Flexible Development Ordinance
Tinicum Township, Bucks County

ORDINANCE 103 FLEXIBLE DEVELOPMENT OPTION
1601. PURPOSES.

To establish an optional process allowing greater flexibility in development design to 'encourage more sensitive "density-neutral" layouts that are more harmoniously designed to preserve open space and the Township's essentially rural character. Among the important public purposes served by this Article are the following:

A. To help maintain the Township's distinctive rural character by locating new residential development in areas where the development's visibility from public roads, watercourses, neighboring dwellings and parks would be minimized, with an emphasis upon conserving scenic vistas, and by using design methods for such purposes;

B. To preserve significant scenic vistas, historic districts and historic buildings [especially in recognition of Section 604(l) of the PA Municipalities Planning Code and State Act 167 of 1961 regarding historic preservation]

C. To conserve steeply sloped areas, forested areas, creek valleys and other significant natural features that play an Important role In the ecological cycle, that provide for groundwater recharge, that reduce air pollution, and that are needed for wildlife habitats;

D. To encourage the preservation of productive agricultural land;

E. To steer development to those areas that are more physically suited for it

F. To encourage high-quality, attractive lot layout, site planning, street alignment and landscaping design that in respectful of the traditional landscape of the Township

G. To reduce Construction costs by lowering improvement costs per dwelling -- thereby encouraging affordable housing;

H. To allow each property owner a reasonable use of his or her land, related directly to its natural features, location, and accessibility;

I. To allow environmentally sensitive area's and open spaces to be preserved; overseen and maintained as parts of private lots, through homeowner's associations or through public or semi-public ownership;

J. To recognize the uniqueness and special features of the character of Tinicum Township;
K. To recognize the waterways/watersheds officially designated by the state and federal' governments as "Scenic" and as high priority for Scenic designation;

L. To recognize the presence of the Delaware and Lehigh Canal's National Heritage Corridor, relating to large areas of the Township;

M. To recognize the historic building districts and canal structures on the National Register of Historic Places, and those features officially determined to be National Register-eligible;

N. To avoid severe soil erosion and sedimentation, severely Increased storm water flown and speeds and degradation of water quality

O. To provide for modest incentives to encourage use of this method,

P. To encourage development that takes advantage of solar orientation and prevailing winds; and

Q. To provide compensatory relaxation of otherwise applicable requirements to offset restrictions necessary to accomplish the Township's responsibilities under the Pennsylvania Constitution, History Code, Floodplain Statute, Scenic Rivers Act and National Historic Preservation Act.

1602. APPLICABILITY

1602.A. The term "Flexible Development, shall refer to developments of single-family detached dwellings that meet the requirements of this Article as conditional use. The Flexible Development option provides greater site design flexibility while minimizing the impact of new development an Tinicum's significant historic and natural resources and rural character. Flexible Developments are a useful tool to protect substantial open space, especially in areas that are environmentally sensitive or visible from public roads, public parks and other public lands at densities equal or slightly greater that normally allowed in the zoning district. Modest incentives are offered to encourage higher quality site layout and design that carefully respect natural features and scenic views.

1. Standards The applicant shall show that the application moats the provisions of this Article and the other provisions of Township Ordinances. The Board of Supervisors shall make a written determination as to whether each flexible Development application meets not only the standards but also the stated purposes of this Article. The Board of Supervisors shall deny the conditional use application if the applicant fails to adequately demonstrate how the proposed Flexible Development would Improve the results produced, in terms of protective natural, scenic, historic and cultural features, as opposed to the results that would be likely to be attained by implementing a conventional-layout such as the one shown on the conceptual "Yield Plan".
2. Districts. A Flexible Development shall be permitted as a conditional use in the following zoning districts in Tinicum Townships RC, RA, CR, VR and VC.

1602.B. Time Limit on Approval The Board of Supervisors shall approve, conditionally approve or deny a conditional use application under this Article within 220 days after an application is provided which meets the requirements of this article, and after the appropriate Township Staff determine it to be complete, unless a written extension is granted by the applicant. Such time period may run concurrently with the review period for duly submitted subdivision plans after completed plans for each have been filed.

