff.

(2) For development sites with multiple points of concentrated runoff discharge, individual drainage points may be designed for up to a 100 percent release rate so long as the total runoff from the site is controlled to the release rate established in subsection a. above. All points of concentrated discharge, however, must meet the applicable water quality requirement for the specific drainage areas of the site drainage to the discharge points.

C. *Design Storms.* Any stormwater management controls required by this Chapter and subject to the water quality requirement (subsection .3.A) and the stormwater runoff peak rate requirements (subsection .3.B) shall meet the applicable water quality and peak rate requirements for the 1-, 2-, 5-, 10-, 25-, 50- and 100-year return period runoff events (design storms) consistent with the calculation methodology specified in subsection .3.D. Provisions must also be made for safely passing the runoff greater than that occurring from the largest design storm.

D. *Runoff Calculation Methodology.*

(1) To calculate the potential increase in total runoff and peak flow rate resulting from a proposed site development, the “cover complex” method will be used, as outlined in *Urban Hydrology for Small Watersheds*, U.S. Depart-

ment of Agriculture, Soil Conservation Service, Technical Release 55 (NTIS PB87-101580) and following mathematical analyses described in computer program for Project Formulation Hydrology (SCS Technical Release 20, 1983).

(2) Farm field or disturbed earth predevelopment cover conditions (existing conditions) of a site or portions of a site used for modeling purposes shall be considered in “meadow” when developing the necessary “cover complex” calculations.

(3) The Soil Conservation Service Type II 24-hour rainfall distribution shall be used in the soil cover complex calculations. The 24-hour rainfall depths for the return periods used in the soil cover complex method as follows:

Return Period	24-hour Rainfall Depth
1-year	2.7 inches
2-year	3.3 inches
5-year	4.2 inches
10-year	5.0 inches
25-year	5.8 inches
50-year	6.4 inches
100-year	7.2 inches

(4) The design of any stormwater management facility intended to meet the requirements of this Chapter shall be verified by routing the design storm hydrographs through the proposed facility.

E. *Structures.* Bridges and culverts shall be designed to meet current Pennsylvania Department of Transportation standards to support expected loads and carry expected flows. They shall be constructed to the full width of the right-of-way, as required by the Borough.

F. *Approvals.* Approval of the Division of Dams and Encroachments, Department of Environmental Protection, and the Commonwealth of Pennsylvania is required when the area drained upstream of the point under consideration exceeds an area of ½ square mile.

4. *Design Criteria; Detention and Retention Basins.*

A. A flow system with capacity for the 100-year storm shall be provided to carry runoff to a detention basin. When the capacity of the storm drain pipe is exceeded an overflow system shall be of sufficient capacity to carry the runoff difference between the 100-year storm peak flow rate and the capacity of the storm drain pipe system. The 100-year storm peak shall be calculated by the Soil Cover Complex Method.

B. Detention basins shall not be located within floodplains; nor within areas of floodplain soils with the exception that areas of alluvial soils may be utilized if proof is accepted by the Borough Council that the area is not subject to flooding.

C. Detention basins shall be designed to facilitate regular maintenance, mowing and periodic de-silting and reseeded.

D. Whenever possible, the side slopes and basin shape shall conform to the natural topography. When such design is impractical, the construction of the basin shall utilize slopes as flat as possible to blend the structure into the terrain.

E. In residential development, shallow broad basins shall be provided.

F. The maximum slope of the earthen detention basin embankments shall be four horizontal to one vertical.

G. The top or toe of any slope shall be located a minimum of 5 feet from any property line.

H. The minimum top width of the detention basin berm shall be 10 feet.

I. In order to insure proper drainage to the basin bottom, a minimum grade of 2 percent shall be maintained for areas of sheet flow. For channel flow, a minimum grade of 1 percent shall be maintained.

J. A collecting swale be provided to drain basins.

K. If permanent ponds are used, the developer shall demonstrate that such ponds are designed to protect the public health and safety.

L. *Emergency Spillways.*

(1) Emergency overflow facilities shall be provided for detention facilities to handle runoff in excess of design flows.

(2) Whenever possible, the emergency spillway for detention basins shall be constructed on undisturbed ground.

(3) Emergency spillways shall be constructed of grass pavers or other material approved by the Borough Engineer.

(4) All emergency spillways shall be constructed so that the detention basin berm is protected against erosion.

(5) The minimum capacity of all emergency spillways shall be the peak flow rate from the 100-year design storm after development.

(6) The construction material of the emergency spillways shall extend along the upstream and downstream berm embankment slopes.

(7) The upstream edge of the emergency spillway shall be a minimum of 3 feet below the spillway crest elevation.

(8) The downstream slope of the spillway shall, as a minimum, extend to the toe of the berm embankment.

(9) The emergency spillway shall not discharge over earthen fill and/or easily eroded material.

(10) All detention basins shall have a minimum top of embankment elevation as follows:

Class of Dam	Drainage Area	Top of Embankment
a	Less than 320 acres	1 ft. above maximum water surface elevation for emergency spillway storm.

Class of Dam	Drainage Area	Top of Embankment
b	Greater than 320 acres	2 ft. above maximum water surface elevation for emergency spillway storm.
	Less than 150 acres	1 ft. above maximum water surface elevation for emergency spillway storm.
c	Greater than 150 acres	2 ft. above maximum water surface elevation for emergency spillway storm.
	Less than 150 acres	2 ft. above maximum water surface elevation.
	Greater than 150 acres	Special treatment criteria established for each individual case.

The classification of dams shall be in accordance with the Soil Conservation Service criteria as found in Technical Release 60, as amended.

M. Anti-seep Collars.

(1) Anti-seep collars shall be installed around the pipe barrel within the normal saturation zone of the detention basin berms and shall be poured in place.

(2) The anti-seep collars and their connections to the pipe barrel shall be watertight. The anti-seep collar shall be PennDOT Class A concrete and shall be poured in place.

(3) The anti-seep collars shall extend a minimum of 2 feet beyond the outside of the principal pipe barrel.

(4) The maximum spacing between the collars shall be 14 times the minimum project of the collar measured perpendicular to the pipe.

(5) A minimum of two anti-seep collars shall be installed on each outlet pipe.

N. Outlet Pipes.

(1) All outlet pipes through the basin berm shall be reinforced concrete pipe with watertight joints.

(2) Energy dissipating devices (rip-rap, end sills, etc.) shall be placed at all basin outlets.

(3) Outlet pipes shall discharge to a defined watercourse having a capacity to carry proposed discharge flows.

O. Perforated Risers.

(1) A perforated riser shall be provided at each outlet of all detention basins during construction for sediment control.

(2) The riser shall extend to a maximum elevation of 2 feet below the crest elevation of the emergency spillway.

(3) The perforated riser shall be designed so that the rate of outflow is

controlled by the pipe barrel through the basin berm when the depth of water within the basin exceeds the height of the riser.

(4) Circular perforations with a maximum diameter of 1 inch shall be spaced 8 inches vertically and 12 inches horizontally.

(5) The perforations shall be clearly cut and shall not be susceptible to enlargement.

(6) All metal risers shall be suitably coated to prevent corrosion and wrapped with geotextile fabric to filter sediment.

(7) A trash rack or similar appurtenances shall be provided to prevent debris from entering the riser.

(8) All risers shall have a concrete base attached with a watertight connection.

(9) The base shall be sufficient weight to prevent flotation of the riser.

(10) An anti-vortex device, consisting of a thin vertical plate normal to the basin berm, shall be provided on the top of the riser.

**Table 22-6-1
Allowable Water Velocities**

Permissible velocities for channels lined with vegetation.¹ The values apply to average, uniform stands of each type of cover.

Cover	Slope Range ² (percent)	Permissible Velocity (feet per second)	
		Erosion-resistant soils	Easily eroded soils
Bermuda grass	0-5	3	6
	5-10	7	5
	over 10	6	4
Buffalograss, Kentucky bluegrass, smooth brome or Blue grama	0-5	7	5
	5-10	6	4
	over 10	5	3
Grass Mixture	0-5	5	4
	5-10	4	3

¹Use velocities exceeding 5 feet per second only where good covers and proper maintenance can be obtained.

²Do not use on slopes steeper than 10 percent except for side slopes on a combination channel.

