

# WEST COCALICO TOWNSHIP

## SUBDIVISION, LAND DEVELOPMENT AND STORM WATER MANAGEMENT ORDINANCE

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STORM WATER MANAGEMENT ORDINANCE**

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# **WEST COCALICO TOWNSHIP**

**Lancaster County, Pennsylvania**

## **SUBDIVISION, LAND DEVELOPMENT AND STORM WATER MANAGEMENT ORDINANCE**

**AN ORDINANCE SETTING FORTH RULES, REGULATIONS, AND STANDARDS REGULATING SUBDIVISION AND LAND DEVELOPMENT WITHIN THE TOWNSHIP OF WEST COCALICO, LANCASTER COUNTY, PENNSYLVANIA, PURSUANT TO THE AUTHORITY GRANTED IN ARTICLE V OF THE PENNSYLVANIA MUNICIPALITIES PLANNING CODE, ACT 247 OF 1968, AS AMENDED AND REENACTED BY ACT 170 OF 1988, AND ESTABLISHING THE PROCEDURE TO BE FOLLOWED BY THE WEST COCALICO TOWNSHIP PLANNING COMMISSION AND THE WEST COCALICO TOWNSHIP BOARD OF SUPERVISORS IN THE APPLICATION AND ADMINISTRATION OF SAID RULES, REGULATIONS AND STANDARDS, AND PROVIDING PENALTIES AND REMEDIES FOR THE VIOLATION THEREOF.**

**BE AND IT IS HEREBY ORDAINED AND ENACTED** by the Board of Supervisors of West Cocalico Township, Lancaster County, Pennsylvania, as follows:

## **ARTICLE I**

### **TITLE/AUTHORITY**

#### **Section 101 Short Title**

This Ordinance shall be known as "The West Cocalico Township Subdivision, Land Development & Storm Water Management Ordinance of 2004."

#### **Section 102 Purpose**

This Subdivision, Land Development and Storm Water Management Ordinance is adopted for the following purposes:

- A. To promote and protect the public health, safety, morals, and welfare.
- B. To promote orderly, efficient, integrated, and harmonious development in the Township.
- C. To ensure conformance of subdivision and land development plans with the West Cocalico Strategic Comprehensive Plan, the Cocalico Region Strategic Comprehensive Plan, the West Cocalico Township Zoning Ordinance, and public improvements plans and to ensure coordination of intergovernmental improvement plans and programs.

- D. To accommodate the Township's "fair share" of growth within Lancaster County by encouraging such growth to occur within the UGB/VGB and to encourage efficient and dense development within the UGB/VGB.
- E. To protect sensitive and important natural features (e.g. floodplains, wetlands, farmlands, unique geologic features, steep slopes, woodlands, gamelands, wildlife habitats, etc.) from indiscriminate development.
- F. To coordinate proposed streets and other improvements with existing or proposed streets, parks, or other features of the comprehensive plan and to provide for drainage, water supply, sewage disposal, and other appropriate utility services.
- G. To require sites for building purposes and human habitation to be suitably improved for their intended use and to minimize the peril from fire, flood, erosion, excessive noise, smoke, or other menace.
- H. To encourage preservation of adequate open spaces for recreation, light, air and maintenance of the natural amenities characteristic of the Township and its residential, commercial, agricultural, industrial, and public areas.
- I. To secure equitable treatment of all subdivision and land development plans by providing uniform procedures and standards.
- J. To ensure that developments are environmentally sound by requiring preservation of the natural features of the areas to be developed to the greatest extent practicable.
- K. To maintain the economic well being of the Township and to prevent unnecessary or undesirable blight, runoff and pollution.
- L. To secure the protection of water resources and drainageways.
- M. To establish provisions governing the standards by which streets shall be designed and improved, and by which walkways, curbs, gutters, street lights, fire hydrants, water and sewage facilities, and other improvements shall be installed as a condition precedent to final approval of plans.
- N. To ensure consistency and compliance with the recommendations for quantity and quality controls, within the Cocalico Creek Watershed, that are found in the "Cocalico Creek Watershed Act 167 Storm Water Management Plan," dated June 2002; to encourage the recharge of groundwater, where appropriate, within the watershed; to preserve and restore the flood carrying capacity of streams within the watershed, and to maintain existing flows and quality of streams within the watershed.
- O. To ensure consistency with, and to implement the requirements of, the NPDES Phase II MS4 storm water management water quality minimum control measures.

