

Chapter 22

Subdivision and Land Development

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Part 1**Purpose, Authority, Title and Jurisdiction****§22-101. Purpose.**

The purpose of this Chapter is to regulate subdivision and land development within the Borough of Troy, Bradford County, Pennsylvania.

(*Ord. 78-4, 5/15/1978, §100*)

§22-102. Authority and Title.

This Chapter is enacted pursuant to the Pennsylvania Municipalities Planning Code, 53 P.S. §10101 *et seq.*, and may be cited as the “Troy Borough Subdivision and Land Development Ordinance.”

(*Ord. 78-4, 5/15/1978, §110*)

§22-103. Jurisdiction.

This Chapter shall apply in the following circumstances:

A. To all subdivision and land development plans submitted after the effective date of this Chapter.

B. To all subdivision and land development plans previously approved in accordance with any law or regulation then applicable, the development of which has not been completed in accordance with the terms of such approval within 3 years of such approval.

(*Ord. 78-4, 5/15/1978, §120*)

Part 2**Submission Procedures****§22-201. General.**

1. *Feasibility Review.* Review materials shall be submitted to the Office of Borough Manager for discussion with the Borough Planning Commission of the suitability of a parcel of land for a specific subdivision or land development use and for direction or advise from the Borough Planning Commission. The feasibility review materials shall be submitted to the Borough Engineer and the County Planning Commission for review.

2. *Preliminary Plan.* Plans, supplementary data and fees shall be submitted to the Office of Borough Manager for distribution to various review bodies. All reviews shall be submitted to the Borough Planning Commission, which shall review the plan and recommend action to the Borough Council. The Borough Council shall take action and advise the applicant in writing of their decision.

3. *Final Plan.* Plans, supplementary data and fees shall be submitted to the Office of Borough Manager for distribution to various review bodies. The final plan shall be submitted within 1 year of preliminary plan approval. All reviews shall be submitted to the Borough Planning Commission, which shall review the plan and recommend action to the Borough Council. The Borough Council shall take action on the plan and advise the applicant, in writing, of their decision. As a condition of approval, the applicant shall enter into improvement and maintenance agreements with the Borough Council. No permits shall be issued until said agreements have been excused and secured to the satisfaction of the Borough Solicitor and until the approved final plan has been recorded in the County Recorder of Deeds office.

(Ord. 78-4, 5/15/1978, §201)

§22-202. Feasibility Review Submission.

1. Feasibility review maps and materials shall be submitted for all proposed subdivisions and land developments, for purposes of discussion between the Borough Planning Commission and the developer and for the information of the County Planning Commission.

2. Three copies of all feasibility review maps and materials, as set forth in §22-301, shall be submitted to the Office of Borough Manager for distribution to the Borough Planning Commission and the County Planning Commission.

(Ord. 78-4, 5/15/1978, §210)

§22-203. Feasibility Review.

1. When feasibility review maps and materials have been submitted to the Borough Planning Commission, the data presented will be reviewed by that body at its next regular meeting; provided, that submission has occurred no less than 10 days prior to such scheduled meeting.

2. The Borough Planning Commission shall review the feasibility review data to determine the development potential of the site, as indicated by the natural features

analysis presented. The general development concepts of the developer will be reviewed to determine their compatibility with the development potential of the site. Also, the feasibility review stage is designed to offer the developer an opportunity to informally discuss his plans for the proposed subdivision or land development with the Borough Planning Commission.

3. No recommendation shall be made by the Borough Planning Commission until the Commission has received and considered the written report of the Planning Commission of Bradford County. However, if such reports are not received within 30 days after receipt of feasibility review materials, the Borough Planning Commission may make recommendations to the developer without having received and considered such reports.

4. Within 60 days of submission of feasibility review maps and materials to the Borough Planning Commission, the Commission shall make any recommendations to the developer which it deems necessary or advisable in the public interest in order to provide an acceptable subdivision or land development plan for the site. Within 5 days after such meeting, the secretary of the Borough Planning Commission shall send written notice of the Commission's recommendations to the following:

- A. The developer or his representative.
- B. The Borough Council.
- C. The County Planning Commission.

5. Within 1 year after completion of the feasibility review by the Borough Planning Commission, the developer shall submit a preliminary plan.

(*Ord. 78-4, 5/15/1978, §220*)

§22-204. Submission of the Preliminary Plan.

1. Preliminary plans, and all required supplementary data for all proposed subdivisions and land developments, shall be submitted to the designated Borough official.

2. If the preliminary plan submission complies with §22-302 of this Chapter, the designated Borough official shall accept the preliminary plan for distribution to the various review bodies.

3. Official submission of a preliminary plan to the Office of Borough Manager by a developer shall comprise:

- A. Five copies of a completed application for review of preliminary subdivision plan.
- B. Submission of five black-on-white or blue-on-white prints on paper of the preliminary plan, which shall fully comply with the provisions of this Chapter as set forth in §22-302.
- C. Submission of five copies of all required supplemental information, as set forth in §22-302.6.

4. The Office of Borough Manager shall refer preliminary plan submission materials to the various review bodies as follows:

- A. One application, one plan print and one copy of the supplemental information to the Borough Planning Commission.

B. One application, one plan print and one copy of the supplemental information to the Borough Engineer.

C. One application, one plan print and one copy of the supplemental information to the Borough Council for their information.

D. One application, one plan print and one copy of the supplemental information to the Borough Sewage Enforcement Officer.

E. One application, one plan print and one copy of the supplemental information to the County Planning Commission.

5. Additional copies of the preliminary plan materials shall be referred by the Office of Borough Manager to the respective agencies in the following circumstances:

A. Whenever the property being subdivided or developed abuts a State legislative route, one application and one plan print shall be submitted to the Pennsylvania Department of Transportation Regional Office.

B. Whenever the subdivision or land development requires a revision to the official municipal sewage plan, or a water quality permit, as described in §§22-302 and 22-405 of this Chapter, one application, one plan print and one copy of supplemental information shall be submitted to the Pennsylvania Department of ~~Environmental Resources~~ Protection. [A.O.]

C. Whenever the subdivision or land development requires a soil erosion and sedimentation control permit, as described in §§22-302 and 22-409(1) of this Chapter, one application, one plan print and one copy of supplemental information shall be submitted to the County Conservation District.

D. Whenever a proposed subdivision or land development is located adjacent to another municipality, one application and one plan print shall be referred to that municipality.

(Ord. 78-4, 5/15/1978, §220; as amended by A.O.)

§22-205. Review of Preliminary Plan.

1. *By the County Planning Commission.*

A. Within 45 days of the date of official submission, the staff of the County Planning Commission shall review the preliminary plan to determine its conformance with regional plans, County-wide plans and priorities and shall recommend such changes and modifications as it may deem necessary or advisable in the public interest. [A.O.]

B. The County Planning Commission shall coordinate its review, when necessary, with the appropriate State and County agencies, such as the Pennsylvania Department of ~~Environmental Resources~~ Protection, the Pennsylvania Department of Transportation and the County Conservation District and adjacent municipalities (when they are affected). [A.O.]

C. Upon completion of the review of the preliminary plan by the County Planning Commission staff, written notice, including the County Planning Commission, shall be sent to:

(1) The Office of Borough Manager for referral to the Borough Planning Commission and the Borough Council.

- (2) The Borough Engineer.
- (3) The engineer, surveyor or land planner of the developer.
- (4) The developer or his representative.

D. The review of the preliminary subdivision or land development plan by the County Planning Commission shall constitute the County planning agency review set forth in §502 of the Pennsylvania Municipalities Planning Code, 53 P.S. §10502.

2. *By the Borough Planning Commission.*

A. When a preliminary plan has been officially submitted, such plan shall be placed on the agenda of the Planning Commission for review at its next regular monthly meeting; provided that such official submission has occurred no less than 10 calendar days prior to such regular meeting. The Planning Commission may hold a public hearing on the preliminary plan at this time.

B. The Planning Commission shall review the preliminary plan to determine its conformance with the standards contained in this Chapter and other applicable Borough ordinances and shall require or recommend such changes and modifications as it deems necessary.

C. No action shall be taken by the Borough Planning Commission with respect to a preliminary plan until the Borough Planning Commission has received and considered the written report of the County Planning Commission; provided, however, that if the County Planning Commission shall fail to report thereon within 45 days after receipt of a preliminary plan, then the Borough Planning Commission may officially act without having received and considered such report.

D. Within 60 days after submission of the preliminary plan, the Planning Commission shall recommend to the Borough Council, in writing, that the preliminary plan be approved or disapproved, together with the documented findings upon which the recommendation is based.

3. *By the Borough Council.* Within 90 days after submission of the final plan, the Borough Council shall take action by approving or disapproving the preliminary plan and document the findings upon which that action is based, in writing, to:

- A. The developer or his representative.
- B. The Office of Borough Manager.
- C. The Borough Planning Commission.
- D. The Borough Engineer.
- E. The Borough Sewage Enforcement Officer.
- F. The County Planning Commission.

(Ord. 78-4, 5/15/1978, §240; as amended by A.O.)

§22-206. Submission of the Final Plan.

1. Within 12 months after approval of the preliminary plan, a final subdivision or land development plan and all required supplemental data shall be submitted to the Office of Borough Manager. An extension of time may be granted by the Borough Planning Commission upon written request. Otherwise, the plan submitted may be considered as a new preliminary plan.

2. The final plan shall conform in all significant respects to the preliminary plan as previously reviewed by the Borough Planning Commission and approved by the Borough Council and shall incorporate all modifications required by the Borough Council in its preliminary plan approval. The Borough Planning Commission may, however, accept a final plan modified so as to reflect any substantial changes which have occurred on the site of the proposed subdivision, or in its surroundings, since the time of preliminary plan review.

3. The final plan may be submitted in sections or stages, each covering a reasonable portion of the entire proposed subdivision as shown on the reviewed preliminary plan, in accordance with the regulations set forth in §22-303. In the case of the final subdivision or land development plan, which is to be submitted in sections or stages over a period of years, the time between submission of application for final approval of each stage or section shall be no greater than 12 months.

4. Final plans and all required supplementary data set forth in §22-303 for all proposed subdivisions and land developments shall be submitted to the designated Borough official.

5. If the final plan submission complies with §22-303 of this Chapter, the designated Borough official shall accept the final plan for distribution to the various review bodies.

6. Official submission of a final plan to the Office of Borough Manager by a developer shall comprise:

A. Seven copies of a completed application for review of final subdivision plan.

B. Submission of five black-on-white or blue-on-white prints on paper of the final plan which shall fully comply with the provisions of this Chapter, as set forth in §22-303.

C. Submission of five copies of all required supplemental information, as set forth in §22-303.

7. The Office of Borough Manager shall refer final plan submission materials to the various review bodies as follows:

A. One application, one plan print and one copy of the supplemental information to the Borough Planning Commission.

B. One application, one plan print and one copy of the supplemental information to the Borough Engineer.

C. One application, one plan print and one copy of the supplemental information to the Borough Council for their information.

D. One application, one plan print and one copy of supplemental information to the Borough Sewage Enforcement Officer.

E. One application, one plan print and one copy of the supplemental information to the County Planning Commission.

F. Recorder's Office. [A.O.]

G. Assessment. [A.O.]

8. Additional copies of the final plan materials shall be referred by the Office of Borough Manager to the respective agencies in the following circumstances:

A. Whenever the property being subdivided or developed abuts a State

legislative route, one application and one plan print shall be submitted to the Pennsylvania Department of Transportation Regional Office.

B. Whenever the subdivision or land development requires a revision to the official Borough sewage plan, or a water quality permit, as described in §§22-302 and 22-405 of this Chapter, one application, one plan print and one copy of supplemental information shall be submitted to the Pennsylvania Department of Environmental Resources Protection. [A.O.]

C. Whenever the subdivision or land development requires a soil erosion and sedimentation control permit, as described in §§22-302 and 22-407 of this Chapter, one application, one plan print and one copy of supplemental information shall be submitted to the County Conservation District.

D. Whenever a proposed subdivision or land development is located adjacent to another municipality, one application and one plan print shall be referred to that municipality.

(Ord. 78-4, 5/15/1978, §250; as amended by A.O.)

§22-207. Review of Final Plan.

1. *By the County Planning Commission.*

A. Within 45 days of the date of official submission, the staff of the County Planning Commission shall review the final plan to determine its conformance with regional plans and priorities and shall recommend such changes and modifications as it may deem necessary or advisable in the public interest.

