

## ARTICLE IV

### PLAN REQUIREMENTS

#### **Section 401 SKETCH PLAN**

Sketch Plans may be drawn by the landowner, subdivider or developer, or by his engineer, surveyor or agent and should include sufficient data to make a discussion with the Township Planning Commission meaningful. Sketch plans shall contain the following information drawn legibly to scale but not necessarily showing precise dimensions:

- A. Tract boundaries accurately labeled with the name(s) of adjacent landowner(s) and adjacent plan(s) of record.
- B. Name and address of the developer (if applicable) and landowner.
- C. Name of the individual and/or the firm that prepared the plan.
- D. Name of the municipality in which the subdivision/land development is located.
- E. North point, scale (written and graphic) and date.
- F. Name of proposed subdivision or other identifying title.
- G. Significant topographical and physical features including bodies of water, quarries, floodplains, soil types, and tree masses and existing vegetation, structures, and suspected wetlands (as determined from the Berks County Soil Survey, National Wetland Inventory Maps or DEP).
- H. Proposed general street and lot layout.
- I. A location map with sufficient information to enable the location of property.
- J. Statement of total acreage of the tract being subdivided or developed.
- K. Proposed land use; if several land uses are proposed, the location of each land use shall be indicated.
- L. Statement explaining the methods of water supply and sewage disposal to be used.

#### **SECTION 402 PRELIMINARY PLAN**

Preliminary subdivision plans and/or land development plans shall be prepared by a registered professional. Such plans shall be prepared in accordance with the "Engineer, Land Surveyor and Geologist Registration Law", except that this requirement shall not preclude the preparation of a plan in accordance with the "Landscape Architect's Registration Law", when it is appropriate to prepare the plan using professional services as set forth in the definition of the "practice of landscape architecture" under Section 2 of that act. The preliminary plan shall show, be accompanied by, or be prepared in accordance with the following:

- A. Drafting Standards.

1. The Preliminary Plan shall be clearly and legibly drawn by a registered professional, to a scale of one inch equal fifty feet, except that:
  - a. If the average size of the proposed lots in the subdivision is two acres or larger, the plan may be drawn to a scale of one inch equals one hundred feet.
2. Dimensions shall be in feet and decimals; bearings shall be in degrees, minutes and seconds. Lot line descriptions shall read in a clockwise direction.
3. The survey shall not have an error of closure greater than one (1) foot in ten thousand (10,000) feet.
4. Preliminary Plans and all submitted prints thereof shall be made on sheet from 18 inches by 24 inches to 36 inches by 48 inches. If the plan is prepared in two (2) or more sections, a key map showing the location of the sections shall be placed on each sheet. If more than one (1) sheet is necessary, each sheet shall be the same size and numbered to show the relationship to the total number of sheets in the plan (e.g. Sheet 1 of 5).
5. Plans shall be legible in every detail.

B. Location and Identification.

1. The proposed project name or identifying title.
2. Name of the municipality or municipalities in which the project is located, including the location of any municipal boundaries if located within the vicinity of the tract.
3. The name and address of the owner of the tract (or his authorized agent), the developer/subdivider, and the firm that prepared the plans.
4. The file or project number assigned by the firm that prepared the plan, the plan date and the date(s) of all plan revisions.
5. A north arrow, graphic scale and written scale.
6. The entire existing tract boundary with bearing and distances. In the case of lot annexation plans, the boundary of the receiving tract shall also be identified as a deed plotting and may be drawn at any legible scale.
7. The total acreage of the entire existing tract.
8. The location of existing lot line markers along the perimeter of the entire existing tract.
9. A key map for the purpose of locating the property being subdivided/developed drawn at a scale not less than one inch equals eight hundred (800) feet and showing the relation of the property, differentiated by tone or pattern, to adjoining property and to all streets, roads, municipal boundaries, zoning districts, water courses, and any areas subjected to flooding, and recorded subdivision/development plans existing within one thousand (1,000) feet of any part of the property. Where applicable, the approximate distance to the nearest existing street shall be shown. A scale and north point shall be indicated.

10. Source of title, deed, book, page, plan book (if applicable), and tax map number.

C. Existing Features.

1. Contour lines at vertical intervals of at least two feet for land with average natural slope of four percent or less, and at intervals of at least five feet for land with average natural slope exceeding four percent. Contour interval may be adjusted based upon horizontal scale with concurrence of the Township Engineer.
2. Locations and elevation of the datum to which contour elevations refer shall be the closest USC&G established benchmark, or an established benchmark approved by the Township Engineer.
3. The names of all adjacent landowners; both adjoining and across existing rights-of-way, along with the deed, book, page, plan book (if applicable), and tax map number of all previously recorded plans for adjacent properties.
4. The following items when located within two hundred (200) feet of the subject tract:
  - a. The location, names and dimensions of existing rights-of-way and cartways for private or public streets, alleys and driveways.
  - b. The location and size of the following features and related rights-of-way: sanitary sewer mains, water supply mains, fire hydrants, buildings, and storm water management facilities.
  - c. The location of existing rights-of-way for electric, telephone, cable TV, gas and oil transmission lines, and communications towers.
  - d. Significant man-made or natural features such as floodplains, watercourses, quarry sites, solid waste disposal areas, historic structures, cemetery or burial sites, or wooded areas.
5. The following items when located within the subject tract:
  - a. The location, name and dimensions of existing rights-of-way and cartways for streets, alleys and driveways.
  - b. The location and size of the following features and related rights-of-way: sanitary sewer mains, water supply mains, fire hydrants, and storm water management facilities.
  - c. The location of existing rights-of-way for electric, telephone, cable TV, gas and oil transmission lines, and communications towers.
  - d. The size, capacity and condition of the existing storm water management system and any other facility that may be used to convey storm flows.
  - e. The location and size of existing on-lot sewage systems and wells.
  - f. All existing buildings or other structures and the approximate location of all existing tree masses, rock out-crops, water or other significant features.

- g. The location of wetlands and subsequent data or information required by Section 407 of this Ordinance.
- h. Other features required to be shown to comply with the Conservation Plan Mapping requirements Section 408 of this Ordinance.