Lespedeza sirecea Weeping lovegrass Yellow bluestem Kudzu, Alfalfa or Crabgrass ³	0-5	3.5	2.5
Common lespedeza or Sudangrass ⁴	0-5	3.5	2.5

5. *Design Criteria; Drainage Channels and Swales.*

A. All drainage channels shall be designed to prevent erosion of the bed and banks.

B. The maximum permissible flow velocity shall not exceed those outlined in Table 1.

C. Suitable stabilization shall be provided where required to prevent erosion of the drainage channels.

D. Any vegetated drainage channel requiring mowing of the vegetation shall have a maximum grade of 4 horizontal to 1 vertical on those areas to be mowed.

6. *Design Criteria; Stormwater Collection and Pipe System.*

A. Storm sewers, culverts and related installations shall be provided:

(1) To permit the unimpeded flow of natural watercourses in such a manner as to protect the natural character of said watercourses and to provide regulated discharge.

(2) To insure adequate drainage of all low points along the line of streets.

(3) To intercept stormwater runoff along streets at intervals reasonably related to the extent and grade of the area drainage and to prevent substantial flow of water across intersections.

B. The design discharge from drainage areas contributing to the system may be determined by use of the “rational equation” (Q-CIA) when the total drainage area does not exceed 100 acres.

(1) The following runoff factors shall be utilized for the rational equation:

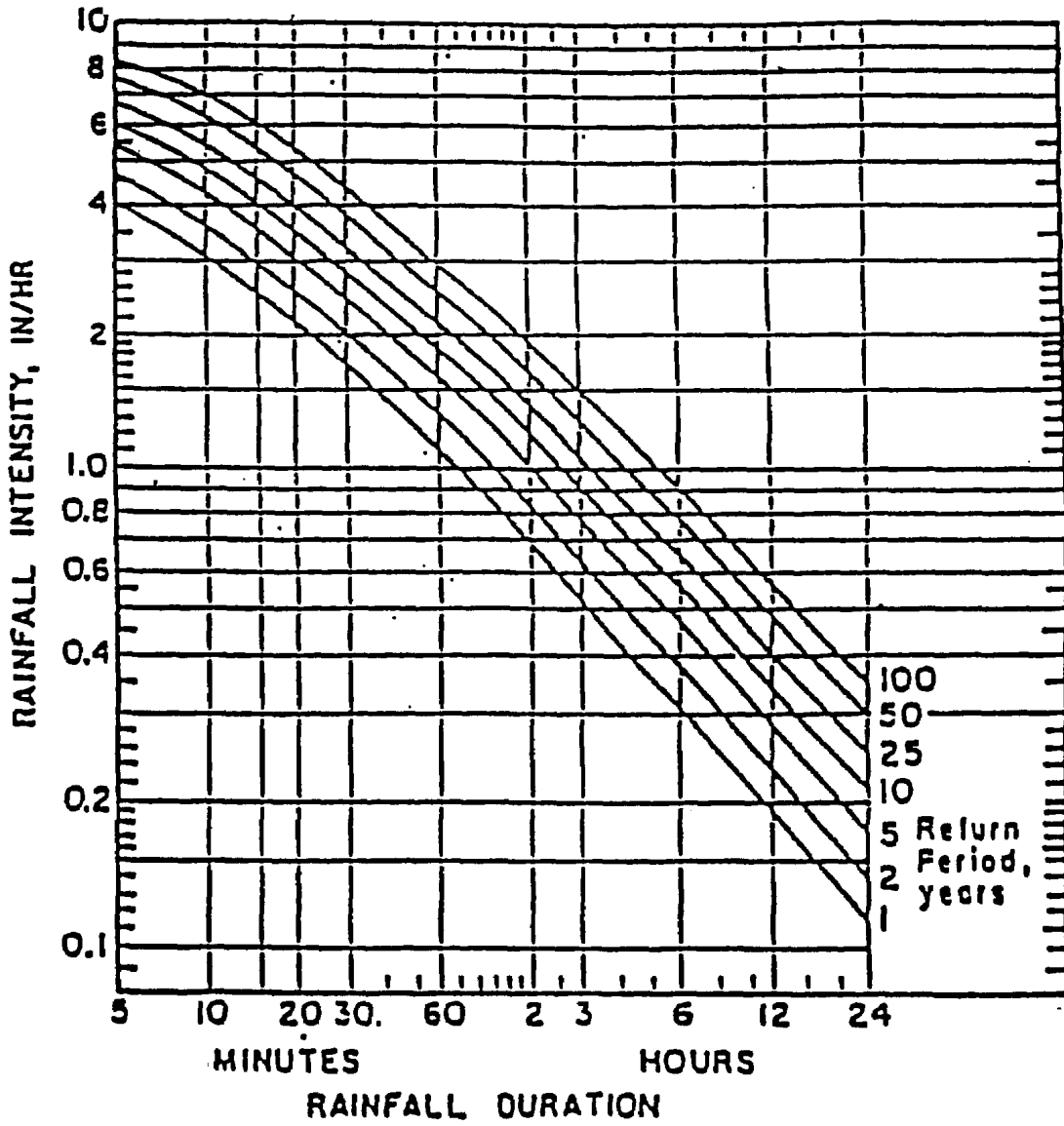
Description of Area	Runoff Coefficient (C)
Residential	
2 acre single-family detached lots	0.40
1 acre single-family detached lots	0.46
½ acre single-family detached lots	0.50

³Do not use on slopes steeper than 5 percent except for side slopes in a combination channel.

⁴Annuals: used on mild slopes or as temporary protection until permanent covers are established. Use on slopes steeper than 5 percent is not recommended.

Description of Area	Runoff Coefficient (C)
¼ acre single-family detached lots	0.56
Two-family and multi-family	0.70
Commercial	0.75
Industrial	0.80
Parks and cemeteries	0.38
Unimproved	0.35
Where the Table is not applicable the following factors may be used:	
Roofs and all impervious surfaces	0.90
All other surfaces except forest	0.40
Forest	0.30

Figure 22-1



Storm intensity-duration-frequency curves

TABLE OF FIGURE 22-1
STORM FREQUENCY (Years)

Time (Minutes)	2	5	10	25	50	100
5.0	4.60	5.40	6.00	6.80	7.60	8.20
6.0	4.50	5.20	5.90	6.50	7.40	8.00
7.0	4.30	5.00	5.60	6.10	7.00	7.80
8.0	4.00	4.60	5.10	5.80	6.70	7.40
9.0	3.70	4.30	5.00	5.60	6.40	7.10
10.0	3.50	4.20	4.80	5.40	6.20	7.00
11.0	3.40	4.00	4.60	5.20	6.00	6.80
12.0	3.30	3.90	4.40	5.00	5.80	6.50
13.0	3.20	3.80	4.30	4.80	5.60	6.30
14.0	3.10	3.60	4.10	4.60	5.40	6.10
15.0	3.00	3.50	4.00	4.50	5.30	6.00
20.00	2.60	3.00	3.50	4.00	4.80	5.40
25.0	2.20	2.60	3.10	3.60	4.20	4.90
30.0	2.00	2.40	2.80	3.20	3.80	4.40
40.0	1.70	2.00	2.40	2.70	3.30	3.80
50.0	1.50	1.70	2.00	2.40	2.80	3.20
60.0	1.30	1.60	1.80	2.20	2.60	3.00
120.0	0.81	1.10	1.20	1.40	1.70	1.90
180.0	0.62	0.78	0.90	1.10	1.30	1.50
240.0	0.50	0.62	0.75	0.89	1.00	1.20
300.0	0.44	0.54	0.65	0.75	0.90	1.10
360.00	0.38	0.48	0.56	0.65	0.78	0.90
480.0	0.30	0.39	0.55	0.55	0.65	0.75
600.0	0.26	0.42	0.46	0.46	0.55	0.65
720.0	0.24	0.28	0.40	0.40	0.49	0.58
1080.0	0.18	0.23	0.30	0.30	0.38	0.45
1440.0	0.14	0.17	0.26	0.26	0.30	0.35

(2) The coefficients in the above tabulations are applicable for storms of 10-year frequency and less. The coefficients are based on the assumption that the design storm does not occur when the ground is frozen. Less frequent, higher intensity storms will require the use of higher coefficients.