B. The County Planning Commission shall coordinate its review when necessary with the appropriate State and County agencies, such as the Pennsylvania Department of Environmental Resources Protection, the Pennsylvania Department of Transportation and the County Conservation District; and adjacent municipalities (when they are affected). [A.O.]

C. Upon completion of the review of the plan by the County Planning Commission staff, written notice, including changes and modifications if any, recommended by the County Planning Commission shall be sent to:

- (1) The Office of Borough Manager for referral to the Borough Planning Commission and the Borough Council.
- (2) The Borough Engineer.
- (3) The engineer, surveyor or land planner of the developer.
- (4) The developer or his representative.

2. *By the Borough Planning Commission.*

A. When a final plan has been officially submitted, such plan shall be placed on the agenda of the Planning Commission for review at its next regular monthly meeting; provided, that such official submission has occurred no less than 10 calendar days prior to such regular meeting. The Planning Commission may hold a public hearing on the preliminary plan at this time.

B. The Planning Commission shall review the final plan to determine its conformance with the standards contained in this Chapter and other applicable Borough ordinances and shall require or recommend such changes and

modifications as it deems necessary.

C. No action shall be taken by the Borough Planning Commission with respect to a final plan until the Borough Planning Commission has received and considered the written report of the County Planning Commission; provided, however, that if the County Planning Commission shall fail to report thereon within 45 days after receipt of a final plan, then the Borough Planning Commission may officially act without having received and considered such report.

D. Within 60 days after submission of the final plan, the Planning Commission shall recommend to the Borough Council, in writing, that the final plan be approved or disapproved, together with the documented findings upon which the recommendation is based. The action of the Borough Planning Commission shall be noted, together with the date of action and signatures of its Chairman and Secretary on the final plan.

3. *By the Borough Council.*

A. Within 90 days after submission of the final plan, the Borough Council shall take action by approving or disapproving the preliminary plan and document the findings upon which that action is based, in writing, to:

- (1) The developer or his representative.
- (2) The Office of Borough Manager.
- (3) The Borough Planning Commission.
- (4) The Borough Engineer.
- (5) The Borough Sewage Enforcement Officer.
- (6) The County Planning Commission.

B. The action of the Borough Council shall be noted, together with the date of action and signatures of its chairman and secretary, on the final plan. The Council shall document the findings and reasons upon which that action is based, in writing, to the following:

- (1) The developer or his representative.
- (2) The Office of Borough Manager.
- (3) The Borough Planning Commission.
- (4) The Borough Engineer.
- (5) The Borough Sewage Enforcement Officer.
- (6) The County Planning Commission.

(Ord. 78-4, 5/15/1978, §260; as amended by A.O.

§22-208. Recording of the Final Plan.

1. After completion of the procedures set forth in §22-503 and after the final plan is approved by the Borough Planning Commission and the Borough Council, as many other copies of the final plan as may be desired shall be endorsed by the Borough Planning Commission and the Borough Council and the review stamp of the County Planning Commission. No subdivision or land development plan may be recorded unless it bears Borough Planning Commission and Borough Council, the corporate seal of the

Borough and the County Planning Commission review stamp.

2. The record plan shall be a clear and legible print of a type and material required by the County Recorder of Deeds.

3. After endorsement by the Borough Planning Commission and the Borough Council and the County Planning Commission review stamp, the developer shall file the record plan with the County Recorder of Deeds within 90 days of the date of final approval by the Borough Council. If the developer fails to record the final plan within such period, the action of the Borough Council shall be null and void, unless an extension of time is granted, in writing, by the Borough Council upon written request by the developer.

4. At the time the record plan is endorsed by the Borough authorities, the Borough Planning Commission shall receive one reproducible print of the final plan, as approved, for their permanent files. The reproducible print for the Borough shall be of a material as required by the Borough Planning Commission.

5. At the time the record plan is stamped and signed by the County Planning Commission, the County Planning Commission shall receive one endorsed black-on-white or blue-on-white prints of the final plan, as approved by the Borough Council.

(*Ord. 78-4, 5/15/1978, §270*)

§22-209. Plans Exempted from Standard Procedures.

In the case of any proposed residential subdivision which does not, and will not in the future, involve more than a total of five lots and does not involve the provisions of any new street or easement for access (i.e., one in which all proposed lots will have frontage on an existing public street), the following procedure may, at the discretion of the developer, be followed:

A. The developer shall prepare a preliminary plan of the proposed subdivision in accordance with §22-302 of this Chapter. (The plan should also be consistent with the requirements for final plans set forth in §22-303 where the developer plans to resubmit the plan as a final plan as per the option set forth in paragraph .D, below).

B. Copies of the preliminary plan shall be submitted to the designated Borough official, the County Planning Commission and other agencies in accordance with §22-205 of this Chapter.

C. The preliminary plan shall then be reviewed in accordance with the procedure outlined in §22-206 of this Chapter. The Borough Planning Commission and the County Planning Commission shall make recommendations as to alterations and modifications.

D. Following preliminary plan approval, the developer may then prepare a final plan in accordance with §22-303 of this Chapter. The plan shall be submitted in accordance with §22-206 of this Chapter. If, however, the preliminary plan is approved without alterations and modifications and conforms to the requirements set forth in §22-303, the developer may exercise the option of resubmitting the preliminary plan as the final plan.

(*Ord. 78-4, 5/15/1978, §280*)

Part 3

Plan Recommendations

§22-301. Feasibility Review.

Before submission of the preliminary plan by the developer, maps and materials shall be submitted by the developer to the Borough Planning Commission, thus enabling the Commission to determine the potential of the proposed subdivision feasibility of the developer's plans for the tract. The feasibility review submission will include the following maps and materials:

A. A key map, for the purpose of locating the property being subdivided, drawn at a scale not smaller than 1 inch equals 1,000 feet and showing the relation of the property, differentiated by tone or pattern, to adjoining property and to all streets, roads, Borough boundaries and recorded subdivision plans existing within 1 mile of any part of the property. The key map shall be based on USGS quad sheet maps.

B. A map illustrating an analysis of natural drainage patterns and water resources within the proposed subdivision tract, including delineation of streams, natural drainage swales, ponds and lakes, wetlands, floodplains subject to a 100-year flood frequency and permanent and seasonal high water table areas. The map shall be based on USGS quad sheets, County soil survey maps and the Flood Boundary and Floodway Map from the Borough Flood Insurance Study, when available.

C. A map illustrating an analysis of types of soils present within the proposed subdivision tract. The map should include delineation of prime agricultural soil areas, soil with shallow depth to bedrock, soils most susceptible to erosion, soils most suitable for urban development and soils generally suitable for on-lot sewage disposal. The map shall be based on the County soil survey.

D. A topographic map of the site, including a delineation of slope areas under 5 percent, between 5 percent and 15 percent and over 15 percent. The topographic map shall be based on the County soil survey and USGS quad sheets.

E. A map delineating additional significant physical features within the proposed subdivision tract, such as woodland areas, large trees, rock outcroppings and scenic views. The map shall be based on USGS quad sheets and onsite survey work.

F. Where feasible and legible, the analysis involved in paragraphs .A through .E may be illustrated on one or a combination of composite maps. The combined impact of the natural characteristics of the tract upon the development potential of the tract shall be clearly illustrated on the map or maps.

G. A letter of intent and a sketch of the proposed subdivision or land development tract at a scale of 1 inch equals 100 feet, explaining and illustrating the developer's general development concepts for the tract. The type of development, form of ownership, circulation patterns and means of providing major utility service should be explained and illustrated. The sketch may be based on deed and tax map information.

(Ord. 78-4, 5/15/1978, §300)

§22-302. Preliminary Plan.

1. The preliminary plan of a proposed subdivision shall be clearly and legibly drawn to a scale of 1 inch equals 50 feet or 1 inch equals 100 feet.

2. The original drawing and all submitted prints shall be made on sheets of one of the following sets of dimensions:

- A. 18 inches by 24 inches.
- B. 24 inches by 36 inches.
- C. 36 inches by 48 inches.

3. If the preliminary plan requires more than one sheet, a key diagram illustrating relative location of the several sections shall be drawn on each sheet.

4. The preliminary plan shall illustrate the following data:

- A. Name and address of record owner.
- B. Name of developer if different from owner.
- C. Name of the proposed subdivision.
- D. Name of the municipality or municipalities within which subdivision is proposed.
- E. Names of all adjoining subdivisions, if any, and the names of owners of all adjacent unplotted land with the tax book and page numbers where recorded.
- F. Name, address, license number, and seal of registered engineer or surveyor responsible for the subdivision plan and a certification of the accuracy of the plan by the engineer or surveyor.
- G. North point, graphic scale, written scale and date, including the month, day and year that the original drawing was completed, and the month, day and year that the original drawing was revised, for each revision.
- H. A key map for the purpose of locating the property being subdivided, drawn at a scale of 1 inch equals 2,000 feet and showing the relation of the property, differentiated by tone or pattern, to adjoining property and to all streets, roads, municipal boundaries and recorded subdivision plans existing within 1 mile of any part of the property.
- I. Total tract boundaries of the property being subdivided, showing bearings and distances, and a statement of total acreage of the property.
- J. Tax map sheet, block and lot numbers within the proposed subdivision tract from the County tax assessor's office.
- K. The zoning district or districts within which the proposed subdivision is located.
- L. All existing buildings or other structures within the proposed subdivision tract.
- M. All existing streets, including streets of record (recorded but not constructed) on or adjoining the tract, including names, right-of-way widths, pavement widths and approximate grades.

N. All existing sewer lines, water lines, fire hydrants, utility transmission lines, culverts, bridges, railroads or other man-made features within the proposed subdivision tract and within 200 feet of the boundaries of the proposed subdivision tract.

O. Location, width and purpose of existing easements and utility rights-of-way within 200 feet of the proposed subdivision tract.

P. Contour lines at vertical intervals of not more than 2 feet for land with average natural slope of 5 percent or less, and at intervals of not more than 5 feet for land with average natural slope exceeding 5 percent. Location and elevation of the data to which contour elevations refer shall be the closest United States Coast and Geodetic established benchmark, where available.

5. The full plan of proposed development, including:

A. Location and width of all streets and rights-of-way, with statement of any conditions governing their use.

B. Suggested street names and utility easement locations.

C. Building setback lines along each street.

D. Lot lines with approximate dimensions.

E. A statement of the intended use of all nonresidential lots and parcels.

F. Lot numbers and a statement of the total number of lots and parcels.

G. Sanitary and/or storm sewers (and other drainage facilities), with the size and material of each indicated, and any proposed connections with existing facilities.

H. Parks, playgrounds and other areas dedicated or reserved for public or common use, with any conditions governing such use.

I. Location, width and purpose of proposed easements and utility rights-of-way.

J. Copies of the proposed deed restrictions, protective and restrictive covenants referenced to the preliminary plan map.

6. The preliminary plan shall be accompanied by the following supplementary data unless the Borough Planning Commission has determined that the submission of such data is not necessary:

A. Preliminary profiles, typical cross sections and specifications for proposed street, sanitary sewer, water system improvements, and storm drainage in accordance to the design standards of §§22-404 through 22-407, respectively.

B. A completed planning module for land development including soil and representative percolation tests, where applicable, and information necessary for the Borough Council to make a decision on revising or supplementing the official plan for sewage facilities.

C. A copy of the permit granted by Pennsylvania Department of Environmental ~~Resources~~ Protection for a private, centralized sanitary sewer system, where applicable. [A.O.]

D. A copy of an agreement document with the governmental authority which is to provide the water supply for the public water supply system, where applicable.

E. A copy of the permit granted by Pennsylvania Department of Environmental ~~Resources~~ Protection for a private, centralized water system, where applicable. [A.O.]

F. A storm drainage plan for the propose subdivision tract which conforms to design requirements for storm drainage as set forth in §22-407.

G. A plan for minimizing erosion and sedimentation in accordance with erosion and sediment control standards set forth in §22-409.

H. A landscape plan, where applicable, and according to the standards set forth in §22-409.2, "Natural Feature Preservation."

I. A plan providing utility service according to the standards set forth in §22-408 and applicable State and Federal regulations.

J. In the case of subdivision or land development plans to be developed in stages or sections over a period of time, a map delineating each stage or section of the proposed subdivision or land development, consecutively numbered so as to illustrate phasing of development and a schedule indicating the approximate time for which applications for final approval of each stage or section are intended to be filed.

K. Preliminary designs of any bridges or culverts which may be required. Such designs shall meet all applicable requirements of Pennsylvania Department of Environmental ~~Resources~~ Protection, Division of Dams and Encroachments, and/or the Pennsylvania Department of Transportation. [A.O.]