D. Plan Information.

1. The layout of streets, alleys and sidewalks, including cartway and right-of-way widths, any conditions governing their use, and suggested types (i.e., collector, major, minor, etc.)
2. The layout of lots with approximate dimensions.
3. Block and lot numbers in consecutive order (e.g. Block "A", Lots 1 through 10; Block "B", Lots 11 through 22).
4. The location and configuration of proposed buildings, parking compounds, streets, alleys, driveways, common open space, recreational areas, and all other significant planned facilities.
5. Total number of lots, units of occupancy, density, and proposed land use. If a multiple land use is proposed, the location of each land use shall be indicated.
6. Easements and rights-of-way. All easements or rights-of-way where provided for or owned by public services 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 in accordance with Pennsylvania Act 287, the names, addresses, and telephone numbers of affected utilities shall be listed on the plan.
7. Building setback lines and building envelope.
8. Identification of buildings to be demolished.
9. Typical street cross-section for each proposed public or private street and typical cross-section for any existing street that will be improved as part of the application. Each cross-section shall include the entire right-of-way width.
10. Tentative profiles along the centerline of cartway (pavement) of each proposed public or private street including corresponding centerline stationing. Such profiles shall show existing and proposed grades.
11. The preliminary design of any proposed sanitary sewer mains and water supply mains and facilities. This information shall include the approximate size, vertical location and horizontal location, if applicable.
12. Storm water management and erosion and sediment control data and plans designed in accordance with the Township Stormwater Management and Earth Disturbance Ordinance. This information may be provided on a sheet with other data or on separate sheets and need not necessarily be recorded with the final plan

13. Proposed street names.
14. Where the proposed subdivision or land development is located partially or wholly within an area prone to frequent flooding (either by impoundment or conveyance) as indicated by the flood insurance rate map profiles and supporting data, soil type or local historical record; the developer shall supply the location and elevation of all proposed roads, fills, utilities, buildings, storm water management, and erosion control facilities;
15. Location of all percolation test holes, deep probe holes and proposed well locations.
16. Easements for the on-lot sewage replacement locations.
17. Clear sight triangles and stopping sight distances for all intersections as described in Section 502 I.1. of this Ordinance shall be shown on the plan.
18. Parks, playgrounds, and other areas proposed to be dedicated or reserved for public use with any condition governing such use.
19. Preliminary designs of any bridges or culverts which may be required. Such designs shall meet all applicable requirements of the DEP, PennDOT, and other applicable agencies. Calculations for waterway opening shall be included. All designs shall be subject to approval by the Township.
20. A statement on the plan indicating any special exception, conditional use or variance, if applicable, related to the property, along with a copy of any Zoning Hearing Board or Board of Supervisors decision, so that any conditions imposed will be readily evident.
21. A listing on the plan identifying all waivers of the requirements of this ordinance requested by the subdivider/developer. The listing should be specific and refer to the particular section of this ordinance for which waiver is being requested.
22. A table indicating the existing zoning district, total tract area, required lot size, required setbacks, required maximum and/or minimum development density, maximum building height and number of lots in the proposed subdivision along with the proposals for each of these parameters.
23. A statement of the intended use of all lots, with reference to restrictions of any type which exist or will exist as covenants in the deed for the lots contained in the subdivision and, if covenants are recorded, including the deed book and page number.
24. Where a Preliminary Plan shows the proposed subdivision or land development of only a part of the landowner's total property, a sketch shall be required showing the prospective street system in the remainder of the property so that the street system in the submitted portion shall be considered in relation to future connections with the unsubmitted portion. To prevent undue hardship in the case of extremely large properties, the Township Planning Commission may, based on existing natural or man-made features, delineate the area for which a prospective street system shall be sketched.
25. In case of a preliminary plan calling for the installation of improvements beyond a five (5) year period from preliminary plan approval, a schedule shall be provided delineating all

proposed sections as well as deadlines within which applications for final plan approval of each section are intended to be filed. Such schedule shall be updated annually by the applicant on or before the anniversary of the preliminary plan approval, until final plan approval of the final section has been granted and any modification in the aforesaid schedule shall be subject to approval of the Board of Supervisors at its discretion. Failure of the landowner to adhere to the aforesaid schedule of submission of final plans for the various sections shall subject any such section to any and all changes in zoning, subdivision and other governing ordinance enacted by the Township subsequent to the date of the initial preliminary plan submission.

26. Each section in any residential subdivision or land development, except for the last section, shall contain a minimum of twenty-five (25) percent of the total number of dwelling units as depicted on the preliminary plan, unless a lesser percentage is approved by the Board of Supervisors in its discretion. Provided the landowner has not defaulted with regard to or violated any of the conditions of the preliminary plan approval, including compliance with landowner's aforesaid schedule of submission of final plans for the various sections, then the aforesaid protections afforded by substantially completing the improvements depicted upon the final plan within five years shall apply and for any section or sections, beyond the initial section, in which the required improvements have not been substantially completed within said five-year period the aforesaid protections shall apply for an additional term or terms of three years from the date of final plan approval for each section.

E. Certificates, Notifications and Reports.

1. Certificates - the following certificates shall be included on the plan:
  - a. Certificate of review by the Township Planning Commission (See Appendix No. 9).
  - b. Certificate for approval by the Board with space for the signatures of members (See Appendix No. 5).
  - c. Certificate, signature and seal of the surveyor registered in the Commonwealth of Pennsylvania to the effect that the survey is correct (See Appendix No. 2).
  - d. Certificate, signature and seal of a professional registered in the Commonwealth of Pennsylvania and qualified to perform such duties, to the effect that the plan is correct (See Appendix No. 1).
  - e. Certificate, signature and seal of a professional registered in the Commonwealth of Pennsylvania and qualified to perform such duties, indicating compliance with the provisions of the Township Stormwater Management and Earth Disturbance Ordinance (See Appendix No. 3).
  - f. A statement duly acknowledged before an officer authorized to take acknowledgment of deeds and signed by the landowner, certifying that the subdivision or land development shown on the plan is the act and the deed of the owner; that all those signing are all the owners of the property shown on the survey and plan; that they desire the same to be recorded as such, and that all streets and other property identified as proposed public property are dedicated for public use. (See Appendix No. 4). This must be dated following the last change or revision to said plan.