1602.C. Advantages of this Option. Flexible Development is intended to offer several distinct advantages to applicants, among which are the following:

1. First, as part of a conditional use approval, the Board of Supervisors may permit a reduction of the required minimum cartway width and required minimum street right-of-way width if the applicant proves to the satisfaction of the Board of Supervisors that such reduced widths would be adequate and not entail any road safety hazards. Such requests shall be reviewed by the Township Engineer.

2. Second, this Article permits a developer flexibility to shift dwellings to locations that involve less expensive construction.

3. Third, a developer can often avoid or reduce the effects of restrictive state and local, natural feature regulations (such as pertain to wetlands and stream crossings) by utilizing these flexible provisions to locate dwellings, roads and driveways away from sensitive environmental features. [However, Flexible Development does not enable a greater number of home to be built on environmentally-constrained properties, beyond the number of units that can be realistically demonstrated through "Yield Plans" described in Section 2603.B.1, below, plus a 10% density bonus as allowed under Section 1603.B.3.]

4. Fourth, this Article also allows dwellings to be clustered to reduce the costs of grading, reduce the length of streets and reduce the lengths of any utility lines that need to be constructed.

5. Fifth the open space that is retained through this approach provides developers with a distinct marketing advantage ever developments with no open spaces as numerous studies have confirmed that many home buyers are looking for houses located adjacent to or near permanently protected woodland or farmland. This approach allows developers to designate approximately half of their developable land as open space without losing any overall density.

1602.D. Minimum Tract Area A minimum tract area of four acres shall be required, except that the minimum tract area shall be two acres in the VC or VR district. "Tract-Area" shall be defined
to include the total lot area or the total lot area of contiguous lots or lots directly across a street or waterway from each other and that;

1. involves all of the lots in common ownership or common equitable ownership at the time of the development applications or adjoining lots under separate ownership when a joint application is filed.

2. includes the land area of rights-of-way of any now future streets proposed within the tract.

3. includes the land area of any proposed open space but,

4. does not include land areas within the existing and future rights-of-way of existing streets.

1602.D Coordinated Reviews The conditional use review should be coordinated with either the sketch and/or preliminary plan review process of the Subdivision and Land Development ordinance.

1603. DENSITY AND LOT INCENTIVES.

An approved Flexible Development Plan shall comply with the following density and lot requirements;

1603.A. Lot Area Lot Width and setback Reductions.

1. unless a more restrictive requirement is established by paragraph 1603.A.2 below, the following lot requirements may be reduced as-specified, provided that the total density of the entire tract does not exceed the maximum specified by this Article,

   a. RC and RA districts; the minimum lot area and minimum lot width shall be not less than 30 percent of what would otherwise be required. (i. e. two acres/200 feet in RA; three acres/225 feet in RC).

   b. All other applicable districts: the minimum lot area and minimum lot width shall be not less than 40 percent of what would otherwise be required.

   c. the access lane for lane lots may be reduced to 30 foot in width instead at 50 feet, unless it may be needed for access to remaining developable lands.

2. The following minimum lot area requirements shall apply, unless a more restrictive requirement is established by Section 1103.A above.

   a. If any principal building is not served by approved central water service and approved central sewage service, than the minimum lot area shall be 40,000 square
feet, except if the applicant proves to the satisfaction of the Board of Supervisors that approved Individual or community septic drain fields will be accommodated on commonly owned lot(s) with a permanent system for maintenance including easements, in which case the minimum lot area shall be as specified in paragraph 1603.A.2.b., below.

b. If a lot is served by approved central water service and on-lot septic system, the minimum lot area shall be 20,000 sq. ft., and the average minimum lot area shall not be less than 25,000 sq. ft.

