

ARTICLE VIII

CONSERVATION BY DESIGN REQUIREMENTS

All properties submitted for residential subdivision or land development in the Conservation Design Overlay District (sometimes referred to as “Conservation Design District”) as defined in Section 1401 of the Hamiltonban Township Zoning Ordinance shall comply with the requirements as set forth in this Article.

SECTION 800 – Informal Conservation Design Sketch Plan

- A. A Conservation Design Sketch Plan may be submitted by the applicant as a diagrammatic basis for informal discussion with Township staff, the Planning Commission and/or the Board of Supervisors regarding the design of a proposed subdivision or land development. Sketch Plan submission is strongly encouraged by the Township as a way of helping applicants and Township officials develop a better understanding of the property and to help establish an overall design approach that respects its special or noteworthy features, while providing for the density permitted under the Zoning Ordinance.
- B. To provide a full understanding of the site's potential and to facilitate the most effective exchange with Township staff, the Planning Commission and/or the Board of Supervisors, the Sketch Plan should include the information listed below. Many of these items can be taken from the Existing Resources and Site Analysis Plan, (See Section 801.C.2) a document that must in any case be prepared and submitted no later than the date of the Site Inspection, which precedes the Preliminary Plan (See Section 801). The Conservation Design Sketch Plan may be prepared as a simple overlay sheet placed on top of the Existing Resources and Site Analysis Plan.
1. Name and address of the legal owner, the equitable owner, and/or the applicant;
 2. Name and address of the professional engineer, surveyor, planner, architect, landscape architect, or site designer responsible for preparing the plan;
 3. Graphic scale (not greater than 1" = 200 ft.; however, dimensions on the plan need not be exact at this stage) and north arrow;
 4. Approximate tract boundaries, sufficient to locate the tract on a map of the municipality;
 5. Location map;
 6. Zoning district;
 7. Streets on and adjacent to the tract (both existing and proposed);
 8. 100-year floodplain limits, and approximate location of wetlands, if any;

9. Topographic, physical, and cultural features including fields, pastures, meadows, wooded areas, trees with a diameter of fifteen inches or more, hedgerows and other significant vegetation, steep slopes (over 35% and 20-35%), rock outcrops, soil types, ponds, swales, drains, dumps, storage tanks, streams within two hundred (200) feet of the tract, and existing rights-of-way and easements, and cultural features such as all structures, foundations, walls, wells, trails, and abandoned roads;
10. Schematic layout indicating a general concept for land conservation and development ("bubble" format is acceptable for this delineation of Step One of the four-step design process described in Section 811.B of this Ordinance);
11. Proposed general street and lot layout; and
12. In the case of land development plans, proposed location of buildings and major structures, parking areas and other improvements.
13. General description of proposed method of water supply, sewage disposal, and stormwater management.
14. Examination for consistency with the Township's Comprehensive Plan and it's Sewage Facilities Plan (Act 537 Plan).

SECTION 801 - Documents Required For The Preliminary Plan

In addition to the standard application requirements of Article VI of This Ordinance, the following additional materials shall be included with any Conservation Design application. A deed or agreement of sale evidencing that the applicant is the legal or equitable owner of the land to be subdivided or developed shall be provided to the Township.

A. Preliminary Plan Application Submission Requirements

1. The submission requirements for a Preliminary Plan shall consist of the following elements, and shall be prepared in accordance with the drafting standards and plan requirements described herein:
 - a. Site Context Map
 - b. Existing Resources and Site Analysis Plan
 - c. Preliminary Resource Impact and Conservation Plan
 - d. Preliminary Improvements Plan
 - e. Preliminary Studies and Reports as required in other parts of this Article.

B. Plan Requirements

The following plans and maps shall bear the name, signature, address, and telephone number of the engineer, land surveyor, or landscape architect responsible for preparing the plan or map.

1. Site Context Map

A map showing the location of the proposed subdivision/land development within its neighborhood context shall be submitted. For sites under 100 acres in area, such maps shall be at a scale not less than 1" = 200', and shall show the relationship of the subject property to natural and man-made features existing within 1,000 feet of the site. For sites of 100 acres or more, the scale shall be 1" = 400', and shall show the above relationships within 2,000 feet of the site. The features that shall be shown on Site Context Maps include topography (from U.S.G.S. maps), stream valleys, floodplains, wetlands (from maps published by the U.S. Fish & Wildlife Service or the U.S.D.A. Natural Resources Conservation Service), woodlands over one-half acre in area (from aerial photographs), ridge lines, public roads and trails, utility easements and rights of way, public land, and land protected under conservation easements.

2. Existing Resources and Site Analysis Plan (ERSAP)

For all subdivisions/land developments (except those in which all proposed lots are to be ten or more acres in area), an Existing Resources and Site Analysis Plan (ERSAP) shall be prepared to provide the Applicant (also referred to herein as "Developer") and the Township with a comprehensive analysis of existing conditions, both on the proposed development site and within 500 feet of the site. Conditions beyond the parcel boundaries may be described on the basis of existing published data available from governmental agencies, and from aerial photographs. The plan shall be prepared in accordance with the prioritized list of resources as set forth in Section 812 and the general standards as set forth in Section 810.

The Township shall review the Plan to assess its accuracy, conformance with municipal ordinances/regulations, and likely impact upon the natural and cultural resources on the property. Unless otherwise specified by Township staff, such plans shall generally be prepared at the scale of 1" = 100' or 1" = 200', whichever would fit best on a single standard size sheet (24" x 36"). The following information shall be included in this Plan:

- a. A vertical aerial photograph enlarged to a scale not less detailed than 1 inch = 400 feet, with the site boundaries clearly marked.
- b. Topography, the contour lines of which shall be at two-foot intervals. Slopes between 20 and 35 percent and exceeding 35 percent shall be clearly indicated. Topography for subdivisions/land developments shall be prepared by a professional land surveyor or professional engineer from an actual field survey of the site or from stereoscopic aerial photography and shall be coordinated with official U.S.G.S. benchmarks.
- c. The location and delineation of ponds, streams, ditches, drains, and natural drainage swales, as well as the 100-year floodplain and wetlands.
- d. Vegetative cover conditions on the property according to general cover type including cultivated land, permanent grass land, meadow, pasture, old

field, hedgerow, woodland and wetland, trees with a caliper in excess of fifteen inches, the actual canopy line of existing trees and woodlands.