2. Notifications - the following notifications shall be included on the plan:
  - a. Where the tract described in the application includes any public utility, electric transmission line, gas pipeline, or petroleum product transmission line located within the tract, the applicant or lessee of such right-of-way shall notify the owner of the right-of-way of his intentions. A note stating any conditions regarding the use of the land, minimum building setback or right-of-way lines shall be included on the plan. This requirement may also be satisfied by submitting a copy of the recorded agreement.
  - b. Where the land included in the subject application has an agricultural, woodland or other natural resource easement located within the tract, the application shall be accompanied by a letter from the party holding the easement stating any conditions on the use of the land. This requirement may also be satisfied by submitting a copy of the recorded easement.
  
3. Reports - the following reports shall be submitted with the plan:
  - a. A hydraulic report and erosion and sedimentation narrative as required by the Township Stormwater Management and Earth Disturbance Ordinance.
  - b. A preliminary Conservation Plan as required Section 408 of this Ordinance.
  - c. A water and sewer feasibility report as described in Section 405 of this Ordinance.
  - d. A preliminary traffic evaluation report as described in Section 406 of this Ordinance.
  - e. A wetland report as described in Section 407 of this Ordinance.
  
- F. Filing Fee. The preliminary plan shall be accompanied by a check or money order drawn to the order of the Township in an amount specified on the fee schedule adopted by the Board.

**SECTION 403 FINAL PLANS**

Final subdivision and/or final land development plans shall be prepared by a registered professional licensed to practice in the Commonwealth of Pennsylvania. The final plan shall be accompanied by, or prepared in accordance with the following:

- A. Drafting Standards. The same standards shall be required for a final plan as specified for a preliminary plan in Section 402.A of this Ordinance.
- B. Location and Identification. The same standards shall be required for a final plan as specified for a preliminary plan in Section 402.B of this Ordinance.
- C. Existing Features. The same standards shall be required for a final plan as specified for a preliminary plan in Section 402.C of this Ordinance.
- D. Plan Information.

1. Complete description of the centerline and right-of-way line for all new streets, whether public or private, and alleys. This description shall include distances to the nearest one-hundredth of a foot and bearings to the nearest thirty (30) seconds with curve segments comprised of radius, tangent, arc, and chord.
2. Lot lines with accurate bearings to the nearest thirty (30) seconds, distances to the nearest one-hundredth of a foot, and lot areas for all parcels. Curve segments shall be comprised of arc, chord, bearings, and distances. Along existing street rights-of-way the description may utilize the existing deed lines or street centerlines; along all proposed street rights-of-way, the description shall be prepared to the right-of-way lines.
3. Block and lot numbers in consecutive order (e.g. Block "A", Lots 1 through 10; Block "B" Lots 11 through 22).
4. The location and configuration of proposed buildings, parking compounds, streets, alleys, driveways, recreational areas, and all other significant planned facilities shall be shown.
5. Total number of lots, units of occupancy, density, and proposed land use. If a multiple land use is proposed, the location of each land use shall be indicated.
6. Easements and rights-of-way. All easements or rights-of-way where provided for or owned by public services 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 in accordance with Pennsylvania Act 287, the names, addresses, and telephone numbers of affected utilities shall be listed on the plan.
7. Building setback lines and building envelope.
8. Identification of buildings to be demolished.
9. Typical street cross-section for proposed public or private streets and alleys and a typical cross-section for any existing street which will be improved as part of the application. Each cross-section shall include the entire right-of-way width.
10. Final vertical and horizontal alignment for proposed public or private streets and alleys, sanitary sewer, and water distribution systems. All street profiles shall show at least the existing (natural) profile along the centerline, proposed grade at the centerline and the length of all proposed vertical curves for streets. All water distribution and sanitary sewer systems shall provide manhole locations and size and type of material. This information may be provided on separate sheets and is not subject to recording with the final plans.
11. Final storm water management and erosion and sediment control data and plans designed in accordance with the Township Stormwater Management and Earth Disturbance Ordinance. This information may be provided on a sheet with other data or on separate sheets and need not necessarily be recorded with the final plan. In the case of any dispute in the methodology used in the design of any storm water management plan and/or in the presentation of such information, the Board shall make the final determination on the design criteria, methodology and form of presentation.

12. Final street names.
13. Where the proposed subdivision or land development is located partially or wholly within an area prone to frequent flooding (either by impoundment or conveyance) as indicated by the flood insurance rate map (profiles), soil type or local historical record; the applicant shall supply the location and elevation of all proposed roads, fills, utilities, buildings, storm water management, and erosion control facilities.
14. Location, elevation and material of all permanent monuments and lot line markers. All monuments and lot markers shall be set prior to final plan approval.
15. A detailed grading plan. The grading plan shall include finished grades and ground floor elevations. This information may be provided on separate sheets and is not subject to recording with the final plans.
16. Location of all percolation test holes, deep probe holes, and proposed well locations.
17. Easements for the on-lot sewage replacement locations.
18. In the case of a plan which requires access to a highway under the jurisdiction of the Department of Transportation, the inclusion of the following plan note:  
  
"A Highway Occupancy Permit is required pursuant to Section 420 of the Act of June 1, 1945 (P.L. 1242, No. 428), known as the 'State Highway Law', before access to a state highway is permitted. Access to the state highway shall be as authorized by a Highway Occupancy Permit, and the Board of Supervisors' approval of this plan in no way implies that such a permit can be acquired."
19. Clear sight triangles and stopping sight distances for all intersections as described in Section 502 I.1. of this Ordinance shall be shown on the plan.
20. Where required to satisfy a requirement of the Township Zoning Ordinance or other governing regulation, a complete landscape plan, prepared by a landscape architect, showing the location, size and type of all plant material required by provisions of this Ordinance or any other applicable Township regulations, including but not limited to, screening, buffer planting, parking landscaping, replacement trees, and street trees. The landscape plan should be provided on separate sheets and must include the signature and seal of the registered landscape architect responsible for preparation of the plan.
21. Identification of any lands to be dedicated or reserved for public, semi-public or community use.
22. A table indicating the existing zoning district, total tract area, required lot size, required setbacks, required maximum and/or minimum development density, maximum building height, and number of lots in the proposed subdivision along with the proposals for each of these parameters.
23. A statement on the plan indicating the granting of special exception, conditional use or variance, if applicable, related to the property, along with a copy of any Zoning Hearing Board or Board of Supervisors decision, and along with waivers granted by the Board to sections of this Ordinance, so that any conditions imposed will be readily apparent.