L. A map illustrating the entire contiguous holdings of the landowner indicating the area or scope of ultimate proposed subdivision and delineating the area which the preliminary plan encompasses.

M. A sketch map of the proposed road system far the remainder of this area not included in the preliminary plan.

(Ord. 78-4, 5/15/1978, §310; as amended by A.O.)

§22-303. Final Plans.

1. The final plans shall conform to the standards and data requirements set forth for preliminary plans in §22-302.1 through .5 of this Chapter.

2. It shall not be necessary to resubmit supporting maps and data submitted with the preliminary plan, provided there has been no change.

3. The following additional data shall be illustrated on the final plan:

A. The latest source of title to the land as shown by the deed, page number and book of the County Recorder of Deeds.

B. The total tract boundary lines of the area being subdivided with accurate distances to hundredths of a foot and bearing to 15 seconds. These boundaries shall be determined by accurate survey in the field, to an error of closure not to exceed 1 foot in 10,000 feet. The tract boundary shall be subsequently closed and balanced. The boundary(s) adjoining additional unplatted land of the subdivider (for example, between separately submitted final plan sections), however, are not required to be based upon field survey, and may be calculated. The location and elevation of all boundary line (perimeter) monuments shall be indicated, along with a statement

of the total area of the property being subdivided. In addition, the engineer or surveyor shall certify to the accuracy of the survey, the drawn plan and the placement of the monuments.

C. The following data for all proposed and existing streets:

- (1) The name, proposed name or number of the street.
- (2) The cartway width and cartway edge (curb lines) of the street.
- (3) The right-of-way width and right-of-way lines of the street.

D. Block and/or lot numbers and a statement of the total number of lots.

E. All lot lines shall be completely dimensioned in feet if straight and if curved by designating length of arc and radius (in feet) and central angle (in degrees, minutes and seconds). All internal angles within the lots shall be designated to within 5 seconds.

F. The proposed building setback or the proposed placement of each building.

G. Easement or rights-of-way where provided for or owned by public services and any limitations on such easements or rights-of-way. Rights-of-way shall be shown and accurately identified on the plan, and easements shall either be shown or specifically described on the plan. Easements should be located in cooperation with the appropriate public utilities.

H. Such private deed restrictions as may be imposed upon the property as a condition to sale, together with a statement of any restrictions previously imposed which may affect the title to the land being subdivided.

I. A statement of the intended use of all nonresidential lots or parcels with reference to restrictions of any type which exist or will exist as covenants in the deed for the lots or parcels contained in the subdivision and, if covenants are recorded, including the book and page number of the County Recorder of Deeds.

J. If the subdivision proposes a new street intersection with a State legislative route, the occupancy permit number(s) shall be indicated for all such intersections.

K. The location and elevation of all existing and proposed street monuments as required by section.

L. A certification of ownership, acknowledgment of plan and offer of dedication shall be lettered on the plan, and shall be duly acknowledged and sign by the owner of the property and notarized.

M. A signature block for certification of approval of the plan by the Borough Planning Commission and Borough Council.

N. Space shall be left, preferably adjacent to the Borough certification, in which the review stamp and signature of the County Planning Commission may be applied.

O. Space shall be left along the lower edge of the sheet, in order that the County Recorder of Deeds may acknowledge receipt and recording of the plan when it is presented.

P. If the final plan requires more than one sheet, key diagram showing the relative location of the several sections shall be drawn on each sheet.

4. The final plan shall be accompanied by the following:
 - A. Plans showing:
 - (1) Location, size and invert elevation of all sanitary sewer, water distribution and storm drainage systems and the location of all manholes, inlets and culverts.
 - (2) Final profiles, cross sections and specifications for proposed streets, sanitary sewers, water distribution systems and storm drainage systems shall each be shown on one or more separate sheets.
 - B. Documentation from the Sewage Enforcement Officer that each lot has been tested for on-lot sewage systems where applicable.
 - C. A completed and executed copy of the subdivision improvements agreement as agreed upon by the developer and the Borough Council.
 - D. A performance guarantee in the amount of 120 percent of the cost of all required improvements as set forth in §22-503 as estimated by the Borough Engineer, in a form and with surety approved by the Borough Solicitor, guaranteeing the construction and installation of all such improvements within a stated period which shall not be longer than 1 year from the date of final subdivision approval. Where the final plan is submitted in stages or sections, the amount of the guarantee may also be provided in stages if acceptable to the Borough Council.
 - E. A maintenance guarantee in an amount of not less than 5 percent of the Borough Council's estimate of the cost of all required improvements as set forth in §22-503, guaranteeing that the developer shall maintain all such improvements in good condition for a period of 1 year after completion of construction and installation of all such improvements and approval of all such improvements by the Borough Council.
5. In the case of a subdivision or land development proposed to be developed in stages or sections over a period of years, final plan requirements as listed in §22-303.1 through .5 shall apply only to the stage or section for which final approval is being sought. However, the final plan presented for the stage or section must be considered as it relates to information presented for the entire subdivision or land development in the application for preliminary approval.

(Ord. 78-4, 5/15/1978, §320)

Part 4**Design Standards****§22-401. Application.**

1. The design standards and requirements outlined in this Section will be utilized by the Borough Planning Commission and Borough Council in determining the adequacy of all plans for proposed subdivisions and land developments.

2. Development shall be planned, reviewed and carried out in conformance with all Borough, State and other applicable laws and regulations.

3. Whenever other Borough ordinances or regulations impose more restrictive standards and requirements than those contained herein, such other regulations shall be observed.

(Ord. 78-4, 5/15/1978, §400)

§22-402. General Standards.

1. Land shall be suited to the purpose for which it is to be subdivided. Land with unsafe or hazardous conditions such as open quarries, unconsolidated fill, steep slopes or flood-prone areas shall not be subdivided unless the subdivision plan provides for adequate safeguards which are approved by the Borough Planning Commission and Borough Council.

2. Consideration shall be given to applicable provisions of the Borough and the County Planning Commission's Comprehensive Plan, emphasizing future school sites, recreation sites, water supply and sewage treatment systems, highway alignments and other public facilities. However, consideration must be given to the need for the facilities and utilities mentioned above whether or not they are proposed as part of a comprehensive plan.

3. The development of the proposed subdivision shall be coordinated with adjacent existing development so that the area, as a whole, may develop harmoniously.

(Ord. 78-4, 5/15/1978, §410)

§22-403. Block and Lot Design Standards.

1. *Block Layout.*¹

A. The length, width and shape of blocks shall be determined with due regard to:

- (1) Provisions of adequate sites for buildings of the type proposed.

¹Section 503(5) of the Pennsylvania Municipalities Planning Code, 53 P.S. §10503(5), permits provisions to encourage and promote flexibility, economy and ingenuity in the layout and design of subdivisions and land development. Alternative block designs which vary from the suggested standards should be considered when such designs can more effectively be adapted to site characteristics, land uses or types of structures proposed.

(2) Borough zoning requirements [Chapter 27].

(3) Topography.

(4) Requirements for safe and convenient vehicular and pedestrian circulation, including the reduction of intersections with arterial streets.

2. *Block Length.*

A. Residential blocks shall ordinarily be no less than 500 feet in length or no more than 1,800 feet in length.

B. In the design of block longer than 1,000 feet, special consideration shall be given to the requirements of satisfactory fire protection.

C. Where practicable, blocks along arterial and collector streets shall not be less than 1,000 feet long.

3. *Block Depth.*

A. Single-family residential blocks shall be of sufficient depth to accommodate two tiers of lots, except:

(1) Where reverse frontage lots are required.

(2) Where prevented by the size, topographical conditions or other inherent conditions of property, in which case the Borough Planning Commission and Borough Council may approve a single tier of lots.

4. *Commercial and Industrial Blocks.* Blocks in commercial, industrial, multifamily and planned residential developments may vary from the elements of design detailed above if required by the nature of the use. In all cases, however, adequate provision shall be made for traffic and pedestrian circulation, off-street parking and loading areas.

5. *General Lot Design Standards.*

A. Within the requirements of the Borough Zoning Ordinance [Chapter 27], the size, shape and orientation of lots shall be appropriate for the type of development and use contemplated.

B. Insofar as practical, side lot line shall be at right angles to straight street lines or radial to curved street lines.

C. Where feasible, lot lines shall follow Borough boundaries rather than cross them, in order to avoid jurisdictional problems.

D. Generally, the depth of residential lots shall be not less than one nor more than three times their width.

E. Depth and width of parcels intended for nonresidential uses shall be adequate for the use proposed and sufficient to provide satisfactory space for onsite parking, loading and unloading, setbacks, landscaping, etc.

F. If after subdividing there exist remnants of land, they shall be either:

(1) Incorporated in existing or proposed lots.

(2) Legally dedicated to public use, if acceptable to the Borough.

6. *Lot Frontage.*²

A. All lots shall have direct access to an existing or proposed public street or to a private street if it meets the street design requirements of this Chapter.

B. Double or reverse frontage lots may be required to provide separation of residential development from arterial streets or to overcome specific disadvantages of topography or other natural features of the proposed subdivision tract.

C. All residential reverse frontage lots shall have a rear yard with a minimum depth of 75 feet, measured along the shortest distance from the proposed dwelling unit to the ultimate right-of-way and shall, within such rear yard and immediately adjacent to the right-of-way, have a planting screen easement of at least 10 feet in width, across which there shall be no right of access.

7. *Lot Access.*

A. Residential lots having direct access to an arterial street shall be avoided whenever possible. Where direct access to an arterial street cannot be avoided, adequate turnaround space shall be provided behind the right-of-way line.

B. Where access is permitted to a State road or highway, authorization from the Pennsylvania Department of Transportation must be proven by the display of a valid highway occupancy permit. Driveways to single-family residences shall intersect streets at angles of no less than 60 degrees. All other driveways or access roads shall intersect streets at right angles, where practicable, and in no case less than 75 degrees.

C. Widths of access roads or driveways shall be in accordance with the following standards:

(1) Access roads for multifamily residential, mobile home parks and all nonresidential subdivisions shall be no less than 20 feet in width, shall not exceed 30 feet in width at the street line and shall be clearly defined by use of curbing.

(2) Driveways for single-family residential subdivisions shall be no less than 10 feet in width but shall not exceed 20 feet in width at the street line.

D. To provide safe and convenient ingress and egress, access road and driveway entrances shall be rounded at the following minimum radii:

(1) Access road entrances for multifamily residential developments, mobile home parks and all nonresidential subdivisions shall be rounded at a minimum radius of 10 feet.

(2) Driveway entrances for single-family residential subdivision shall be rounded at a minimum radius of 5 feet.

E. Access road grades or driveway grades shall not exceed the following grades within 50 feet of intersection with the street:

(1) Seven percent when access is to an arterial street.

²As in block design, alternative lot configurations which vary from the standards set forth here should be considered when such a configuration can more effectively be adapted to site characteristics, land uses and types of structures proposed.

(2) Ten percent when access is to a collector or local street.

F. The centerline of an access road or driveway at the point of access to a street shall not be located closer to a street intersection than the following distances:

(1) For single-family residential subdivisions:

- (a) One hundred fifty feet if intersecting street is an arterial street.
- (b) One hundred feet if either street is a collector street.
- (c) Seventy-five feet if both streets are local streets.

(2) For multifamily residential developments, mobile home parks and all nonresidential subdivisions:

- (a) Three hundred feet if either street is an arterial street.
- (b) Two hundred feet if either street is a collector street.
- (c) One hundred fifty feet if both streets are local streets.

(3) The centerline of an access road or a driveway shall not intersect a street within 500 feet of an interchange with a limited access highway.

(Ord. 78-4, 5/15/1978, §420)

§22-404. Street Design Standards.

1. General Requirements.

A. Proposed streets shall be properly related to the road and highway plans of the State, County and Borough. Streets shall be designed to provide adequate vehicular access to all lots or parcels and with regard for topographic conditions, projected volumes of traffic and further subdivision possibilities in the area.

B. The street system of a proposed subdivision or land development shall be designed to create a hierarchy of street functions which includes collector and local streets.

C. The street system of a proposed subdivision or land development shall be designed so as to minimize street intersections and pedestrian-vehicular conflict points.

D. Proposed local street shall be designed so as to discourage through traffic and excessive speeds. However, the developer shall give adequate consideration to provision for the extension and continuation of arterial and collector streets into and from adjoining properties.