(3) For less frequent storms, the coefficients can be used if they are multiplied by the following factors for the return frequency required:

Storm Frequency (Years)	Factors
10 and less	1.0
25	1.1
50	1.2

(4) The rainfall intensity “I” curves presented in Figure 22-1 shall be used in determining stormwater runoff.

(5) *Storm Frequency.*

(a) A 25-year storm frequency shall be used for the design of all stormwater systems.

(b) In all cases where storm drainage is picked up by means of a headwall or inlet structure, and hydraulic inlet or outlet conditions control, the pipe shall be designed as a culvert for a 50-year storm.

(6) *Storm Duration.*

(a) A 5-minute storm duration shall be used if this duration does not result in a maximum expected discharge that exceeds the capacity of a 30-inch pipe.

(b) If a 5-minute storm duration results in a pipe size exceeding 30 inches, the time of concentration approach shall be used in determining storm duration.

(c) If a 5-minute storm duration results in a pipe size exceeding 30 inches, within any run of pipe, the time of concentration approach may be used for sizing of pipes from that point on by adjusting the time of concentration.

C. *Pipes.*

(1) Pipes shall be sized by use of Manning’s equation with the pipes flowing full. The design shall be based on gravity (nonpressure) flow.

(2) The roughness coefficient (n) shall be in compliance with the Pennsylvania Department of Transportation, *Design Manual*, Part 2 as amended.

(3) The minimum diameter of all storm drainage pipe shall be 18 inches or an equivalent thereto. Where headroom is restricted, equivalent pipe arches may be used in lieu of circular pipe.

(4) Abrupt changes in direction or slope of storm drainage pipe shall be avoided. Where such abrupt changes are required, an inlet or manhole shall be placed at the point of change.

(5) The minimum grade of piping shall provide a minimum velocity of 2.5

feet per second and shall have a minimum slope of ½ percent.

(6) Storm sewers shall be placed within a street right-of-way, parallel to the cartway, and shall be designed as a combination storm sewer and underdrain. When located outside of a right-of-way, they shall be placed within an easement having a width of not less than 20 feet, if required by the Borough.

(7) The top of storm drainage pipes beneath cartways shall be at least 6 inches below sub-grade elevation. Outside of cartways, all pipes shall have a minimum cover of 2 feet.

D. *Manholes.*

(1) Manholes shall neither be more than 300 feet apart on sizes up to 24 inches nor more than 450 feet apart on greater sizes.

(2) Inlets may be substituted for manholes, on approval of the Borough Engineer, at the same spacing as required for manholes.

(3) Manhole covers and frames shall conform to Pennsylvania Department of Transportation specifications.

E. *Inlets.*

(1) At street intersections, inlets shall be placed in the tangent portion rather than the curbed portion of the curbing.

(2) Where there is a change in pipe size in an inlet, the elevation for the top of the pipes shall be the same or the smaller pipes shall be higher. A minimum drop of 2 inches shall be provided in the inlet between the lowest inlet pipe invert elevation and the outlet pipe invert elevation.

(3) If the capacity of the shoulder, swale, curb section or depressed median section exceeds the assumed inlet capacity, the inlet capacities shall govern the spacing of inlets.

(4) If the capacity of the shoulder, swale, curb section or depressed median section is less than the inlet capacities, the shoulder, swale curb section or depressed section capacity shall govern the spacing of inlets.

(5) *Type C Inlets.*

(a) Type C inlets shall be installed in unmountable curbs.

(b) In order to achieve greater efficiency, Type C inlets shall be spaced so as to permit 5 percent of the gutter flow to bypass the inlet.

(c) The capacity of a Type C inlet at a low point of a street's vertical curve may be designed to accept 4.0 cfs from each direction, or a maximum of 8.0.

(d) Inlet capacities shall be based on Figure 22-2, "Inlet Capacity and Gutter Flow Curves."

(6) *Type M and S Inlets.*

(a) Type S inlets shall be installed in shoulder swale areas with back slopes of 6 horizontal to 1 vertical and steeper.

(b) Type M Inlets shall be installed in swale areas where the back slope is flatter than 6 horizontal to 1 vertical.

(c) Inlet capacities shall be based on Table 22-2, “Type M and S Inlet Capacities (In Swale).”

(d) All field inlets shall be put in swales.

**TABLE 22-2
Type M or S Inlet Capacities (In Swale)
Back Slope**

Grade	2:1	4:1	6:1	12:1	Dike
1.0	3.2	3.6	3.9	4.1	9.1
2.0	3.5	3.5	3.5	3.7	8.3
3.0	2.5	2.8	3.5	2.5	7.4
4.0	1.6	2.0	3.4	3.2	6.4
5.0	1.6	2.0	3.5	3.0	6.3
6.0	1.6	2.0	3.3	2.8	6.1
7.0	1.5	2.0	3.0	2.6	6.0
8.0	1.5	2.0	2.8	2.4	5.8

(e) Where a drainage dike is used the side slope of the dike shall be 8 horizontal to 1 vertical or flatter.

(f) The capacity of an inlet at a low point in a swale (sump condition) shall be 16 cfs maximum.

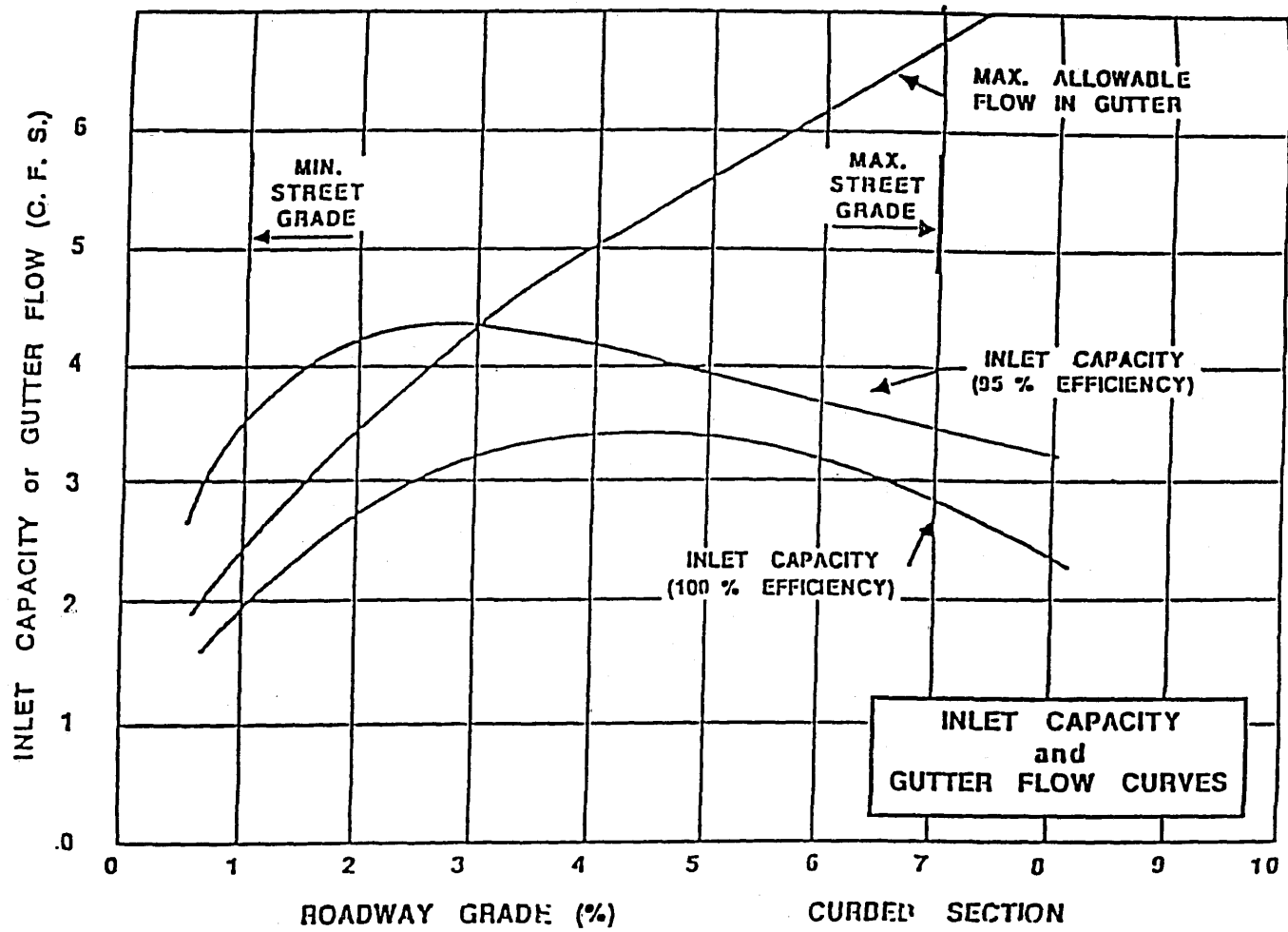
(7) Inlets shall conform to Pennsylvania Department of Transportation specifications with the exception that the use of red brick for inlet construction is not permitted.