24. A detailed schedule of inspections as generally outlined by Section 606 of this Ordinance, which is tailored for the site under consideration.

E. Certificates, Notifications and Reports.

1. Certificates - the following certificates shall be included on the plan:
  - a. Certificate, signature and seal of a professional registered in the Commonwealth of Pennsylvania and qualified to perform such duties, to the effect that the plan is correct (See Appendix No. 1).
  - b. Certificate, signature and seal of the surveyor registered in the Commonwealth of Pennsylvania to the effect that the survey is correct. (See Appendix No. 2).
  - c. Certificate, signature and seal of a professional registered in the Commonwealth of Pennsylvania and qualified to perform such duties, indicating compliance with the provisions of the Township Stormwater Management and Earth Disturbance Ordinance (See Appendix No. 3).
  - d. Certificate of review by the Planning Commission (See Appendix No. 9).
  - e. Certificate for approval by the Board with space for signatures by members of the Board. (See Appendix No. 7)
  - f. A statement duly acknowledged before an officer authorized to take acknowledgment of deeds and signed by the landowner, certifying that the subdivision or land development shown on the plan is the act and the deed of the owner; that all those signing are all the owners of the property shown on the survey and plan; that they desire the same to be recorded as such, and that all streets and other property identified as proposed public property are dedicated for public use. (See Appendix No. 4). This must be dated following the last change or revision to said plan.
  - g. A statement signed by the applicant acknowledging the fact that the proposed subdivision or land development may be subject to other Township, State and Federal regulations.
  - h. A blank space measuring three and one-half (3½) inches by six (6) inches shall be left, preferably adjacent to the Township certification, in which the endorsement stamp of the County Planning Commission may be applied.
  - i. A blank space measuring three (3) inches square shall be left along the lower edge of the sheet, in order that the Recorder of Deeds may acknowledge receipt of the Plan when it is presented.
2. Notifications - the following notifications shall be included on the plan:
  - a. Notification from DEP that approval of the sewage facilities plan revision (plan revision module for land development) or supplement has been granted or notice

from DEP that such approval is not required. A note to that effect shall also be placed on the plan.

- b. Where the tract described in the subject application includes any public utility, electric transmission line, gas pipeline, or petroleum product transmission line located within the tract, the applicant or lessee of such right-of-way shall notify the owner of the right-of-way of his intentions. A note stating any condition regarding the use of the land, minimum building setback or right-of-way lines shall be included on the plan. This requirement may also be satisfied by submitting a copy of the recorded agreement.
- c. Where the land included in the subject application has an agricultural, woodland or other natural resource easement located within the tract, the application shall be accompanied by a letter from the party holding the easement stating any conditions on the use of the land. This requirement may also be satisfied by submitting a copy of the recorded easement.
- d. Notice from the postmaster of the postal district in which the tract is located and the emergency service providers in the Township stating that the proposed private and/or public street names are acceptable.
- e. A note placed on the plan indicating any area that is not to be offered for dedication, if applicable.
- f. Written notice from the Township Engineer that all proposed improvements have been designed to the standards of the Township and that financial guarantees in a form suitable to the Board of Supervisors have been received. (See Appendices No. 13 and 15 and Article V).

When the applicant posts financial guarantee in lieu of completion of the improvements, the Final Plan shall be accompanied by a completed improvement guarantee agreement.

- g. Such written notices of approval as required by this Ordinance, including written notices approving the water supply systems, sanitary sewage systems and storm water runoff to adjacent properties.
- h. The submission of a controlling agreement in accordance with Section 607 when an application proposes to establish a street which is not offered for dedication to public use.
- i. Notification from the appropriate state and federal agencies that approvals have been received, permits have been issued, or are not required, for any proposed activities within streams, wetlands or any other state or federally regulated body of water. These permits and/or approvals include, but are not limited to, Erosion and Sediment Control, Floodplain Encroachment Permits, Dam Safety Permits, Earth Disturbance Permits, Stream Encroachment Permits, and General Permits.

When the final plan is submitted in sections, the above notifications for all applicable activities on the entire site, shown on the approved preliminary plan shall be provided upon submittal of the first final phase of the project.

3. Reports - the following reports shall be submitted with the plan:
  - a. A final hydraulic report and erosion and sedimentation narrative as required by the Township Stormwater Management and Earth Disturbance Ordinance
  - b. A final Conservation Plan as required Section 408 of this Ordinance.
  - c. A final traffic evaluation report as described in Section 406 of this Ordinance.
  - d. A final wetland report as described in Section 407 of this Ordinance.
- F. Filing Fee. The final plan shall be accompanied by a check or money order drawn to the order of the Township in an amount specified on the fee schedule adopted by the Board.