E. Where, in the opinion of the Borough Planning Commission, it is desirable to provide for street access to adjoining property, streets shall be extended, by dedication, to the boundary of such property. Distances between access points to adjoining property shall be based on block length standards set forth in §22-403(2).

F. Where a subdivision abuts existing street of improper width or alignment, the Borough Planning Commission may require the dedication of land sufficient to widen the street or correct the alignment.

G. Where a subdivision abuts or contains an existing or proposed arterial traffic street, the Borough Planning Commission may require marginal access streets, reverse frontage lots or other such treatment as will provide protection for

abutting properties, reduction in the number of intersections with the arterial street and separation of local and through traffic. Where a subdivision borders on or contains a limited access highway or a railroad right-of-way, the Borough Planning Commission may require a service street approximately parallel to and on each side of such right-of-way at a distance suitable for appropriate use of the intervening land between the right-of-way and the service road. Such tracts of land may be used for park purposes in residential districts or for commercial or industrial purposes in appropriate districts.

H. Private streets (streets not to be offered for dedication) may be approved by the Borough Planning Commission only if they meet the Commission and Borough Council street design and improvement standards set forth in this Chapter.

I. If the lots in the development are large enough for re-subdivision, or if a portion of the tract is not subdivided, suitable access and street openings for such an eventuality shall be provided.

2. *Street Right-of-Way and Cartway Widths.*

A. Street right-of-way and cart way widths in proposed subdivisions shall conform to the general standards on the following page:

Street Design Standards			
Classification of Streets	Local	Collector	Arterial
Right-of-Way Width ¹	0-50 ft.	50-60 ft.	80 ft.
Pavement Width	20-36 ft.	22-38 ft.	24-48 ft.
Traffic Lane Width ²	10 ft.	11 ft.	12 ft.
Parking Lane Width ³		8 ft. (when required)	
Sidewalk Width ⁴	4 ft. (when required)	5 ft. (when required)	5 ft. (when required)
Curbing ⁵	vertical curb, rolled curb and gutter or grassed drainage swale with no curbing		

¹Required street right-of-way widths may vary, depending upon what is included within the street right-of-way. The main variables in determining the required right-of-way width are the number of traffic lanes required, whether or not parking lanes are required and whether curbs or drainage swales are required.

²The main variables in determining the required pavement width are the number of traffic lanes required and whether or not parking lanes are required.

³The main variables in determining the required pavement width are the number of traffic lanes required and whether or not parking lanes are required.

⁴The main variables in determining whether sidewalks should be required are the density and type of the proposed development, nature of adjacent development, the presence of sidewalks in adjacent developments and whether the developer provides an interior pedestrian walkway system as an alternative to sidewalks.

Street Design Standards

Classification of Streets	Local	Collector	Arterial
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⁵The main variables in determining whether curbs should be required or what type of curb should be required are the traffic safety and storm drainage requirements specific to the street and the presence of curbing in adjacent developments. When traffic safety requirements and surrounding development permit, grassed drainage swales are often preferable to curbs from the point of view of lessening potential surface runoff problems.

B. The general standards set forth in §22-404.2.A may be modified by the Borough Planning Commission upon the recommendation of the Borough Engineer or PennDOT when an analysis of proposed development densities, provisions for off-street parking, and projected traffic volumes indicate a need for such modification. The burden of proof shall be upon the developer to justify the adequacy of rights-of-way or cartway widths which are less than those set forth in §22-404.2.A.

3. *Horizontal Curves.*

A. Whenever street centerlines are deflected more than 5 degrees within 500 feet, connection shall be made by horizontal curves.

B. Horizontal curves shall be designed to produce the following minimum sight distances:

- (1) Local streets—150 feet.
- (2) Collector Streets—300 feet.
- (3) Arterial streets—600 feet.

C. A minimum tangent of 100 feet shall be required between curves on collector and arterial streets and between a curve and a street intersection where one of the intersecting streets is a collector or an arterial street.

4. *Street Grades.*

A. There shall be a minimum centerline grade on all streets of 0.75 percent.

B. Unless approval is obtained from the Borough Planning Commission upon recommendation from the Borough Engineer, centerline grades shall not exceed the following:

- (1) Local streets—12 percent.
- (2) Collector streets—8 percent.
- (3) Arterial streets—6 percent.

C. Intersections shall be approached on all sides by leveling areas. Such leveling areas shall have a minimum length of 75 feet (measured from the intersection of the centerlines), within which no grade shall exceed a maximum of 4 percent.

5. *Vertical Curves.*

A. Vertical curves shall be used in changes of grade exceeding 1 percent.

B. Vertical curves shall be designed to produce the following minimum site distances:

- (1) Local streets—150 feet.

- (2) Collector streets—300 feet.
- (3) Arterial streets—600 feet.

6. *Street Intersections.*

A. Streets shall intersect at right angles whenever practicable. When local streets intersect collector or arterial streets, the angle of intersection at the street centerlines shall in no case be less than 75 degrees. No two streets shall intersect with an angle of intersection at the centerlines of less than 60 degrees.

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

C. Two streets intersecting a third street from opposite sides shall either intersect with a common centerline or their centerlines shall be offset according to the following distances:

- (1) The two streets shall be separated by a distance of 150 feet between centerlines measured along the centerline of the street being intersected when all three streets involved are local streets.

- (2) The two streets shall be separated by a distance of 400 feet between centerlines measured along the centerline of the street being intersected when one or more of the streets involved is a collector street.

- (3) The two streets shall be separated by a distance of 1,000 feet between centerlines measured along the centerline of the street being intersected when one or more of the streets involved is an arterial street.

D. Street curb intersections shall be rounded by a tangential arc with a minimum radius of:

- (1) Twenty feet for intersections involving only local streets.
- (2) Thirty feet for all intersections involving a collector street.
- (3) Forty feet for all intersections involving an arterial street.

E. Street right-of-way lines shall be parallel to, or concentric with, curb arcs at centerlines.

F. Clear sight triangles shall be provided at all street intersections. Within such triangles no object greater than 2½ feet in height and no other object that would obscure the vision of the motorist shall be permitted. Such triangles shall be established from a distance of:

- (1) Seventy-five feet from the point of intersection of the centerlines of two streets where both are local streets.

- (2) One hundred feet from the point of intersection of the centerlines of two streets where one is a collector street.

- (3) One hundred fifty feet from the point of intersection of the centerlines of two streets where one is an arterial street.

G. Wherever a portion of the line of such triangles occurs within the proposed building setback line, such portion shall be shown on the final plan of the subdivision and shall be considered a building setback line.

7. *Cul-de-Sacs.*

A. Dead end streets are prohibited unless designed as cul-de-sac streets or

designed for future access to adjoining properties.

B. Any dead end street which is constructed for future access to an adjoining property or because of authorized stage development, and which is open to traffic and exceeds 200 feet in length, shall be provided with a temporary, all-weather turning circle. The turning circle shall be completely within the boundaries of the subdivision and the use of the turnaround shall be guaranteed to the public until such time as the street is extended.

C. Cul-de-sac streets, permanently designed as such, shall not exceed 1,000 feet in length or shall not furnish access to more than 25 dwelling units. In the case of the industrial parks, culs-de-sac shall not furnish access to more than 100 employees. Exemptions from these requirements may be granted where necessary due to unique characteristics of the site.

D. All cul-de-sac streets, whether permanently or temporarily designed as such, shall be provided at the closed end with a fully paved turning circle. The turning circle may be offset to the left but turnarounds offset to the right shall be discouraged.

(1) If parking will be prohibited on the turning circle, the minimum radius of the right-of-way line shall be 50 feet.

(2) If parking will be permitted on the turning circle, the minimum radius to the pavement edge or curb line shall be 50 feet, and the minimum radius of the right-of-way line shall be 60 feet.

E. The centerline grade on a cul-de-sac street shall not exceed 10 percent, and the grade of the diameter of the turnaround shall not exceed 5 feet.

8. *Half Streets.*

A. The dedication of new half streets at the perimeter of a new subdivision is prohibited.

B. The subdivider shall provide the entire required right-of-way, or as much thereof as is possible, within his property, along all existing streets which traverse or abut the property.

9. *Street Names and Street Signs.*

A. Proposed streets which are in alignment with others already existing and named shall bear the name of the existing streets.

B. In no case shall the name of a proposed street duplicate an existing street name in the Borough and in the postal district, irrespective of the use of the suffix street, road, avenue, boulevard, driveway, place, court, lane, etc.

C. All street names shall be subject to the approval of the Borough Council.

D. Street signs shall be provided at the intersection of all streets. The type, height and design shall be approved by Borough Council.

(Ord. 78-4, 5/15/1978, §430)

§22-405. Sanitary Sewage Disposal.

1. The developer shall provide the most effective type of sanitary sewage disposal consistent with the Borough's official plan for sewage facilities prepared in accordance with the Pennsylvania Sewage Facilities Act (Act 537), 35 P.S. §750.1 *et seq.*, and 25

Pa.Code, Chapter 71, of the Pennsylvania Department of Environmental ~~Resources~~ Protection regulations. [A.O.]

2. The land development module, official plan supplement/revision documentation and the results of on-lot sanitary sewer as required by 25 Pa.Code, Chapters 71 and 73, of ~~DER's~~ the Department of Environmental Protection's regulations shall all be submitted by the developer as part of the subdivision/land development review process in accordance with §§22-302 and 22-303 of this Chapter. [A.O.]

3. Connection to a public sanitary sewer system shall be required where such a system is proposed by the Borough's official plan for sewage facilities, can feasibly be provided to the proposed subdivision tract and where such a system can adequately fulfill the sewage disposal needs of the subdivision or land development.

4. Where a public sanitary sewer system is not yet accessible to the site, but is planned for extension to the subdivision within a 10-year period, the developer shall install sewer lines, including lateral connections, as may be necessary to provide adequate service to each lot when connection with the sewer system is made. The sewer lines shall be suitably capped at the street right-of-way line. When capped sewers are provided, onsite disposal facilities shall also be provided. Design of the capped system shall be in accordance with the standards of the Pennsylvania Department of Environmental ~~Resources~~ Protection and shall be subject to the approval of the Borough Council. [A.O.]

5. Where a private centralized sanitary sewer system is proposed by the developer, the Borough Council must revise the official plan for sewage facilities, by resolution, indicating that the Borough has approved the system concept. A copy of the resolution shall be submitted with the preliminary plan supplemental materials. A permit for construction of a private centralized sanitary sewer system must be issued to the developer before approval of the final subdivision/land development plan. A copy of the permit shall be submitted with the final plan supplement materials.

6. In subdivision/land developments where neither connection to a public sewage system or a private centralized sewage system is contemplated, on-lot sewage disposal systems shall be provided in accordance with the Pennsylvania Sewage Facilities Act, 35 P.S. §750.1 *et seq.*, 25 Pa.Code, Chapter 73, of ~~DER~~ Department of Environmental Protection regulations and the requirements of the Borough Sewage Enforcement Officer. Results of the on-lot system tests and the requirements imposed by the Sewage Enforcement Officer for on-lot systems must be submitted with the preliminary plan supplemental materials. [A.O.]

7 Sanitary sewerage systems shall be located and/or designed to minimize flood damage and minimize or eliminate infiltration of flood waters into the system or discharges from the system into floodwaters.

8. On-lot sewage disposal systems shall be located and/or designed to avoid impairment to them or contamination from them during flooding.

(*Ord. 78-4, 5/15/1978, §440; as amended by A.O.*)

§22-406. Water Supply and Distribution Systems.³

The developer shall provide a water supply and distribution system to service the proposed subdivision through one of the following methods:

A. Connection to a public water supply system where such a system can feasibly be provided to the proposed subdivision tract and where the capacity of such a system can adequately fulfill the water supply demands of the proposed subdivision. A distribution system shall be designed to furnish an adequate supply of water to each lot. A copy of the approval document for such a system by the appropriate public authority or utility company shall be submitted with the final plan supplementary material.

B. Where a public water supply system is planned to serve the proposed subdivision within 10 years, a centralized water system will be provided by the developer where the subdivision involves 20 or more dwelling units unless the average residential lot size is one acre or larger and may be provided otherwise. Whenever such a system is provided, the water distribution lines should be dedicated to the appropriate public authority and the authority will acquire other parts of the water supply system such as wells, pumps and storage tanks that can be integrated into the public water system. This will take place after the improvements are completed so that the system can be operated by the public authority. A copy of the approval of such a system by the appropriate public authority shall be submitted with the final plan. Also, such a system shall be designed and constructed in a manner that would permit adequate connection to a public water supply system in the future. Design and construction standards for centralized water systems are set forth in Appendix 22-A.