- e. Soil series, types and phases, as mapped by the U.S. Department of Agriculture, Natural Resources Conservation Service in the published soil survey for the county, and accompanying data published for each soil relating to its suitability for construction (and, in unsewered areas, for septic suitability).
- f. Ridge lines and watershed boundaries shall be identified.
- g. Geologic formations on the proposed development parcel, including rock outcroppings, cliffs, sinkholes, and fault lines, based on available published information or more detailed data obtained by the applicant.
- h. All existing man-made features including but not limited to streets, driveways, farm roads, wood roads, buildings, foundations, walls, wells, drainage fields, dumps, utilities, fire hydrants, and storm and sanitary sewers.
- i. Locations of all historically significant sites or structures on the tract, including but not limited to cellarholes, stone walls, earthworks, barns and graves.
- j. Locations of trails that have been in public use (pedestrian, equestrian, bicycle, etc.).
- k. All easements and other encumbrances of property which are or have been filed of record with the Recorder of Deeds of Adams County shall be shown on the plan.
- l. Total acreage of the tract, and the acreage of all primary constraints and corresponding percentage of the total tract acreage.

3. Four-Step Design Process for Conservation Design Subdivisions

All Preliminary Plans in the Conservation Design Overlay District shall include documentation of a four-step design process in determining the layout of proposed greenway lands, house sites, streets and lot lines, as described below.

- a. Step 1: Delineation of Greenway Lands
 - 1) The minimum percentage and acreage of required greenway lands shall be calculated by the applicant and submitted as part of the Preliminary Plan in accordance with the provisions of this Article and of the Zoning Ordinance. Greenway lands shall include all Primary Conservation Areas and those parts of the remaining buildable lands with the highest resource significance, as described below and in Sections 812.A and B.

- 2) Proposed greenway lands shall be designated using the Existing Resources and Site Analysis Plan (ERSAP) as a base map and complying with Sections 1403 and 1405 of the Zoning Ordinance and Sections 810, 811 and 812 herein, dealing with Resource Conservation and Greenway Delineation Standards. The Township's Map of Potential Conservation Lands in its Open Space Plan (Plates 1, 2, 3 and 4) shall also be referenced and considered. To the maximum extent possible, Greenway Lands shall be coordinated with greenway lands on adjacent tracts that have been developed or may be developed. Primary Conservation Areas shall be delineated comprising floodplains, wetlands and slopes over 35 percent. The area and percent of total area for both Primary and Secondary Conservation Areas shall be noted on the plans.
- 3) In delineating Secondary Conservation Areas, the applicant shall prioritize natural and cultural resources on the tract in terms of their highest to least suitabilities for inclusion in the proposed Greenway, in consultation with Township staff and in accordance with Sections 812.A and B herein.
- 4) On the basis of those priorities and practical considerations given to the tract's configuration, its context in relation to resource areas on adjoining and neighboring properties, Secondary Conservation Areas shall be delineated to meet at least the minimum area percentage requirements for greenway lands and in a manner clearly indicating their boundaries as well as the types of resources included within them.

b. Step 2: Location of House Sites

Potential house sites shall be tentatively located, using the proposed greenway lands as a base map as well as other relevant data on the Existing Resources and Site Analysis Plan (ERSAP) such as topography and soils. House sites should generally be located not closer than 100 feet from Primary Conservation Areas and 25 feet from Secondary Conservation Areas, taking into consideration the potential negative impacts of residential development on such areas as well as the potential positive benefits of such locations to provide attractive views and visual settings for residences.

c. Step 3: Alignment of Streets and Trails

Upon designating the house sites, a street plan shall be designed to provide vehicular access to each house. Impacts of the street plan on proposed greenway lands shall be minimized, particularly with respect to crossing environmentally sensitive areas such as wetlands and traversing slopes exceeding 20%. Street connections shall be designed to minimize the number of new cul-de-sacs to be maintained by the Township and to

facilitate access to and from homes in different parts of the tract (and adjoining parcels).

d. Step 4: Drawing in the Lot Lines

Upon completion of the preceding three steps, lot lines are drawn as required to delineate the boundaries of individual residential lots.

Applicants shall be prepared to submit four separate maps indicating the findings of each step of the design process, if so requested by Township staff, the Planning Commission or the Board of Supervisors.

4. Preliminary Resource Impact and Conservation Plan

- a. A Preliminary Resource Impact and Conservation Plan shall be prepared for all subdivision and land development applications to categorize the impacts of the proposed activities and physical alterations on those resources shown on the Existing Resources and Site Analysis Plan (ERSAP). All proposed improvements, including but not necessarily limited to grading, fill, streets, buildings, utilities and stormwater detention facilities, as proposed in the other Preliminary Plan documents, shall be taken into account in preparing the Preliminary Resource Impact and Conservation Plan, which shall clearly demonstrate that the applicant has minimized site disturbance to the greatest extent practicable.
- b. Using the Existing Resources and Site Analysis Plan as a base map, impact areas shall be mapped according to the following categories: (1) primary impact areas, i.e., areas directly impacted by the proposed subdivision, (2) secondary impact areas, i.e., areas in proximity to primary areas which may be impacted, and (3) designated protected areas, either to be included in a proposed Greenway or an equivalent designation such as dedication of a neighborhood park site.

5. Preliminary Improvements Plan

This plan shall include the following items:

- a. Historic resources, trails and significant natural features, including topography, areas of slope greater than 20% and 35%, wetlands, floodplains, swales, rock outcroppings, vegetation, existing utilities, and other site features, as indicated on the Existing Resources and Site Analysis Plan (ERSAP).
- b. Existing and proposed lot lines, lot areas, any existing easements and rights-of-way, and the boundaries of greenway lands.
- c. Location, alignment, width and tentative names of all proposed streets and street rights-of-way, including all street extensions or spurs that are reasonably necessary to provide adequate street connections and facilities

to adjoining development or undeveloped areas; preliminarily-engineered profiles for proposed streets.