(8) *Shoulders in Cut Areas (Without Swales).*

(a) Water flowing in the shoulder shall not encroach more than two-thirds the shoulder width during a 10-year frequency storm of 5-minute duration.

(b) The maximum velocity, as determined by Manning’s equation, shall not exceed the allowable velocities in Table 22-2 for the specific type of shoulder material.

Figure 22-2



(c) Inlets shall be provided to control the shoulder encroachment and water velocity.

(9) *Swales Adjacent to Shoulders.*

(a) Swales in cut area shall be designed to prevent the passage of water onto the cartway during a 10-year frequency storm of 5-minute duration.

(b) The maximum velocity, as determined by Manning's equation, shall not exceed the allowable velocities in Table 22-1 for the specific type of shoulder material.

(10) *Curbed Sections.*

(a) The maximum encroachment of water on the cartway shall not exceed 2 inches in depth at the curb during a 10-year frequency storm of 5-minute duration.

(b) Inlets shall be provided to control the encroachment of water on the cartway.

(Ord. 12/6/1995, §606)

§22-608. Water Supply.

1. The applicant shall enter into an agreement with the Warminster Municipal Authority to construct water mains in such a manner as to make adequate water service available to each lot or building within the subdivision or land development. A minimum pressure of 20 pounds per square inch shall be provided at each house or other building to be connected to the water supply main. The water supply must comply with the regulations and standards of the Pennsylvania Department of Environmental Protection.

2. The system shall be designed with adequate capacity and appropriately spaced fire hydrants for firefighting purposes. Review and approval by the fire marshall or fire company serving the area shall be required in order to insure that adequate fire protection is provided.

(Ord. 12/6/1995, §607)

§22-609. Public Sanitary Sewers.

1. The applicant shall enter into an agreement with the Warminster Municipal Authority for the installation of the sanitary sewer facilities within the subdivision or land development, or shall otherwise provided evidence that sanitary wastewater disposal will be provided.

2. All public sanitary sewers shall be designed and constructed in accordance with the standard specifications of the Authority and in accordance with such other terms and conditions as may be set forth in this Chapter.

3. No public sanitary sewer line or connection shall be constructed until plans and specifications have been submitted to the Pennsylvania Department of Environmental Protection, the Bucks County Department of Health, the Bucks County Planning Commission, and any other agency having jurisdiction.

4. No final plan shall be approved without certification that the sewage to be

generated by the proposed subdivision or land development can be conveyed and treated.

5. Private sewage disposal systems are prohibited.

(*Ord. 12/6/1995, §608*)

§22-610. Electric, Telephone, and Communication Facilities.

1. All 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 and other companies providing such services, except where it is demonstrated to the satisfaction of the Borough Council that the underground installation required is not feasible because of existing conditions.

2. Where possible, all utilities shall be located within the street right-of-way; otherwise, easements or rights-of-way of sufficient width for installation and maintenance shall be provided.

3. Final plans shall show locations of all utilities and shall be coordinated with required street tree planting.

(*Ord. 12/6/1995, §609*)

§22-611. Dedication of Improvements.

The Borough shall have no obligation to take over and make public any street or other improvement unless the required improvements shown on the approved plan have been constructed in accordance with all requirements to the satisfaction of the Borough Engineer and the Board of Supervisors. An information certificate showing the state of the title of all improvements, issued by a title insurance company, shall be supplied to the Borough and a deed of dedication to the Borough and release of mortgage or other liens executed by all parties shown on the certificate to have an interest in the improvements shall be delivered to the Borough. The Borough shall have no responsibility with respect to any street or other improvement, notwithstanding the use of the same by the public, unless the street or other improvement is accepted by an ordinance or resolution of the Borough Council.

(*Ord. 12/6/1995, §610*)

Part 7**Plan Requirements****§22-701. Sketch Plan.**

1. A sketch plan may be submitted by the applicant as a basis for informal discussion with the Borough. Data furnished on the sketch plan may include the following information. Items in paragraphs .A, .B, .C, .D, .H, and .L should be shown with all sketch plans to allow for an informal discussion:

- A. Name or identifying title of subdivision or land development.
- B. Name, address, and phone number of the owner, applicant or developer.
- C. Name and address of engineer, surveyor, architect or other professional who prepared the plan.
- D. Existing tract boundaries indicating the area of original tract in acres or square feet.
- E. Existing and proposed lot lines.
- F. Existing and proposed street layout including all streets adjacent to the tract and all proposed access points and parking areas.
- G. Existing and proposed easements and right-of-way within and adjoining tract.
- H. The applicable zoning.
- I. Contours and the basis for topography and vertical datum base.
- J. Significant topographic and physical features such as, but not limited to, streams, lakes, ponds, drainage rights-of-way; the location of all drainage structures; the approximate location of all environmentally sensitive features including floodplains, wetlands, woodlands, and steep slopes, shall be shown.
- K. A location map with a north arrow showing the entire development and its relation to surrounding areas.
- L. Tax parcel number of property to be subdivided or developed.

(Ord. 12/6/1995, §700)

§22-702. Preliminary Plan.

1. *Drafting Standards.*

- A. The plan shall be drawn at a scale of 1 inch equals 20 feet, 1 inch equals 50 feet or 1 inch equals 100 feet and shall be provided on sheets of 24 inches by 36 inches or 30 inches by 42 inches.
- B. Dimensions shall be set in feet and decimal parts thereof; and bearings in degrees, minutes and seconds.
- C. Each sheet shall be numbered and shall show its relationship to the total number of sheets.
- D. The plan shall be so prepared and bear an adequate legend to indicate clearly which features are existing and which are proposed.

2. *General Information to Be Shown.*

- A. Name or identifying title of subdivision or land development.
- B. Name, address, and phone number of the owner/applicant or developer.
- C. Name and address and seal of engineer, surveyor, architect or other professional who prepared the plan.
- D. Location of water supply and sewage disposal facilities.
- E. Zoning requirements, including applicable district, lot size and yard requirements, and proof of any variance or special exception which may have been granted by the Zoning Hearing Board.
- F. A location map for the purpose of locating the site to be subdivided at a scale of not less than 800 feet to the inch showing the relation of the tract to adjoining property and to all street, roads, and municipal boundaries existing within 1,000 feet of any part of the property proposed to be subdivided or developed.
- G. Total acreage of the tract.
- H. Date, north point, and scale.
- I. Tax parcel number of property to be subdivided or developed.

3. *Existing Features.*

- A. Complete outline survey of the property to be subdivided or developed shall be provided showing all courses, distances and area and tie-ins to all adjacent intersections.
- B. The location, names, widths of streets, the location of property lines and names of owners, the location of watercourses, sanitary sewers, storm drains and similar features within 100 feet of any part of the land to be subdivided or developed.
- C. Location of all existing monuments.
- D. Location, size and ownership of all underground utilities and any rights-of-way or easements within the property.
- E. Contours at vertical intervals of 2 feet established from United States Coast and Geodetic Survey bench marks.
- F. Location of existing buildings, species and size of large trees standing along, the outline of all wooded areas, wetlands, floodplains or other areas subject to flooding.

4. *Proposed Layout.*

- A. The layout of streets, including widths of the streets and crosswalks.
- B. The layout and dimensions of lots.
- C. The arrangement of buildings and parking areas in nonresidential and multi-family developments with all necessary dimensions shall be noted on the plan and including all required provisions for handicapped access.
- D. A plan for the surface drainage and stormwater management of the tract to be subdivided or developed shall be provided. A plan to control erosion during and after the construction period is required.