C. Where a public water supply is not proposed within 10 years in the area of the proposed subdivision and where the average residential lot size is to be less than 1 acre, a centralized water system will be provided by the developer unless the subdivision involves less than 20 dwelling units and may be provided otherwise. Design and construction standards for centralized water supply systems are set forth in Appendix 22-A.

D. Where a centralized water system is contemplated, a feasible water supply and distribution system shall be proposed before preliminary approval of the subdivision/land development. Detailed plans and specifications for the water system shall be submitted together with final plan materials. A permit for the system must be granted by ~~Pa. DER~~ Pennsylvania Department of Environmental Protection before final approval of the subdivision/land development. [A.O.]

E. Centralized water systems shall be developed and maintained so as to meet the standards of the Pennsylvania Department of Environmental ~~Resources~~ Protection under 25 Pa.Code, Chapter 109, "Waterworks," of its rules and

³The JPC report "Privately Owned Water Supply Systems," indicates that adequate centralized water supply systems have not always been guaranteed by Pennsylvania Department of Environmental Protection and Pennsylvania Public Utility Commission regulations and enforcement procedures. Standards for centralized systems are offered in Appendix 22-A so the Borough can regulate such systems through the subdivision/land development process.

regulations and the “Public Water Supply Manual,” Bureau of Water Quality Management Publication No. 15, 2nd edition. All centralized water systems that remain privately owned shall be organized in a manner as to fall within the jurisdiction of the Pennsylvania Public Utility Commission. [A.O.]

F. Where individual on-lot well systems are to be utilized, Part 3 of ~~DER's~~ Department of Environmental Protection's “Public Water Supply Manual” should be consulted to determine general design and construction standards for water supply wells. Required separation distances between on-lot water supply systems and sewage disposal systems are contained in 25 Pa.Code, Chapter 73, of ~~DER~~ Department of Environmental Protection regulations. [A.O.]

G. Water supply systems shall be located and designed to minimize or eliminate infiltration of floodwaters.

(Ord. 78-4, 5/15/1978, §450; as amended by A.O.)

§22-407 Storm Drainage Systems.

1. Storm drainage systems shall be provided in order to:

A. Permit unimpeded flow of natural watercourses except or as modified by storm-water detention facilities required by §22-407.3 or open channels pursuant to subsection .2.H.

B. Ensure adequate drainage of all low points along the line of streets.

C. Intercept stormwater runoff along streets at intervals related to the extent and grade of the area drained.

D. Provide positive drainage away from onsite sewage disposal systems.

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

F. Prevent overloading of drainage systems and watercourses downstream as a result of increased runoff caused by the proposed development.

2. *General Requirements.*

A. A site drainage plan for the proposed subdivision tract shall be prepared which illustrates the following information:

(1) Mapping of the watershed area or areas in which the proposed subdivision is located.

(2) Calculations of runoff for all points of runoff concentration.

(3) Complete drainage systems for the subdivision. All existing drainage features which are to be incorporated in the design shall be so identified. If the subdivision is to be developed in stages, a general drainage plan for the entire subdivision shall be presented with the first stage and appropriate development stages for the drainage system shall be indicated.

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

public lands, without approved provisions being made by the developer for properly handling such conditions.

D. Storm drainage systems shall be designed to convey through the land development the peak runoff that will occur when all tributary areas upstream are developed to the extent reasonably projected during the next 40 years.⁴ The calculation of this runoff rate shall take into account the land use and development regulations, including runoff controls, in effect in the tributary areas.

E. Where a subdivision is traversed by a watercourse other than permanent streams, there shall be provided a drainage easement conforming substantially with the line of such watercourse. The width of the easement shall be adequate to provide for unimpeded flow of storm runoff based on calculations made in conformance with subsection .4 and to provide a freeboard allowance of 1½ feet above the design water surface level. The terms of the easement shall prohibit excavation, the placing of fill or structures and any alterations which may adversely affect the flow of stormwater within any portion of the easement. Also, periodic cutting of vegetation in all portions of the easement shall be required.

F. Drainage facilities that are located on State highway rights-of-way shall be approved by the Pennsylvania Department of Transportation and a letter indicating such approval shall be directed to the Borough Planning Commission.

G. All streets shall be designed so as to provide for the discharge of surface water away from their rights-of-way.

H. When it can be shown to the satisfaction of the Borough Engineer that, due to topographic conditions, natural drainage swales on the site cannot adequately provide for drainage, open channels may be constructed conforming substantially to the line and grade of such natural drainage swales. Capacities of open channels shall be calculated using the Manning equation as explained in Appendix 22-C.

I. Storm drainage facilities and appurtenances shall be so designed and provided as to minimize erosion in watercourse channels and at all points of discharge.

3. *Stormwater Detention.*

A. Stormwater detention facilities shall be used whenever increased runoff from the land development would overload drainage systems or cause significant increases in flood levels in any watercourses downstream. This will be determined by comparing the increase in runoff caused by the land development with the existing runoff rates and capacity of downstream drainage systems and watercourses.

B. Whenever detention facilities are required under subsection .3.A, facilities will be designed to provide that the peak runoff rate at all points of discharge from the site, when developed, will not exceed the peak runoff rate at each of those points prior to development unless existing or planned detention facilities located elsewhere in the same drainage basin will provide that the peak runoff rate from the drainage basin after the site is developed will not exceed the peak runoff rate prior to development. In cases where the developer is required to rely on detention

⁴The Borough Engineer may recommend a different design period.

facilities constructed by the Borough which fee will be determined by prorating the total cost of such detention facilities according to the fraction of the total storage capacity required by the development.⁵

C. Where detention facilities are included as part of the storm drainage system, the following provisions will apply:

(1) Detention ponds shall be designed so that they return to normal conditions within approximately 12 hours after the termination of the storm, unless the Borough Engineer finds that downstream conditions may warrant other design criteria for stormwater release.

D. The developer shall demonstrate that such ponds are designed, protected and located to assure that public safety is maximized and health problems are prevented.

E. The developer shall verify that the operation of the detention facilities will not aggravate potential downstream peaking conditions.

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

G. If the lands of the proposed land development will remain in common ownership, the developer shall provide written assurances to the Borough that the detention ponds will be properly maintained.

H. If the lands of the proposed land development will be conveyed to two or more separate owners, the developer shall provide written assurances to the Borough that the detention ponds will be properly maintained, or dedicate the land on which the detention ponds are located to the Borough, which shall then be responsible for maintaining the detention ponds.

4. *Calculations of Runoff and Design Storm Frequency.*

A. Storm drainage systems required by this Chapter shall be designed to provide protection from a 10- to 100-year storm as determined by the Borough Planning Commission. A 10-year design storm would be appropriate where a storm in excess of the design storm would have minor impact such as in convenience to traffic on local streets. A 100-year design storm would be appropriate where a storm in excess of the design storm would cause damage to existing or future structures or their contents.

B. Stormwater runoff from watersheds of 200 or less acres shall be calculated by the rational method as described in Manual Number 37 of the American Society of Civil Engineers. The rational method of runoff calculation is explained in Appendix 22-C.⁶

C. Stormwater runoff from watersheds of more than 200 acres shall be

⁵The part of this Section beginning with “unless existing or planned . . .” should be included only if the municipality is planning to become involved in constructing detention basins to meet detention needs on a watershed basin.

⁶The Borough Engineer may want to specify different required or alternate methods of calculating runoff. This Section is written to require use of the rational method only because it is the commonly used and accepted method in the area.

calculated using the soil cover complex method developed by the Soil Conservation Service or other appropriate method acceptable to the Borough Engineer.

D. The Manning equation explained in Appendix 22-C shall be used in calculating capacities of watercourses and storm sewers except culverts, which shall be designed using methods acceptable to the Borough Engineer.

E. Complete detailed drainage calculations certified by the design engineer shall be submitted to the Borough Engineer.

5. *Improvement Specifications.*

A. Inlets shall be designed and/or located to prevent hazardous conditions for vehicles, bicycles or pedestrians.

B. The Borough Engineer should add additional specifications which may be necessary for:

- (1) Spacing and type of inlets and manholes.
- (2) Minimum pipe sizes.
- (3) Materials and construction methods.

(Ord. 78-4, 5/15/1978, §460)

§27-408. Uderground Utilities and Utility Easements.

1. In accordance with the Pennsylvania Public Utilities Commission Investigation Docket No. 99, as amended from time to time, all electric utility distribution lines shall be installed underground in subdivisions or land developments of five or more dwelling units. In addition, the following design requirements shall be observed:

A. Established public utility and State and Federal governmental agency design standards shall be observed in preparing the utility plan.

B. Utility lines to be installed within street rights-of-way shall be located according to Borough or Borough authority requirements.

C. Whenever practicable, telephone and cable TV utilities shall be installed underground in connection with the installation of electric utility distribution lines.

D. Street lighting, where required, shall be provide at each intersection of the development and at intervals not to exceed 350 feet between intersections.

E. Utility lines shall be installed after final grading of roads, curbs, sidewalks and driveways has been established. Utility lines shall be installed at the greatest depth, being installed first.

2. *Utility Easements.*

A. Utility easements shall be provided for all utility lines servicing the abutting lots when such utility lines are installed outside street rights-of-way. No structures or trees shall be placed within such easements. The location of utility easements shall be acceptable to the appropriate public utility or Borough authority.

B. Whenever practicable within accepted safety standard, all utility lines to be installed outside street rights-of-way and shall share a common utility easement.

C. Utility easements shall be located either:

(1) Abutting the street right-of-way. In this case a minimum easement width of 10 feet shall be required.

(2) Along rear or side lot lines. In this case, a minimum easement width of 20 feet, 10 feet on each side of the lot line, shall be provided. Where the lot line coincides with the subdivision boundary, a minimum easement width of 15 feet may be required by the Borough Council.

3. *Petroleum Transmission Lines.*

A. No company intending to install any petroleum, petroleum products or natural gas transmission line shall be allowed to construct the line on less than a 50-foot right-of-way, such line to be installed in the center of the right-of-way, and shall comply with the applicable standards imposed by State and Federal laws and regulations.

B. There shall be a minimum distance of 25 feet, measured from the right-of-way line, between any proposed dwelling unit and any petroleum, petroleum products or natural gas transmission line which traverses the subdivision.

4. *Floodproofing.* Facilities for gas, electric and communication utilities shall be elevated or floodproofed to a level at least 1 foot above the 100-year flood elevation.

(Ord. 78-4, 5/15/1978, §470)

§22-409. Environmental Protection and Open Space Preservation.

1. *Erosion and Sedimentation Control.*

A. All earthmoving activities shall be conducted in such way as to prevent accelerated erosion and the resulting sedimentation.

B. No changes shall be made in the contour of the land; no grading, excavating, removal or destruction of the topsoil, trees or other vegetative cover of the land shall be commenced until a plan setting forth erosion and sedimentation control measures for the site has been developed.

C. The soil erosion and sedimentation control plan and measures used to control erosion and sedimentation shall meet the standards and specifications set forth in the Pennsylvania Department of Environmental ~~Resources~~ Protection's "Soil Erosion and Sedimentation Control Manual" and 25 Pa.Code, Chapter 102, of the rules and regulations of the Pennsylvania Department of Environmental ~~Resources~~ Protection. [A.O.]

D. All erosion and sedimentation control plans shall be submitted with the final plan as set forth in §22-303 of this Chapter.

E. Where the earthmoving activity affects 25 acres or more, the soil erosion and sedimentation control plan must be submitted to the County Conservation District, together with an application permit for an earthmoving permit for review. An earthmoving permit must be granted by the Pennsylvania Department of Environmental ~~Resources~~ Protection. [A.O.]

F. Where the earth moving activity affects less than 25 acres, the Borough Planning Commission shall require submission of the erosion and sedimentation control plan to the County Conservation District for their review and recommendations at the discretion of the Borough Planning Commission in cases

where proposed earthmoving activity may contribute to potential erosion and sedimentation problems.

2. *Natural Feature Preservation.*

A. The design and development of all subdivisions and land developments shall preserve, whenever possible, natural features which will aid in providing adequate open space for recreation and conditions generally favorable to the health, safety and welfare of the residents. Some of these natural features are the natural terrain of the site, woodland areas, large trees, natural watercourses and bodies of water, wetlands, rock out-croppings and scenic views. More detailed standards concerning the preservation of specific natural features are set forth in the following subsections.

