

include, but are not limited to, standard specifications for trenching, backfilling, compacting and paving restoration.

If the Township determines that the Township Street Cut Ordinance (No. 93-136), as amended (see Chapter XXVI of the Township Code of Ordinances) does not apply, the Township Engineer shall require a restoration measure as specified under Township Ordinance 94-143, as amended (see Chapter XXIII of the Township Code of Ordinances). If required by the Township, an escrow shall be established for the cost of the improvements and/or inspection fees.

(Ordinance 135, November 18, 1992, Section 516; as amended by Ordinance 165, April 26, 1999, Section 22)

Section 517. Landscaping.

(a) Intent; Exemptions.

(1) Article 1, Section 27, of the Constitution of the Commonwealth of Pennsylvania states that the people of the Commonwealth have a right to clean air, pure water and to the preservation of the natural, scenic, historic and aesthetic values of the environment. It is the intent of these landscape planting regulations to protect this right by conserving existing vegetation and/or requiring new plant material in critical areas of land developments and subdivisions.

(2) Specifically, it is the intent of these landscape planting regulations to conserve existing healthy plant communities, such as woodlands, and to require new landscape plantings in critical areas of developments in order to:

(i) Reduce soil erosion and protect surface water quality by minimizing stripping of existing woodlands or tree masses.

(ii) Reduce stormwater runoff velocity and volume by providing planting areas where stormwater can infiltrate

(iii) Improve air quality by conserving existing or creating new plantings which produce oxygen and remove carbon dioxide from the atmosphere.

(iv) Provide animal habitat.

(v) Provide windbreaks, shade and the other microclimate benefits of trees and landscape plantings.

(vi) Conserve historically, culturally or environmentally important landscapes, such as, but not limited to, wooded hillsides, scenic views or aesthetic natural areas, and historic stone fences.

(vii) Preserve and enhance property values through the implementation of good landscape architectural standards and minimize conflicting land uses.

(viii) Provide planted buffers between land developments and subdivisions which act to visually integrate a development into the existing landscape.

(ix) Provide planted and architectural visual screens around visually obtrusive site elements within land

developments and subdivisions.

(x) Enhance the aesthetic appearance of the community and provide privacy and beauty.

(xi) Improve traffic flow in parking lots by requiring planted parking islands and medians to separate traffic.

(xii) Conserve energy by moderating solar radiation and providing shade.

(xiii) Improve the environment for pedestrians along streets, parking lots and other pedestrian areas.

(xiv) Aesthetically improve stormwater management facilities, such as detention basins, without impairing function.

(3) It is the intent of these regulations to protect the health, safety and welfare of the community by requiring planting plans for land developments and subdivisions.

(4) Minor plan submissions, as set forth in Section 306 of this Chapter are exempt from these regulations.

(b) Landscaping Plan. A landscaping plan for the proposed subdivision or land development is required. For residential proposals with more than ten (10) units and nonresidential proposals, the landscaping plan shall consist of a separate plan sheet(s). For residential proposals of ten (10) units or less, the landscaping plan may be included on the grading/utility plan. Landscaping plans shall contain the following:

(1) Plan scale, date, and North arrow.

(2) Location of all existing and proposed buildings and structures.

(3) Location of all existing and proposed roads, parking areas, service areas and other paved areas.

(4) Location of all outside storage and trash receptacle areas.

(5) Sidewalks, berms, fences, walls, freestanding signs and site lighting.

(6) Existing and proposed underground and aboveground utilities, such as site lighting, transformers, hydrants, manholes, valve boxes, etc. (Reference may be made to other submission drawings).

(7) All existing and proposed contours at two-foot intervals to determine the relationship of planting and grading. Areas with steep slopes as defined in the Zoning Ordinance shall be highlighted on the plan.

(8) The location of existing mature trees, woodland and tree masses to remain and demarcated as such.

(9) The location of existing mature trees, woodland and tree masses to be removed and demarcated as such.

(10) The location of all proposed landscaping, including

required street trees, stormwater basin landscaping, parking lot landscaping, property line buffer screens and site element screens.

(11) The location of floodplains, wetlands and other natural features that may affect the location of proposed streets, buildings and landscape plantings.

(12) A planting schedule listing the scientific and common name, size, quantity and root condition of all proposed plant material.

(13) A schedule showing all landscape requirements and plantings proposed for each category.

(14) Planting details, including the method of protecting existing vegetation and landscape planting methods.

(15) For residential developments with fifty (50) or more dwelling units and non-residential developments in which the cumulative gross floor area exceeds forty thousand (40,000) square feet, the landscaping plan must be prepared and certified by a professional landscape architect.

(c) Preservation and protection of existing vegetation.

(1) Preservation of existing vegetation. Each mature tree or tree mass on the site to be developed or subdivided shall be designated "TO REMAIN" or "TO BE REMOVED" in accordance with the following criteria:

(i) Subdivisions and land developments shall be laid out in such a manner as to minimize the removal of healthy trees and shrubs on the site. Special consideration shall be given to major specimen trees.

(ii) It shall be the responsibility of the applicant to prove that vegetation removal is minimized. If required by the township, the applicant shall produce written documents or plans certified by a registered landscape architect or other qualified professional demonstrating that no alternative layouts are possible and that no alternative clearing or grading plan would reduce the loss of mature trees, tree masses and woodlands.

(iii) A mature tree or tree mass shall be considered "TO REMAIN" only if it meets all of the following criteria:

a) The outermost branches of the tree(s) are at least ten feet (10') from any proposed buildings, structures, paving, parking or utilities (overhead or underground).

b) The outermost branches of the tree(s) are at least ten feet (10') from any proposed changes in grade or drainage, such as excavations, mounding or impoundments.

c) The tree(s) are clear of any proposed sight triangles and do not, by their location or apparent health, pose any undue threat to the health, safety and welfare of the community.

(2) For each tree to be preserved, a tree protection zone shall extend a distance from the tree trunk equal to twelve (12)

times the trunk diameter. Thus, a twenty inch (20") DBH tree would have a circular tree protection zone twenty feet (20') in radius. Within the tree protection zone, no disturbance, material stockpiling, foot or vehicle traffic shall be permitted. Prior to the start of construction, the tree protection zone shall be delineated around the trees to be preserved with orange construction fencing or other fencing deemed suitable by the Township.

(3) Hydrology. Alteration of existing drainage patterns and water supply for the protected vegetation shall be minimized.

(d) Parking Lot Landscaping.

(1) Parking lots shall be effectively landscaped with trees and shrubs to reduce the visual impact of glare, headlights, parking lot lights; to delineate driving lanes and define rows of parking; to provide shade in order to reduce the amount of reflected heat; and to improve the aesthetics of parking lots. Parking lot landscaping shall not create sight distance constraints which cause unsafe conditions.

(2) All parking lots with ten (10) or more parking stalls shall be landscaped according to the following regulations:

(i) Off-street parking areas shall be separated from external streets by a twenty feet (20') wide curbed planting strip.

(ii) The ends of all parking rows shall be divided from driving lanes by planting islands.

(iii) In residential developments, parking lots shall be divided by planting strips into smaller parking areas of no more than 20 stalls.

(iv) In nonresidential developments, parking lots shall be divided by planting strips into smaller parking areas of no more than sixty (60) stalls. There shall be no more than two (2) consecutive rows of parking spaces, regardless of the number of spaces in the row, without the installation of a planting strip as herein defined.

(v) Planting islands shall be a minimum of nine feet by 18 feet in area, underlain by soil (not base course material); mounded at no more than a four to one (4 to 1) slope, nor less than a twelve to one (12 to 1) slope, and shall be protected by curbing. Each planting island shall contain one shade tree plus shrubs and/or ground cover (ie. mulch, decorative stone or similar material) to cover the entire area.

(vi) All planting strips shall be a minimum of eight feet wide. Strips shall run the length of the parking row, underlain by soil, mounded at no more than four to one (4 to 1) slope, nor less than a twelve to one (12 to 1) slope, and shall be protected by curbs. Planting strips shall contain plantings of street-type shade trees at intervals of thirty feet (30') to forty feet (40') plus shrubs and/or ground cover (ie. mulch, decorative stone or similar material) to cover the entire area at maturity.

(vii) The placement of light standards shall be coordinated with the landscape plan to avoid a conflict with

the effectiveness of light fixtures.

(e) Street Trees.

(1) Street trees shall be required:

(i) Along all existing streets when they abut or lie within the proposed subdivision or land development.

(ii) Along all proposed streets.

(iii) Along access driveways that serve three or more residential dwelling units.

(iv) Along access driveways that serve nonresidential properties.

(v) Along major walkways through parking lots and between nonresidential buildings as recommended by the Township Planning Commission.

(2) Where streets or roads are within wooded areas, existing healthy trees shall be retained in lieu of street trees.

(3) Street trees shall be located between the ultimate right-of-way line and the building setback line and shall meet the following standards:

(i) Trees shall be planted a minimum distance of six feet and a maximum distance of fifteen feet (15') outside the ultimate right-of-way line. The Board of Supervisors, however, may permit trees to be planted within the ultimate right-of-way under the following circumstances:

a) In areas, such as existing villages, where front yards may be located within the ultimate right-of-way.

b) Where closely spaced rows of street trees may be desirable and future street widening is considered unlikely.

(ii) In nonresidential developments, trees shall be located within a planting bed within the front yard setback, at least ten feet (10') in width, planted in grass or ground cover.

(iii) Trees shall be located so as not to interfere with the installation and maintenance of sidewalks and utilities. Trees shall be planted a minimum distance of six feet (6') from curbs and sidewalks, fifteen feet (15') from overhead utilities and six feet (6') from underground utilities.