E. Tentative typical cross-sections and centerline profiles shall be provided for each proposed street shown on the preliminary plan. These plans may be submitted as separate sheets.

F. The specific use of each proposed lot shall be indicated.

G. A plan of proposed planting shall be provided, showing the location of street trees and landscape treatment, required buffers, species and sizes of plant materials proposed to be used, and a delineation of the tree protection area.

H. For subdivisions, the total area, number of lots, lot area for each lot and length of proposed streets shall be noted on the plan and each lot shall be numbered.

I. Building setback lines as established by the Zoning Ordinance [Chapter 27].

J. Rights-of-way and/or easements proposed to be created for all drainage purposes, utilities, or other reasons.

K. Proposed plan for street lighting and parking area lighting.

L. Location of refuse disposal areas and plan for screening of refuse disposal areas.

5. *Planning Modules.*

A. In order to be deemed a complete application, any application for preliminary subdivision or land development approval must be accompanied by a duly completed Department of Environmental Protection sewage facilities planning module. Such planning module shall also meet all the requirements contained in 25 Pa.Code, Chapter 71, Subchapter D, "Official Plan Requirements for Alternative Evaluations."

B. Such application and planning module shall meet all the procedural and content requirements of 25 Pa.Code §§71.52 and 71.53, including the requirement that they be accompanied by the comments on the planning module of the Bucks County Health Department and the Bucks County Planning Commission. Evidence that the sewage facilities planning module has been before these agencies for 60 days without comment shall be sufficient to satisfy this requirement.

(Ord. 12/6/1995, §701)

§22-703. Final Plan.

The final plan shall show or be accompanied by the following information:

A. *Drafting Standards.*

(1) The plan shall be drawn at a scale of 1 inch equals 20 feet, 1 inch equals 50 feet or 1 inch equals 100 feet and shall be provided on sheet sizes of 24 inches by 36 inches or 30 inches by 42 inches.

(2) Dimensions shall be set in feet and decimal parts thereof; and, bearings in degrees, minutes and seconds.

(3) Each sheet shall be numbered and shall show its relationship to the total number of sheets.

(4) Final plans shall be on sheets either 24 inches by 36 inches or 30 inches by 42 inches and all lettering shall be legible if the plan should be

reduced to half size.

B. *General Information to Be Shown.*

- (1) Name or identifying title of subdivision or land development.
- (2) Name, address, and phone number of the owner/applicant or developer.
- (3) Name and address and seal of registered engineer or surveyor, architect or other professional who prepared the plan.
- (4) Location of water supply and sewage disposal facilities.
- (5) Zoning requirements, including applicable district, lot size and yard requirements, and proof of any variance or special exception which may have been granted by the Zoning Hearing Board.
- (6) A location map for the purpose of locating the site to be subdivided at a scale of not less than 800 feet to the inch showing the relation of the tract to adjoining property and to all street, roads, and municipal boundaries existing within 1,000 feet of any part of the property proposed to be subdivided or developed.
- (7) Total acreage of the tract.
- (8) Date, north point, and scale.
- (9) Tax parcel number of property to be subdivided or developed.

C. *Existing Features.*

- (1) Complete outline survey of the property to be subdivided or developed shall be provided showing all courses, distances and area and tie-ins to all adjacent intersections.
- (2) The location, names, widths of streets, the location of property lines and names of owners, the location of watercourses, sanitary sewers, storm drains and similar features within 100 feet of any part of the land to be subdivided or developed.
- (3) Location of all existing monuments.
- (4) Location, size and ownership of all underground utilities and any rights-of-way or easements within the property.
- (5) Contours at vertical intervals of 2 feet established from United States Coast and Geodetic Survey bench marks.
- (6) Location of existing buildings, species and size of large trees standing along, the outline of all wooded areas, wetlands, floodplains or other areas subject to flooding.

D. *Proposed Layout.*

- (1) The layout of streets, including widths of the streets and crosswalks.
- (2) The layout and dimensions of lots.
- (3) The arrangement of buildings and parking areas in nonresidential and multi-family developments with all necessary dimensions shall be noted on the plan.
- (4) A plan for the surface drainage and stormwater management of the

tract to be subdivided or developed shall be provided. A plan to control erosion during and after the construction period is required.

(5) Typical cross-sections and centerline profiles shall be provided for each proposed street shown on the final plan. These plans may be submitted as separate sheets.

(6) The specific use of each proposed lot shall be indicated.

(7) A plan of proposed planting shall be provided, showing the location of street trees and landscape treatment, required buffers, species and sizes of plant materials proposed to be used, and a delineation of the tree protection area.

(8) For subdivisions, the total area, number of lots, lot area for each lot and length of proposed streets shall be noted on the plan and each lot shall be numbered.

(9) Building setback lines as established by the Zoning Ordinance [Chapter 27].

(10) Rights-of-way and/or easements proposed to be created for all drainage purposes, utilities, or other reasons.

(11) Proposed lighting plan showing street lights and parking area lighting.

(12) Location of refuse disposal areas and plan for screening of refuse disposal areas.

(Ord. 12/6/1995, §702)

§22-704. Minor Subdivision Plan.

1. *Purpose.* In case of minor subdivisions, it is the purpose of this Section to provide a simplified procedure by which said minor subdivisions may be submitted and approved.

2. *General.* In the event that the proposed subdivision shall require improvements of streets, sanitary sewers, drainage facilities, water mains, culverts, or other municipal improvements, then the provisions of this Section on minor subdivisions shall not be applicable and the applicant shall be required to comply with the requirements for preliminary major subdivisions and final major subdivisions.

3. *Plan Requirement; Drafting Standards.*

A. The plan shall be drawn at a scale of 1 inch equals 20 feet, 1 inch equals 50 feet or 1 inch equals 100 feet and shall be provided on sheet sizes of 24 inches by 36 inches or 30 inches by 42 inches.

B. Dimensions shall be set in feet and decimal parts thereof; and bearings in degrees, minutes and seconds.

C. Each sheet shall be numbered and shall show its relationship to the total number of sheets.

D. Final plans shall be on sheets either 24 inches by 36 inches or 30 inches by 42 inches and all lettering shall be legible if the plan should be reduced to half size.

4. *General Information to Be Shown.*

- A. Name or identifying title of subdivision or land development.
- B. Name, address, and phone number of the owner/applicant or developer.
- C. Name and address and seal of registered engineer or surveyor, architect or other professional who prepared the plan.
- D. Location of water supply and sewage disposal facilities.
- E. Zoning requirements, including applicable district, lot size and yard requirements, and proof of any variance or special exception which may have been granted by the Zoning Hearing Board.
- F. A location map for the purpose of locating the site to be subdivided at a scale of not less than 800 feet to the inch showing the relation of the tract to adjoining property and to all street, roads, and municipal boundaries existing within 1,000 feet of any part of the property proposed to be subdivided or developed.
- G. Total acreage of the tract.
- H. Date, north point, and scale.
- I. Tax parcel number of property to be subdivided or developed.

3. *Existing Features.*

- A. Complete outline survey of the property to be subdivided or developed shall be provided showing all courses, distances and area and tie-ins to all adjacent intersections.
- B. The location, names, widths of streets, the location of property lines and names of owners, the location of watercourses, sanitary sewers, storm drains and similar features within 100 feet of any part of the land to be subdivided or developed.
- C. Location of all existing monuments.
- D. Location, size and ownership of all underground utilities and any rights-of-way or easements within the property.
- E. Contours at vertical intervals of 2 feet established from United States Coast and Geodetic Survey bench marks.
- F. Location of existing buildings, species and size of large trees standing along, the outline of all wooded areas, wetlands, floodplains or other areas subject to flooding.

4. *Proposed Layout.*

- A. The layout and dimensions of lots.
- B. A plan for the surface drainage and stormwater management of the tract to be subdivided or developed shall be provided, if required. A plan to control erosion during and after the construction period is required.
- C. The specific use of each proposed lot shall be indicated.
- D. For subdivisions, the total area, number of lots, lot area for each lot shall be noted on the plan and each lot shall be numbered.
- E. Building setback lines as established by the Zoning Ordinance [Chapter

27].