B. *Floodplain Regulation.*

(1) A map illustrating flood elevations for the tract for a 100-year flood, where applicable, shall be submitted as part of the feasibility review materials as set forth in §22-301. The flood elevation map shall be based on the Borough Flood Insurance Rate Map (FIRM)⁷ When not available, the map shall be based on estimated 100-year flood elevation or estimated areas subject to flooding based on best available data.

(2) A developer shall adhere to the following standards within areas designated as regulatory floodways and flood fringe areas on the flood elevation map:

(a) No buildings are to be constructed in regulatory floodways. Other encroachments may be permitted provided that the encroachment will not cause any increase in the 100-year flood elevation at any point. Consideration of the effects of a proposed use shall be based on a reasonable assumption that there will be an equal degree of encroachment extending for a significant reach on both sides of the stream.

(b) Structures may be permitted in flood fringe areas provided that the lowest floor (including basement) is elevated at least 1 foot above the 100-year flood elevation and that the proposed improvements will not increase the water surface elevation of the 100-year flood by more than 1 foot at any point. The lowest floor of nonresidential structures may be constructed below the 100-year flood elevation; provided, that below this elevation the structure is watertight, with walls substantially impermeable to the passage of water and is designed with structural components having the capability of resisting forces caused by floodwaters.

C. *Lake, Stream and River Frontage Preservation.*

(1) An easement for maintenance purposes, a minimum of 20 feet in width, but in all cases, of sufficient width to provide proper maintenance, shall

⁷Possible sources of data where a FIRM is not available are Flood Plain Information Reports (Corps of Engineers), U.S.G.S. or DRBC reports, U.S.G.S. maps of floodprone areas, FIA Flood Hazard Boundary Maps and alluvial soils. Flood elevation data are not available from some of these sources. For major proposals, some independent analysis by the developer's engineer would be appropriate to estimate flood elevations.

be provided along all stream and river banks and lake shores.

(2) Lake, stream and river frontage shall be preserved as open space whenever possible. This area may be credited toward the open space requirement set forth in subsection .3.

(3) Access to the water and maintenance easement area shall be provided at intervals of not more than ½ mile. These access points shall not be less than 100 feet in width.

D. *Tree Preservation and Planting.*

(1) Trees 6 inches or more in diameter (measured at a height 4½ feet above grade) shall not be removed unless they are located within the proposed cartway or sidewalk portion of a street right-of-way or within 15 feet of the foundation area of a new building. Areas in which trees are retained shall remain at original grade level and undisturbed wherever possible.

(2) Where no existing trees are retained along street rights-of-way, trees shall be planted at intervals of between 50 and 100 feet, but in no instance shall there be less than one tree per lot.

(3) Trees shall not be retained or planted within 3 feet of the street curb or the sidewalk. Trees may be retained or planted between the street curb and the sidewalk if there is a minimum distance of 6 feet.

(4) For all commercial, industrial, planned residential, mobile home park and multifamily developments a landscape plan shall be developed. The plan shall show the plant cover which exists, and on the same or separate sheet, that which will exist when the landscaping is completed.

(5) The landscape plan shall include trees in addition to those required along the street right-of-way. The following standards are to be used as a guide to the number, not the spacing or location, of additional trees required:

(a) One tree per dwelling unit.

(b) One tree per 50 linear feet of interior street.

E. *Topography.* The natural terrain of the proposed subdivision tract will be retained wherever possible with cut and fill operations being kept to a minimum. Areas with slopes greater than 15 percent shall generally not be planned for developed uses. If such land is planned for development, the natural slope of the building site or sites shall be 15 percent or less. The building site shall be at least 50 feet by 80 feet.

F. *Topsoil Protection.* Topsoil shall not be removed from the development site or used as fill. Topsoil shall be removed from the areas of construction and stored separately. The topsoil shall be stabilized to minimize erosion during storage. Upon completion of the construction, topsoil must be uniformly redistributed on the site.

3. *Open Space and Recreation Areas.*

A. In proposed subdivisions which are intended to provide housing for more than 50 families, Borough Council, upon recommendation of the Borough Planning Commission, may require that the developer dedicate land for open space and recreation in accordance with the following guidelines:

Families to be Served	Minimum Open Space and Recreation Acreages
50-174	3.0
175-374	5.5
375-624	6.5
625-800	8.0
For each additional 175 families	1.5

B. Where a neighborhood recreation facility exists or is planned within ½ mile of all homes within the proposed subdivision, and where the recreation area adequately fulfills the recreational needs of the residents of the proposed subdivision, cash in lieu of open space dedication may be accepted at the discretion of Borough Council. The cash in lieu of open space dedication must be used for the purchase or development of the neighborhood recreational area.

C. In proposed subdivisions intended to provide housing for less than 50 families, cash in lieu of open space dedication may be required by the Borough Council and must be used for recreational purposes in accordance with the standards set forth in subsection .3.B.

D. Where cash in lieu of open space dedication is required, the amount of such fee shall be based upon the fair market value of the amount of land which would otherwise be required to be dedicated in accordance with the standards set forth in subsection .3.B.

E. Fair market value shall be determined at which time the final subdivision or land development plan is submitted to the Borough Planning Commission and in accordance with the following:

- (1) The fair market value as determined by Borough Council as based upon current appraisals.
- (2) If the developer objects to such amount of evaluation he may, at his expense, obtain an appraisal of the property by a qualified real estate appraiser approved by Borough Council, which appraisal may be accepted by Borough Council if found reasonable.
- (3) The Borough Council and the developer may agree as to the fair market value.

(Ord. 78-4, 5/15/1978, §490; as amended by A.O.

Part 5**Improvement Specifications****§22-501. General Requirements.**

1. Physical improvements to the subdivision/land development tract shall be provided, constructed and installed as shown on the record plan, in accordance with the requirements of the Borough Council.

2. As a condition to review of a final plan by the Borough Planning Commission, the developer shall agree with the Borough Council as to installations of all improvements shown on the plan and required by this Chapter. Before the record plan may be endorsed by the Borough Council, the developer shall submit a completed and executed original copy of the subdivision improvements agreements and performance and maintenance guarantees in the amount required by §22-503.

3. All improvements installed by the developer shall be constructed in accordance with the design specifications of the Borough Council. The Borough Council shall instruct the Borough Engineer to prepare improvement specifications for a required improvement in cases where no applicable municipal specifications exist.

4. Supervision of the installation of those improvements required by §22-502, following, shall in all cases be the responsibility of the Borough Council and Borough Engineer.

(Ord. 78-4, 5/15/1978, §500)

§22-502. Required Improvements.

Improvements shall be provided, constructed and installed by the developer as stated in the improvements agreement, shown on the record plan, and in accordance with the design standards set forth in Part 4 of this Chapter. The following improvements will be required in all applicable cases:

A. Street excavating, grading, subgrade preparation, base course paving and surface course paving, installed according to Borough specifications.

B. Concrete curbing of the vertical type, the rolled curb or gutter type or stabilized shoulder and drainage swale with no curbing, installed according to Borough specifications.

C. Concrete sidewalks or interior walkways installed according to Borough specifications.

D. Sanitary sewer system improvements installed according to the specification of the Borough, the appropriate government authority and the Pennsylvania Department of Environmental ~~Resources~~ Protection. [A.O.]

E. Water supply and distribution system improvements installed according to the specifications of the Borough, the appropriate governmental authority and Pennsylvania Department of Environmental ~~Resources~~ Protection. [A.O.]

F. Storm drainage system improvements installed according to Borough specifications.

G. Improvements installed to control soil erosion and sedimentation installed according to the specifications of the Pennsylvania Department of Environmental Resources Protection. [A.O.]

H. Monuments and markers installed according to Borough specifications.

I. Fire hydrants installed according to the specifications of the Borough and the appropriate government authority.

J. Street lights in accordance with conditions to be agreed upon by the developer, the Borough Council and the appropriate public utility.

K. Street signs installed according to Borough specifications.

L. Shade trees planted according to Borough specifications.

(Ord. 78-4, 5/15/1978, §510; as amended by A.O.)

§22-503. Improvements Guarantee Procedure.

1. Before the Borough Council approves any final plan and as a prerequisite for approval, the developer shall deliver to the Borough Council a performance guarantee in the amount of ~~120 percent~~ 110 percent of the cost of all improvements required by this Chapter, as estimated by the Borough Engineer, in a form and with a surety approved by the Borough Solicitor, guaranteeing the construction and installation of all such improvements within a stated period which shall not be longer than 1 year from the date of final subdivision approval. Upon written application signed by both the obligor and surety of a performance guarantee, in a form approved by the Borough Solicitor, the Borough Council may, at their discretion, extend said period by not more than 3 additional years or, when the improvements have been partially completed, reduce proportionally the amount of the performance guarantee by formal resolution. In the event of default under a performance guarantee, the proceeds of the performance guarantee received by the Borough shall be used to construct and install improvements.

2. Before Borough Council approves any final plan, and as a prerequisite for approval, the developer shall deliver to Borough Council a maintenance guarantee in an amount of not less than 5 percent nor more than 15 percent of the Borough Engineer's estimate of the cost of all improvements required by this Chapter, guaranteeing that the developer shall maintain such improvements in good condition for a period of 1 year after completion of construction and installation of all such improvements and approval of all such improvements by Borough Council.

(Ord. 78-4, 5/15/1978, §520; as amended by A.O.)

§22-504. Approval of Improvements and Release of Performance Guarantee by Borough Council.

1. When the developer has installed or constructed all required improvements as set forth in §22-602, the developer shall notify the Borough Council, in writing, by certified or registered mail, of the completion of the aforesaid improvements and shall send a copy thereof to the Borough Engineer. The Borough Council shall, within 10 days after receipt of such notice, direct and authorize the Borough Engineer to inspect all of the aforesaid improvements. The Borough Engineer shall, thereupon, file a report, in writing, with the Borough Council, and shall promptly mail a copy of the same to the developer by certified or registered mail. The report shall be made and mailed within

30 days after receipt by the Borough Engineer of the aforesaid authorization from the Borough Council; said report shall be detailed and shall recommend approval or rejection of said improvements, either in whole or in part, and if said improvements, or any portion thereof, shall not be recommended for approval by the Borough Engineer, said report shall contain a statement of reasons for such nonapproval or rejection.

2. The Borough Council shall notify the developer, in writing, by certified or registered mail, of the action of said Borough Council with relation thereto.

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

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

5. Nothing herein, however, shall be construed in limitation of the developer's right to contest or question, by legal proceedings or otherwise, any determination of the Borough Council or the Borough Engineer.

6. In the event that any improvements which may be required have not been installed as provided in this Chapter or in accord with the approved final plan the Borough Council is hereby granted the power to enforce any corporate bond or other security by appropriate legal and equitable remedies. If proceeds of such bond or other security are insufficient to pay the cost of installation or making repairs or corrections to all improvements covered by said security, the Borough Council 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 monies 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 purpose.

(Ord. 78-4, 5/15/1978, §530)

Part 6**Administration****§22-601. Amendments.**

Amendments to this Chapter shall become effective only after a public hearing held pursuant to public notice in the manner prescribed for enactment of a subdivision and land development ordinance by the Pennsylvania Municipalities Planning Code, 53 P.S. §10101 *et seq.* In addition, in case of an amendment other than that prepared by the Planning Commission, the Borough Council shall submit each such amendment to the Planning Commission for recommendations at least 30 days prior to the date fixed for the public hearing on such proposed amendment.

(Ord. 78-4, 5/15/1978, §600)

§22-602. Appeals.

The decisions of the Borough Planning Commission with respect to the approval or disapproval of subdivision land development plans may be appealed directly to court in the same manner and within the same time limit as is provided for zoning appeals in Article X of the Pennsylvania Municipalities Planning Code, 53 P.S. §10101 *et seq.*

(Ord. 78-4, 5/15/1978, §610)

§22-603. — Penalties.

~~— Any person, partnership or corporation who or which being the owner or agent of the owner of any lot, tract or parcel of land shall lay out, construct, open or dedicate any street, sanitary sewer, storm sewer, water main or other improvements for public use, travel or other purposes or for the common use of occupants of buildings abutting thereon, or who sells, transfers or agrees or enters into an agreement to sell any land in a subdivision or land development whether by reference to or by other use of a plan of such subdivision or land development or otherwise, or erect any building thereon, unless and until a final plan has been prepared in full compliance with the provisions of this Chapter and of the regulations adopted hereunder and has been recorded as provided herein, shall be guilty of a misdemeanor and upon the conviction thereof, such person, or the members of such partnership, or the officers of such corporation or the agent of any of them, responsible for such violation pay a fine not exceeding \$100 per lot or parcel or per dwelling within each lot or parcel. All fines collected for such violations shall be paid over to the Borough Council. The description by metes and bounds in the instrument of transfer or other document used in the process of selling or transferring shall not exempt the seller or transferor from such penalties or from the remedies herein provided.~~

~~(Ord. 78-4, 5/15/1978, §620)~~

§22-603. Enforcement Remedies.