- d. Location of proposed swales, drainage easements, stormwater and other management facilities.
- e. Where community sewage service is to be permitted, the layout of proposed sewage systems, including but not limited to the tentative locations of sewer mains and sewage treatment plants, showing the type and degree of treatment intended and the size and capacity of treatment facilities.
- f. Where central water service is to be permitted, the layout of proposed water distribution facilities including water mains, fire hydrants, storage tanks and, where appropriate, wells or other water sources.
- g. Location of all percolation tests, including all failed test sites or pits as well as those approved and including an approved alternate site for each lot requiring a sand mound system. All approved sites shall be clearly distinguished from unapproved sites.
- h. Limit-of-disturbance line (must be exact in relation to the retention of existing trees proposed to be saved).
- i. Location and dimensions of proposed playgrounds, public buildings, public areas and parcels of land proposed to be dedicated or reserved for public use.
- j. If land to be subdivided/developed lies partly in or abuts another municipality, the applicant shall submit information concerning the location and conceptual design of streets, layout and size of lots and provisions of public improvements on land subject to his control within the adjoining municipalities. The design of public improvements shall provide for a smooth, practical transition where specifications vary between municipalities. Evidence of approval of this information by appropriate officials of the adjoining municipalities also shall be submitted.
- k. Where the applicant proposes to install the improvements in phases, he shall submit with the Preliminary Plan a delineation of the proposed sections and a schedule of deadlines within which applications for final approval of each section are intended to be filed.
- l. Typical street cross-section drawing(s) for all proposed streets shall be shown, including details relating to thickness, crowning and construction materials.
- m. Utilities and Easements.
 - 1) Exact locations of existing utility easements and locations of proposed utility easements.

- 2) Layout of all proposed sanitary and storm sewers and location of all inlets and culverts, and any proposed connections with existing facilities.
- 3) The tentative location of proposed on-site sewage and water facilities.
- n. Approximate location of proposed shade trees, plus locations of existing vegetation to be retained.
- o. Recommendation and approval blocks for the Planning Commission, Board of Supervisors, and the County Planning Commission shall be provided on the Preliminary Improvements Plan.

6. Preliminary Studies and Reports

The Preliminary Plan submission shall include the following studies and documents to assist in determination of the impact of the application upon municipal services and facilities:

- a. Sewer and Water Feasibility Report
- b. Groundwater Protection and Replenishment Study (including a water impact study where required by Section 807)
- c. Erosion and Sedimentation Control Plan
- d. Traffic Impact Study where required by Section 806
- e. Community Association Document
 - 1) A Community Association Document, also known as a Homeowner's Association Document or a Condominium Association Document, shall be provided for all subdivision and land development applications which propose lands or facilities to be used or owned in common by all the residents of that subdivision or land development and not deeded to the municipality.
 - 2) The elements of the Community Association Document shall include, but shall not necessarily be limited to the following:
 - a) The applicant shall provide the Township a description of the organization of the proposed association, including its by-laws, and all documents governing ownership, maintenance, and use restrictions for common facilities and greenway;
 - b) The proposed association shall be established by the owner or applicant and shall be operating (with financial subsidization by the owner or applicant, if necessary) before the sale of any dwelling units in the development;
 - c) Membership in the association shall be automatic (mandatory) for all owners of dwelling units and/or lots therein and their successors in title;

- d) A description of all lands and facilities to be owned by the Association. This description shall include a map of the proposal highlighting the precise location of those lands and facilities;
- e) Statements setting forth the powers, duties, and responsibilities of the Association, including the services to be provided;
- f) The association shall be responsible for maintenance and insurance of common facilities;
- g) A Declaration of Covenants, Conditions, and Restrictions, giving a perpetual conservation easement to the lands and facilities owned by the Association. The document shall legally ensure that no development of any kind shall occur in the greenway (open) space except as allowed by Section 1405 of the Zoning Ordinance. The Declaration shall be a legal document and shall describe the mechanism by which owners participate in the Association, including voting, elections, and meetings. Furthermore, it shall give power to the Association to own and maintain the common property and to make and enforce rules;
- h) Requirements for all owners to provide a pro rata share of the cost of the operations of the Community Association;
- i) A process of collection and enforcement to obtain funds from owners who fail to comply.
- j) The by-laws shall confer legal authority on the association to place a lien on the real property of any member who falls delinquent in his dues. Such dues shall be paid with the accrued interest before the lien may be lifted;
- k) Statements prescribing the process by which Association decisions are reached and setting forth the authority to act;
- l) Written notice of any proposed transfer of common facilities by the association or the assumption of maintenance for common facilities must be given to all members of the association and to the Township no less than thirty days prior to such event;
- m. The association shall have adequate staff to administer, maintain, and operate such common facilities;
- n) Statements setting cross covenants or contractual terms binding each owner to all other owners for mutual benefit and enforcement.
- o) A process for transition of control of the Association from the developer to the unit owners;
- p) Statements describing how the lands and facilities of the Association will be insured, including limit of liability;
- q) Provisions for the dissolution of the Association, in the event the Association should become inviable.

C. Preliminary Greenway Ownership and Management Plan

Using the Preliminary Plan as a base map, the boundaries, acreage and proposed ownership of all proposed Greenway areas shall be shown. In addition, the applicant shall also submit a Preliminary Greenway Ownership and Management Plan detailing the entities responsible for maintaining various elements of the property, and describing management objectives and techniques for each part of the property. Such management plans shall be consistent with the requirements of Section 1408 of the Zoning Ordinance.

SECTION 802 - Final Plan

Final plans shall conform to the approved Preliminary Plan. A Final Plan shall consist of and be prepared in accordance with Article VII of This Ordinance and with the following:

A. Existing Resources and Site Analysis Plan

A plan as stipulated in Section 801.B.2 consistent with the terms of Preliminary Plan approval and modified as necessary to reflect the proposal for final approval.

B. Final Resource Impact and Conservation Plan

1. This plan shall comply with all of the requirements for the Preliminary Resource Impact and Conservation Plan, as set forth in Section 801.B.4 to reflect all proposed improvements described in the other Final Plan documents as required under Section 802 herein.
2. In addition to the requirements of Section 801.B.4 the applicant shall submit an accompanying Resource Assessment Report divided into the following sections: (1) description of existing resources (as documented in Section 801.B.2), (2) impacts of the proposed subdivision on existing resources, correlated to the areas depicted in the Final Resource Impact and Conservation Plan, and (3) measures taken to minimize and control such impacts both during and following the period of site disturbance and construction. The qualifications and experience of the preparer of this report shall be provided.