(iv) Trees shall be planted at a ratio of at least one (1) tree per thirty (30) linear feet of frontage or fraction thereof. Trees shall be distributed along the entire frontage of the property although they need not be evenly spaced.

(4) New street trees shall:

(i) Have a total height of not less than six feet (6') above the root ball.

(ii) Be hardy species (preferably, but not necessarily, native to the area) with minimal maintenance requirements that

are compatible with other features of the site and its environs.

(f) Stormwater basins and associated facilities. Landscaping shall be required in and around all stormwater management basins as follows:

(1) All areas of stormwater management basins, including basin floors, side slopes, berms, impoundment structures or other earth structures, shall be planted with cover vegetation, such as lawn grass or naturalized plantings specifically suited for stormwater basins. (See the Plant Material List, for recommended plants for stormwater basins.)

(i) Lawn grass areas shall be sodded or hydroseeded to minimize erosion during the establishment period and, once established, these areas shall be maintained at a height of not more than six inches (6").

(ii) Naturalized cover plantings, such as wildflowers, meadows and nonaggressive grasses specifically designed for the permanently wet, intermittently wet and usually dry areas of stormwater basins may be planted as an alternative to lawn grass, provided that:

a) The plantings provide continuous cover to all areas of the basin.

b) The plantings do not interfere in the safe and efficient function of the basin as determined by the Township Engineer.

(iii) Trees and shrubs shall be allowed in and around stormwater basins, provided that they do not interfere with the proper function of the basin and no trees are planted on or within thirty feet (30') of an impoundment structure or dam.

(2) Basin shape shall incorporate curvilinear features to blend with the surrounding topography.

(g) Buffer Screens.

(1) A "buffer screen" is hereby defined as a landscaped barrier of sufficient height and density as to enhance new development with its surroundings, minimize or eliminate certain views within property lines and to separate conflicting land uses. Buffer screen shall also mean "Buffer Yard" as used in the Amity Township Zoning Ordinance.

(2) Subdivisions and land developments shall be landscaped with property line buffer screens in accordance with Table 1.

(3) Property line buffer requirements:

(i) Property line buffer screens shall be required for and continually maintained by the landowner in the following types of development.

a) The perimeter of all nonresidential development.

b) The perimeter of all residential development.

c) Mixed use, planned residential and cluster developments.

d) All mobile home parks.

e) Recreation areas and facilities.

(ii) An on-site investigation by the applicant shall determine the adjacent land uses along each property boundary. In the case of vacant or undeveloped land, the existing zoned uses shall be used. The existing or zoned uses shall be noted on the plan. In the case of several permitted uses on a site, the most restrictive requirements shall apply.

(iii) Upon installation, a buffer screen shall be not less than five feet (5') tall.

(iv) Buffer screens shall have a minimum depth of ten feet (10'), unless otherwise indicated in the Amity Township Zoning Ordinance. No plant trunk shall be closer than ten feet (10') to any property line (except for Buffer Screen Type 2).

(v) No buffer screen shall be permitted where it may impose a threat to the public safety by obstructing the view of motorists to oncoming traffic or pedestrians.

(vi) Buffer screens shall be maintained as long as the use or uses on the screened lot is/are in operation. Any plant material which does not survive shall be replaced within six (6) months.

(vii) Plant materials quantities and types. For every one hundred (100) linear feet of property line to be buffered, the following minimum quantities and types of plant materials shall be required for low-intensity buffer screens:

a) Two (2) canopy trees.

b) One (1) ornamental tree.

c) Two (2) evergreen trees.

(viii) High-intensity buffer screens. The following types of buffer screens shall be used for property lines requiring high-intensity buffer screens:

a) Buffer Screen Type No. 1: Double row of evergreen trees. A double row of evergreen trees shall provide a continuous screen at a minimum height of twelve feet (12') at maturity. The two (2) rows of evergreen trees shall be placed eight feet (8') on center. The second row shall be eight feet (8') from the first with an offset of four feet (4'). Minimum height at planting shall be five feet (5'). Trees species are to be selected from the Plant Material List, evergreen trees section of this Chapter.

b) Buffer Screen Type No. 2: Opaque fence with ornamental trees and shrubs. A continuous six feet (6') opaque fence with additional planting at the minimum rate of three (3) shrubs and two (2) ornamental trees or large shrubs for each ten (10) linear feet of proposed

fence arranged formally or informally between the fence and the adjoining property line. Buffer Screen Type No. 2 plant species are to be selected from the Plant Material List, evergreen shrubs, large deciduous shrubs and ornamental trees sections of this Chapter.

c) Buffer Screen Type No. 3: Evergreen hedge. An evergreen hedge of chamaecyparis, minimum height at planting of five feet (5') plants, three feet (3') on center maximum.

(ix) Existing healthy trees, shrubs or woodland may be substituted for part or all of the required material at the discretion of the Board of Supervisors. The minimum quantities and/or visual effect of the existing vegetation shall be equal to or exceed that of the buffer screen.

TABLE 1 - BUFFER SCREENS

		Existing Use/Zoning Districts							
Proposed Use	LDR	MDR	RC	MHP	HC	SSC	LI	AGR	REC
LDR	L	L	L	H	H	H	H	L	L
MDR	L	L	H	H	H	H	H	H	H
RC	L	H	L	H	H	H	H	L	L
MHP	H	H	H	L	H	H	H	H	H
HC	H	H	H	H	L	L	L	H	H
SSC	H	H	H	H	L	L	L	H	H
LI	H	H	H	H	L	L	L	L	H
AGR	L	H	L	H	H	H	L	L	L
REC	L	H	L	H	H	H	H	L	L
CLUSTER (in any Zone)	H	H	H	H	H	H	H	H	H

Notes: L = Low Intensity Buffer  
 H = High Intensity Buffer

See text of Section 517(g) of this Chapter for description of buffer screens.

(h) Site Element Screens.

(1) A site element screen shall be required and continually maintained by the landowner in all proposed land developments around the following site elements:

- (i) Dumpsters, trash disposal or recycling areas.
- (ii) Service or loading docks.
- (iii) Pump stations, cellular towers, sewage/water treatment plants.

(2) The existing or zoned used shall be noted on the plan. In the case of several permitted uses on a site, the most restrictive requirements shall apply.

(3) The type of site element screen required shall be

determined by the site element and the adjacent existing land use according to Table 2.

(4) Screen Location. The site element screen shall be placed between the site element and the property line and shall be designed to block views to the maximum extent possible. The screen shall be located as close as possible to the site element and shall surround the element without impeding function or encroaching on sight triangles.

(5) Screen types and criteria: The following types of screens shall be used where specified in Table 2.

(i) Site Element Screen Type No. 1: Double row of evergreen trees. A double row of evergreen trees shall be placed eight feet (8') on center and offset eight feet (8') to provide a continuous screen at a minimum height of twelve feet (12') at maturity.

(ii) Site Element Screen Type No. 2: Opaque fence with ornamental trees and shrubs. A six feet (6') opaque fence surrounding the site element on at least three (3) sides, with additional plantings at a minimum of three (3) shrubs and two (2) ornamental trees or large shrubs for each ten (10) linear feet of proposed fence arranged formally and informally between the fence and the adjoining property line.

(iii) Site Element Screen Type No. 3: Architectural extension of the building. An eight feet (8') minimum height architectural extension of the building (such as a wing wall) shall enclose service or loading docks. The building materials and style of the extension shall be consistent with the main building.

(iv) Site Element Screen Type No. 4: Evergreen hedge. An evergreen hedge of chamaecyparis, minimum height at planting of five feet (5') plants, three feet (3') on center maximum.

(6) Existing healthy trees, shrubs or woodland may be substituted for part or all of the required material at the discretion of the Board of Supervisors. The minimum quantities and/or visual effect of the existing vegetation shall be equal to or exceed that of the site element screen.

TABLE 2 - SITE ELEMENT SCREENS

Proposed Site Element	Nonresidential	Residential	All Roads
Dumpster, trash or recycling area	2 or 4	2 or 4	2 or 4
Service loading docks	1 or 3	1 or 3	1 or 3
Sewage/water treatment plants, pump stations, cellular towers, power generating stations	1	2	4

Notes:        1 = Site Element Screen Type No. 1  
                  2 = Site Element Screen Type No. 2  
                  3 = Site Element Screen Type No. 3  
                  4 = Site Element Screen Type No. 4

See text of Section 517(h) of this Chapter for description of site element screens.

(i) Plant Materials Specifications and Maintenance. The following standards shall apply to all plant materials or transplanted trees as required under this section:

(1) Plant Specifications.

(i) All plants shall meet the minimum standards for health, form and root conditions as outlined in the American Association of Nurserymen (AAN) Standards.

(ii) All plant material shall be hardy and within the USDA Hardiness Zone 5 and 6 applicable to Berks County, Pennsylvania.

(iii) Canopy trees, sometimes called shade trees, shall reach a minimum height and spread of thirty feet (30') at maturity as determined by the AAN Standards and shall be deciduous. New trees shall have a minimum caliper of two and one-half inches (2-1/2") at planting.

(iv) Ornamental trees or large shrubs shall reach a typical minimum height of fifteen feet (15') at maturity based on AAN Standards. Trees and shrubs may be deciduous or evergreen and shall have a distinctive ornamental character, such as showy flowers, fruit, habit, foliage or bark. New ornamental trees shall have a minimum height of six feet (6') or one and one-half inch (1-1/2") caliper. New large shrubs shall have a minimum height of two and one-half feet (2-1/2') to three feet (3') at time of planting.