1. Any person, partnership or corporation who or which has violated 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 district justice. 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.

2. The Court of Common Pleas, upon petition, may grant an order of stay, upon cause shown, tolling the per diem judgment pending a final adjudication of the violation and judgment.

3. Nothing contained in this Section shall be construed or interpreted to grant to any person or entity other than the Borough the right to commence any action for enforcement pursuant to this Section.

4. District justices shall have initial jurisdiction in proceedings brought under this Section.

(Ord. 78-4, 5/15/1978, §620; as amended by A.O.

§22-604. Preventive Remedies.

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 herein provided.

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 this Chapter. 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.

3. 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 any such real property, the Borough may require compliance with the conditions that would have been applicable to the property at the time the applicant acquired an interest in such real property.

(Ord. 78-4, 5/15/1978; as added by A.O.)

§22-605. Validity and Conflicts.

1. Should any action or provisions of this Chapter be declared by the courts to be invalid, such decision shall not affect the validity of the Chapter as a whole, nor the validity of any other Section or provision of the Chapter than the one so declared.

2. Whenever there is a conflict between minimum standards or requirements set forth in this Chapter and those contained in other Borough ordinances and regulations; or other applicable laws and regulations, the most stringent standard or requirement shall apply.

(Ord. 78-4, 5/15/1978, §630)

§22-606. Fees.

1. The Borough Council shall establish, by resolution, a collection procedure and schedule of fees to be paid by the developer at the time of filing of the preliminary and final plans.

2. Charges for field inspection shall be established on the basis of the number of lots to be inspected in the case of a subdivision or the total acreage of the tract in the case of a land development.

3. No final plan shall be approved unless all fees and charges are paid in full.

(Ord. 78-4, 5/15/1978, §640)

Part 7**Definitions****§22-701. General.**

Unless otherwise expressly stated, the following terms shall, for the purpose of these regulations, have the meaning indicated:

- A. Words in the singular include the plural and those in the plural include the singular.
- B. Words in the present tense include the future tense.
- C. The words “person,” “developer,” “subdivider” and “owner” include a corporation, unincorporated association, a partnership or other legal entity as well as an individual.
- D. The word “building” includes structure and shall be construed as if followed by the phrase “or part thereof.”
- E. The words “should” and “may” are permissive; the words “shall” and “will” are mandatory and directive.

(Ord. 78-4, 5/15/1978, §700)

§22-702. Specific Definitions.

Other terms or words used herein shall be interpreted or defined as follows:

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

Block—property bounded on one side by a street and the other three sides by a street, railroad right-of-way, waterway, unsubdivided area or other definite barrier.

Building, accessory—a detached subordinate building, the use of which is customarily incidental and subordinate to that of the principal building and which is located on the same lot as that occupied by the principal building.

Building, principal—a structure enclosed within exterior walls or fire walls; built, erected, and framed of component structural parts; designed for the housing, shelter, enclosure and support of individuals, animals or property of any kind; main structure on a given lot.

Building setback line—the line within a property defining the minimum required front yard distance between any building to be erected, and an adjacent right-of-way.

Clear sight triangle—an area of unobstructed vision at street intersections defined by lines of sight between points at a given distance from the intersection of the street centerlines.

Common open space—a parcel or parcels of land, an area of water or a combination of land and water within a development site designed and intended for the use of street parking area, private yard space and areas set aside for nonresidential and public facilities. Common open space shall be substantially free of structures, but may contain such improvements as are appropriate for

recreational use by the residents.

Comprehensive Plan—the maps, charts and textual material adopted by the Council of Troy Borough in accordance with the Pennsylvania Municipalities Planning Code, 53 P.S. §10101 *et seq.*, and designated, as a whole and in its several parts, as a comprehensive plan for the continuing development of Troy Borough.

County Planning Commission—

Cut—an excavation. The difference between a point on the original ground and a designated point of lower elevation on the final grade. Also, the material removed in excavation.

Designated municipal official—the Borough official charged by the Borough Council with the responsibility of administering the subdivision application submission procedure.

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

Double or reverse frontage lot—a lot extending between and having frontage on two generally parallel streets with vehicular access from only one street.

Dwelling unit—any structure, or part thereof, designated to be occupied as living quarters as a single housekeeping unit.

Easement—a right-of-way granted, but not dedicated, for limited use of private land for a public or quasi-public purpose, and within which the owner of the property shall not erect any permanent structures, but shall have the right to make any other use of the land which is not inconsistent with the right the grantee.

Engineer—a professional engineer licensed as such in the Commonwealth of Pennsylvania.

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

Flood, 100-year—the flood having a 1 percent chance of being equaled or exceeded in any given year.

Flood fringe—floodprone areas which are not designated as a regulatory floodway on the flood boundary and floodway map in the Borough's flood insurance study prepared by the Flood Insurance Administration.

Floodplain—the area along a natural watercourse which is periodically inundated by water therefrom.

Floodway, regulatory—the channel of a watercourse and the adjacent land areas that must be reserved in order to discharge the 100 flood. The regulatory floodway is designated on the Flood Boundary and Floodway Map of the Borough's Flood Insurance Study prepared by the Flood Insurance Administration.

Improvements—those physical additions and changes to the land that may be necessary to produce usable and desirable lots.

Land Development:

~~(1) The improvement of one or more contiguous lots, tracts or parcels of land for any purposes involving (i) a group of two or more buildings, or (ii) the division or allocation of land between or among two or more existing or~~

~~prospective occupants by means of, or for the purpose of, streets, common areas, leaseholds, building groups or other features.~~

~~(2) A division of land into lots for the purpose of conveying such lots singly or in groups to any person, partnership or corporation for the purpose of the erection of buildings by such persons, partnership or corporation.~~

~~*Land development*—any of the following activities:~~

~~(1) The improvement of one lot 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; or,~~

~~(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;~~

~~(2) A subdivision of land.~~

~~(3) “Land development” does not include development which involves:~~

~~(a) The conversion of an existing single-family detached dwelling or single-family semidetached dwelling into not more than three residential units, unless such units are intended to be a condominium.~~

~~(b) The addition of an accessory building, including farm building, on a lot or lots subordinate to an existing principal building; or,~~

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

[A.O.]

Landowner—the legal or beneficial owner or owners of land including the holder of an option or contract to purchase (whether or not such option or contract is subject to and condition), a lessee having a remaining term of not less than 40 years or other person having a proprietary interest in land, shall be deemed to be a landowner for the purpose of this Chapter.

Lot—a parcel of land intended for transfer of ownership, use, development or improvement and/ or dedication.

Lot area—the area contained within the property lines of a lot (as shown on the plan), excluding space within all streets and within all permanent drainage easements, but including the areas of all other easements.

Maintenance guarantee—any security which may be accepted by Borough Council to insure that improvements will be kept in good condition for a period of 1 year after completion of construction and installation, including corporate bonds,

escrow agreements and other similar collateral or surety agreements.

Marker—a metal pipe or pin of at least 1 inch outside diameter and at least 30 inches in length.

Mobile home park—a parcel of land under single ownership which has been planned and improved for the placement of two or more mobile homes, occupied for dwelling and for nontransient use.

Monument—a stone or concrete monument with a flat top at least 4 inches in diameter or square. It is recommended that the bottom sides or radius be at least 2 inches greater than the top to minimize movements caused by frost. The monument should contain a copper or brass dowel and be at least 30 inches in length.

Municipality—the Borough of Troy.

Official map—the Borough map adopted by ordinance showing exact locations of existing and proposed lines for public streets, watercourses and public grounds, including widenings, narrowings, extensions, diminutions, opening or closing of same for the entire Borough.

Official plan, sewage facilities—a comprehensive plan for the provision of adequate sewage systems adopted by the Borough or municipalities possessing authority or jurisdiction over the provision of such systems and submitted to and approved by the State Department of Environmental ~~Resources~~ Protection, as provided by the Pennsylvania Sewage Facilities Act, and 25 Pa.Code, Chapter 71, Rules and Regulations, promulgated thereunder. [A.O.]

Pavement width (roadway)—the portion of a street right-of-way, generally paved, intended for vehicular use.

Performance guarantee—any security which may be accepted by the Borough Council to guarantee that the proper construction of improvements be made by the developer as a condition for the approval of the plan, including corporate bonds, escrow agreements and other similar collateral or surety agreements.

Plan, feasibility review—an initial submission, by the developer, of maps and other materials analyzing the natural features of the site as they relate to its development potential. The proposed concept for development of the tract is included in the submission.

Plan, final—a complete and exact plan, with professional engineer's seal affixed and prepared for official recording as required by this Chapter, to define property rights, streets and other proposed improvements.

Plan, preliminary—a tentative plan, in lesser detail than the final plan, showing proposed street and lot layout and such other information as required by this Chapter.

Planned residential development—an area of land, controlled by a landowner, to be developed as a single entity for a number of dwelling units, the development plan for which does not correspond in lot size, bulk or type of dwelling, density, lot coverage and required open space to the regulations established in any one residential district created from time to time under the Zoning Ordinance of Troy Borough [Chapter 27]. ~~Development of planned residential developments is regulated by the Planned Residential Development Ordinance of Troy Borough.~~

[A.O.]

Resubdivision—any replatting or resubdivision of land, limited to changes in lot lines on approved final plans or recorded plans as specified in this Chapter. Other replattings shall be considered as constituting a new subdivision of land. See also “subdivision.”

Right-of-way—the total width of any land reserved or dedicated as a street, sidewalk, or for other public or quasi-public purposes.

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.

Sanitary sewage disposal, centralized—a sanitary sewage collection system in which sewage is carried from individual lots by a system of pipes to a central treatment and disposal plant, commonly called a “package treatment plant,” generally serving a single land development subdivision or neighborhood and operated by a governmental agency, governmental authority, public utility company or developer.

Sanitary sewage disposal, public—a sanitary sewage collection system in which sewage is carried from individual lots by a system of pipes to a central treatment and disposal plant, generally serving a major portion of a municipality or municipalities, and operated by a governmental agency governmental authority or public utility company.

Sanitary sewage disposal, on-lot—any structure designed to treat sanitary sewage within the boundaries of an individual lot.

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.”

Sight distance—the required length or roadway visible to the driver of a motor vehicle at any given point on the roadway when the view is unobstructed by traffic. Sight distance measurements shall be made from a point 4.5 feet above the centerline of the road surface to a point 0.5 feet above the centerline of the road surface.

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

Street—a strip of land, including the entire right-of-way (i.e., not limited to the cartway), intended for use as a means of vehicular and pedestrian circulation to provide access to more than one lot. The word “street” includes street, avenue, boulevard, road, highway, freeway, parkway, alley, viaduct and any other ways used or intended to be used by vehicular traffic or pedestrians, whether public or private. Streets are further classified according to the functions they perform:

Arterial street—a street serving a large volume of comparatively high-speed and long distance traffic, including all facilities classified as main and secondary highways by the Pennsylvania Department of Transportation.

Collector street—a street which, in addition to providing access to abutting properties, intercepts local streets to provide a route giving access to

community facilities and other collector and arterial streets (streets in industrial and commercial subdivisions shall generally be considered collector streets).

Cul-de-sac street—a local street intersecting another street at one end and terminating in a vehicular turn-around.

Half (partial) street—a street generally parallel and adjacent to a property line, having a lesser right-of-way width than normally required for improvement and use of the street.

Local street—a street used primarily to provide access to abutting properties.

Marginal access street—a local street, parallel and adjacent to a major street (but separated from it by a reserve strip), which provides access to abutting properties and control of intersections with the major street.

Service street (alley)—a minor right-of-way providing secondary vehicular access to the side or rear of two or more properties.

Storm drainage systems—all facilities and features such as pipes, culverts, open channels, ditches, swales, stormwater detention facilities, etc., used to transmit or temporarily store surface water runoff.

Stormwater detention facilities—basins, ponds, ponding areas, depression or other structures or features used to temporarily store rainfall and release it at a controlled rate.

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

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

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

Surveyor—a licensed surveyor registered by the Commonwealth of Pennsylvania.