C. Final Improvements Construction Plan

Where public or private improvements other than street traffic signs are to be required for any subdivision or land development, an Improvements Construction Plan and specifications, prepared by a registered professional engineer, shall be filed, setting forth the precise nature and exact location of the work and all engineering data necessary for completion of the work. The improvements construction plan and specifications shall be subject to approval of the Board as a prerequisite to approval of the Final Plan. The Improvements Construction Plan shall conform with the following standards and contain the following information:

1. All information required in Section 800.B and Section 801.B.5 relating to existing features and resources on the site.

2. Detailed profile sheets for all proposed streets within the tract.
3. If required, a plan, details and specifications of street lights to be installed, together with the necessary contract for street light installation for approval by the municipality.
4. Detailed design of any stormwater management facilities that may be required.
5. Where off-site or community sewer service is to be provided, the final detailed design of all facilities, including, but not limited to, sewer mains, manholes, pumping stations, and sewage treatment facilities.
6. Where off-site or central water service or water supply is to be provided, the final detailed design, including location and size of water service facilities within the subdivision, shall be shown, including wells, storage tanks, pumps, mains, valves, and hydrants.
7. Detailed designs for all other improvements as required by this Ordinance and all other applicable Township Ordinances.

D. Final Stormwater Management and Erosion & Sedimentation Control Plan

To be prepared in accordance with the Stormwater Management and Erosion and Sedimentation Control Requirements of This Ordinance, the Hamiltonban Township Act 167 Stormwater Management Ordinance, and the rules and regulations of the Adams County Conservation District and the Pennsylvania Department of Environmental Protection.

E. Final Greenway Ownership and Management Plan

Using the Final Plan as a base map, the precise boundaries, exact acreage, and proposed ownership of all proposed Greenway areas shall be shown. A narrative report shall also be prepared indicating how and by whom such Greenway areas will be managed, and demonstrating compliance with the Hamiltonban Township Zoning Ordinance, including but not limited to, Section 1400. Conservation easements shall also be identified, documented and executed as part of the Final Greenway Ownership and Management Plan.

F. Final Landscape Plan

A plan depicting the landscaping to be performed in the greenway as required by this Article and Article XIV of the Township Zoning Ordinance, setting forth the type of grass or other appropriate ground cover in the greenway, and in addition, the planting of evergreen and deciduous trees and shrubs, including the maintenance thereof, for the control of erosion, retention of precipitation, promotion of human comfort and otherwise protecting the public health, safety and welfare.

G. Additional Approvals, Certificates and Documents

1. All offers of dedication of realty or structures and all declarations, easements and covenants governing the reservation and maintenance of undedicated greenway, for the Final Plan shall be in such form as shall be satisfactory to the Board.
2. A copy of such deed restrictions, easements, covenants and declarations which are to be imposed upon the property to comply with the Final Plan as approved by the Board. All such documents shall be in such form as is satisfactory to the Board and further subject to the approval of Township Solicitor.

SECTION 803 - General

- A. Overview of Procedures: Items 1-4 and 6-11 below are required under this Article. Item 5 (Sketch Plan Submission and Review) is optional but strongly encouraged as an important, valuable and highly recommended step that will speed the review process and may result in lower costs for the project. These steps shall be followed sequentially, and may be combined only at the discretion of the municipality:
1. Pre-Application Meeting
 2. Existing Resources and Site Analysis Plan, as described in Section 801.B.2 of this Ordinance
 3. Site Inspection by Township Staff and Applicant
 4. Pre-Sketch Plan Conference between Township Staff and Applicant
 5. Sketch Plan Submission and Review
 6. Preliminary Plan: The Plan shall comply with the requirements as set forth in this Article.
 7. Sewage Planning Module must be submitted, reviewed and approved by the appropriate governmental bodies.
 8. Final Plan, Preparation: Meeting the requirements of this Article and incorporating all Preliminary Plan Approval Conditions. In addition, approval of other agencies as required shall be provided.
 9. Final Plan, Submission: Determination of Completeness, Review, and Approval
 10. Board of Supervisors signatures
 11. Recording of approved Final Plan with County Recorder of Deeds

SECTION 804 - Submission and Review of Informal Sketch Plan, other Documents Required and Meetings.

A. Sketch Plan

An informal diagrammatic sketch plan is strongly encouraged for all land developments or subdivisions. Sketch Plans, as described in Section 800, may be submitted to the Township for review by the Planning Commission or Township staff. Such plans are for informal discussion only. Submission of a Sketch Plan does not constitute formal filing of a plan with the Township, and shall not commence the statutory review period as required by the Municipalities Planning Code. The procedures for submission of a diagrammatic Sketch Plan are described in Section 804.F below, and may be altered only at the discretion of the Township or Township staff.

B. Pre-Application Meeting

A pre-application meeting is encouraged between the applicant, the site designer, and the Township staff and any Township consultants, to introduce the applicant to the Township's zoning and subdivision regulations and procedures, to discuss the applicant's objectives, and to schedule site inspections, meetings and plan submissions as described below. Applicants are also encouraged to present the Existing Resources and Site Analysis Plan at this meeting.

C. Existing Resources and Site Analysis Plan

Applicants shall submit an Existing Resources and Site Analysis Plan, in its context, prepared in accordance with the requirements contained in Section 801.B.2. The purpose of this key submission is to familiarize officials with existing conditions on the applicant's tract and within its immediate vicinity, and to provide a complete and factual reference for them in making a site inspection. This Plan shall be provided prior to or at the site inspection, and shall form the basis for the development design as shown on the diagrammatic Sketch Plan (or on the Preliminary Plan, if the optional Sketch Plan is not submitted).

D. Site Inspection

After preparing the Existing Resources and Site Analysis Plan, applicants shall arrange for a site inspection of the property by members of the Township staff and any other interested Township officials, and shall distribute copies of said site analysis plan at that on-site meeting. Applicants, their site designers, and the landowner are encouraged to attend the site inspection.

The purpose of the visit is to familiarize local officials with the property's existing conditions and special features, to identify potential site design issues, and to provide an informal opportunity to discuss site design concepts, including the general layout of designated greenway lands and potential locations for proposed buildings and street alignments. Comments made by Township officials or their staff and consultants shall be interpreted as being only suggestive. It shall be

understood by all parties that no formal recommendations can be offered, and no official decisions can be made, at the Site Inspection.