3. Although sand mounds are structures, they may be permitted to be located within setback areas provided that the Board of Supervisors finds that the goals of this ordinance would be better met by doing so, and that such placement would not unduly impact existing or potential wall locations on the adjoining parcel(s).


a. The minimum front yard setback shall be reduced to 25 feet in any district where a larger setback would otherwise be required, except that such reduction shall not apply to a lot abutting a street that existed prior to the adoption of this Article. Up to twelve feet of such setback may be used for an unenclosed front porch. Also, front setbacks on lots where they front onto existing roads shall be consistent with the front setbacks normally required in the underlying district.

b. Where Section 1608.F. requires the preservation of trees and/or a larger setback fronting an existing street, it shall apply herein.

5. Side-And Rear Yard Setbacks. The aggregate minimum side yard setback for principal structures shall be reduced to 30 feet, with a minimum setback on one side of 15 feet in any district where a larger setback would otherwise be required.

Minimum side yard setbacks for accessory structures with more than 150 sq. ft. of floorspace shall be fifteen feet; for those with less than 150 sq. ft., the minimum side setback shall be ten feet. Side and rear yard setbacks to adjoining parcels abutting the Flexible Development proposal shall be those normally required in the underlying district.

1603.B. Maximum Density for Flexible Developments

1. Yield Plan. Unless exempted by paragraph 1603.B.4. below, the maximum density of a Flexible Development shall be based upon an analysis of the permitted maximum density if the same land would be approved as part of a conventional permitted-by-right development (not including a Performance standard Subdivision). The applicant shall provide a conceptual Yield Plan to scale showing a conventional development of the land. Such Yield Plan shall be prepared at the same level of detail as a typical sketch plan.
a. Such Yield Plan shall be prepared by a professional engineer, registered surveyor, registered landscape architect, or a professional land planner with demonstrated experience in designing flexible developments. Involvement by a landscape architect or professional land planner is specifically encouraged.

b. The Yield Plan shall show setback areas, lot lines, street rights-of-way and approximate building locations.

c. The Yield Plan shall show sufficient natural features to determine how the environmental requirements of the Zoning ordinance would affect the maximum number of dwellings permitted on the tract.

d. The Yield Plan shall show where a primary on-lot septic system could reasonably be located for each dwelling, considering PA DER regulations. The applicant shall provide septic deep hole or percolation test results on a sample of the proposed house lots, selecting those lots where such systems would be located on the most marginal soils for subsurface septic disposal (based upon the Bucks County Soil Survey, published by the U.S. Soil Conservation Service). For a lot to be counted in the 'Yield Plan', the results of these tests must demonstrate that these most questionable lots would in fact moot minimum PA DER regulations.

1) The number and location of the site(s) to be tested, and in what manner, shall be determined or verified by the Township Engineer.

2) The required testing of hypothetical septic locations under this subsection shall be accomplished by and signed by a PA licensed Sewage Enforcement Officer. If soil tests fail, those lots shall be eliminated and another sample group shall be tested (selected again by Township officials, as being the remaining most questionable lots). This process shall be repeated until all lots within any given sample pass the test for soil suitability. Septic permits and fees are not required for such tests of hypothetical future locations.

e. The Yield Plan is not required to include road or utility profiles, storm water calculations, or surveyed interior lot lines.

2. Determination of Maximum Density. Based upon the applicant's sketch plan, reviews of the Planning Commission, E.A.C., and Township Engineer and other Township consultants of the sketch plan showing compliance with Township requirements and federal and state wetland regulations, the Board of supervisors shall determine the maximum permitted-by-right density of the tract under conventional development regulations.

3: Density Bonus The maximum density of a flexible Development shall be equal to 110 percent of the maximum conventional density established in paragraph 1603.B.2 above.
4. Density Calculation Exception The requirements for a sketch plan and for proof of the number of permitted dwellings under a conventional development shall not apply if the applicant is proposing a maximum average of only one dwelling unit per ten acres, with such density maintained in the future through appropriate conservation easements granted to the Township.

1603.C Deed Restrictions and Easements. At a minimum, conservation easements in forms legally acceptable to the Board of Supervisors, in perpetuity, shall be required to ensure that lot area used towards calculating permitted development under this Article cannot be re-subdivided into additional lots. Such conservation easements should be granted to both the Township and a recognized land conservation organization acceptable to the Township.