Swale—a low lying stretch of natural or manmade land which gathers or carries surface water runoff.

Testing on-lot sanitary sewer systems—soil tests and percolation tests conducted by the Borough Sewage Enforcement Officer in compliance with 25 Pa.Code, Chapter 73, of Pennsylvania Department of Environmental Resources Protection

regulations and in order to determine whether a permit may be issued for installation of on-lot sewage disposal system. [A.O.]

Topsoil—surface soils and subsurface soils which presumably are fertile soils and soil material, ordinarily rich in organic matter or humus debris. Topsoil is usually found in the uppermost soil layer called the “A Horizon.”

Water supply and distribution system, centralized—a system for supplying and distributing water from a common source to two or more dwellings and other buildings, generally serving a single land development, subdivision or neighborhood and operated by a governmental agency, governmental authority, public utility company or a developer.

Water supply and distribution system, on-lot—a system for supplying and distributing water to a single dwelling or other building from a source located on the same lot.

Water supply and distribution system, public—a system for supplying and distributing water from a common source to dwellings and other buildings, generally serving a major portion of a municipality or municipalities and operated by a governmental agency, governmental authority or public utility company.

Watercourse—a permanent stream, intermittent stream, river, brook, creek, channel, swale or ditch for water, whether natural or man-made.

(Ord. 78-4, 5/15/1978, §710; as amended by A.O.)

Appendix 22-A

Design and Connection Standards for Centralized Water Systems

1. *General Requirements.*

A. Centralized water systems shall be developed and maintained so as to meet the standards of the Pennsylvania Department of Environmental ~~Resources~~ Protection under 25 Pa.Code, Chapter 109, “Waterworks,” of its rules and regulations and the “Public Water Supply Manual,” Bureau of Water Quality Management Publication No. 15, 2nd edition. All centralized water systems shall be organized in such a manner as to fall within the jurisdiction of the Pennsylvania Public Utility Commission. [A.O.]

B. Where a centralized water system is contemplated in a new subdivision or land development, a feasible water supply and distribution system shall be proposed before preliminary approval of the subdivision or land development. Detailed plans and specifications for the water system shall be submitted to and approved by the Borough Engineer before final approval. A permit for the system must be granted by ~~Pa. DER~~ Pennsylvania Department of Environmental Protection before final approval. [A.O.]

2. *Water Supply.*

A. *Quantity.*

(1) The water supply shall be drawn from an adequate and reliable source which can supply, in combination with storage facilities, the water demands of the proposed service area at all times. The water source, in combination with storage facilities, shall be capable of meeting fire flow demands according to §2.C of this Appendix as well as average daily consumption, except that in systems not required to provide fire flow, the source, in combination with storage facilities, shall be capable of meeting the peak hour demand.

(2) The water source shall be capable of supplying 110 gallons per day per person (GPCD) and 400 GPD per dwelling unit for the design population of the development or the service area. Testing procedures to determine the reliable capacity of the water source are set forth in Part 4 of this Chapter.

(3) Water service to commercial or industrial developments shall demonstrate adequacy to meet projected demand from the specific project.

B. *Quality.* Source shall conform to the quality requirements of the ~~Pa. DER~~ Pennsylvania Department of Environmental Protection, as set forth in their “Public Water Supply Manual,” Bureau of Water Quality Management Publication No. 15, §2.2. Treatment of the water supply shall be done in accordance with requirements set forth in the “Public Water Supply Manual,” Parts 4 through 12. [A.O.]

C. *Reliability Criteria.* All utilities shall have a standby pump or pumps adequate to insure that the system can operate normally with the largest pump out of service. In addition, the following storage and equipment requirements shall be met by centralized water supply systems according to the size of the system.

(1) Small utilities servicing less than 50 customers shall have sufficient storage facilities to supply demand for a 24-hour time period with the source

cut off.

(2) Utilities serving greater than 50 but less than 100 customers shall maintain a minimum distribution storage capability of 100 percent the maximum 24-hour demand.

(3) Utilities serving greater than 100 but less than 200 customers shall maintain a minimum distribution storage capacity of 100 percent of the maximum 24-hour demand and an auxiliary power generation source.

(4) Utilities servicing greater than 200 customers shall provide elevated storage facilities of sufficient capacity to meet National Insurance Services Office recommendations for fire protection, shall provide fire hydrants and shall meet design standards of the American Water Works Association.

The NISO minimum requirements for low or medium value residential and commercial areas are indicated in the table below:

Zone	Rated Capacity GPM	Time Duration (Hours)	Residual Pressure at Rated Capacity
Residential	500	2	20 PSI
Commercial	1,000	2	20 PSI

3. *Distribution Systems.*

A. *Acceptable Pipe Materials.* Pipe selected for distribution systems shall have been manufactured in conformance with the latest standard specifications issued by the American Water Works Association. The following are generally acceptable materials for water main use:

- (1) Cast iron pipe (cement lined).
- (2) Ductile iron pipe (cement lined).
- (3) Steel pipe (for large size mains).
- (4) Reinforced concrete pipe (for large size mains).

B. *Main Sizes.* Water distribution mains shall be a minimum of 6 inches inside diameter laid out in a well-gridded system. Whenever fire protection capability is provided, main sizes shall be adequate so the system can meet the water quantity and pressure standards in §§2.A and .2.C of this Appendix. Supply mains not adequate for firefighting shall not be connected to fire hydrants and can only be considered for use as special water service lines.

C. *Water Pressure.* A minimum static pressure during peak hourly flow of 50 pounds per square inch is desirable, but the minimum static pressure during peak hourly flow shall not be less than 30 pounds per square inch. A minimum of 20 pounds per square inch should exist at any point in the system during periods of fire flow.

D. *Customer Connections.*

(1) All service connections from the main to a single dwelling unit shall be a minimum of 1 inch ID. The diameter of service connections to multiple units shall meet the approval of the Borough Engineer.

(2) Customer service connections shall be one of the approved materials for mains. Heavy wall copper may be used for service connections where soils are not permeated or subject to acidic ground drainage waters.

(3) A curb stop shall be furnished for each customer service connection.

(4) *Cross Connections.* A cross connection is any physical connection, direct or indirect, which provides a potential opportunity for nonpotable water to enter a conduit, pipe or receptacle containing potable water. Such cross connections are prohibited.

E. *Leakage Test.*

(1) No installation shall be approved until the leakage is less than the number of gallons per hour as determined by the formula:

$$L = \frac{ND\sqrt{P}}{3700}$$

where: L = allowable leakage in gallons per hour.

N = number of joints in the length of the pipe tested.

D = nominal diameter of the pipe in inches.

P = the average test pressure during test.

(2) Leakage tests are conducted by measuring the amount of water which enters the test section under normal working pressures for a period of at least 2 hours.

4. *Water Storage and Pumping Stations.*

A. Storage for finished water should be provide as an integral part of each water supply system. Standards set forth in Part 14 of the “Public Water Supply Manual; Tanks, Standpipes and Pressure Tanks,” shall be used in designing storage systems. Equipment selected shall have been manufacture in conformance with the latest standards and specifications issued by the American Water Works Association.

B. Pumping stations within centralized water systems shall comply with the standards and specifications set forth in Part 13 of the ~~Pa-DEP~~ Pennsylvania Department of Environmental Protection “Public Water Supply Manual.”

5. *Water Well Construction and Location.*

A. Well construction shall take place according to the standards set forth in Part 3 of the ~~Pa-DEP~~ Pennsylvania Department of Environmental Protection “Public Water Supply Manual.” [A.O.]

B. The centralized water system well source shall be centrally located within an open space water protection zone a minimum of 1 acre in size. No structure other than water system pumping stations, standpipes, etc., shall be located within the protected zone. No on-lot sewage disposal system shall be constructed within 200 feet of the water source well.

6. *Well Capacity Testing Procedures.*

A. A dynamic recovery rate and draw-down test shall be conducted to determine the capacity and safe daily yield of the well source. Test procedures shall be conducted as follows:

(1) Water pump, capable of variable output, having sufficient capacity to

exceed the dynamic recovery rate of the water source shall be employed or said test. It is recommended that the capacity of the source pump be such that draw-down to within 20 feet of the source pump be achieved in a maximum of 3 hours.

(2) A suitable calibrated water meter capable of measuring the water output shall be connected to the water source pump outlet.

(3) The exact location of the water source pump with respect to the bottom of the well shall be recorded and maintained constant for the duration of the test.

(4) The water source pump shall be operated at maximum capacity and output for the first 6 hours of the test or until the water level in the source well reaches a point 20 feet above the water source pump. The elapsed time and rate of pumping shall be recorded at 60-minute intervals on the log data sheet form supplied.

(5) Draw-down of the source well in feet shall be recorded at 60-minute intervals as well as the water draw-down of any required peripheral test hole wells⁸ on the log data form.

(6) Reduce the maximum rate of pumping by 10 gallons per minute (GPM) and continue pumping for the next 2 hours of test or until the water level reaches a point 20 feet above the water source pump. The elapsed time, rate of pumping and draw-down of the source well and, where required, the peripheral test hole wells shall be recorded on the log data forms at 60-minute intervals.

(7) Continue the above procedure using the 2-hour time periods or the criteria of water level above the source pump until the conditions are such that the dynamic recovery rate of the water source equals the pumping rate (dynamic equilibrium). The Borough Engineer may increase the increment of GPM reduction where onsite review of the data warrants such action. Note, as the dynamic recovery rate is approached, the increment of GPM reduction will need to be reduced from 10 GPM to 8 GPM to 5 GPM—to n GPM → 0. At this point, no detectable change in draw-down will occur. If any change in draw-down is detected, either plus or minus, dynamic equilibrium has not been achieved.

(8) When said dynamic recovery rate is reached, record elapsed time, pumping rate and draw-down on log data sheet and continue pumping at this rate for the remainder of the 72-hour test time or a minimum of 24 hours, whichever is the greater time. Elapsed time, pumping rate and draw-down of the source well, and where required, the peripheral test wells, shall be recorded hourly.

(9) Measurements of static water level recovery shall be made on the source well and peripheral test hole wells, where required. Measurements

⁸Peripheral test hole wells may be required in order to determine the area of influence of the source well and the capacity of the source well aquifer. Peripheral test hole wells will generally be required in geological areas with slate and shale formations. The test hole wells shall be situated according to Figure 22-1 and have a minimum diameter of 6 inches.

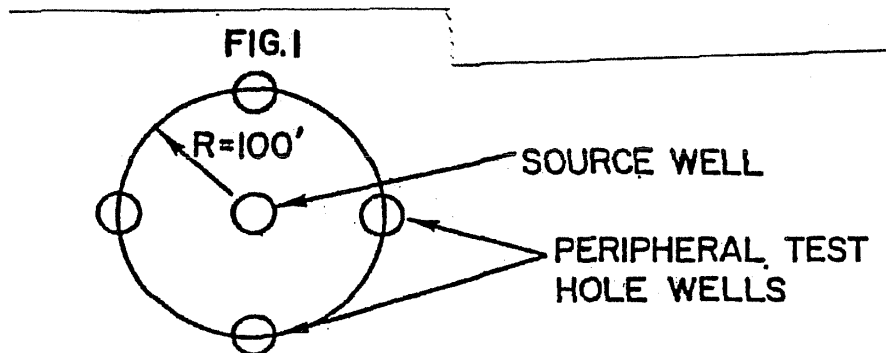
shall be taken hourly and the data recorded for a minimum time period of 24 hours upon cessation of the dynamic recovery rate test.

(10) Calculations of specific capacity and safe daily yield of the source well shall be submitted to the Borough Engineer and the ~~PDER~~ Pennsylvania Department of Environmental Protection by the registered professional engineer employed by the utility or developer for review and analysis. [A.O.]

7. *Improvements Requirements.*

A. Where a centralized water system is to be installed within a proposed subdivision or land development, the improvement procedures and requirements set forth within this Chapter shall be followed. Improvements, agreements, guarantees, inspections and guarantee releases shall include consideration of the centralized water company in carrying out the procedures and requirements of this Chapter.

B. Final specifications for the design and installation of the centralized water system shall be included as part of the improvements agreement between the developer and the Borough Council. Final approval of the subdivision or land development plan shall not take place until such specifications are finalized within the improvements agreement and until the necessary improvements and maintenance grantees are posted. Engineering review of the specifications for the water system by an engineer shall take place before signing of the improvements agreement and before approval of the final development plan.



(Ord. 78-4, 5/15/1978, Appendix A; as amended by A.O.)