**SECTION 404****LOT ANNEXATION PLANS AND NATURAL SUBDIVISIONS**

Lot annexation plans and plans of natural subdivisions shall be prepared by a qualified person and shall include the following information:

- A. Drafting Standards. The same standards shall be required for a lot annexation/natural subdivision plan as specified for a preliminary plan in Section 402.A of this Ordinance.
- B. Location and Identification. The same standards shall be required for a lot annexation/natural subdivision plan as specified for a preliminary plan in Section 402.B of this Ordinance.
- C. Existing Features.
  - 1. The names of all adjacent landowners; both adjoining and across existing rights-of-way, along with the deed, book, page, plan book (if applicable), and tax map number of all previously recorded plans for adjacent properties.
  - 2. The following items when located within the subject tract(s):
    - a. The location, name and dimensions of existing rights-of-way and cartways for private or public streets, alleys and driveways.
    - b. The location and dimensions of rights-of-way for sanitary sewer mains, water supply mains, and storm water management facilities.
    - c. The location of existing rights-of-way for electric, telephone, cable TV, gas and oil transmission lines, and communications towers.
    - d. The location and size of existing on-lot sewage systems and wells.
- D. Plan Information.
  - 1. Building setback lines and building envelope.
  - 2. A table indicating the existing zoning district, total tract area, required lot size, required setbacks, required maximum and/or minimum development density, and maximum building height.
  - 3. In the case of a lot annexation, the inclusion of the following notes on the plan:
    - a. “The sole purpose of this plan is for annexation of land to an existing lot, and not for the purpose of creating a new building lot. The combined tracts shall hereafter be treated as one lot for all purposes under this Subdivision and Land Development Ordinance and all other ordinances of District Township.”
    - b. Plan notation prohibiting separate conveyance - see sample language in Appendix 22.
  - 4. In the case of a natural subdivision which creates one or more lots meeting the minimum requirements of the Zoning Ordinance, evidence of the suitability of said lot(s) for on-site

water supply and on-site sewage disposal shall be provided as part of the application for plan approval.

- E. Certificates - the following certificates shall be included on the plan:
1. Certificate, signature and seal of a surveyor registered in the Commonwealth of Pennsylvania to the effect that the survey is correct (See Appendix 2).
  2. Certificate of review by the Planning Commission (See Appendix No. 9).
  3. Certificate for approval by the Board (See Appendix No. 8).
  4. A statement, duly acknowledged before an officer authorized to take acknowledgment of deeds and signed by the landowner, to the effect that the subdivision or land development shown on the plan is the act and the deed of the owner, that all those signing are all the owners of the property shown on the survey and plan, and that they desire the same to be recorded as such (See Appendix No. 4).
  5. A blank space measuring three and one-half (3½) inches by six (6) inches shall be left, preferably adjacent to the Township certification, in which the endorsement stamp of the County Planning Commission may be applied.
  6. A blank space measuring three (3) inches square shall be left along the lower edge of the sheet, in order that the Recorder of Deeds may acknowledge receipt of the Plan when it is presented.
- F. Filing Fee. The plan shall also be accompanied by a check or money order drawn to the Township in an amount specified on the fee schedule adopted by the Board.

#### **SECTION 405 FEASIBILITY REPORT ON SEWER AND WATER FACILITIES**

- A. The applicant shall submit a feasibility report in duplicate on the sewer and water facilities to serve the proposed subdivision or land development. Said report shall be prepared by a registered professional and be submitted in conjunction with the preliminary plan for review and recommendations by the local office of DEP.
- B. Sewage Feasibility Study. As stated in the District Township, Berks County, Pennsylvania Sewage Facilities Plan Update (March 1996), “ Due to the existing land use composition and density patterns within the Township, it would be unrealistic to consider a municipal wastewater treatment system (in District Township). In addition, it would also be environmentally and economically unfeasible to extend municipal wastewater collection lines into and/or throughout the Township. “ As a result, on-lot sewage disposal systems appear to be the only viable wastewater facility alternative available for development in the Township.

As a part of the sewage feasibility study, the applicant shall state the type of sewage disposal proposed for each of the proposed lots. If other than the installation of a conventional on-site sewage disposal system is intended on any of the lots, that fact shall be indicated on the plan itself.

1. The Board will approve on-lot sewage disposal systems only when the Township Sewage Enforcement Officer and/or a sanitarian of DEP shall certify that both an initial location and a replacement location for the on-lot sewage disposal system are present on each lot.

- a. The replacement location shall be of a size and capacity to allow complete abandonment of the initial system in the event of failure.
  - b. The replacement location shall be protected from traffic and no filling nor excavation shall be allowed within its boundary.
  - c. The standards for installation of the replacement system shall be as required by DEP at the time of its construction.
2. Subdivisions not utilizing a conventional on-site sewage disposal system which propose to use alternate on-site sewage disposal systems will not be approved by the Board unless:
    - a. The Township Sewage Enforcement Officer and/or a sanitarian of DEP certifies that a proposed sewage disposal site cannot reasonably be located so as to enable the lot to utilize a conventional on-site sewage disposal system; and
    - b. The lot itself cannot reasonably be redesigned or relocated consistent with the Township Zoning Ordinance and other Township regulations so as to enable utilization of a conventional on-site sewage disposal system.
  3. As a part of the feasibility study, there shall be included the results of the probe hole analyses and soil absorption tests on each of the lots as proposed in the subdivision. These probe hole analyses and soil absorption tests shall be certified as accurate by the Township Sewage Enforcement Officer.
  4. The sewage feasibility study shall include, at a minimum, a detailed physical site analysis in accordance with the recommendations of Section 6.32 of the Sewage Facilities Plan Update (See Appendix 21).
  5. Community Treatment Systems. According to the Township's Sewage Facilities Plan Update, (Section 6.22), " Community treatment systems are generally not a viable alternative for a majority of the (Township) due to the physical limitations (soils, slope, geology and hydrology) that presently exist. Due to these physical limitations, community systems should be restricted from the areas that are considered environmentally sensitive. The potential for groundwater contamination by high nitrate and organic loadings is enhanced by these physical limitations, and may have an adverse effect on the environment."
 