## **Section 103 Authority and Jurisdiction**

- A. The Board of Supervisors of West Cocalico Township, pursuant to the Pennsylvania Municipalities Planning Code, Act 247 of 1968, as amended, 53P.S. 10101 et seq., and pursuant to the Storm Water Management Act, Act 167 of October 4, 1978, 32 P.S. P.L. 864, Section 680.1, et. seq., as amended, and Act 166, The Floodplain Management Act, as amended, hereby enacts and ordains the following Ordinance governing subdivisions, land developments, and regulated activities as defined herein, within the limits of West Cocalico Township.

- B. No land development or subdivision of any lot, tract or parcel of land shall be made, and no street, sanitary sewer, storm sewer, water main, or other improvements in connection therewith shall be laid out, constructed, opened, or dedicated for public use or travel, or for the common use of occupants of buildings abutting thereon, except in accordance with the provisions of this Ordinance.
- C. The authority for the control and regulation of subdivision and land development within the Township shall be as follows:
1. The West Cocalico Township Board of Supervisors shall be vested with the authority to approve or disapprove all subdivision and land development plans.
  2. Plans for subdivision and land development shall be submitted to the West Cocalico Township Planning Commission for their review. The Planning Commission will provide the Board of Supervisors with a recommendation for plan approval, disapproval, or conditional approval. Said submission shall take place before approval of any plans by the Township Supervisors. If a report is not received from the West Cocalico Township Planning Commission within forty-five (45) days after submission for action, the Board of Supervisors may proceed without the report.
  3. Plans for subdivision and land development located within West Cocalico Township shall be submitted to the Lancaster County Planning Commission for review and report. Said submission shall take place before approval of any plans by the Township. However, if a report is not received from the Lancaster County Planning Commission within forty-five (45) days after submission, the Board of Supervisors may proceed without the report.
- D. In addition to all other requirements of this Ordinance, the following Regulated Activities further defined as Major or Minor Land Disturbance Activities, shall require the submittal of a Storm Water Management Plan in accordance with Sections 307, 408, and 610 of this Ordinance, as amended:
1. Major Land Disturbance Activity:
    - a. Any use requiring the submission of a subdivision or land development plan as herein defined.
    - b. Any land disturbance not defined as a minor land disturbance activity or deemed to qualify as a minor land disturbance activity by the Township.
    - c. Any use involving the diversion or piping of any natural or man-made watercourse or existing drainage pattern.
    - d. Any use within the Floodplain District as defined by the West Cocalico Zoning Ordinance.
    - e. Any use involving the installation of ground cover, grading, filing, excavation, or disturbance of woodland in excess of one (1) acre except for the use of land for agricultural plowing and tilling and the science of forestry when operated in accordance with approved conservation and erosion control practices.

2. Minor Land Disturbance Activity:

- a. The use of land on an existing lot of record, including subdivided lots or land developments approved under a Major Land Disturbance Activity, provided that:
  - 1) The use is not within the Floodplain District as defined by the West Cocalico Zoning Ordinance.
  - 2) No diversion or piping of any natural or man-made water course or existing drainage pattern is involved.
  - 3) A residential use that does not involve the removal of ground cover, grading, filling, or excavation of more than one (1) acre.
  - 4) A non-residential use that does not involve the construction of a building or building addition, or other impervious area in excess of one thousand five hundred (1,500) square feet, involve the removal of ground cover, filling, or excavation of more than one (1) acre.
  - 5) The use does not require the submission of a subdivision or land development plan as herein defined.
- b. Any use of the land, which in the opinion of the Township, represents minimal ground disturbance or impact to the environment.

- E. Except as specifically provided by the Pennsylvania Storm Water Management Act of October 4, 1978, P.L. 864, Act No. 167, as amended, 32 P.S. §608.1 et seq., the making of any administrative decision by the Township or any of its officials or employees shall not constitute a representation, guarantee or warranty of any kind of the Township of the practicability or safety of any proposed structure of use with respect to damage from erosion, sedimentation, storm water runoff, flood, or any other matter, and shall create no liability upon or give rise to any cause of action against the Township and its officials and employees. The Board of Supervisors, by enacting and amending this Ordinance, does not waive or limit any immunity granted to the Township and its officials and employees by the Governmental Immunity Act, 42 Pa. C.S. §8541 et seq., and does not assume any liabilities or obligations.