F. Rights-of-way and/or easements proposed to be created for all drainage purposes, utilities, or other reasons.

5. *Record.* A record plan shall be prepared in accordance with the terms of this Part. Plans shall be recorded in accordance with the terms of this Chapter.

(Ord. 12/6/1995, §703)

§22-705. Improvement Construction Plan (Drainage and Construction).

1. All subdivision and land development applicants shall submit improvement construction plans with preliminary plans whenever any site improvement is planned or required. Improvement construction plans shall consist of plan-profile drawings of all proposed new streets, all existing streets proposed to be widened or improved, all easements associated with improvement construction and all proposed underground construction. Also included shall be lot grading plans, a soil erosion and sedimentation control plan in conformance with all applicable Pennsylvania Department of Environmental Protection, Bucks County Conservation District, and U.S. Soil Conservation Service regulations and such additional drawings as required to detail the construction of all proposed subdivisions and land developments.

A. The improvement construction plan shall be at any of the following scales, or other accepted design scales as approved by the Borough Engineer:

Horizontal	Vertical
20 feet/inch	2 feet/inch
50 feet/inch	5 feet/inch
100 feet/inch	10 feet/inch

2. *Horizontal Plan (Streets).* The horizontal plan shall show details of the horizontal layout, including:

- A. Center line with bearings, distances, curve data and stations corresponding to the profile; horizontal sight distances for intersections.
- B. Right-of-way and curb lines with radii at intersections.
- C. Beginning and end of proposed construction.
- D. Tie-ins by course and distances to intersection of all public roads, with their names and widths.
- E. Location of all monuments with reference to them.
- F. Property lines and ownership of all properties within the site and abutting properties.
- G. Location and size of all drainage structures, sidewalks, public utilities, lighting standards, and street name signs.

3. *Horizontal Plan (Storm Drains and Sanitary Sewers).*

- A. Location and size of pipeline with stations corresponding to the profile plan.
- B. Location of manholes or inlets with grade between and elevation of flow

line and top of each manhole or inlet.

C. Property lines and ownership of abutting properties and within the site lot lines and numbers, with details of easements where required.

D. Beginning and end of proposed construction.

E. Location of laterals.

F. Location of all other drainage facilities and public utilities in the vicinity of storm and/or sanitary sewer lines.

G. Hydraulic design data for culverts and/or bridge structures.

4. *Profile (Streets).*

A. Profile of existing ground surface along center line of street; profiles along cul-de-sac curblines. All profiles shall show high and low points and passing/stopping distances per PennDOT requirements.

B. Proposed center line grade with percent on tangents and elevations at 50-foot intervals, grade intersections, and either end of curb radii.

C. Vertical curve data including length, elevations and minimum sight distance as required by the Borough Engineer.

4. *Cross-Section (Streets).* (Refer to Appendix)

A. Right-of-way width and location and width of paving; cross-section and cross-slope of paving.

B. Type, thickness and crown of paving.

C. Type and size of curb.

D. Grading of sidewalk area and adjacent slopes.

E. Location, width, type, and thickness of sidewalks and driveway aprons.

6. *Profile (Storm Drainage and Sanitary Sewers).*

A. Typical location of sewers, storm drains and utilities with sizes.

B. Detail of typical street cross-sections.

C. Profile of existing ground surface with elevations at top of manholes or inlets.

D. Profile of storm drain or sewer showing type and size of pipe, grade, cradle, manhole, and inlet locations, and elevations along flow line at 50-foot intervals.

(Ord. 12/6/1995, §703)

§22-706. Record Plan.

All subdivision and land development applicants shall submit a minimum of three copies of the record plan conforming to the following standards. Two copies of the Record Plan submitted and shall be clear and legible blue or black line prints on white opaque linen; one paper print shall be submitted which shall be an exact copy of the approved final plan on a sheet of the size required for final plans. Two copies shall be retained by the Borough and one copy shall be recorded in the Bucks County Courthouse. The following information shall appear in the record plan, in addition to the information required for the final plan:

A. *Seals.* All plans must be acknowledged with the following seals:

- (1) The raised seal of licensed engineer or land surveyor responsible for the plan.
- (2) The raised seal of architect or landscape architect who collaborated in the preparation of the plan.
- (3) If the applicant is a corporation, a raised corporate seal.
- (4) The raised seal of a notary public or other qualified officer acknowledging the owner's statement of intent.
- (5) All plans must be approved by the Borough Council with the raised official seal.

B. *Acknowledgments, Notes, and Certificates.* The record plan must include the required notes and certificates:

- (1) On all applications where improvement construction plans are required, the following note shall appear on the record plan: "Sheets 2 through _____, inclusive, on record at Ivyland Borough, shall be considered a part of the approved final plan as if recorded with same." These shall be listed by sheet number and title on the record plan.
- (2) The signature of the registered land surveyor certifying that the plan represents a survey made by him; that the monuments shown hereon exist as located; and, the dimensional and geodetic details are correct.
- (3) A statement to the effect that the applicant is the owner of the land proposed to be subdivided or developed and that the subdivision or land development shown on the final plan is made with his or their free consent and that it is desired to record the same.

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

Commonwealth of Pennsylvania:

SS.

County of _____

On the ____ day of _____, 19__, before me the subscriber, a Notary Public of the Commonwealth of Pennsylvania, residing in _____ personally appeared (name or names of all owners), known to me (or satisfactorily proven) to be the persons whose names (is/are) subscribed to the foregoing plan, and acknowledge that (he/she/they) (is/are) the registered (owner/owners) of the designated land, that all necessary approval of the plan have been obtained and is endorsed thereon, and that (he/she/they) desire that the foregoing plan be recorded according to law. Witness my hand and notarial seal, the day and year aforesaid.

Notary Public

My Commission Expires _____
(SEAL)

(2) Where the owner is a corporation:

Commonwealth of Pennsylvania:

SS.

County of _____

On the ____ day of _____, 19__, before me the subscriber, a Notary Public of the Commonwealth of Pennsylvania, residing in _____ personally appeared (name of officer of corporation), who acknowledged (himself/herself) to be the (president/secretary) of (name of the corporation), a corporation, and that as such (president or secretary), being authorized to do so, (he/she) executed the foregoing plan by signing that the said corporation is the registered owner of the designated land, that all necessary approval of the plan has been obtained and is endorsed thereon, and that (he/she/they) desire that the foregoing plan be recorded according to law.

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

Notary Public

My Commission Expires _____
(SEAL)

D. Approved Notation by the Borough shall be as follows: Borough Council:
“Approved by the Council of the Borough Ivyland this _____ day of _____, 19__.”

Chairman, Borough Planning Commission _____
Secretary, Borough Planning Commission _____
President, Borough Council _____
Secretary, Borough Council _____
Borough Engineer _____

E. *Recording Notation.*

“Recorded in the office of the Recorder of Deeds, Bucks County, Pennsylvania in Plan Book _____ Page _____ on the _____ day of _____ 19__ .

F. *Signatures to Appear on Plan.* The following signatures shall be placed directly on the plan in black ink:

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

G. The plan shall indicate that it has been reviewed by the Bucks County Planning Commission, in accordance with the Pennsylvania Municipalities Planning Code, 53 P.S. §10101 *et seq.*, as amended, and shall include the following notation:

Bucks County Planning Commission Notation

BCPC No.

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

Executive Director, Bucks County Planning Commission

(Ord. 12/6/1995, §705)

Part 8**Administration****§22-801. Modifications.**

Modifications to the requirements of this Chapter shall be granted only in accordance with the provisions of §22-501.3 of this Chapter.

(Ord. 12/6/1995, §800)

§22-802. Fees.

1. The applicant for a subdivision and land development approval shall, at the time of making application, pay the Borough of Ivyland a fee in accordance with the fee schedules adopted by resolution by the Ivyland Borough Council, as may be amended, and in addition shall pay all costs to the Borough for the services of the Borough administration, Borough Solicitor and Borough Engineer and such other necessary and reasonable costs incurred in reviewing the plans, processing the application and assuring construction in accordance with approved plans.