"The areas of District Township which do not indicate the presence of physical development limitations and have a minimal potential for groundwater and/or surface water contamination may be considered as feasible sites for community treatment systems. All proposed community systems shall be designed and installed in accordance with all pertinent guidelines and regulations established by District Township and by the DEP, as specified under Chapters 71, 72 and 73 of the Pennsylvania Code, Title 25 (Environmental Resources).
- C. Water Feasibility Study. If the water supply system proposed involves the utilization of water obtained from the tract being subdivided or developed (irrespective of whether that water is being distributed as a part of a community water supply system), that water supply source will be evaluated using the following criteria:

1. The net groundwater recharge on the specific tract in question will exceed the anticipated water usage during drought conditions. The net recharge shall be estimated by a Certified Professional Hydrogeologist, and shall, at a minimum, be calculated by accounting for the volumes of water related to:
    - a. The amount of impervious cover.
    - b. A detailed estimate of storm water runoff and retention.
    - c. The estimated recharge from an on-lot disposal system.
    - d. An estimate of water consumed in processing or for other than processing.
    - e. An estimate of water exported in a product, by a wastewater treatment system, or other means.
    - f. The base flow component for the site, estimated for a one (1) in ten (10) year drought, as determined by the USGS using the site's position in the watershed.
  2. The installation of the proposed water system(s) shall not adversely impact surface water or the riparian rights of adjacent landowners, nor shall the proposed water use lower the groundwater table in the area so as to endanger or decrease the adequacy of water supplies currently available, or which may be necessary in the future, for by-right uses on properties adjacent to the proposed project.
  3. Water supplies must be potable and meet all applicable standards of the DEP, and the United States Environmental Protection Agency.
- D. To evaluate the adequacy of the water supply to meet the needs of the proposed use, feasibility studies must be conducted by a Certified Professional Hydrogeologist and incorporate the following:
1. A groundwater availability study which demonstrates:
    - a. Sufficient water to supply occupants based upon the number of bedrooms in the proposed dwelling. For conservative planning purposes, determining the consumptive use of each dwelling shall be based upon the specifications of 25 Pa. Code §73.17. (See Appendix 18). The daily per capita sewage flow specified in §73.17 shall be increased by twenty percent (20%) to provide for water uses which are not included in the DEP-specified sewage flow. Occupancy shall be determined by adding one (1) person for each additional bedroom in the proposed dwelling to a base of 1.5 persons for the first bedroom. A standard three-bedroom, single-family residence would require a supply capable of supporting 3.5 occupants at seventy-five (75) gallons per day (gpd) per person. Each additional bedroom in a single family home would require an increased supply of seventy-five (75) gpd. The sufficient water supply for other forms of residential dwellings shall be determined accordingly, by adding twenty percent (20%) to the specified per capita sewage flow in §73.17, and by using an occupancy appropriate to the number of bedrooms in the proposed dwelling.
    - b. Sufficient water to supply the maximum number of occupants for any non-residential application. Commercial and non-residential applications shall specify

their per capita or daily water needs based upon their maximum water needs, by adding twenty (20%) percent to the per capita sewage flow indicated for the particular use as specified in §73.17 or in a standard technical reference document. (See Appendix 18).

- c. Sufficient water supply as certified by a qualified professional hydrogeologist. A demonstration of adequacy for any other applications shall be made by a qualified professional hydrogeologist, based on estimated consumption. The supply shall be adequate to meet the peak daily flow of the proposed development, assuming a combination of well yield and storage sufficient to meet peak withdrawal rates for concurrent multiple uses.
  - d. Sufficient water supply in drought conditions. For all intended uses, the water supply shall be adequate to meet basic residential or commercial needs in the event of drought conditions with either a one (1) in ten (10) year recurrence potential, if such data is available, or with a ninety (90) day no recharge event.
  - e. A "successful well" shall have a well yield, water reservoir, or combination thereof capable of providing the calculated amount of water necessary to supply the proposed use's daily requirement.
2. A "drawdown analysis" of the water table which will:
- a. Evaluate the potential on-site impact of the proposed well(s) on the water table elevation and any on-site surface water bodies. Proper hydrogeologic industry standards for evaluating the potential effects of groundwater withdrawal from proposed sources during drought conditions [ninety (90) day no recharge] on the available groundwater aquifer, nearby surface water bodies, and neighboring groundwater users, dictate that a preliminary groundwater computer model be developed and evaluated. The results of the preliminary computer modeling based upon available hydrogeologic data will produce a plot of drawdown within the groundwater system as a result of the proposed water use. On-site impacts of the proposed use shall not adversely affect the base flow or elevation of surface water bodies; the riparian rights of on-site users shall be protected; and the proposed use shall not lower the available or necessary water supply, as defined in subsection 405 D.1. for existing or potential on-site uses.
  - b. Evaluate the potential impact of the proposed well(s) on adjacent wells and surface water bodies. The drawdown will be interpreted using standard industry practices to assess the impact, if any, that the proposed plans will have on the area drawdown. Because this interpretation is highly site specific, each analysis and interpretation will be unique. In no case shall the proposed use cause existing adjacent water supplies to be lowered beyond an adequate level for current or future uses as defined in subsection 405 D.1.).
  - c. As part of the drawdown analysis, a well will be drilled on each existing and/or proposed lot.
3. An analysis of water quality which will demonstrate through adjacent property sampling or through on-site wells that the water source will meet DEP and United States Environmental Protection Agency water quality standards. At a minimum, testing should analyze nitrate-

nitrogen, nitrite-nitrogen, total coliform, fecal coliform, Ph and lead, but possible contamination by past activity in the area would necessitate testing for specific hazardous substances). If the raw water supply exceeds DEP/EPA standards for the parameters listed, then appropriate water treatment will be required prior to use.

- E. Hydrogeologic studies shall consist of the following minimum considerations:
1. A topographic map indicating the location of the site, any proposed on-site sewage disposal systems and wells. Narrative descriptions of the types of these systems shall also be furnished.
  2. A description of the geologic conditions on and around the site that would affect the groundwater recharge rate and the degree of groundwater renovation. Such conditions can include, but need not be limited to, closed depressions, sinkholes, high water table conditions, springs, lineaments, faults, outcrops of bedrock, soil mottling, surface drainage into the ground, ghost lakes, and similar hydrogeological features.
  3. A map and narrative description of the area that will be impacted from the proposed use of on-lot sewage disposal systems. Such analysis will consider and identify the system's dispersion plumes and mixing zones, which shall be calculated from the surface topography and known geologic conditions. The analysis will then describe anticipated water quality/quantity impacts to areas located down gradient and/or along any geologic strike or fault. These anticipated impacts should also consider existing and potential land uses located within the affected area.
  4. Should it be determined that the proposed use(s) would result in a degradation of surface or groundwater quality, or impair the potential use of nearby properties, the study shall identify the measures to be employed to eliminate these adverse impacts.
- F. The results of these feasibility studies, tests, and reported well yield shall be filed with the Township and added to its official well data and mapping. This data will be used by potential developers and the Township in assessing the need for additional well testing as part of the Township's process for reviewing Conservation Plans and Planning Modules for Land Development.
- G. In all cases the applicant shall demonstrate that the water to be supplied shall be potable and shall meet all applicable standards of DEP or the United States Environmental Protection Agency.
- H. If community sewer and/or water systems are proposed, these systems shall be in compliance with the above requirements as well as the regulations of DEP.