## Section 104 Conflict

It is not intended by this Ordinance to repeal, abrogate, annul, or interfere with any existing ordinances or enactment, or with any rule, regulation, or permit adopted or issued thereunder, except insofar as the same may be inconsistent or in conflict with any of the provisions of this Ordinance, provided that where this Ordinance imposes greater restrictions upon the use of buildings or land, or upon the height and bulk of buildings, or prescribed larger open spaces than are required by the provisions of other such ordinance, enactment, rule, regulation or permit, then the provisions of this Ordinance shall control. Furthermore, if a discrepancy exists between any regulations contained within this Ordinance, that regulation which imposes the greater restriction shall apply.



# ARTICLE II

## INTERPRETATION AND DEFINITIONS

### Section 201 General Interpretations

In this Ordinance the following rules of interpretation shall be used:

- A. The word "lot" includes the word "plot" or "parcel".
- B. Words in the present tense may imply the future tense.
- C. Words used as singular imply the plural.
- D. The masculine gender includes the feminine and neuter genders.
- E. The word "person" includes a partnership, corporation, association, trust, estate, or any other legally recognized entity as well as an individual.
- F. The word "shall" is to be interpreted as mandatory; the word "may" as directory.
- G. References to any document, official, or entity (i.e. codes, ordinances, resolutions, plans, maps, governmental bodies, commissions, agencies, or officials) are references to West Cocalico Township documents, officials, or entities in effect at the time, unless the text indicates that another reference is intended.

### Section 202 Definitions

Unless otherwise stated, the following words and phrases shall be construed throughout this Ordinance to have the meanings indicated in this Section:

**Accelerated Erosion.** The removal of the surface of land through the combined action of man's activities and the natural processes at a rate greater than would occur because of the natural process alone.

**Access Drive.** An improved cartway designed and constructed to provide for vehicular movement between a public road and a tract of land or improvements thereon containing any use other than one single-family dwelling unit or a farm.

**Accessory Dwelling.** An additional dwelling unit placed upon any property as ECHO Housing or upon an agricultural property for immediate family members or as Temporary Farm Employee Housing as provided for by the Township Zoning Ordinance. Accessory dwellings shall be processed in accordance with the Accessory Dwelling Guidelines as provided in the Appendix and the Modification provisions of Section 309.

**ACT.** The Pennsylvania Sewage Facilities Act, Act of January 24, 1966, P.L. (1965) 1535, No. 537, as amended, 35 P.S. Section 750.1 et seq.

**Agent.** Any person, other than a landowner or developer, who, acting for the landowner or developer, submits to the Planning Commission and Township Supervisors subdivision or land development plans for the purpose of obtaining approval thereof.

**Agricultural Purposes.** The use of land for the cultivation of soil, farming, dairying, pasturage, agriculture, horticulture, floriculture, forestry, viticulture, and animal and poultry husbandry and the necessary accessory uses for packing, treating or storing the produce and equipment for housing and feeding the animals and housing the equipment, also land which has been diverted from agricultural use by an active federal farm program, provided the land has a conservation cover of grass, legume, trees or wildlife shrubs. The use of land for a dwelling site is not an agricultural purpose.

**Aisle.** A private drive within a parking compound providing pedestrian and vehicular access between an access drive and a parking space, which is located within the parking compound.

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

**Application for Development.** Every application, whether preliminary or final, required to be filed and approved prior to start of construction or development, including but not limited to, an application for a building permit, for the approval of a subdivision plot or plan or for the approval of a land development plan.

**Authority (Sewer/Water).** The West Cocalico Authority and their successors, or the Township or other public utility.

**Block.** An area bounded by streets.

**Board of Supervisors.** The West Cocalico Township Board of Supervisors.

**Building.** Any structure composed of exterior walls or fire walls; built, erected, or framed of component structural parts, designed for the housing, shelter, enclosure, storage or support of individuals, animals, or property, of any kind; and occupying more than ten (10) square feet of area. Porches and carports shall be considered a part of the building.

**Building, Accessory.** A detached subordinate building or structure, the use of which is customarily incidental to that of the principal building or use and which is located on the same lot as occupied by the principal building or use.

**Building Addition.** An increase in floor area or attached expansion of an existing building.

**Building Area.** The total area of the greatest outside dimensions on a horizontal plane of a building.

**Building, Principal.** A building or buildings in which the primary use or uses of the lot is or are located, or intended to be located.

**Building Envelope.** The building envelope is that area of the lot that has no building restrictions. The building envelope shall not include the area of any required setbacks (except for driveways which cross yards), buffer yards or floodplains.

**Building Setback Line.** A line within a property defining the required minimum distance between any building and the adjacent right-of-way line or property line.