2. The applicant shall be required to furnish an escrow fund to pay the professional fees and other costs incurred in reviewing the plans and/or processing the application. The amount of the escrow fund shall be set by resolution by the Borough Council. Upon completion of the review, whether the application is approved or rejected, any moneys not expended in the review shall be refunded to the applicant. Fees in excess of the escrow fund will be charged to the applicant.

(Ord. 12/6/1995, §801)

§22-803. Records.

1. All recommendations of the Ivyland Borough Planning Commission relative to all subdivision and land development plans shall be recorded in the minutes of the meeting when the action was taken. These records shall be accessible to the public.

2. All decisions of the Ivyland Borough Council with respect to subdivision and land development applications shall be recorded in the minutes of the meeting when the action was taken.

(Ord. 12/6/1995, §802)

Part 9**Amendments****§22-901. Power of Amendment.**

The Borough Council of Ivyland may, from time to time, amend, supplement, change, modify or repeal this Chapter by proceeding in the following manner.

(Ord. 12/6/1995, §900)

§22-902. Definitions.

The words “amend,” “amendment,” “amendments,” or “amended” in this Chapter shall be deemed to include any modification of the text or phraseology of any provision or amendment thereof, or any repeal or elimination of any such provisions of part thereof, or any addition to this Chapter or to an amendment thereof.

(Ord. 12/6/1995, §901)

§22-903. Procedure.

The Borough Council at a regular or special meeting, 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. Notice shall be published once each week for 2 consecutive weeks in a newspaper of general circulation in the Borough. Such notice shall state the time and place of hearing and the particular nature of the matter to be considered at the hearing. The first publication shall not be more than 30 days and the second publication shall not be less than 7 days from the date of the hearing. A copy of the amendment shall be supplied to a newspaper of general circulation in the Borough at the time the public notice is published.

B. The notice shall state that full opportunity shall be given to any citizen and all parties in interest to be heard at such hearing. The notice shall state where in the Borough copies of the proposed amendment may be examined without charge or obtained for a charge not greater than the cost thereof.

C. An attested copy of the proposed amendment shall be filed in the Bucks County Law Library.

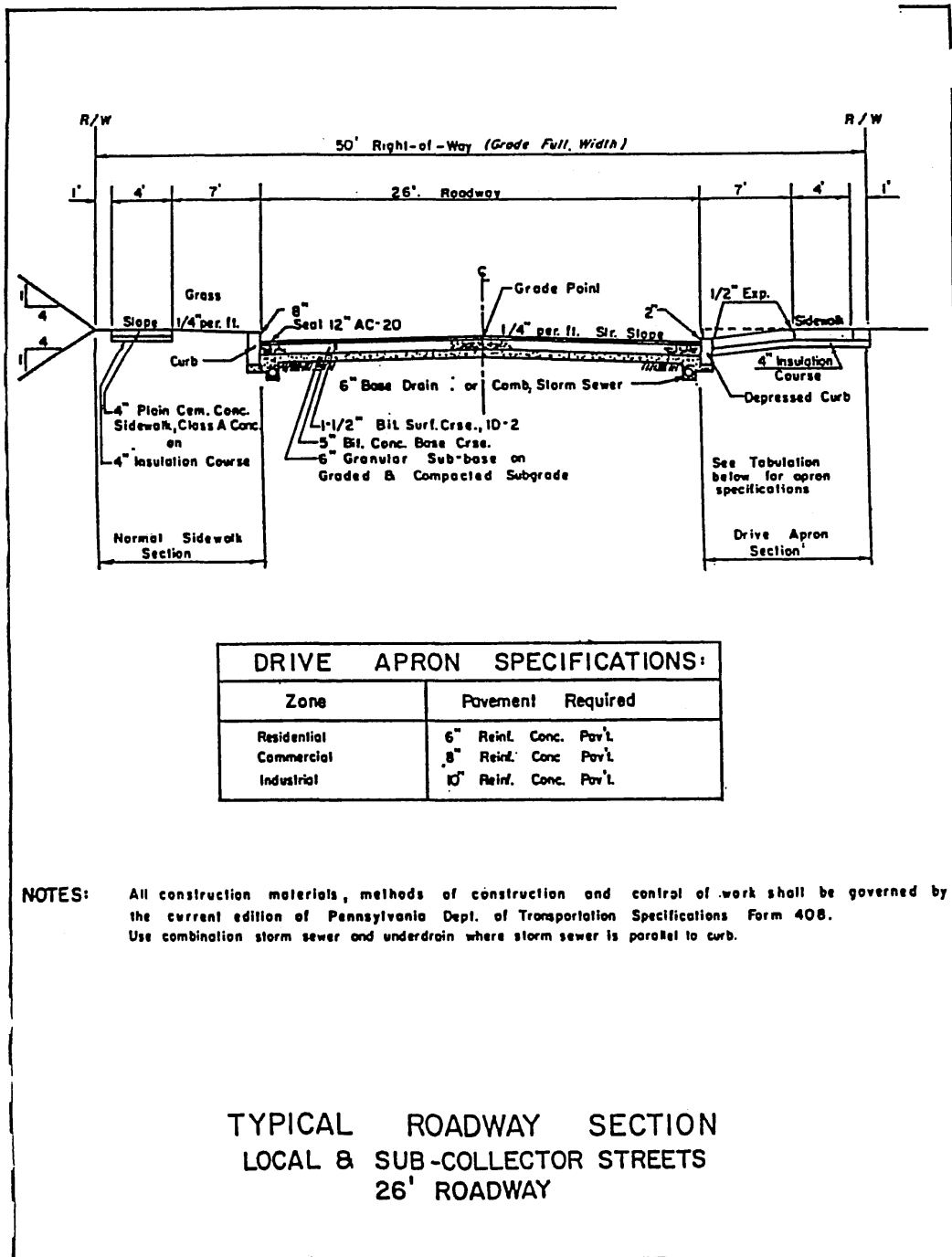
D. All proposed amendments not originating with the Borough Planning Commission before adoption shall be referred to the Borough Planning Commission. All proposed amendments shall be forwarded to the Bucks County Planning Commission at least 30 days prior to the public hearing for their written recommendations.

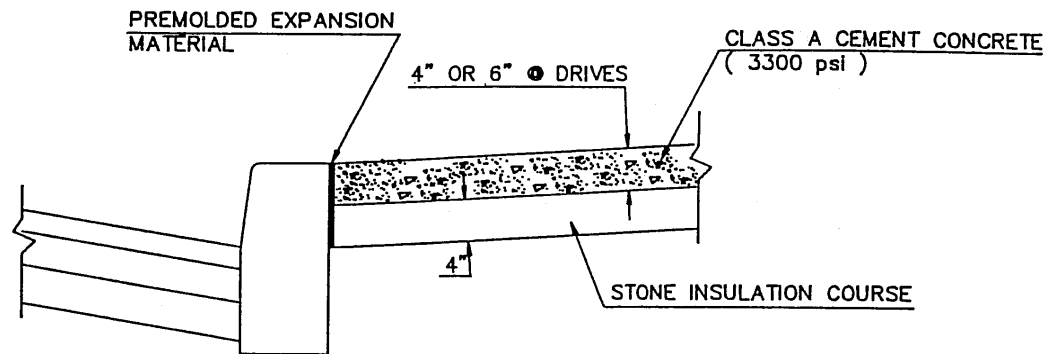
E. In the event substantial amendments are made in the proposed ordinance or amendment, before voting upon enactment, the Borough Council shall at least 10 days prior to enactment readvertise, in one newspaper of general circulation in the Borough, a brief summary setting forth all the provisions in reasonable detail together with a summary of the amendments.