1604. OTHER REQUIREMENTS.

The only requirements that shall differ from what would otherwise apply to a conventional permitted-by-right residential development are those requirements that are specifically stated in this Article as being adjusted. All other requirements of this Ordinance and the Township Subdivision and Land Development Ordinance shall still apply to a Flexible Development.

1605. UNIFIED DESIGN: OWNERSHIP: PHASING.

1605.A. Unified Design and Ownership. The development shall be designed as a unified, coordinated residential development, and shall be approved within a development plan controlled by a single development entity. After final subdivision approval and within an approved development/agreement, a developer may sell individual lots to different builders or home buyers I provided that the developer or his/her successor remains responsible together with the buyer for ensuring the compliance with the approved development plan.

1605.B. Phasing A flexible Development shall include a phasing plan that shall be approved by the Board of Supervisors. Such phases shall ensure that the requirements of this Article would be met after the completion of any one phase, and that the development could properly function without the construction of additional phases.

1606. OPEN SPACE Within 45 days after a completed application is submitted for a flexible Development the Board of Supervisors shall decide whether such a development will be required to include common open space or whether all of the land may be subdivided into privately owned lots. At the request of the applicant, as part of an informal sketch plan review, the Board of Supervision may make such decision prior to a formal conditional use application. The standards of this Article are written to that regardless of whether or not common open space is required, the same maximum total density limit will apply.

1. Standards for Decision. In deciding whether common open space will be required, the Board of Supervisors shall, at the minimum, consider the followings the request of the applicant, the need for common open space in that area of the Township, the potential to add recreation land to an existing or proposed public recreation area, the most feasible
method of ensuring proper oversight over such land and natural features, and the site of
the tract.

2. Subdivision and Land Development Ordinance. In addition, open space or recreation
fees may be required under any applicable provision of the Township subdivision and
Land Development Ordinance.

3. Amount of Open Space. The amount of open space required in each Flexible
Development shall be determined by the Board of Supervisors. A general standard of
50% of the tract area (minus land required for street and utility rights-of-way and/or
easements) shall be designated as open space. This percentage may be adjusted by 15%
above or below that figure by the board, depending upon the extent and character of the
resources, and depending upon whether the open space is to be located entirely within
private lots or located in an undivided preserve for use by the residents of that
subdivision. The required percentage of open space shall be adjusted upward from 50%
if the resource land is limited in its use for backyards or for passive recreation (such as
wetlands or slopes in excess of 25%). That percentage may be adjusted downward from
50% if the open space is made available for the general enjoyment of subdivision
residents. Designation of land as open space shall not reduce the potential number of
dwelling units that would normally be allowed on the development parcel in the district
where it is located. such open space shall be preserved, owned and maintained through
one of the methods established in the Township Zoning Ordinance. In the absence of
ordinance standards for open space, the Board may establish standards by resolution.

1607. SEWAGE DISPOSAL.

The following provisions apply to Flexible Developments or Performance Subdivisions:

1607.A. WATERWAY DISCHARGE AND FEASIBILITY. A Flexible Development or Performance
Subdivision shall be approved only if the applicant proves that:

1. the development will not involve a point-source discharge of waste water effluent into a
   waterway, and

2. another form of appropriate sewage disposal will be provided and be feasible.

1607.B. UTILITIES WITHIN OPEN SPACE.

1. A maximum of 25 percent of the required open space for a Flexible Subdivision may be
   used for approved methods of sewage disposal or central water facilities for the
development.

   a. Such sewage disposal methods include, but are not limited to, individual septic
      absorption fields (with septic tanks located on the same lot as the dwelling it
serves), community septic absorption fields, community mound systems, and spray irrigation systems.

1607.C. Ownership and Maintenance.

1. Any area used for common sewage disposal facilities shall be owned and maintained in common+ through a legally binding homeowners association or be provided for through a permanent easement.

2. The applicant shall prove that a long-term contract will be established (with provisions for renewals) with a professional company to operate and maintain all such sewage disposal facilities.

3. To ensure such proper maintenance, the Board of Supervisors may require the posting of a bond by the homeowners association.