## **SECTION 406                      TRAFFIC EVALUATION STUDY**

All residential developments or subdivisions and all non-residential developments proposing the construction of a street and/or driveway subject to Pennsylvania Department of Transportation jurisdiction shall comply with the applicable state regulation. All residential developments or subdivisions containing twenty (20) or more dwelling units or residential lots and all non-residential developments (with the exception of agricultural development) with buildings containing in excess of ten thousand (10,000) square feet of usable space proposing access to a Township road shall provide studies and reports in accordance with the requirements of this Section.

All applicants with developments that do not meet the above stated criteria shall submit the information required in Section 406.C.5.

- A. The applicant is responsible for assessing the traffic impacts associated with a proposed development that meets any condition set forth above. The Township will review the applicant's assessment and supply available data upon request to aid the applicant in preparing the study. The applicant shall be responsible for all data collection efforts required in preparing a traffic impact study including peak period turning movement counts. In addition, the applicant is responsible for ensuring that any submitted development plans meet the minimum state and local standards for geometric design. The study shall be conducted only by a professional engineer that has verifiable experience in traffic engineering. Upon submission of a draft study, the Township may review the data sources, methods and findings and provide comments in written form. The applicant will then have the opportunity to incorporate necessary revisions prior to submitting a final study.
- B. Traffic Impact Study Contents. A traffic impact study prepared for a specific site development proposal shall follow the Study Procedures and Final Report format requirements as detailed in the Pennsylvania Department of Transportation's Highway Occupancy Permit Handbook (Publication 282 dated September 1993, as may be amended from time-to-time).
- C. Contribution in Lieu of Preparation of Studies. If an applicant believes that the preparation of traffic study and report required herein is not warranted, he may request the Board to waive the preparation of such study.
  - 1. The applicant for approval of any commercial, industrial or institutional subdivision or land development shall provide the Township with a certification of the usable building floor area to be constructed for the purpose of determining the contribution in lieu of preparation of studies.
  - 2. The contribution in lieu of preparation of studies provided for herein shall be in addition to all other review, inspection and other fees or charges imposed by the Township, and all sums otherwise agreed to be paid by the applicant.
  - 3. The applicant shall enter into an agreement with the Township setting forth the contribution in lieu of preparation of studies to be paid and the studies to be waived by the Township. All such agreements shall be in a form satisfactory to the Township Solicitor.
  - 4. All contributions in lieu of preparations of fees shall be paid prior to approval of the final plan by the Township Supervisors.
  - 5. All developments receiving a waiver of preparation of a traffic evaluation study in accordance with this section shall provide, as a minimum, the following information:

Trip Generation. Identify the amount of traffic generated by the site for daily and the three (3) peak hour conditions (AM, PM and site generated). The trip generation rates shall be justified and documented to the satisfaction of the Township.

## **SECTION 407                      WETLANDS STUDY**

- A. The applicant shall submit a wetland study in duplicate with the submittal of all subdivision and land development plans. The purpose of the study shall be to determine the presence and extent of wetlands on the site.

- B. The study shall be performed by a qualified wetland scientist. Qualified individuals should possess a minimum of a bachelor's degree in biology, botany, zoology, ecology, or environmental sciences. In general, other professionals, such as engineers, landscape architects, surveyors, planners, and geologist are not considered fully qualified to perform wetland delineations, unless they possess special ecological training and experience beyond their discipline. The Township reserves the right, in as much as no recognized certification program exists for wetland scientists, to determine the qualification of those preparing wetland delineations. Should a state or federal wetland scientist certification program be established, the Township will consider only those certified individuals qualified to perform delineations.
- C. Requirements for Wetland Studies:
1. Delineations should follow the procedures outlined in the Environmental Laboratory 1987 Corps of Engineers Wetland Delineation Manual and 1992 Regulatory Guidance Letters.
  2. Delineations shall be supported by reports. The report shall contain the following sections:
    - a. Introduction. Description of the physical features of the site, its location and the proposed plans for the site.
    - b. Methods. Description of the methods used for the survey, with particular emphasis on any deviation from the outlined federal method. Relevant information includes the date of the field studies, the number of transects and plots used, the size of vegetation quadrats employed, the size of soil pits used, taxonomic references used, and the disposition of any voucher specimens.
    - c. Results and Discussion. Description of the findings of the study. Soils, vegetation and hydrology for wetland and upland areas of the site should be discussed. Any problem areas should be thoroughly treated.
    - d. Conclusions. The extent of wetlands on the site should be discussed. The impact of the proposed project on these wetlands should also be considered.