**Cartway.** The improved surface of a road or street intended for vehicular travel.

**Clear Sight Triangle.** An area of unobstructed vision at the intersection of two (2) or more streets, access drives, driveways, or alleys or any combination of the foregoing. It is defined by lines of sight between points at a given distance from the intersection of the centerlines of both streets, access drives, driveways, or alleys.

**COE.** United States Army Corps of Engineers.

**Common Driveway.** A private driveway utilized by two (2) or more separate lots or dwellings for access to a public or private street.

**Common Open Space.** A parcel or parcels of land, an area of water or a combination of land and water within a development site and designed and intended for the use or enjoyment of residents of a development, not including streets, off-street parking areas and areas set aside for public facilities.

**Community Sewage System.** A sewage disposal system, other than a public sewer system, which provides sewage disposal for two (2) or more units of occupancy which shall comply with all applicable regulations of the Department of Environmental Protection or other regulatory agency.

**Community Water Supply System.** A water supply system, other than a public water system, providing water for more than two (2) units of occupancy which shall comply with all applicable regulations of the Department of Environmental Protection or other regulatory agency.

**Compensatory Mitigation.** The required restoration, enhancement, or creation of wetlands to offset unavoidable wetland impacts from construction.

**Comprehensive Plan.** The plan, or parts thereof, which has been adopted by the Board of Supervisors, showing its recommendations for such systems as parks and recreation facilities, water supply, sewer and sewage disposal, transportation highways, civic centers, and other public improvements which affect the development of the Township.

**Corner Lot.** A lot abutting upon two (2) streets at their intersection.

**County Planning Commission.** The Lancaster County Planning Commission.

**Culvert.** A structure with appurtenances, which carries a watercourse under or through an embankment or fill.

**Curb.** The raised edge of a cartway to confine surface water to the cartway and to protect the abutting land from vehicular traffic.

**Dedication.** The deliberate conveyance of land to West Cocalico Township by its owner for general public or Township use.

**Deed.** A legal document conveying an ownership interest in real property.

**Department of Environmental Protection (DEP).** The Department of Environmental Protection of the Commonwealth of Pennsylvania or any agency successor thereto.

**Department of Transportation (PENNDOT).** The Department of Transportation of the Commonwealth of Pennsylvania or any agency successor thereto.

**Design Speed.** The design speed for streets designed in accordance with this Ordinance shall equal the proposed posted speed plus five (5) miles per hour.

**Design Storm.** The magnitude of precipitation from a storm event measured in probability of occurrence (e.g., 10-year storm) and duration (e.g., 24-hour), and used in computing design for storm water management facilities.

**Detention Basin.** A vegetated basin designed to drain completely after storing runoff only for a given storm event and release it at a pre-determined rate. Also known as a dry pond.

**Development** Any man-made change to improved or unimproved real estate, including but not limited to the construction, reconstruction, renovation, repair, expansion, or alteration of buildings or other structures; the placement of manufactured homes, streets or other paving and utilities; any filling, grading, excavation, mining, dredging or drilling operations or the storage of equipment or materials therefore.

**Development Plan**. The provisions for development, including a planned residential development, a plat of subdivision, all covenants relating to use, location and bulk of buildings and other structures, intensity of use or density of development, streets, ways and parking facilities, common open space, and public facilities. The phrase "Provisions of the Development Plan" shall mean written and graphic materials referred to in this definition.

**Developer**. Any landowner, agent of such landowner, or tenant with the permission of such landowner, who makes or causes to be made a subdivision of land or a land development; a subdivider.

**Double Frontage Lot**. A lot, other than a corner lot, fronting on two (2) streets.

**Drainage Easement**. A perpetual right granted by a landowner to a grantee, allowing the use of private land for storm water management purposes.

**Drainage Facility**. Any ditch, gutter, pipe, culvert, storm sewer, or other structure designed, intended or constructed for the purpose of carrying surface waters off of streets, public rights-of-way, parks, recreational areas, or any part of any subdivision, land development or contiguous land areas.

**Driveway**. A private drive providing access between a public or private street or access drive and a parking area for a single unit of occupancy, a farm, or land development, which shall comply in all respects with the Zoning Ordinance, the Road Ordinance, and any other Ordinance regulating the placement and/or construction of driveways which may be enacted by the Board of Supervisors.