F. Within 30 days after adoption, the Borough shall forward a certified copy

of any amendment to the Bucks County Planning Commission.
(*Ord. 12/6/1995, §902*)

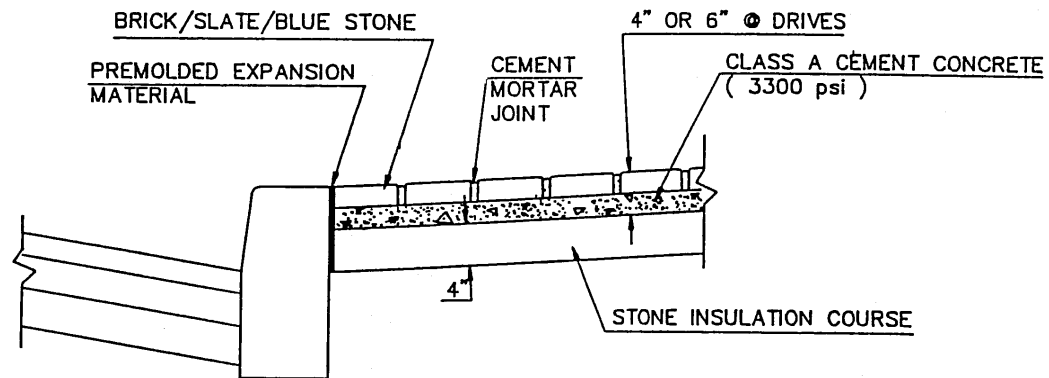
Appendices





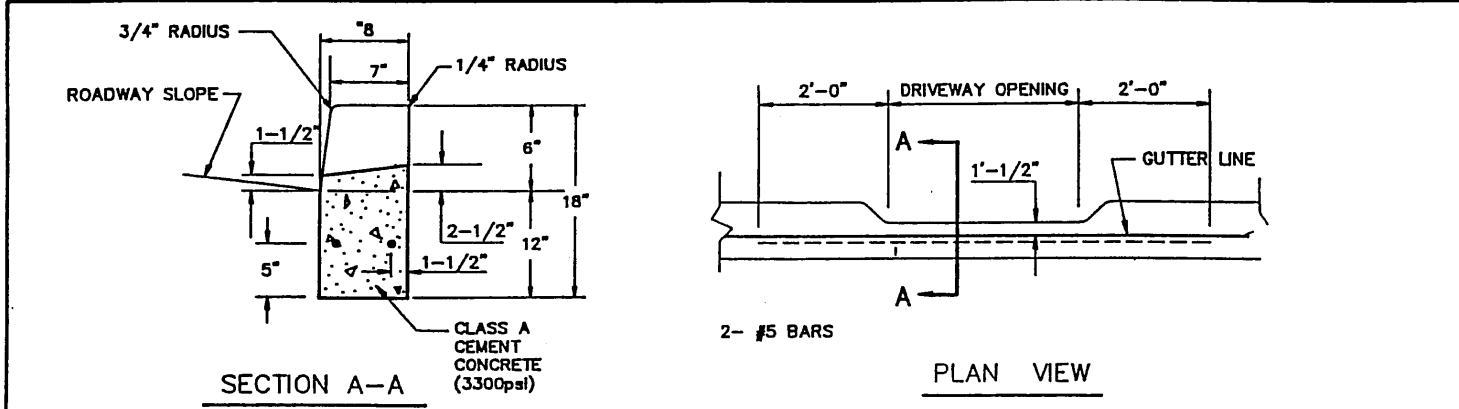
CEMENT CONCRETE SIDEWALK

N.T.S.



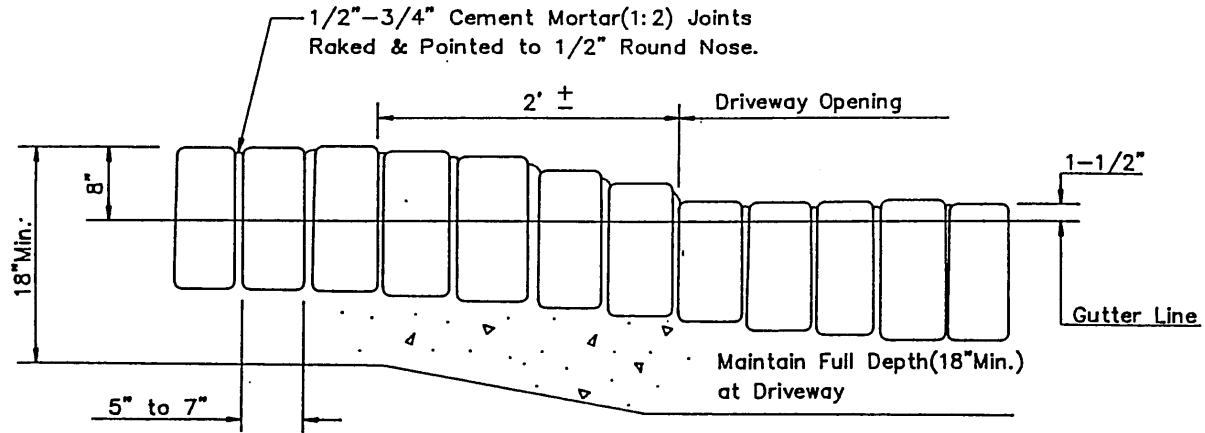
BRICK SIDEWALK
SLATE SIDEWALK
BLUE STONE SIDEWALK

N.T.S.



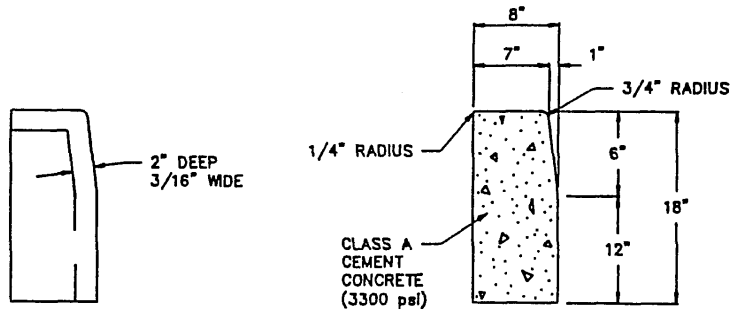
TYPICAL DEPRESSED CURB

N.T.S.



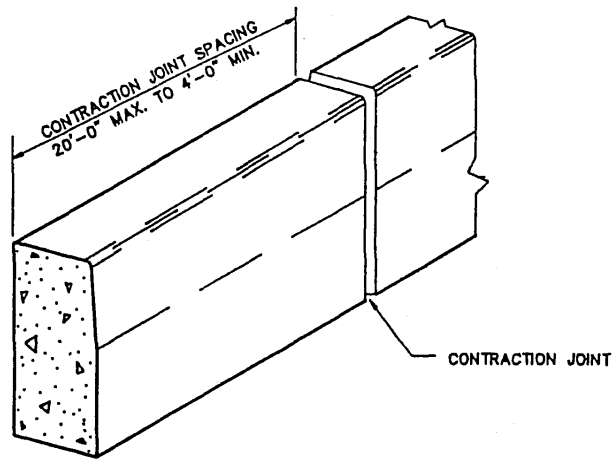
TYPICAL DEPRESSED CURB

N.T.S.



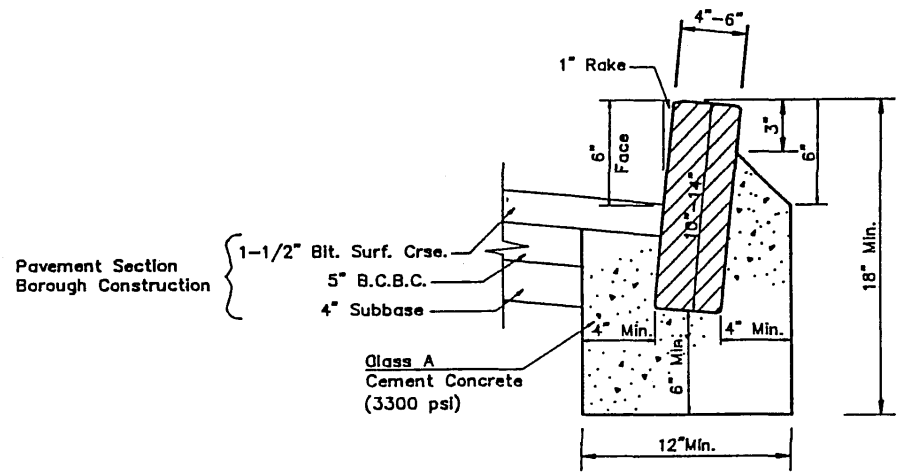
DETAIL A
CONTRACTION JOINT

TYPICAL
CROSS SECTION



PLAIN CEMENT CONCRETE CURB

N.T.S.



TYPICAL INSTALLATION
N.T.S.

- GRANITE(BELGIAN) BLOCK CURB
- BROWN STONE CURB
- SLATE CURB