1608. SCENIC, NATURAL FEATURE AND HISTORIC PRESERVATION.

The following standards shall apply for a Flexible Development, or Performance Subdivision. Note shall is mandatory, while "should" in very strongly encouraged. The Board of Supervisors, based upon review of the Planning Commissions may require adjustments to a proposed plan to ensure compliance with these standards.

1608.A. Building Sites The application for a conditional use approval shall designate the proposed outer extents of land areas (the "building envelope") within which each principal building and driveway are proposed to be constructed. Such proposed building areas shall be binding upon future purchasers of the lots, unless a revision to the plan is approved under the Subdivision and Land Development ordinance.

1. For the purposes of this Ordinance, a Scenic Waterway, shall be a waterway that has been designated by the applicable state or Federal entity as a "Scenic or "Wild-waterway or as eligible with priority under the Federal Wild and Scenic Rivers Act and/or the Pennsylvania Scenic Rivers Act or that has been determined by the Pennsylvania Dept. of Environmental Resources to be Priority 1-A Eligible for such designation.

2. Unless the applicant proves there is no prudent or feasible alternative, no new principal buildings shall be developed within the following distances of the normal high water mark of an official scenic waterway:

On sites of 20 or more acres: 300 feet

On sites of less than 20 acres: 200 feet
1608.B. Historic Structures and Districts. The Board of Supervisors may require reasonable adjustments in the plans for a Flexible Development or Performance Subdivision it deemed necessary in the sole discretion of the Board to protect a structure that the Board of Supervisors determines to be historically (including its context) or architecturally significant or to protect the character of an officially designated or eligible Historic District.

Such determination should be based upon a professional inventory of historic sites in the Township, and may be based upon a review by the Township Historical Commission.

Applicants shall preserve historically significant structures and shall preserve the setting around such buildings, through setbacks, landscaping, and other appropriate treatments.

1608.C. Protection of the Natural Landscape and Character of the Township.

1. Initial Review: An applicant is very strongly encouraged to submit a general sketch plan for an advisory review prior to submitting a complete conditional use or preliminary plan application. Such sketch plan should be reviewed by the Board of Supervisors, Planning Commission, Township Engineer and Township Environmental Council and an on-site visit should occur by Township officials.

2. Buildings shall be sited in ways that are consistent with the traditional natural landscape and rural character of Tinicum Township.

3. Scenic Vistas. To the extent consistent with other requirements in this article, principal buildings shall be located to minimize their intrusive Impact as seen from existing Township roads, public lands and public parks unless the applicant proves that there is no feasible and prudent Alternative.
   a. Such Scenic vistas shall be considered from views of existing public streets and from public parks and public recreation lands. The applicant shall show such major vistas on a copy of the proposed site plan.
   b. To accomplish this objective, buildings shall be located at the far edge of fields (as seen from the public roadway, public lands and public park, or behind hedgerows, while avoiding the middle of open fields that are part of scenic vistas.
   c. Within scenic vistas from a public street, public lands and public parks, the number of buildings visible from the street shall be minimized.
   d. When site conditions require screening to protect the scenic vista, landscape plans, including mature growth projections, shall be provided.

4. Ridge Lines Unless the applicant proves there is no-feasible or prudent alternative, buildings shall not be located on ridge lines. It development in proposed to approach a ridge line, then the top of any root line of a building shall be a minimum of 10 feet
lower than the average canopy height of existing trees that are to be preserved on the top of a "major ridge line, as seen from any public street(s), public lands and public parks, or an Acceptable landscape plan shall be submitted.

5. Streets and driveways shall be planned to minimize cut and fill, such as by aligning streets and driveways with topographic contour lines.