3. Included in the report as appendices or tables should be:
  - a. Site location map (USGS 7.5' quadrangle will suffice).
  - b. NWI map.
  - c. Soil survey map with soil descriptions.
  - d. Data sheets for each plot.
  - e. Wetland boundary map. Wetland boundaries shall be surveyed by a registered professional surveyor and shown on a plan of appropriate scale. The limits of the wetland study shall be clearly shown. The plan shall also show the location of all plots and/or transects used in the study, the date of the delineation, a statement of the method used for the study, the name of the consulting firm which performed the delineation, the name of the surveyor, and a disclaimer statement indicating no wetland boundary is considered jurisdictional until approved by DEP and COE.
  - f. Color photos of wetland areas on the site, with locations and directions of view keyed to the wetland boundary map.
  - g. Resumes of the wetland scientist(s) who performed the delineation.
- D. For sites on which no wetlands occur, an abbreviated report may be submitted. The abbreviated report should contain the introductory material, the methods section and a discussion of the result of the study. Site location, NWI and soil maps should also be provided.
- E. All subdivision plans shall contain notes for future lot owners. The wetland boundary on each lot will be clearly marked. Each lot which contains wetlands, or to which access may be restricted by wetlands, shall have a note which states state and federal laws require permits for all activities which result in a deposition of fill into delineated wetlands. The note shall also state that refusal of such a permit may restrict some uses of all or portions of the lot.
- F. Compensatory mitigation projects required as part of state or federal permits shall be shown on the subdivision plans. Future lot owners whose property encompasses all or part of a mitigation area shall be notified that the portion of their property that includes the mitigation area may not be altered, and is considered a jurisdictional wetland by the state and federal governments. Lot owners may be responsible for maintenance of mitigation areas. In order to help ensure the long-term viability of wetland mitigation efforts, the Township discourages multiple ownership of mitigation areas. Ownership by one individual or a homeowners association is encouraged. Owners of the wetland mitigation areas must be clearly identified to the Township.
- G. The Township reserves the right to reject any submitted wetland delineations. Should the Township feel the actual wetland area differs from that shown on the subdivision plan, the Township has the right to secure, at the developer's expense, qualified personnel to check the delineation and redraw the boundary as necessary. Should the developer subsequently disagree with the Township's delineation, a jurisdictional delineation by DEP and COE will be requested. Any charges for the jurisdictional delineation will be the responsibility of the developer.
- H. Where the study shows the existence of wetland areas, the delineated boundary shall be properly fenced off to prevent encroachment. Snow fence or other acceptable material shall be used (the use of silt fence is not acceptable). The fence shall be properly installed, at a minimum distance of five (5)

feet outside the delineated boundary, prior to any construction or issuance of building permits. The fence must be properly maintained until all occupancy permits have been issued and/or for the extent of all construction.

## **SECTION 408                      CONSERVATION PLAN**

All preliminary and final subdivision and/or land development plans, excluding Lot Annexation Plans and Natural Subdivision Plans, shall be accompanied by a Conservation Plan prepared in accordance with the following requirements. When any of this information already has been prepared as part of the preliminary and/or final plan submission, it may be so referenced:

### **A.        Conservation Plan Mapping**

1.        Property Base Map. A base map of the applicant's property that shall meet the requirements for preliminary plan approval with respect to: sheet size, scale, property acreage calculations, delineation of courses and distances of property boundaries, dedicated street rights-of-way, and easements. Said base map shall also depict all improvements presently existing on the property.
2.        Boundary and Adjoining Property Conditions. The following information shall be indicated on the property base map: names of adjoining property owners and structures within one hundred (100) feet of the applicant's property. A smaller scale map, drawn as an inset on the base map sheet, may be used to present information on adjoining property conditions.
3.        Existing Natural Features Inventory. The following information shall be shown or noted on the property base map:
  - a.        Geologic members and the approximate location and extent of rock outcrops.
  - b.        Slopes, the contour line intervals of which shall be not more than two (2) feet for land with average natural slope of four percent (4%) or less, and not more than five (5) feet for land with average natural slope exceeding four percent (4%). Location and elevation to which contour elevations refer shall be identified; where reasonably feasible, this shall be a known established benchmark. Land with slopes (a) greater than twelve percent (12%) but less than or equal to twenty five percent (25%) [strongly sloping land], and (b) land with slopes exceeding twenty five percent (25%) [steeply sloping land], shall be indicated clearly. Slopes shall be delineated as a result of a field survey.
  - c.        The location and delineation of ponds, streams, floodplains, natural drainage swales, springs and seeps.
  - d.        Soil series and phases, as mapped by the Soil Conservation Service, and accompanying data tabulated for each soil, including: its name, depth to seasonal high water table, depth to bedrock, agricultural capability class and subclass, and hydrologic group.
  - e.        Wetlands, as delineated by a qualified wetlands scientist and surveyed by a licensed land surveyor.

- f. Vegetative cover conditions on the property according to general cover type, e.g., cultivated land; permanent grassland; old field; hedgerow; woodland; emergent, scrubshrub and forested wetland.
  - g. For each general vegetative cover category, the dominant and typical species should be identified. For all woodlands, the applicant shall indicate the principal species of dominant and co-dominant trees and the shrub understory. Areas dominated by trees over twenty four (24) inches dbh shall be indicated, along with the species of such trees.
  - h. Identification and classification of prime and critical wildlife habitat and identification of wildlife corridors.
  - i. Location of any rare, threatened or endangered species as identified by the Pennsylvania Natural Diversity Inventory or the Natural Areas Inventory of Berks County, Pennsylvania.
  - j. If any of the natural features listed above do not occur on the property, a note to that effect shall appear on the plan.
4. Proposed Site Alterations. The following information shall be shown on the property base map:
- a. Location of all proposed improvements.
  - b. Grading plans that clearly show all proposed alterations to the property's existing topography.

B. Conservation Plan Narrative - Impact Assessment.

- 1. All applicants shall assess the on-site and off-site impacts of their proposed activities and improvements on existing natural features. The assessment shall include the following:
  - a. Compliance with the minimum standards set by Article V of this Ordinance.
  - b. Tabulation of the acreage of natural resources that would be disturbed utilizing the list of natural features as defined in Section 202. of this Ordinance.
  - c. Tabulation of the dimensions or gross square foot coverage of all improvements proposed by the applicant, including any proposed impervious surfaces.
- 2. A copy of a wetland delineation report, the Army Corps of Engineers' verification letter or other available documentation for wetlands delineated according to Section 407 of this Ordinance shall be included in the narrative.
- 3. An Erosion and Sedimentation Control Plan approved by Berks County Conservation District.
- 4. The narrative shall include a tentative construction schedule that lists all earthmoving activities and target dates. A copy of the schedule from the Erosion and Sedimentation Control Plan approved by the Berks County Conservation District is acceptable.

5. A copy of the feasibility study(s) required under Section 405. relating to the protection and preservation of the quality and quantity of ground water in District Township.