E. Pre-Sketch Conference

Following the site inspection and prior to the submission of a diagrammatic sketch plan, the applicant shall meet with the Township staff to discuss the findings of the site inspection and to develop a mutual understanding on the general approach for subdividing and/or developing the tract in accordance with the four-step design procedure described in Sections 801.B.3 and 811.B of this Ordinance, where applicable. At the discretion of the Township, this conference may be combined with the site inspection.

F. Sketch Plan Submission and Review

1. Copies of a diagrammatic Sketch Plan, meeting the requirements set forth in Section 800, may be submitted to the Township during regular business hours for distribution to the Planning Commission, the Township Engineer and any other applicable municipal advisory boards or consultants at least ten (10) days prior to the Planning Commission meeting at which the Sketch Plan is to be discussed. The Sketch Plan diagrammatically illustrates initial thoughts about a conceptual layout for greenway lands, house sites, and street alignments, and shall be based closely upon the information contained in the Existing Resources and Site Analysis Plan. The Sketch Plan shall also be designed in accordance with the four-step design process described in Section 801.B.3, § 811.B, and with the design review standards listed in Sections 812.A and B.
2. The Planning Commission or Township staff shall review the Sketch Plan in accordance with the criteria contained in this Article and with other applicable Ordinances of the Township. Their review shall informally advise of the extent to which the proposed subdivision or land development conforms to the relevant standards of this Article, and may suggest possible plan modifications that would increase its degree of conformance. Their review shall include but is not limited to:
 - a. the location of all areas proposed for land disturbance (streets, foundations, yards, septic disposal systems, storm water management areas, etc.) with respect to notable features of natural or cultural significance as identified on the applicant's Existing Resources and Site Analysis Plan and on the Township's Map of Potential Conservation Lands; (See Plates 1, 2, 3 and 4 attached to the Open Space Chapter of the Township Comprehensive Plan.)
 - b. the potential for street connections with existing streets, other proposed streets, or potential developments on adjoining parcels;
 - c. the location of proposed access points along the existing road network;
 - d. the proposed building density and impervious coverage;

- e. the compatibility of the proposal with respect to the objectives and policy recommendations of the Comprehensive Plan and the Open Space Plan; and
- f. consistency with the Zoning Ordinance.

SECTION 805 - Submission Of Preliminary Plan Documents

A. Preliminary Plan

- 1. The Preliminary Plan is an engineered scale drawing. If an applicant opts not to submit a Sketch Plan, the Preliminary Plan shall include all information required for Sketch Plans listed in Section 800, specifically including the Existing Resources and Site Analysis Plan, plus further details as noted below in Section 801, in this Article and in the Zoning Ordinance.
- 2. The applicant shall complete and sign the application form provided by the Township and shall accompany such application form with the type and number of plans, documents and other submissions required and the appropriate filing fee(s). The applicant must identify the name, address and telephone number of the record holder of legal title to the land involved (if different from the applicant), the nature of the applicant's interest in the land (whether holder of legal or equitable title or otherwise), and the name, address, and telephone number of the agent, if any. No application shall be deemed filed unless all requirements have been met and all fees therefore paid in full. The Review Procedure requirements set forth in Section 601 of this Ordinance shall be complied with.
- 4. Within ten (10) days of submission of the Preliminary Plan, a Site Inspection as described in Section 804.D shall take place.

SECTION 806 - Review Of Preliminary Plan

The plan shall be reviewed as per the standard Preliminary Plan requirements found in Section 601 of the Township Subdivision and Land Development Ordinance.

SECTION 807 - Submission Of Final Plan Documents

- A. Within three (3) years after approval of the Preliminary Plan, a Final Plan and all supplementary data, together with an application form provided by the Municipality and filing fees shall be officially submitted to the Township. The Detailed Final Plan shall conform to the requirements set forth in Section 802. It shall also conform to the Preliminary Plan as previously reviewed by the Planning Commission and approved by the Board, and shall incorporate all conditions set by the Municipality in its approval of the Preliminary Plan. No application shall be deemed filed unless all requirements have been met and all fees paid in full.

- B. The Board may permit submission of the Final Plan in phases, each covering a reasonable portion of the entire proposed development as shown on the approved Preliminary Plan; provided that the first Final Plan phase shall be submitted within one (1) year after approval of the Preliminary Plan. Each subsequent phase shall be submitted within one (1) year of approval of the previous phase, provided all phases have been submitted within five (5) years after the date of Preliminary Plan approval.
- C. Unless the filing deadline in Section 807.A is waived or extended by the Board, failure to make timely submission of final plans renders void a Preliminary Plan, and the applicant shall be required to file a new application and fee for Preliminary Plan approval.
- D. Official submission of the Final Plan to the Township shall be pursuant to the requirements in Article VII of this Ordinance.

SECTION 808 - Review Of Final Plan

The plan shall be reviewed as per the standard Final Plan requirements found in Section 701 of the Township Subdivision and Land Development Ordinance.

**SECTION 809 - Resource Conservation and Greenway Delineation Standards-
Applicability**

The standards for resource conservation and greenway delineation shall apply to all subdivision and land developments within the Conservation Design Residential Overlay District only.

SECTION 810 - Planning and Design Standards

A. General Standards to Minimize Adverse Impacts

All subdivisions and land developments in the Conservation Design Overlay District shall avoid or minimize adverse impacts on the Township's natural, cultural and historic resources, as defined below. In addition, all subdivisions and land developments in the Conservation by Design Overlay District shall allocate land to the greenway according to the Prioritized List of Resources to be conserved set forth in Section 812 below.

B. Groundwater Resources

Groundwater resources are to be protected for purposes of providing water supplies for its residents and businesses, and to protect the base flow of the Township's surface waters. These regulations shall be applied in conjunction with those provided for in other sections of this Ordinance, dealing with groundwater conservation and replenishment.

1. The proposed subdivision and land development of any tract shall be designed to cause the least practicable disturbance to natural infiltration and percolation of precipitation to the groundwater table, through careful planning of vegetation and land disturbance activities, and the placement of streets, buildings and other impervious surfaces in locations other than those identified on the Existing Resources and Site Analysis Plan as having the greatest permeability where precipitation is most likely to infiltrate and recharge the groundwater.