(v) Evergreen trees shall reach a typical minimum height of twenty feet (20') at maturity based on AAN Standards for that species and shall remain evergreen throughout the year. New evergreens shall have a minimum height at planting of five feet (5').

(2) Maintenance.

(i) Required plant material shall be maintained for the life of the development to achieve the required visual effect of the buffer or screen. It shall be the ultimate responsibility of successive property owners to ensure that the required plantings are properly maintained. Dead or diseased plant material shall be removed or treated promptly by the property owner and replaced as soon as possible, but no later than the next growing season.

(ii) Safety. All sight triangles shall remain open and clear, and any plant material that could endanger safety, such as unstable limbs, shall be removed and the plant material replaced, if necessary. It shall be the responsibility of the property owner to maintain all plantings and architectural elements to ensure a safe environment.

(iii) Maintenance guidelines for the plantings are encouraged to be published by the planting plan designed to be used by grounds maintenance personnel to ensure that the design's buffering and screening concepts are continued.

(iv) All subdivision and land development record plans shall contain the following note: "The Developer is responsible for the plantings of trees, plants, shrubbery, buffer screens and site element screens as shown on said Plan and for the re-planting of any such trees, plants and shrubbery should such planting die or become diseased for a period of eighteen (18) months from the date of planting. During said eighteen (18) month period, the Developer shall be responsible for the maintenance of all trees, plants, shrubbery, buffer screens and site element screens shown on said Plan. The lot owner shall allow and grant an easement to the Developer to enter the lot owner's yard for maintenance and inspection of plantings and for the replacement of plantings to comport with the approved landscape plan. Maintenance of all trees, plants, shrubbery, buffer screens and site element screens shown on said plan shall become the responsibility of each lot owner after the period of eighteen (18) months from the date of planting has passed."

(j) Plant Material List. Unless specifically stipulated within this Chapter, the following is an approved list of selected trees, hedges and/or shrubs which may be utilized to meet the standards and specifications of Subsection 517. Species selection shall be based upon existing physical and natural conditions of the site.

(1) Shade or Canopy Trees: suitable for street trees or parking lots (minimum mature height: thirty feet (30') or more).

<u>Scientific Name</u>	<u>Common Name</u>
Acer rubrum	Red maple (native)
Celtis sp.	Hackberry (native)
Cladrastis lutea	Yellow wood (native)
Corylus colurna	Turkish filbert
Fraxinus pennsylvanica lanceolata cv. marshall's seedless	Marshall's seedless ash (native)
Gleditsia triacanthos, inermis	Thornless Honeylocust
Koelreuteria paniculata	Golden rain tree
Quercus alba	White oak (native)
Quercus bicolor	Swamp white oak (native)

<i>Quercus borealis</i>	North red oak (native)
<i>Quercus coccinea</i>	Scarlet oak (native)
<i>Quercus imbricaria</i>	Shingle oak (native)
<i>Quercus palustris</i>	Pin oak (native)
<i>Quercus phellos</i>	Willow oak (native)
<i>Quercus prinus</i>	Chestnut oak (native)
<i>Quercus rubra</i>	Red oak (native)
<i>Robinia pseudoacacia</i>	Black locust (native)
<i>Sophora japonica</i>	Japanese pagodatree
<i>Tilia americana</i>	American linden (native)
<i>Tilia cordata</i>	Littleleaf linden
<i>Tilia tomentosa</i>	Silver linden
<i>Ulmus parvifolia</i>	Chinese lacebark elm
<i>Zelkova serrata</i>	Japanese zelkova

(2) Shade or Canopy Trees: suitable for low-intensity property line buffer screens and nonvehicular use areas only (minimum mature height: thirty feet (30') or more).

<u>Scientific Name</u>	<u>Common Name</u>
<i>Acer saccharum</i>	Sugar maple (native)
<i>Betula lenta</i>	Sweet birch (native)
<i>Betula nigra</i>	River birch (native)
<i>Carya ovata</i>	Shagbark hickory (native)
<i>Carya sp.</i>	Hickory (native)
<i>Fagus grandifolia</i>	American beech (native)
<i>Fraxinus americana</i>	White ash (native)
<i>Liriodendron tulipifera</i>	Tuliptree (native)
<i>Metasequoia glyptostroboides</i>	Dawn redwood
<i>Ostrya virginiana</i>	Hop-hornbeam (native)
<i>Phellodendron amurense</i>	Amur corktree
<i>Prunus virginiana</i>	Chokecherry (native)
<i>Quercus alba</i>	White oak (native)
<i>Quercus coccinea</i>	Scarlet oak (native)
<i>Quercus palustris</i>	Pin oak (native)
<i>Quercus vellutina</i>	Black oak (native)
<i>Sassafras albidum</i>	Sassafras (native)

(3) Ornamental Trees: suitable for low-intensity property line buffer screens (minimum mature height: fifteen feet (15') or more).

<u>Scientific Name</u>	<u>Common Name</u>
<i>Amelanchier canadensis</i>	Serviceberry (native)
<i>Cercis canadensis</i>	Redbud (native)
<i>Chionanthus virginicus</i>	Fringetree (native)
<i>Cornus kousa</i>	Japanese dogwood
<i>Cornus mas</i>	Cornelian cherry
<i>Crataegus cv. Toba</i>	Toba hawthorn
<i>Crataegus mollis</i>	Downy hawthorn
<i>Crataegus oxycantha</i>	English hawthorn
<i>Crataegus phaenopyrum</i>	Washington hawthorn
<i>Halesia carolinia</i>	Silverbells (native)
<i>Hamamelis virginiana</i>	Witch hazel (native)
<i>Koelreuteria paniculata</i>	Golden rain tree
<i>Laburnum vossi</i>	Goldenchain
<i>Magnolia virginiana</i>	Sweetbay magnolia (native)
<i>Malus sp.</i>	Crab apple species (native)
<i>Oxydendrum arboreum</i>	Sourwood (native)
<i>Prunus sargentii</i>	Sargent cherry
<i>Prunus serrulata cv. kwanzan</i>	Kwanzan cherry

Pyrus calleryana cv. redspire	Redspire pear
Sorbus aucuparia	European mountain ash
Styrax japonica	Japanese snowbell
Syringa amurensis japonica	Japanese tree lilac

(4) Evergreen Trees: suitable for high-intensity property line buffer screens (minimum mature height: twenty feet (20')).

<u>Scientific Name</u>	<u>Common Name</u>
Chamaecyparis Sp.	
Ilex opaca	American holly (native)
Picea abies	Norway spruce
Picea pungens	Colorado spruce
Picea glauca	White spruce
Pinus strobus	White pine (native)
Pseudotsuga menziesee	Douglas fir
Taxus Sp.	

(5) Canopy Trees: suitable for stormwater detention basins.

<u>Scientific Name</u>	<u>Common Name</u>
Acer rubrum <sup>2</sup>	Red maple (native)
Acer saccharinum <sup>1</sup>	Silver maple(native)
Betula nigra <sup>1</sup>	River birch(native)
Fraxinus americana <sup>1</sup>	White ash(native)
Ilex opaca <sup>1</sup>	American holly(native)
Liquidambar styraciflua <sup>2</sup>	Sweet gum(native)
Nyssa sylvatica <sup>1</sup>	Black gum(native)
Quercus phellos <sup>1</sup>	Willow oak(native)
Quercus bicolor <sup>2</sup>	Swamp white oak(native)
Quercus palustris <sup>1</sup>	Pin oak(native)
Taxodium distichum <sup>2</sup>	Bald cypress

NOTES:

<sup>1</sup>Suitable for usually well-drained areas that may be subject to occasional flooding.

<sup>2</sup>Suitable for permanently wet areas.

(6) Deciduous Evergreen Ornamental Trees: suitable for stormwater detention basins.

<u>Scientific Name</u>	<u>Common Name</u>
Amelanchier canadensis <sup>1</sup>	Shadblow serviceberry (native)
Carpinus carolinia <sup>1</sup>	Ironwood(native)
Chionanthus virginicus <sup>1</sup>	Fringetree(native)
Magnolia virginiana <sup>1</sup>	Sweetbay(native)
Salix caprea <sup>2</sup>	Willow Sp.
Salix discolor <sup>2</sup>	Willow Sp. (native)

NOTES:

<sup>1</sup> Suitable for usually well-drained areas that may be subject to occasional flooding.

<sup>2</sup> Suitable for permanently wet areas.

(7) Deciduous/Evergreen Shrubs: suitable for stormwater detention basins.

<u>Scientific Name</u>	<u>Common Name</u>
<i>Aronia arbutifolia</i> <sup>2</sup>	Red chokeberry(native)
<i>Calycanthus floridus</i> <sup>1</sup>	Sweetshrub
<i>Cephalanthus occidentalis</i> <sup>2</sup>	Buttonbush(native)
<i>Clethra alnifolia</i> <sup>2</sup>	Summersweet(native)
<i>Cornus amomum</i> <sup>2</sup>	Silky dogwood(native)
<i>Cornus serica</i> <sup>2</sup>	Red-stem dogwood(native)
<i>Hamamelis virginiana</i> <sup>1</sup>	Witch hazel(native)
<i>Ilex glabra</i> <sup>2</sup>	Inkberry(native)
<i>Ilex verticillata</i> <sup>2</sup>	Winterberry(native)
<i>Lindera benzoin</i> <sup>1</sup>	Spicebush(native)
<i>Myrica cerifera</i> <sup>1</sup>	Southern bayberry(native)
<i>Myrica pennsylvanica</i> <sup>2</sup>	Northern bayberry(native)
<i>Rhododendron nudiflorum</i> <sup>2</sup>	Pinxterbloom azalea(native)
<i>Rhododendron viscosum</i> <sup>2</sup>	Swamp azalea(native)
<i>Sambucus canadensis</i> <sup>1</sup>	Elderberry(native)
<i>Viburnum dentatum</i> <sup>2</sup>	Arrowwood(native)
<i>Viburnum acerifolium</i>	Maple Leaf Viburnum (native)
<i>Viburnum lentago</i> <sup>1</sup>	Nannyberry (native)
<i>Viburnum trilobum</i> <sup>1</sup>	American cranberry (native)

NOTES:

<sup>1</sup> Suitable for usually well-drained areas that may be subject to occasional flooding.