6. Scenic Features. The following scenic features shall be carefully considered in the site layout:
   a. existing mature woods
   b. canopies of trees over a street.
   c. an interesting edge between field and forest
   d. scenic meadows,
   e. significant cluster or row of trees
   f. panoramic views, scenic vistas or other distant views
   g. natural focal point
   h. Interesting cliffs or rock outcrops
   i. lake, pond, river, creek or waterfall
   j. picturesque farmsteads
   k. stone walls
   l. historic bridge
   m. historic site, hamlet, village or district
   n. landmark building
   o. varying, undulating views and directions along a road
   p. views from a historic village or hamlet

7. Lawn Areas The creation of extensive new grass lawn areas should be minimized, except for areas designed for free-play by children. When existing woodlands, fields or meadows visible from the public roadways are to be replaced by lawns, these lawns shall be limited in their extent and shall be buffered by an intervening row of deciduous shade tress, a traditional rural fence, or by a strip of field or meadow not less than 200 feet deep.


Whenever reasonably in balance with the objectives of this Article principal buildings shall be located where they would not intrude into areas of Class I or Class II agricultural soils (as designated by the U.S. Soil Conservation Service Ducks County Soils Survey) that are of sufficient size and configuration to realistically be able to economically continue in agriculture.

1. The Natural features analysis requirement of the Subdivision and Land Development Ordinance, and Environmental Performance standards of the Tinicum, Zoning Ordinance shall apply.
2. The applicant shall prove that the development has been designed in full consideration of and to reasonably maximize the preservation of important natural features, including mature woodlands, tree rows, creek valleys, steep slopes, highly scenic areas and wetlands. The Plan shall minimize all development within such sensitive natural areas, by clustering the development in more suitable areas of the tract.

3. No buildings shall be located within the 100 Year floodplain or on land with a natural slope of 25 percent or greater.

1608.F. Additional Setback and Vegetation Around Perimeters.

1. Unless screening is provided that is visually off active, as determined by the Board of Supervisors, the board may require that all principal and accessory buildings be setback 100 feet from the future or existing right-of-way of any public street that existed prior to the adoption of this Article, or from an adjacent lot line of an existing building if necessary to preserve the natural, scenic and/or historic character of an area.

2. If buildings are located so as to have visual impact on a historical district, they shall have architecture consistent with that district, or else the Board of Supervisors may require between such buildings and any public street that existed prior to the adoption of this Article and/or between such buildings and any abutting lot line of a single family detached dwelling:
   a. the preservation of up to 75 feet of existing woods where such woods exist, or
   b. the planting of a mix of native species of trees and shrubs within a planting strip of up to 50 feet in width, which may be combined with modest topographic adjustments that have a natural appearance. Abrupt earth berms with a clearly Manmade appearance should be avoided.


1. Where feasible, old farm roads and country lanes should be retained and roused instead of constructing new driveways (unless needed widening of the lane would destroy mature trees or historic features).

2. Shared driveways are encouraged, although each lot shall still maintain the required frontage on a street where this does not result in odd lot configurations and/or the reduction of common open space.

3. Construction The Board of Supervisors may allow low volume private shared driveways, each serving a maximum of 3 dwelling units (maximum number should be dependent upon benefits provided and the specific site requirements to be constructed of stone to maintain a rural appearance. The following construction standards shall apply
to shared driveways unless alternative standards are accepted by the Board of Supervisors:

a. minimum cartway width - 10 feet, which shall be crowned

b. constructed of 5 inches of 2A modified and 3 inches of 3/4 modified or other compatible material,

c. Maxim Slope - 12 percent, except 4 percent within 20 feet of the right-of-way of a public street,

d. minimum centerline curve radius - 40 feet, and

e. with appropriate drainage measures.

4. A shared driveway or private street, shall only be permitted if the developer establishes a legally binding mechanism to require owners of lots served by such driveway and/or private street to fund adequate maintenance in pre-determined proportions. Such mechanism shall be subject to approval by the Township solicitor.

1608.E Balancing of Objectives. Where several objectives are clearly in conflict, the lowest priority shall be placed on those objectives involving use of the word "should" and the highest Priority shall be placed upon the following three objectives:

1. Maximizing the preservation of important natural, cultural, and historic features, including mature woodlands, tree rows, crook valleys, steep slopes, highly scenic areas and wetlands.

2. Minimizing intrusions Into scenic vistas visible from public roads, public parks or other public lands.

3. Preserving historically significant structures and districts. See Section 1608.B.