C. Stream Valleys, Floodplain, Wetlands, Springs and Lowland Areas

The Township's Open Space Plan describes and maps stream valleys, floodplain, wetlands, springs and lowland areas as resources that warrant restrictive land use controls because of flooding hazards to human life and property, their ground water recharge functions, their importance to water quality and the health of aquatic communities, and their wildlife habitats. They are generally poorly suited for on-site subsurface sewage disposal systems.

1. The following activities shall be minimized:
 - a. Disturbance to streams and drainage swales.
 - b. Disturbance to year-round wetlands, areas with seasonally high water tables, and areas of surface water concentration.
 - c. Because of their extreme limitations, stream valleys, floodplain, wetlands, springs and lowland areas warrant designation as greenway lands. Floodplain and Wetlands must be included as Greenway Lands. They may also require adjoining buffer lands to be included in the Greenway, to be determined by an analysis of the protection requirements of such areas on a case-by-case basis. In certain instances, seasonal high water table soils may be excluded from the Greenway where it can be demonstrated that they are suitable for low density residential uses and conventional on-site sewage systems.

D. Woodlands

Woodlands occur within the Township, often in association with stream valleys and wet areas, poor and erodible agricultural soils, and moderate to steep slopes.

1. Woodland conditions vary with respect to species composition, age, stocking, and health. They range from relatively recent post-agricultural young stands to mature mixed-age forests. Most woodlands represent one or more of the following resource values:
 - a. As soil stabilizers, particularly on moderate to steep slopes, thereby controlling erosion into nearby streams, ponds, impoundments and roads. A closely related function is their enhancement of ground water recharge.
 - b. As a means of ameliorating harsh microclimatic conditions, in both summer and winter.
 - c. As a source of wood products, i.e., poles, sawtimber, veneer and firewood.

- d. As habitat for woodland birds, mammals and other wildlife.
 - e. As recreation resources for walkers, equestrians, picnickers and other related outdoor activities.
 - f. As visual buffers between areas of development and adjacent roads and properties.
2. Because of their resource value, all woodlands on any tract proposed for subdivision or land development shall be evaluated by the applicant to determine the extent to which such woodlands should be designated partly or entirely as Greenway or development lands. Evaluation criteria shall include:
 - a. Configuration and size.
 - b. Present conditions, i.e., stocking, health and species composition.
 - c. Site potential, i.e., the site's capabilities to support woodlands, based upon its topographic, soil and hydrologic characteristics.
 - d. Ecological functions: i.e., in protecting steep slopes, erodible soils, maintaining stream quality and providing for wildlife habitats.
 - e. Relationship to woodlands on adjoining and nearby properties and the potential for maintaining continuous woodland areas.
 3. The evaluation of the tract's woodlands shall be undertaken by a qualified professional acceptable to the Township. This evaluation shall be submitted as a report and made a part of the Preliminary Plan application. At a minimum, that report shall include mapping indicating boundaries and conditions of woodland areas accompanied by a report addressing the criteria in paragraph 2 above.
 4. In designing a subdivision and land development plan for any tract, the applicant shall be guided by the following standards:
 - a. Healthy woodlands exceeding one acre shall be preserved and designated as Greenway areas, to the maximum extent possible. Proposed site improvements shall be located, designed and constructed to minimize the loss or degradation of woodland areas.
 - b. Subdivisions shall be designed to preserve woodlands along roadways, property lines, and streams. Such lines and the native vegetation associated with them shall be preserved as buffers between adjacent properties and between areas being subdivided within a property. Preservation shall include ground, shrub, understory and canopy vegetation.
 - c. Disturbance or removal of woodlands occupying environmentally sensitive areas shall be undertaken only when approved by the Board and on a limited, selective basis to minimize the adverse impacts of such actions. This shall include but not necessarily be limited to, vegetation

performing important soil stabilizing functions on wet soils, stream banks and sloping lands.

- d. No clearing or earth disturbance (except for soil analysis for proposed sewage disposal systems) shall be permitted on a site before the completion of subdivision and land development agreements. The determination of sight distance clearances along roadways shall be made graphically and not by clearing on-site prior to final plan approval.

E. Upland Rural-Agricultural Areas

These areas comprise fields, pastures, meadows, and former agricultural areas in early stages of woodlands succession. These comprise the Township's historic working landscape, dotted with historic houses, barns and other structures. They give the Township much of its rural character. They also contain the greatest concentration of prime agricultural soils. Because of their openness and high visibility, development in these areas is likely to be most readily seen and disruptive to the historic landscape. They sometimes provide habitat for wildlife, in conjunction with nearby woodlands and stream valleys.

1. Several elements of these working landscapes lend themselves to incorporation into the Township's Greenway network. These include Class I, II and III agricultural soils and natural features which visually punctuate the landscape, such as hedgerows, tree copses, stone walls, and visually prominent places such as knolls and hilltops.
2. These areas can also accommodate development, with preferred locations being the non-Class I, II and III agricultural soils and lower topographic settings where development will be visually less obtrusive. Compact clustered residential designs are encouraged in highly visible locations where future development cannot be avoided (such as at the far edge of open fields).

F. Slopes

Moderately sloping lands (20 to 35 percent) and steeply sloping lands (over 35 percent) are prone to severe erosion if disturbed. Erosion and the resulting overland flow of soil sediments into streams, ponds and public roads, are detrimental to water quality and aquatic life, and a potential hazard to public safety. Areas of steep slope shall be preserved as required below.

1. All grading and earthmoving on slopes exceeding 20 percent shall be minimized.
2. No site disturbance shall be allowed on slopes exceeding 35 percent. Slopes exceeding 35% must be in the Greenway.
3. On slopes of 20 to 35 percent, the only permitted grading beyond the terms described above, shall be in conjunction with the siting of a single family dwelling, its access driveway and the septic system (which should typically be designed with a long, narrow drainage field following the land contours).
4. Grading or earthmoving on all sloping lands of 20% or greater shall not result in earth cuts or fills whose highest vertical dimension exceeds six feet, except

where in the judgment of the Board no reasonable alternatives exist for construction of roads, drainage structures and other public improvements, in which case such vertical dimensions shall not exceed 12 feet. Roads and driveways shall follow the line of existing topography to minimize the required cut and fill. Finished slopes of all cuts and fills shall be as required to minimize disturbance of natural grades.