<sup>2</sup> Suitable for permanently wet areas.

(8) Herbaceous Perennials: suitable for stormwater detention basins.

<u>Scientific Name</u>	<u>Common Name</u>
<i>Aster novae angliae</i> <sup>1</sup>	New England aster(native)
<i>Chrysanthemum lencanthemem</i> <sup>1</sup>	Ox-eye daisy
<i>Echinacea purpurea</i> <sup>1</sup>	Purple cornflower
<i>Eupatorium dubium</i> <sup>1, 2</sup>	Joe-pye weed(native)
<i>Eupatorium fistulosum</i> <sup>1, 2</sup>	Hollow joe-pye weed (native)
<i>Hibiscus moshentos</i> <sup>2</sup>	Rose mallow (native)
<i>Iris versicolor</i> <sup>2</sup>	Blue flag (native)
<i>Lobelia cardinalis</i> <sup>1, 2</sup>	Cardinal flower (native)
<i>Lobelia siphilitica</i> <sup>1, 2</sup>	Blue lobelia (native)
<i>Monarda didyma</i> <sup>1</sup>	Bee balm (native)
<i>Panicum virgatum</i> <sup>1, 2</sup>	Switchgrass (native)
<i>Pharlaris arundinaceae</i>	Canary reed grass (native)
<i>Rudbeckia sp.</i> <sup>1</sup>	Black-eyed susan (native)
<i>Scirpus acutus</i> <sup>2</sup>	Hard stem bulrush (native)
<i>Spartina alternifolia</i> <sup>2</sup>	Cordgrass
<i>Typha angustifolia</i> <sup>2</sup>	Narrowleaf cattail (native)
<i>Typha latifolia</i> <sup>2</sup>	Common cattail (native)

Veronica noveboracensis<sup>1, 2</sup>

New York iron weed(native)

NOTES:

<sup>1</sup> Suitable for usually well-drained areas that may be subject to occasional flooding.

<sup>2</sup> Suitable for permanently wet areas."

(Ordinance 135, November 18, 1992; as amended by Ordinance 217, September 6, 2005, Section 7; as further amended by Ordinance 235, April 17, 2007, Section 5)

Section 518. Community Facilities.

(a) During the review phase of a subdivision or land development plan, the Township will consider the adequacy of the existing or proposed community facilities to serve the proposed development.

(b) The developer shall give earnest consideration to the desirability of providing or reserving areas for community facilities normally required in residential neighborhoods, including educational facilities, utility services, emergency management facilities and recreational facilities.

(c) Areas provided or reserved for community facilities should be adequate to provide adequate land area for any proposed buildings and off-street parking. Such areas should be located in an area of the development which is accessible to the general public.

(Ordinance 135, November 18, 1992, Section 518.1)

Section 519. Recreation and Open Space.

(a) Park and Recreation Purposes. Pursuant to the procedures and requirements of the Pennsylvania Municipalities Planning Code (Act 247), as amended, the Board of Supervisors have prepared and enacted a Park and Recreation Plan. This particular Plan has been developed for the following purposes:

(1) To guide, control and regulate growth and development into the 21<sup>st</sup> century.

(2) To examine existing parks, recreational facilities and open space in light of current and projected demands.

(3) To establish the future need for parks, open space and recreation areas and facilities.

(4) To establish priorities for immediate and long-range acquisition, development and improvement of parks and recreation facilities.

(5) To analyze the administration and management of facilities and services to determine the level of efficiency and recommend improvements.

(6) To examine funding options in order to acquire, develop, construct and/or maintain recreation facilities and open space.

(7) To implement the established goals, objectives and policies identified within the Township Comprehensive Plan of 1990, as amended.

(b) General Provisions.

(1) All applicants, excepting only those seeking approval of a subdivision which would consist of three (3) or less single-family residential units, shall, concurrent with the submission of a final plan of subdivision or land development, offer for dedication a portion of the land being subdivided or developed, as hereinafter set forth, as public recreation area.

(2) Such public recreation area shall provide adequate open space and recreation land and facilities accessible to such subdivisions or developments.

(3) Such recreation area shall not be part of any lot, but it shall be dedicated to the Township or, in the sole discretion of the Board of Supervisors, to a public trust or association, which will perpetually maintain the property for the purposes intended for full access and use by the general public constituting the residents, constituents and invitees of the Township, the documentation for which shall be submitted to and be subject to the approval of the Board of Supervisors and, in the case of a public trust or association, if authorized in the sole discretion of the Board of Supervisors, shall provide that said real estate is to be used and occupied exclusively as park and recreation area, is not to be the subject of further subdivision or land development, that the document establishing title to the same shall contain language that said real estate is not subject to further subdivision or land development as a condition running with title to the land and that the public trust or association shall bear all responsibility for ownership and maintenance of said real estate and shall maintain the same in a manner open to the general public constituting the constituents, residents and invitees of the Township.

(4) All areas dedicated under the provisions of this Section shall be consistent with the specific goals, objectives, plans and recommendations of the Township Comprehensive Plan and the Township Parks and Recreation Plan and are to be in accordance with the definite principles and standards contained in this Chapter.

(5) In lieu of land dedicated for recreation purposes, a fee may be paid, as hereinafter set forth.

(6) The amount and location of land to be dedicated or the fees to be paid shall bear a reasonable relationship to the use of the park and recreation facilities by future residents, occupants, employees or visitors to the subdivisions or land developments.

(c) Standards for Land Dedication.

(1) Any land dedicated to the Township shall be used only for park, recreation or open space purposes and shall be available to all residents of the Township, subject to such regulations and rules as may be recommended by the Township Parks and Recreation Board and/or adopted by the Board of Supervisors.

(2) The land to be dedicated shall have size, dimensions, topography, access and general character suitable for its proposed recreational use, as determined by the Board of Supervisors, in conjunction with the Township Park and Recreation Board and the Township Planning Commission. Any land not suitable for active or passive recreation shall not be accepted as dedicated land; this includes areas within storm water basins that could not be used for recreation.

(3) Consideration shall be given to preserving natural features, including rocks and rock outcrops, large trees and tree stands, watercourses, historic structures and areas, and other community assets that would enhance the value and aesthetic qualities of the development.

(4) The land shall be easily and safely accessible from all residential or occupied areas within the development or the general area to be served, and it shall have road frontage or, subject to the discretion of the Board of Supervisors, suitable access, ingress and egress from a public roadway for maintenance purposes.

(5) The land shall be contiguous and regular in shape, where possible and practical.

(6) The Board of Supervisors may, at its discretion, require that land to be dedicated be located along a property boundary so that such land may be combined with dedicated land or other recreation areas that are or will be adjacent to the land to be dedicated.

(7) The land shall be located on soils suitable for use and development as a recreation area.

(8) No more than twenty-five percent (25%) of the land shall have a slope in excess of seven percent (7%).

(9) No more than twenty-five percent (25%) of the land shall be within floodplain, hydric soil overlay or wetland areas.

(10) The land shall be easily accessible to all necessary utilities.

(11) The land shall be designed and developed for its intended park or recreation use in accordance with the recommendations for such as contained in the National Recreation and Park Association's Recreation Park and Open Space Standards and Guidelines, 1983, as amended.

(12) A minimum of thirty-eight thousandths (0.038) acre of land shall be offered for dedication for each residential lot, dwelling unit or combination thereof, excluding only those subdivisions comprised of three (3) or less tracts or parcels of real estate for single-family detached residential development and which have not been the subject of prior subdivisions or land development submissions consisting in total of three (3) or less tracts or parcels of real estate, and a minimum of one hundredth (0.01) acre of land shall be offered for dedication for each one thousand (1,000) square feet of building, structure or improvement proposed for any nonresidential land development plan.

(13) No contiguous area of land shall be considered for dedication if it is less than one-half (0.5) acre, and in no event shall the area proposed for dedication be less than fifty feet (50') in width; and the Board of Supervisors shall have the discretion not to approve or accept any area of land if it determines that the contiguous area of the same is insufficient to adequately serve as or provide park and recreation area.

(14) When land is dedicated, acceptance by the Township shall be by means of a signed resolution and a signed deed of dedication executed by the property owner, to which a property description of

the dedicated area shall be attached. Subject to the submission of documentation to the Board of Supervisors for its approval, a fee simple warranty deed conveying the property shall be delivered to the Township with title free and clear of all liens, encumbrances and conditions, other than public utility easements.

(d) Standards for Fees in Lieu of Land Dedication.

(1) Subject to the discretion of the Board of Supervisors, payment of a fee in lieu of land dedication shall be required (i) where land dedication would result in open space or recreation areas too small to be usable, (ii) if the Township Comprehensive Plan or the Township Parks and Recreation Plan recommends recreation land be provided elsewhere, or (iii) if a suitable site for recreation cannot be located within the development.

(2) The applicant shall tender to the Township prior to or concurrent with final plan approval a fee in lieu of dedication calculated in an amount equal to Seventy-Five Thousand Dollars (\$75,000.00) per acre, or in proportionate rate for any portion thereof, as hereinbefore required to be dedicated with regard to each such subdivision or land development.

(3) All fees paid in lieu of land dedication shall be used only for (i) the acquisition of land for parks, recreation areas and facilities, and open space, (ii) the construction of improvements on such land, and (iii) costs incidental to such purposes, including but not limited to planning, engineering, design, administrative and legal fees, utility relocation or installation, construction of sewage or water facilities, vehicular and pedestrian access, signage and the purchase of park equipment.

(4) All fees paid to the Township shall be deposited in a separate interest-bearing account established for such fees, the records for which shall clearly identify the specific recreational facilities for which such fees have been received. Interest earned on such fees shall become funds of that account and be subject to distribution or expenditure for any and all costs and expenses as hereinbefore identified. Funds from such accounts shall be expended only in properly allocable portions of the costs incurred to acquire, construct or improve the specific recreation facilities for which the funds were collected.

(5) If the Township fails to use the collected fees in accordance with this section within three (3) years of the date such fees were paid, the applicant may submit a written request, on such forms as are established by the Township, for the refund of such fees, plus interest that accumulated thereon from the date of fee payment, which request shall be reviewed and acted upon by the Board of Supervisors within forty-five (45) days of the date of receipt.

(e) Combination of Land Dedication and Fees in Lieu of Land Dedication.

(1) The Township may accept a combination of land dedication and fees in lieu of land in order to meet the requirements and standards of the Township Park and Recreation Plan. Such combination shall be subject to the review and approval of the Board of Supervisors.

(2) The resulting combination of land and fees shall not exceed the total acreage to be developed or the acreage which constitutes the basis of calculating the fee in lieu of dedication required by this Chapter.

(f) Decision of Land Dedication vs. Fees in Lieu of Land Dedication.

(1) The Board of Supervisors shall determine whether land dedication or fees in lieu of land dedication shall be required. Such decision shall be made as early in the plan review process as possible but not later than concurrent with the preliminary plan approval.

(2) The Board of Supervisors shall, in reaching its decision, consider the following factors, in addition to any other factors that may be applicable to a particular plan:

(i) If the land in that location serves a valid public purpose.

(ii) If there is a need to make a reasonable addition to an existing park or recreation area.

(iii) If the land meets the objectives and requirements of this section.

(iv) If the area surrounding the proposed development has sufficient existing parks, recreation areas or facilities, or open space, and if pedestrians or bicycles can safely reach these areas.

(v) Any relevant policies of the Township regarding parks, recreation areas and facilities, and open space, including those within the Township Comprehensive Plan and the Township Park and Recreation Plan.

(vi) Any recommendations regarding such land that has been received from the Township and/or the County Planning Commission, the Township Parks and Recreation Board, the Township Engineer and/or the Daniel Boone School District.

(Ordinance 135, November 18, 1992, Section 518.2; as amended by Ordinance 153, June 3, 1996, Sections 1-5; as further amended by Ordinance 249, October 1, 2008, Section 1)

Section 520. Lighting Requirements and Design Standards.

(a) Purpose.

(1) To require and set minimum standards for outdoor lighting to:

(i) Provide lighting in outdoor public places where public health, safety and welfare are potential concerns.

(ii) Protect drivers and pedestrian from the glare of non-vehicular light sources that shine into their eyes and thereby impair safe traverse.

(iii) Protect neighbors and the night sky from nuisance glare and stray light from poorly aimed, placed, applied, maintained or shielded light sources.

(b) Applicability.

(1) Outdoor lighting shall be required for safety and personal security in areas of public assembly and traverse; including but not limited to the following: residential developments, commercial, industrial, public-recreational, and institutional uses.

(2) The Board of Supervisors may require lighting be incorporated for other uses or locations, as they deem necessary.

(3) The glare-control requirements herein contained apply to lighting in all above mentioned uses as well as, but not limited to architectural, landscaping, and residential lighting.

(c) Criteria.

(1) Illumination Levels

(i) Lighting, where required by the Ordinance, shall have intensities and uniformity ratios in accordance with the current recommended practices of the Illuminating Engineering Society of North American (IESNA) as contained in the IESNA Lighting Handbook.

(ii) Future amendments to said recommended practices shall become a part of this Ordinance without further action of the Township.

(iii) Examples of intensities for typical outdoor applications, as extracted from the 8<sup>th</sup> Edition of the Lighting Handbook, are presented below.

	Use/Task	Maintained Uniformity Footcandles Ave: Min
(iv)	Parking, residential, multi-family	
	- Low vehicular/pedestrian activity	0.2Min. 4:1
	- Medium vehicular/pedestrian activity	0.6 Min.4:1
(v)	Parking industrial/commercial/institutional/municipal	
	- High activity, e.g., regional Shopping centers/fast food facilities, major athletic/civic/ cultural recreational events	0.9 Min.4:1
	- Medium activity, e.g., community shopping centers, office parks, hospitals, commuter lots, cultural/civic/ recreational events	0.6 Min.4:1
	- Low activity, e.g., neighborhood shopping industrial employee parking, schools, church parking	0.2 Min. 4:1
(vi)	Walkways and bikeway	0.5 Avg.5:1
(vii)	Building entrances	5.0 Avg.---

## Notes:

- Illumination levels are maintained horizontal footcandles on the task, e.g., pavement or area surface.
- Uniformity ratios dictate that average illuminance values shall not exceed minimum values by more than the product of the minimum value and the specified ratio. E.g., for commercial parking high activity, the average footcandles shall not be in excess of 3.6 [0.9 x 4].

(d) Lighting Fixture Design.

(1) Fixtures shall be of a type and design appropriate to the lighting application and aesthetically acceptable to the Board of Supervisors

(2) For lighting horizontal tasks such as roadways, pathways and parking areas, fixtures shall meet IESNA "full cutoff" criteria (not have more than two and one-half percent (2.5%) of their light output emitted above ninety degrees (90°) at any lateral angle around the fixture). In the case of public street lights, full cutoff fixtures shall be utilized if available from the applicable utility company.

(3) The use of floodlighting, spotlighting, wall-mounted fixtures, decorative globes and other fixtures not meeting IESNA "full cutoff" criteria shall be permitted only with the approval of the Board of Supervisors, based upon acceptable glare control.

(4) Fixtures shall be equipped with or be capable of being back-fitted with light directing devices such as shields, visors or hoods when necessary to redirect offending light distribution.

## (5) Control of Nuisance and Disabling Glare

(i) All outdoor lighting required by this ordinance; on private, residential, commercial, industrial, municipal, recreational or institutional property; shall be aimed, located, designed, fitted and maintained so as not to present a hazard to drivers or pedestrians by impairing their ability to safely traverse, i.e., disabling glare, and so as not to create a nuisance by projecting or reflecting objectionable light onto a neighboring use or property, i.e., nuisance glare.

(ii) Floodlights and spotlights shall be so installed or aimed that they do not project their output into the windows of neighboring residences, adjacent uses, directly skyward or onto a roadway.

(iii) Vegetation screens shall not be employed to serve as the primary means for controlling glare. Rather, glare control shall be achieved primarily through the use of such means as cutoff fixtures, shields and baffles, and appropriate application of fixture mounting height, wattage, aiming angle and fixture placement.

(iv) The intensity of illumination projected onto any property from another property shall not exceed 0.1 vertical footcandle, measured at thirty inches (30") above the ground at the property line.

(v) Fixtures meeting IESNA "full cutoff" criteria shall not be mounted in excess of twenty feet (20') above grade. Fixtures not meeting IESNA "full cutoff" criteria shall not be mounted in excess of sixteen feet (16') above grade except as specifically approved by the Board of Supervisors.

(vi) Fixtures used for architectural lighting, e.g., facade, fountain, feature and landscape lighting, shall be aimed so as not to project their output beyond the objects intended to be illuminated and shall be extinguished between the hours of 11 p.m. and dawn.

(6) Installation

(i) Electrical feeds for lighting standards shall be run underground, not overhead.

(ii) Lighting standards in parking areas shall be placed a minimum of five feet (5') outside paved area, or on concrete foundations at least thirty inches (30") high above the pavement, or suitably protected by other approved means.

(7) Maintenance

(i) Lighting fixtures and ancillary equipment shall be maintained so as to always meet the requirements of this Chapter.

(e) Residential Development Street Lighting.

(1) Street lights shall be provided at all street intersections within a proposed subdivision or land development. The Township may require additional street lights in order to provide safe and convenient vehicular and/or pedestrian circulation.

(1) Electrical installations for all street lights shall be in accord with prevailing regulations and specifications established by GPU Energy, or its successors or wholly owned subsidiaries. It shall be the responsibility of the contractor or his agent to have final construction inspected by an electrical inspection agency and a written report attesting this fact submitted to GPU Energy, or its successors or wholly owned subsidiaries, thereby allowing the utility to provide pole illumination.

(f) Plan Submission.

(1) Lighting plans shall be submitted to the municipality for review and approval and shall include:

(i) Layout of the proposed fixture locations.

(ii) Isofootcandle plots for individual fixture installations and ten by ten (10 x 10) foot illuminance-grid plots for multi-fixture installations, that demonstrate compliance with the intensities and uniformities set forth in the Ordinance.

(iii) Description of the equipment, including fixture catalog cuts, photometrics, glare reduction devices, lamps, control devices, mounting heights and mounting methods proposed.

(iv) When requested by the Board of Supervisors, the applicant shall submit a visual impact plan that demonstrates appropriate steps have been taken to mitigate on-site and off-site glare.