G. Significant Natural Areas and Features

Natural areas containing rare or endangered plants and animals, as well as other features of natural significance exist throughout the Township. Some of these have been carefully documented by the Statewide Natural Diversity Inventory and the County's Natural Areas Inventory, whereas for others, only their general locations are known. Subdivision applicants shall protect significant natural areas and features either identified by the Township's Map of Potential Conservation Lands or by the applicant's Existing Resources and Site Analysis Plan (as required in Section 804.C) by incorporating them into proposed Greenway areas or avoiding their disturbance in areas proposed for development.

H. Historic Structures and Sites

Many of the Township's historic structures and sites have been extensively researched and remain intact.

1. Plans requiring subdivision and land development approval shall be designed to protect existing historic resources of all classes. The protection of an existing historic resource shall include the conservation of the landscape immediately associated with and significant to that resource, to preserve its historic context. Where a plan will have an impact upon an historic resource, the developer shall mitigate that impact by modifying the design, relocating proposed lot lines, providing landscape buffers, or other approved means.
2. Municipal participation, review and approval of the applicant's interaction with the State Historical and Museum Commission with regard to the preservation of historic resources, as required for DEP approval of proposed sewage disposal systems, shall be required prior to Final Plan approval.

I. Trails

1. When a subdivision or land development proposal is traversed by or abuts an existing trail customarily used by pedestrians and/or equestrians, the applicant shall make provisions for continued recreational use of the trail.
2. The applicant may alter the course of the trail within the tract for which development is proposed under the following conditions:
 - a. The points at which the trail enters and exits the tract remain unchanged.
 - b. The proposed alteration exhibits quality trail design according to generally accepted principles of landscape architecture (For example: Bureau of State Parks publication Non-Motorized Trails).

- c. The proposed alteration does not coincide with a paved road intended for use by motorized vehicles.
3. When trails are intended for public or private use, they shall be protected by a permanent conservation easement on the properties on which they are located. The width of the protected area in which the trail is located should be a minimum of ten feet. The language of the conservation easement shall be to the satisfaction of the Board upon recommendation of the Township Solicitor.
4. The land area permanently designated for trails for public use may be credited toward the greenway land requirement described in Section 1403 of the Zoning Ordinance.
5. An applicant may propose and develop a new trail. If said trail is available for use by the general public and connects with an existing trail, the land area protected for said trail may be credited toward the open space requirement described in Section 1403 of the Zoning Ordinance.
6. Trail improvements shall demonstrate adherence to principles of quality trail design.
7. Trails shall have a vertical clearance of no less than ten (10) feet.
8. Width of the trail surface may vary depending upon type of use to be accommodated, but in no case shall be less than three (3) feet or greater than six (6) feet.
9. No trail shall be designed with the intent to accommodate motorized vehicles.

SECTION 811 - Design Process For Residential Subdivisions With Greenway Lands

- A. Resource Inventory and Analysis.** The tract's resources shall be delineated on an Existing Resources and Site Analysis Plan, as required in Section 801.B.2.
- B. Four-Step Design Process.** Following the resource inventory and analysis, all residential subdivisions with greenway lands shall generally follow a four-step design process as described below. Applicants will be required to document the design process as described in Section 801.B.3.
 1. Step 1: Delineation of Greenway Lands and Development Areas

Greenway lands and development areas shall be delineated according to the applicable required percentage of required open space for the selected design option in the subject zoning district. A Yield Plan illustrating the potential development of the property shall be prepared to identify the intensity of allowable development under the conservation design process.

 - a. The locations and boundaries of Primary Conservation Areas shall follow the actual boundaries of floodplains, wetlands and steep slopes.
 - b. The locations and boundaries of Secondary Conservation Areas shall be prepared using the design standards in this Article. The "Prioritized List of

Resources to be Conserved” as set forth in Section 812 shall be followed. The applicant shall also be guided by any recommendations provided by the municipality regarding the delineation of Secondary Conservation Areas lands, following the Site Inspection or the Pre-Sketch Conference and the General Standards as set forth in Section 810.

- c. Development areas constitute the remaining lands of the tract outside of the designated Greenway areas where house sites, streets and lots are to be delineated in accordance with steps 2, 3 and 4 below.

2. Step 2: Location of House Sites

- a. Applicants shall identify house site locations in the tract's designated development areas, designed to: fit the tract's natural topography, served by adequate water and sewerage facilities, and provide views of and access to adjoining Greenway areas. House sites should be located no closer than 100 feet and 25 feet from Primary and Secondary Conservation Areas, respectively.

3. Step 3: Alignment of Streets and Trails

- a. With house site locations identified, applicants shall delineate a street system to provide vehicular access to each house in a manner conforming to the tract's natural topography and providing for a safe pattern of circulation and ingress and egress to and from the tract.
- b. Streets shall minimize adverse impacts on the Greenway areas. To the greatest extent practicable, wetland crossings and new streets or driveways traversing slopes over 20 percent shall be avoided.
- c. Street connections shall generally be encouraged to minimize the number of new cul-de-sacs to be maintained by the Township and to facilitate easy access to and from homes in different parts of the tract (and on adjoining parcels).
- d. A tentative network of trails shall also be shown, connecting streets with various natural and cultural features in the conserved greenway lands. Potential trail connections to adjacent parcels shall also be shown, in areas where a Township trail network is envisioned.

4. Step 4: Design of Lot Lines

Lot lines for the subdivision should be drawn as the last step in the design procedure. They should follow the configuration of house sites and streets in a logical and flexible manner.