(v) Post-approval alterations to lighting plans or intended substitutions for approved lighting equipment shall be submitted to the Township for review and approval.

(g) Post Installation Inspection.

(1) The Township reserves the right to conduct a post-installation nighttime inspection to verify compliance with the requirements of this Ordinance, and if appropriate, to require remedial action at no expense to the Township.

(h) Compliance Monitoring.

(1) Safety Hazards

(i) If Township judges a lighting installation creates a safety or personal-security hazard, the person(s) responsible for the lighting shall be notified and required to take remedial action.

(ii) If appropriate corrective action has not been effected within thirty (30) days of notification, the Township may levy a fine for as long as the hazard continues to exist.

(2) Nuisance Glare and Inadequate Illumination Levels

(i) When the Township judges an installation produces unacceptable levels of nuisance glare, skyward light, excessive or insufficient illumination levels or otherwise varies from this Chapter, the Township may cause notification of the person(s) responsible for the lighting and require appropriate remedial action.

(ii) If the infraction so warrants, the Township may act to have the problem corrected as in (g)(1) above.

(i) Street Lighting Dedication.

(1) When street lighting is to be dedicated to the Township, the applicant shall be responsible for all costs involved in the lighting of streets and street intersections until the street is accepted for dedication.

(2) Prior to dedication and in the event of the formation of a homeowner's association and/or property management declaration, the Township shall require said agency to enter into an agreement guaranteeing payment of all costs associated with dedicated street lighting.

(Ordinance 198, August 2, 2003, Section 3)

Section 521. Standards for Developments in the Planned Business/Office/Industrial District.

(a) General Development Regulations.

(1) No storage of materials, equipment or goods shall be permitted in a front yard. The storage of materials, equipment or goods outside a building shall be screened from view from streets and adjoining properties. Screening shall be reviewed and approved by the Board of Supervisors.

(2) All manufacturing, printing, publishing, binding, research, testing, experimentation and development activities shall be conducted within a completely enclosed building or structure.

(3) Areas for the servicing of refuse collection shall be provided and shall be adequate in size and be so arranged that they may be used without blockage or interference with the use of accessways or parking facilities. Appropriate screening from adjacent properties and from roads shall be required, in accordance with 517 (h) of this Chapter.

(4) All means of ingress and/or egress shall be located at least two hundred feet (200') from any other intersecting street and shall be designed to accommodate traffic in a safe and efficient manner. The developer shall be responsible for the purchase and installation of any traffic control devices and the construction of additional acceleration and/or deceleration lanes as may be required by the Pennsylvania Department of Transportation (PennDOT) or the Township. The developer shall also be responsible for any pertinent traffic studies that may be required by the Township and/or PennDOT.

(5) No individual lot shall have access to Weavertown Road, Limekiln Road, Monocacy Hill Road, Valley Road, Brown's Mill Road, or Amity Park Road.

(6) LEED certified development is encouraged.

(b) Architectural Standards

(1) All buildings and signs proposed for a development shall be of compatible architectural design. Consideration shall also be given to the compatibility of architectural design with other developments in the Planned Business/Office/Industrial District.

(2) All building exteriors shall be constructed of brick, stone, glass, architectural metal panel or other materials approved by the Board of Supervisors upon review of elevation drawings and/or renderings submitted by the applicant.

(3) Architectural features shall be provided above the roofline when necessary to conceal mechanical equipment from view.

(4) The architectural design of a proposed development, including building elevation drawings, shall be submitted to the Board of Supervisors for review and approval.

(5) LEED certified development is encouraged.

(Ordinance 269, December 15, 2010, Section 9)

**Part 6****Contracts, Fees and Contributions**Section 601. Improvement Guarantees and Contracts.(a) Completion of Improvements or Guarantees.

(1) No subdivision or land development plan shall be granted final approval unless the streets, curbs, gutters, sidewalks, walkways, street lights, water mains, sanitary sewers, fire hydrants, storm sewers, storm water detention and/or retention basins, other related drainage facilities, shade trees, buffer or screen plantings, recreational facilities, open space improvements and other infrastructure improvements as required by this Chapter, have been provided and installed in accordance with this Chapter.

(2) In lieu of the completion of any improvements which may be required as a condition for the final approval of the subdivision or land development plan, including improvements and fees required by this Chapter, the applicant shall deposit with the Township an amount as hereinafter calculated to cover the costs of such required improvements or common amenities, including but not limited to streets, curbs, gutters, walkways, street lights, water mains, sanitary sewers, fire hydrants, storm sewers, storm water detention and/or retention basins, other related drainage facilities, shade trees, buffer or screen plantings, recreational facilities, open space improvements and other required improvements.

(3) A note shall be provided on all Plans indicating that all improvements shall be located, designed, installed and/or constructed in accordance with all standards specified by the Township. The note shall also stipulate that all improvements shall be reviewed, inspected and approved by the Township Engineer prior to the issuance of any building permits and/or release of funds from escrow.

(b) Certification of Approval.

(1) When requested by the applicant to facilitate financing, the Board of Supervisors shall furnish the applicant with a signed copy of a resolution indicating approval of the Final Plan contingent upon the applicant obtaining satisfactory financial security and executing a development agreement.

(2) The Final Plan shall not be signed nor recorded until the financial security is tendered and a development agreement is executed. The resolution or letter of contingent approval shall expire and be deemed to be revoked if the financial security is not tendered and the development agreement is not executed within ninety (90) days of the date of the resolution or contingent approval. The Board of Supervisors may, at its discretion, grant a written extension which shall be placed in writing at the request of the applicant.

(c) Acceptable Security. In addition to cash deposits and escrow accounts, Federal or Commonwealth chartered lending institution irrevocable letters of credit extending for a term of one (1) year beyond completion of all improvements and restrictive or escrow accounts in such lending institution shall be deemed acceptable financial security for the purposes of securing the completion of the required improvements. Such

financial security shall be posted with the Township by a bonding company or Federal or Commonwealth chartered lending institution chosen by the applicant, provided such bonding company or lending institution is authorized to conduct business within the Commonwealth of Pennsylvania. Such bond, or other security, shall provide for, and secure to the public the completion of any improvements which may be required on or before the date fixed in the formal action of approval or accompanying agreement for completion of the improvements.

(d) Amount of Security.

(1) The amount of financial security to be posted for the completion of the required improvements shall be equal to one hundred ten percent (110%) of the cost of completion estimated as of ninety (90) days following the date scheduled for completion by the applicant, and all administrative and engineering inspections, fees, costs and expenses.

(2) The Township may adjust the amount of the financial security on an annual basis by comparing the actual cost of the improvements which have been completed and the estimated cost for completion of the remaining improvements as of the expiration of the ninetieth (90<sup>th</sup>) day after either the original date scheduled for completion or a rescheduled date of completion. Subsequent to said adjustment, the Township shall require the applicant to post additional security in order to assure that the financial security equals the one hundred ten percent (110%) and administrative and engineering costs as specified above. Any additional security shall be posted by the applicant.

(3) The amount of required financial security shall be based upon an estimate of the cost of completion and inspection of the required improvements, submitted by the applicant or applicants and prepared by a professional engineer licensed as such in the Commonwealth and certified by such engineer to be a fair and reasonable estimate of all such costs.

(4) The Township, upon the recommendation of the Township Engineer, may refuse to accept such estimate for good cause shown. If the applicant or applicants and the Township are not able to agree upon an estimate, then the estimate shall be recalculated and recertified by another professional engineer licensed as such in the Commonwealth and chosen mutually by the Township and the applicant or applicants. The estimate certified by the third engineer shall be presumed fair and reasonable.

(e) Increases in the Amount of Security. If the applicant requires more than one (1) year from the date of posting the financial security to complete the required improvements, the amount of financial security shall be increased by an additional ten percent (10%) for each one (1) year period or portion thereof beyond the first anniversary date from posting of financial security or to an amount not exceeding one hundred ten percent (110%) of the cost of completion and inspection of the required improvements as reestablished on or about the expiration of the preceding one (1) year period by using the procedure described above.

(f) Completion in Stages. In the case where development is projected over a period of years, the Township may at its discretion authorize approval of Final Plans by sections, stages or phases of development with the understanding that no sale of lots and no work within the areas reserved from development may commence until the required contracts are signed and the financial security posted with respect to those areas reserved from development. The Township shall also have the

right to impose additional requirements and conditions in connection with the phases as they are approved so as to assure that each section or phase will not be dependent for access or other improvement or common amenity upon completion of improvements in the subsequent phase or stage.

(g) Releases of Escrow. As the work of installing the required improvements proceeds, the party posting the financial security may request the Board of Supervisors to release or authorize the release, from time to time, of such portions of the financial security. Any such request shall be in writing addressed to the Board of Supervisors and the Board of Supervisors shall have forty-five (45) days from receipt of such request within which the Township Engineer shall certify, in writing, to the Township whether such portion of the improvements has been completed in accordance with the approved Plan and applicable specifications. Upon certification of completion, the Township shall authorize release by the bonding company or lending institution of an amount as estimated by the Township Engineer fairly representing the value of the improvements completed or, if the Township fails to act within said forty-five (45) day period, the Township shall be deemed to have approved the release of funds as requested.

(h) Retention of Ten Percent. The Township shall, prior to release at the time of completion and certification by the Township Engineer, require retention of ten percent (10%) of the estimated cost of the required improvements.

(Ordinance 135, November 18, 1992, Section 601; as amended by Ordinance 165, April 26, 1999, Section 23)

Section 602. Acceptance of Streets and Other Improvements.

(a) The Board of Supervisors shall at its discretion accept a part or all of the required improvements if satisfied that the applicant has complied with the approved Plan and all specifications and ordinances of the Township.

(b) The applicant shall furnish the Township with legal descriptions for all roads and easements. In addition, the applicant shall provide two (2) complete sets of prints of the completed required improvements, including drainage, profiles and utilities; and pay all costs for the Clerk of Courts and Recorder of Deeds of Berks County regarding the petition and resolution of the Board of Supervisors for its acceptance of the required improvements and any deed of dedication for the same.

(c) Unless permitted by the Township, no roads or other subsequent improvements will be accepted by the Township during the period from October 15 to April 15 of each year.

(Ordinance 135, November 18, 1992, Section 602)

Section 603. Maintenance Guarantee. Where the Township accepts dedication of all or some of the required improvements following completion, the Township shall require the posting of financial security to secure the structural integrity of said improvements as well as the functioning of said improvements in accordance with the design standards and specifications as shown on the Final Plan. The maintenance period shall be eighteen (18) months from the date of acceptance of dedication. The financial security shall be of the same type as described previously in this Chapter. The amount of financial security for maintenance shall be fifteen percent (15%) of the actual cost of the installation of said improvements. (Ordinance 135, November 18, 1992, Section 603)

Section 604. Public Utilities and Municipal Authorities. If water mains or sanitary sewer lines, or both, along with apparatus or facilities related thereto, are to be installed under the jurisdiction and pursuant to the rules and regulations of a public utility or municipal authority separate and distinct from the Township, financial security to assure proper completion and maintenance thereof shall be posted in accordance with the regulations of the controlling public utility or municipal authority and shall not be included within the financial security as otherwise required by the Township. (Ordinance 135, November 18, 1992, Section 604)

Section 605. Final Release from the Improvement Bond.

(a) Procedural Requirements.

(1) When the applicant has completed all of the necessary and appropriate improvements, the applicant shall notify the Township, in writing, by certified or registered mail, return receipt requested, postage prepaid, of the completion of the required improvements and shall send a copy thereof to the Township Engineer. The Township shall, within ten (10) days after receipt of such notice, direct and authorize the Township Engineer to inspect all of the required improvements. The Township Engineer shall thereupon file a report, in writing, with the Township and shall promptly mail a copy of the same to the applicant by certified or registered mail, return receipt requested, postage prepaid. The report shall be made and mailed within thirty (30) days after receipt by the Township Engineer of the aforesaid authorization from the Township; and said report shall be detailed and shall indicate approval or rejection of said improvements, or any portion thereof.

If the improvements are not approved or shall be rejected by the Township Engineer, said report shall contain a statement of reasons for such non-approval or rejection. The Township shall notify the applicant, within fifteen (15) days of receipt of the Engineer's report, in writing, by certified or registered mail, return receipt requested, postage prepaid, of the action of the Township.

(2) If the Township or the Township Engineer fails to comply with the time limitation provisions contained within this Chapter, all improvements will be deemed to have been approved and the applicant shall be released from liability for installation, pursuant to its performance guarantee bond, or other security agreement, but shall be liable for and shall provide a maintenance guarantee as otherwise provided for herein.

(3) If any portion of said improvements shall not be approved or shall be rejected by the Township, the applicant shall proceed to complete the same and, upon completion, the same procedure of notification, as outlined above, shall be followed.

(b) Reimbursement of Inspection Expenses. The applicant shall reimburse the Township for the reasonable and necessary expenses incurred for the inspection of the improvements. Fees shall be based on a fee schedule adopted by resolution of the Board of Supervisors from time to time.

(c) Remedies to Effect Completion of Improvements. In the event that any required improvement have not been installed as provided for in these regulations, or in accordance with the approved Final Plan, the Township shall have the power to enforce any corporate bond, or other security, by appropriate legal and equitable remedies. If the proceeds of such bond, or other security, are insufficient to pay the cost of installing or making repairs or corrections to all of the improvements covered by said security, the Township may, at its option, install part of

or all such improvements in the subdivision or land development and may institute appropriate legal action to recover the monies necessary to complete the remainder of the improvements.

(d) Improvement Contract. In addition to the posting of security, the applicant shall be required to enter into a contract with the Township, in a form acceptable to the Township Solicitor, covering the completion of the required improvements. The contract shall also provide for engineering inspections, insurance, reimbursement of expense to the Township, procedure upon default, and other subjects deemed necessary by the Township Solicitor to ensure proper and reasonable development of the land.

(Ordinance 135, November 18, 1992, Section 605)  
Section 606. Contributions and Fees.

(a) The applicant shall reimburse the Township for all reasonable administrative and professional expenses, including but not limited to engineering, legal and/or consultant fees. Prior to the filing of a Preliminary Plan, and prior to the filing of a Final Plan, the applicant shall pay to the Township the appropriate non-refundable filing fee and an escrow deposit to defray the professional expenses incurred by the Township in accordance with the fee schedule adopted by the Board of Supervisors. Thereafter, as the escrow deposit for expenses is expended, the applicant shall make further deposits upon notice from the Township until approval of the Plan. Upon approval of the Final Plan, the Township shall refund any uncommitted portion of the deposit remaining after expenses incurred by the Township have been paid in full by the applicant.

To the engineering and legal fees required to be paid to the Township by this Part, there shall be added a percentage of these costs (in accordance with the fee schedule adopted by the Board of Supervisors from time to time) as reimbursement to the Township of the costs incurred by the Township for the collection of such fees and the disbursement of the same to the Township Engineer and the Township Solicitor.

(b) All fees and contributions which may be required for transportation improvements, recreation facilities, community facilities and/or other infrastructure improvements shall be paid by the applicant prior to final approval of the subdivision or land development plan.

(Ordinance 135, November 18, 1992, Section 606)

**Part 7****Administration and Enforcement**Section 701. Amendments

(a) Before voting on the enactment of a proposed amendment to this Chapter, the Board of Supervisors shall hold a public hearing pursuant to public notice. The amendment or a summary setting forth the principal provisions of the amendment shall be published once each week for two (2) successive weeks in a newspaper of general circulation in the Township. Such notice shall state the time and place of the hearing and the particular nature of the matter to be considered at the hearing. The first publication shall not be more than thirty (30) and the second publication shall not be less than seven (7) days from the date of the hearing. The notice shall include a reference to the place within the Township where copies of the proposed amendment may be secured or examined.

(b) In case of an amendment other than that prepared by the Planning Commission, the Board of Supervisors shall submit each such amendment to the Planning Commission for recommendation at least thirty (30) days prior to the date fixed for the public hearing on such proposed amendment.

(c) The recommendation of the Planning Commission shall be made in writing to the Board of Supervisors within forty-five (45) days. The recommendation shall include a specific statement as to whether or not the proposed amendment is in accordance with the objectives of the Amity Township Comprehensive Plan.

(d) At least thirty (30) days prior to the hearing on the proposed amendment, the Board of Supervisors shall submit the proposed amendment to the Berks County Planning Commission for recommendations.

(e) The recommendation of the Berks County Planning Commission shall be made to the Board of Supervisors within forty-five (45) days and the proposed action shall not be taken until such recommendation is made. If, however, the County Planning Commission fails to act within forty-five (45) days, the Board of Supervisors shall proceed without its recommendation.

(f) Before voting on the enactment of a proposed amendment to this Chapter, the Board of Supervisors shall publish the proposed amendment once in one (1) newspaper of general circulation in the Township not more than sixty (60) days nor less than seven (7) days prior to passage. Publication of the proposed amendment shall include either the full text or the title and a brief summary, prepared by the Township Solicitor and setting forth all the provisions in reasonable detail.

(g) In the event substantial amendments are made to the proposed amendment before voting on enactment, the Board of Supervisors shall, at least ten (10) days prior to enactment, re-advertise in one (1) newspaper of general circulation in the Township, a brief summary setting forth all the provisions in reasonable detail together with a summary of the amendments.

(Ordinance 135, November 18, 1992, Section 701)

Section 702. Records. The Planning Commission and the Board of Supervisors shall keep a record of their findings, decisions and recommendations

relative to all subdivision and land development plans filed for review and action. Such records shall be made available to the public for review. (Ordinance 135, November 18, 1992, Section 702)

Section 703. Preventive Remedies.

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

(b) The Township may refuse to issue any permit or grant any approval necessary to further improve or develop any real property which has been developed or which has resulted from a subdivision of real property in violation of this Chapter.