SECTION 812 - Greenway Design Review Standards

A. Prioritized List of Resources to be Conserved. The design of greenway lands in any subdivision or land development plan shall reflect the standards set forth in Section 810. Land shall be allocated to be used as Greenway land according to the following Priority List:

1. Wetlands, slopes greater than 35% and/or floodplain.
2. Stream channels, swales, springs and other lowland areas, including adjacent buffer areas which may be required to insure their protection.
3. Significant natural areas of species listed as endangered, threatened, or of special concern, such as those listed in the Statewide Natural Diversity Inventory and the County's Natural Areas Inventory.
4. Moderate slopes (20-35%), particularly those adjoining water courses and ponds, where disturbance and resulting soil erosion and sedimentation could be detrimental to water quality.
5. Healthy woodlands, particularly those performing important ecological functions such as soil stabilization and protection of streams, wetlands and wildlife habitats.
6. Class I, II and III agricultural soils as defined by the USDA Natural Resources Conservation Service.
7. Areas where precipitation is most likely to recharge local groundwater resources because of topographic and soil conditions affording high rates of infiltration and percolation.
8. Historic structures and sites.
9. Existing trails connecting the tract to other locations in the municipality. If any part of the tract is set aside to provide potential connections with the Township's long range trail network, then this part of the tract shall be ranked as number 2 on this list and the remaining priorities shall be adjusted accordingly.
10. Hedgerows, groups of trees, large individual trees of botanic significance, and other vegetation features representing the site's rural past.

The above priority list may be modified if the Township determines that certain resources listed above deserve a higher priority due to unique characteristics of the land to be developed/subdivided.

B. Other Design Considerations. The configuration of proposed greenway lands set aside for common use in residential subdivisions shall comply with the following standards:

1. They shall be free of all structures except historic buildings, stone walls, and structures related to Greenway uses. Structures and improvements required for storm drainage, sewage treatment and water supply may be located within the Greenway provided that such facilities would not be detrimental to the Greenway.
2. They shall not include parcels smaller than three acres, have a length-to-width ratio of less than 4:1, or be less than 75 feet in width, except for such lands specifically designed as neighborhood greens, playing fields or trail links.
3. They shall be directly accessible to the largest practicable number of lots within the subdivision. Non-adjointing lots shall be provided with safe and convenient pedestrian access to greenway land.
4. They shall be suitable for active recreational uses to the extent deemed necessary by the Board, without interfering with adjacent dwelling units, parking, driveways, and roads.
5. They shall be interconnected wherever possible to provide a continuous network of Greenway lands within and adjoining the subdivision.
6. They shall provide buffers to adjoining parks, preserves or other protected lands.
7. Except in those cases where part of the greenway is located within private houselots, they shall provide for pedestrian pathways for use by the residents of the subdivision. Public access may be required on such trails if they are linked to other publicly-accessible pathway systems within the Township. Provisions should be made for access to the greenway lands, as required for land management and emergency purposes.
8. They shall be undivided by public or private streets, except where necessary for proper traffic circulation.
9. They shall be suitably landscaped either by retaining existing natural cover and wooded areas and/or according to a landscaping plan to protect Greenway resources.
10. They shall be made subject to such agreement with the Township and such conservation easements duly recorded in the office of the County Recorder of Deeds as may be required by the Board for the purpose of preserving the common open space for such uses.
11. They shall be consistent with the Township's Open Space Plan.

- C. Ownership and Maintenance.** Applicants shall demonstrate compliance with the Greenway ownership and maintenance standards in Section 1408 of the Zoning Ordinance.

SECTION 813 - Resource Conservation Standards For Site Preparation and Cleanup

A. Conservation Practices During Site Preparation and Clean-Up

1. Protection of Vegetation from Mechanical Injury. Where earthwork, grading, or construction activities will take place in or adjacent to woodlands, old fields or other significant vegetation or site features, the limit of disturbance shall be delineated and vegetation protected through installation of temporary fencing or other approved measures. Such fencing shall be installed prior to commencing of and shall be maintained throughout the period of construction activity.
2. Protection of Vegetation from Grading Change. Grade changes to occur at any location of the property shall not result in an alteration to soil or drainage conditions which would adversely affect existing vegetation to be retained following site disturbance, unless adequate provisions are made to protect such vegetation and its root systems.
3. Protection of Vegetation from Excavations
 - a. When digging trenches for utility lines or similar uses, disturbances to the root zones of all woody vegetation shall be minimized.
 - b. If trenches must be excavated in the root zone, all disturbed roots shall be cut as cleanly as possible. The trench shall be backfilled as quickly as possible.
4. Protection of Topsoil
 - a. No topsoil shall be removed from the site during development and construction.
 - b. Prior to grading operations or excavation, topsoil in the area to be disturbed shall be removed and stored on site.
 - c. Topsoil removed shall be redistributed and stabilized as quickly as possible following the establishment of required grades for a project or project phase. All exposed earth surfaces shall be stabilized by hydroseeding on slopes of less than ten percent, and by sodding, hydroseeding, or rip-rap on slopes exceeding ten percent.
 - d. Grading and earthmoving operations shall be scheduled to minimize site disturbance during the period from November 1 to April 1, when revegetation of exposed ground is difficult.

- e. A target minimum topsoil depth across the entire development of four (4) inches is desirable. Each lot within the development shall be provided with adequate topsoil for site stabilization and the establishment of a healthy lawn.

5. Tree Protection

A tree protection plan shall be required for each Conservation Design development. Said plan shall be prepared and signed by a licensed landscape architect, arborist, or other similarly qualified professional.

SECTION 814 – Modifications

- A. The Board may, upon recommendation by the Planning Commission, permit the modification of the provisions of this Article, as per the requirements of Section 300.3 of This Ordinance.
- B. Any such modification within a Conservation Design development shall be subject to the following additional criteria:
 1. The design and modifications shall be in harmony with the purposes and the land-use standards contained in this article;
 2. The design and modifications shall generally enhance the development plan, the central core area, the streetscapes, and the neighborhoods, or at least not be any less desirable than the plan that could be created in conformance with this article;
 3. The design and modifications shall not produce lots or street systems that would be impractical or detract from the appearance of the District, and shall not adversely affect emergency vehicle access or deprive adjoining noncommercial properties of adequate light and air.
 4. Increased residential density or intensification of nonresidential uses shall be offset by corresponding special efforts by the applicant to improve the appearance of the development through enhanced architectural and landscaping efforts.
 5. The applicant shall demonstrate that the proposed modifications will produce equal or better results, from the Township's perspective, and represent the minimum modification necessary.
- C. If the Board determines that the applicant has met his/her burden, it may grant a modification of the requirements of this article. In granting modifications, the Board may impose such conditions as will, in its judgment, secure the objectives and purposes of this article.