(Ordinance 135, November 18, 1992, Section 703)

Section 704. Enforcement Remedies. Any person, partnership or corporation who or which has violated the provisions of this Chapter shall, upon being found liable in a civil enforcement proceeding commenced by the Township, pay a judgment of not more than Six Hundred Dollars (\$600.00) plus all court costs, including reasonable attorney fees incurred by the Township. Judgments shall commence or be imposed as provided for in Section 515.3 of the Pennsylvania Municipalities Planning Code (Act 247), as amended. (Ordinance 135, November 18, 1992, Section 704)

**Part 8**

**Appendices**

Section 801. Appendix A - Application Form for Subdivision and Land Development Review. (Ordinance 135, November 18, 1992, Appendix A)

AMITY TOWNSHIP  
BEKKS COUNTY PA

APPLICATION FORM FOR SUBDIVISION AND LAND DEVELOPMENT REVIEW

NAME OF DEVELOPMENT: \_\_\_\_\_

LOCATION: \_\_\_\_\_

DATE OF APPLICATION: \_\_\_\_\_

_____	SKETCH PLAN	
_____	PRELIMINARY PLAN	
_____	FINAL PLAN	_____ NEW SUBMISSION
_____	ANNEXATION PLAN	
_____	MINOR SUBDIVISION PLAN	_____ RE-SUBMISSION
_____	REVISED PLAN OF RECORD	
_____	PRD APPLICATION	

LANDOWNER' S NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

TELEPHONE NUMBER: \_\_\_\_\_

APPLICANT' S NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

TELEPHONE NUMBER: \_\_\_\_\_

INTEREST: \_\_\_\_\_ EQUITABLE OWNER \_\_\_\_\_ AGENT

ENGINEER OR SURVEYOR  
RESPONSIBLE FOR PLAN PREPARATION: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

TELEPHONE NUMBER: \_\_\_\_\_

FAX NUMBER: \_\_\_\_\_

TOTAL ACREAGE: \_\_\_\_\_ ACREAGE BEING DEVELOPED: \_\_\_\_\_

TOTAL NUMBER OF LOTS/UNITS: \_\_\_\_\_

TYPE OF LAND USE PROPOSED:

_____	SINGLE FAMILY DETACHED	_____	MOBILE HOME
_____	SINGLE FAMILY SEMI-DETACHED	_____	COMMERCIAL
_____	TWO-FAMILY DETACHED	_____	INDUSTRIAL
_____	TOWNHOUSES	_____	MUNICIPAL
_____	APARTMENTS	_____	OTHER

WATER SUPPLY: \_\_\_\_\_ ON-LOT \_\_\_\_\_ PUBLIC \_\_\_\_\_ OTHER

SEWAGE DISPOSAL: \_\_\_\_\_ ON-LOT \_\_\_\_\_ PUBLIC \_\_\_\_\_ OTHER

ZONING DISTRICT (S) : \_\_\_\_\_

ZONING CONFLICTS/CHANGES: \_\_\_\_\_

LINEAR FEET OF NEW STREETS PROPOSED: \_\_\_\_\_

ARE THE PROPOSED STREETS TO BE DEDICATED? \_\_\_\_\_

TYPE OF OFF-STREET PARKING PROPOSED:

\_\_\_\_\_ GARAGES \_\_\_\_\_ DRIVEWAYS \_\_\_\_\_ OTHER \_\_\_\_\_ NONE

WILL CONSTRUCTION BE UNDERTAKEN IMMEDIATELY? \_\_\_\_\_

AVERAGE SELLING PRICE: \$ \_\_\_\_\_ LOT \$ \_\_\_\_\_ HOUSE/UNIT

ACREAGE PROPOSED FOR RECREATION OR OPEN SPACE: \_\_\_\_\_

I HEREBY ACKNOWLEDGE AND REQUEST REVIEW OF THIS APPLICATION. TO THE BEST OF MY KNOWLEDGE, ALL THE INFORMATION IDENTIFIED ABOVE IS TRUE, CORRECT AND COMPLETE. IN ADDITION, I HEREBY AUTHORIZE THE BOARD OF SUPERVISORS, PLANNING COMMISSION MEMBERS, ZONING OFFICER, CODE ENFORCEMENT OFFICER, TOWNSHIP MANAGER, TOWNSHIP ENGINEER, TOWNSHIP SOLICITOR AND TOWNSHIP SEWAGE ENFORCEMENT OFFICER TO ENTER THE EXTERIOR PREMISES OF THIS PROPERTY WHILE THE PROPOSED PLAN IS BEING CONSIDERED FOR MUNICIPAL APPROVAL.

APPLICANT'S SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

LAND OWNER'S SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

---

FOR MUNICIPAL USE ONLY

NAME OF APPLICATION: \_\_\_\_\_

APPLICATION DATE: \_\_\_\_\_ FILE NUMBER: \_\_\_\_\_

MUNICIPAL REVIEW FEE COLLECTED: \$ \_\_\_\_\_

PLANNING COMMISSION ACTION: \_\_\_\_\_

DATE: \_\_\_\_\_

BOARD OF SUPERVISORS ACTION: \_\_\_\_\_

DATE: \_\_\_\_\_

Section 802. Appendix B - Model Formats. (Ordinance 135, November 18, 1992, Appendix B)

AMITY TOWNSHIP  
SUBDIVISION AND LAND DEVELOPMENT ORDINANCE

APPENDIX B  
MODEL FORMATS

CERTIFICATE OF OWNERSHIP, ACKNOWLEDGMENT OF PLAN  
AND OFFER OF DEDICATION

On this, the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, the undersigned officer, personally appeared (Name of Owner) \_\_\_\_\_, who being duly sworn according to law, deposes and says that he is the owner or equitable owner of the property shown on this Plan, that the Plan was prepared at his direction, and that he acknowledges the same to be his act and plan, and desires the same to be recorded as such according to law, and that all streets shown and not heretofore dedicated are hereby dedicated to public use.

\_\_\_\_\_  
Notary Public Name/Seal  
Commission Expiration Date

\_\_\_\_\_  
Owner/Equitable Owner

CERTIFICATE OF ACCURACY

I hereby certify that the Plan shown and described hereon is true and correct to the accuracy required by the Amity Township Subdivision and Land Development Ordinance.

\_\_\_\_\_  
Engineer or Surveyor  
Seal

\_\_\_\_\_  
Date

CERTIFICATE FOR APPROVAL BY THE PLANNING COMMISSION

At a meeting held on \_\_\_\_\_, 20\_\_\_\_, the Amity Township Planning Commission, by motion, approved the (Name of Subdivision or Land Development Plan), as shown and described hereon.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CERTIFICATE FOR APPROVAL BY THE BOARD OF SUPERVISORS

At a meeting held on \_\_\_\_\_, 20\_\_\_\_, the Amity Township Board of Supervisors, by motion, approved the (Name of Subdivision or Land Development Plan), as shown and described hereon.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Section 803. Appendix C - See Chapter XXVI, Streets, Sidewalks, Driveways and Curbs, Part 2, Street Pavings. (Ordinance 135, November 18, 1992, Appendix C)

Section 804. Appendix D - See Chapter XXVI, Streets, Sidewalks, Driveways and Curbs, Part 4, Sidewalks, Curbs and Gutters. (Ordinance 135, November 18, 1992, Appendix D)

Section 805. Appendix E - As-Built Plan Requirements. (Ordinance 165, April 26, 1999, Section 24)

APPENDIX E

AS-BUILT PLAN REQUIREMENTS

The Developer's Engineer is required to submit As-Built Plans prior to the dedication and/or acceptance of any municipal improvements within the subdivision/land development.

The following is a list of items to be provided and/or shown on the Plans:

- (1) Plan Scale - no smaller than one inch (1") = fifty feet (50')
- (2) Information to be shown:
  - (a) Street cartway and width, including curb and/or shoulder, right-of-way with widths dimensioned and Horizontal and Vertical curve data, transitions for the curb and cartway, and street grades along centerline;
  - (b) Sidewalk including width and all handicap ramps;
  - (c) Driveway locations and widths;
  - (d) Curb with elevations on P.C. and P.T. at intersections;
  - (e) Street monuments with elevations;
  - (f) Public utility lines (gas, electric, cable, telephone); or PA ONE CALL NOTE;
  - (g) Storm sewer lines and all storm sewer facilities with complete information;
  - (h) Public water lines and services appurtenances such as valves, hydrants, services;
  - (i) Public sanitary sewer lines and all facilities; including lateral locations, lengths and depths at end of lateral;
  - (j) Size (volume) by contours of detention basins;
  - (k) Type and elevations of basin outlet;
  - (l) Width and elevation of the basin emergency spillway;
  - (m) Width and elevation of the top of the basin berm;
  - (n) Street lights and signs; and
  - (o) Street address for each lot.
- (3) Reproducible mylars are to be furnished after the Plans have been reviewed and approved.

NOTE:

- (1) The Township and/or Engineer may require additional information if deemed necessary.
- (2) All Municipal improvements which are required by the Subdivision Ordinance shall be provided on the As-Built Plans.

Section 806. Appendix F - Well Abandonment Procedure. (Ordinance 165, April 26, 1999, Section 25)

APPENDIX F

WELL ABANDONMENT PROCEDURE

The sealing of abandoned water wells is covered under Act 610, Water Well Drillers Licensing Act. This regulation makes it the legal responsibility of the well owner to seal effectively any abandoned water well on their property.

Improperly abandoned wells are a threat to public health. Wells should be properly abandoned to eliminate the physical hazard, prevent groundwater contamination, maintain yield and hydrostatic head and to prevent exchange of water between various zones.

Each abandonment should be considered individually. Questions on abandonment in multi aquifer systems, limestone aquifers, screened or gravel packed wells or artesian aquifers should be referred to the regional hydrogeologist. Most of the situations that we will encounter concern wells in unconfined aquifers. The following are general guidelines for well abandonment.

Casing should be pulled or perforated unless the casing in place has been properly grouted.

Fill must be free of organic materials and naturally occurring clays. Disinfected fill material must be used. A concentration of at least one hundred (100) PPM available chlorine (per two (2) times well volume) must be achieved prior to backfilling. Sodium hypochlorite or calcium hypochlorite should be used to disinfect.

A neat cement, grout or concrete plug must be provided from near the ground surface to ten feet (10') below the top of the uncreviced bedrock or to below the casing depth, whichever is deeper. Another option is to fill the entire well with neat cement grout. All grout, cement or concrete must be placed in one continuous motion from the bottom up. It must not be dumped in from the top.

The location of the abandoned well should be fixed by "tying in" with a permanent reference point (ex: bench mark).

The abandonment of a well can become complex. When specific information about a well is available from drillers logs or physical logging methods some variation from the guidelines can be allowed. In the absence of that data the guidelines should be followed.