**Driveway, Shared**. A private drive providing access between a public or private street or access drive and parking areas for two units of occupancy, which shall comply in all respects with the Zoning Ordinance, the Road Ordinance, and any other Ordinance regulating the placement and/or construction of driveways which may be enacted by the Board of Supervisors.

**Dwelling Unit**. A building or portion thereof forming a single habitable unit with facilities which are used or intended to be used for living, sleeping, cooking and eating exclusively by one (1) or more individuals living as a single housekeeping unit.

**Easement**. A right-of-way granted for limited use of private land for a public, quasi-public, or private purpose not inconsistent with a general property right of the owner, and within which the owner of the property shall not have the right to use the land in a manner that violates the right of the grantee.

**Easement of Access**. Any driveway or other entrance from a public or private road. A field road providing access to agriculturally used fields and not providing access to any residential, commercial or industrial structure is not considered an easement of access.

**Energy Dissipator**. A device used to slow the velocity of storm water at points of concentrated discharge associated with pipe outlets and similar conditions.

**Engineer**. A professional engineer licensed in the Commonwealth of Pennsylvania.

**Ephemeral Stream**. A water conveyance which lacks substrates associated with flowing waters and flows only in direct response to precipitation in the immediate watershed or in response to melting snowpack and which is always above the local water table.

**Erosion**. The removal of soil particles by the action of water, wind, ice, or other geological agents.

**Family.** For the purposes of this Ordinance, a family shall be defined as follows:

1. One or more persons related by blood (within and including the degree of first cousin), marriage or adoption, including foster children, living together in a single housekeeping unit and sharing all of the facilities of that unit in common; or
2. Not more than two unrelated persons, persons related to either or both of them by blood (within and including the degree of first cousin) or adoption, and including foster children, provided, however, that they live together in a single housekeeping unit a share all of the facilities of that unit in common; or
3. One or more individuals with disabilities, as defined and protected by the Federal Fair Housing Act, as amended, who live together primarily for purposes relating to their disabilities as the functional equivalent of a family in a shared living arrangement licensed or certified by the appropriate County, Commonwealth or Federal agency.

**Financial Security.** A letter of credit or other form of guarantee in accordance with the requirements of Article V of the Municipalities Planning Code posted by a developer to secure the completion, maintenance or repair of improvements indicated on an approved plan.

**Floodplain.** An area of land adjacent to the channel of a watercourse which has been or is likely to be flooded from the base flood of any source.

**Floor Area.** The total floor area of a building, excluding unimproved cellars or basements used only for storage, storage attics, open porches, garages used for vehicle storage, and similar uses.

**Frontage.** The horizontal or curvilinear distance along the street line upon which a lot abuts.

**Future Right-of-Way.** (1) The right-of-way width required for the expansion of existing streets to accommodate anticipated future traffic loads. (2) A right-of-way established to provide future access to or through undeveloped land.

**Grade.** The slope expressed in a percent that indicates the rate of change of elevation in feet per linear hundred linear feet.

**Grassed Waterway** (also known as a swale). A man-made drainage way of parabolic or trapezoidal cross-section shaped to required dimensions and vegetated for safe disposal of runoff.

**Groundwater Recharge.** Replenishment of existing natural underground water supplies.

**Gutter.** That portion of a right-of-way carrying surface drainage.

**Hardship.** A condition, not caused by the applicant or developer, which would qualify an unnecessary hardship in a dimensional variance case for which a modification may be requested.

**Holding Pond.** A retention or detention pond.

**Homeowners' Association.** An unincorporated association or not-for-profit corporation whose membership consists of the lot owners of a residential development. A homeowners' association shall also include a condominium unit owners' association. All such associations shall comply with the requirements for unit owners' associations contained in the Pennsylvania Uniform Condominium Act, 68 Pa. C.S. Section 3101 et seq.

**Impervious Surface.** A surface that prevents or significantly delays the percolation of water into the ground.

**Improvements.** Pavements, curbs, gutters, sidewalks, water mains, sanitary sewers, storm sewers, storm water management facilities, grading, street signs, plantings, and other items for the welfare of the property owners or the public.

**Individual Onlot Sewage System.** A system of piping, tanks, or other facilities located on and serving a single lot by collecting and disposing of sewage or effluent, in whole or in part, into the soil or into any waters of the Commonwealth of Pennsylvania or by means of conveyance to another site for final disposition.

**Intermittent Stream.** A body of water flowing in a channel or bed composed primarily of substrates associated with flowing water, which, during periods of the year, is below the local water table and obtains its flow from both surface runoff and groundwater discharges.

**Land Development.** The improvement of one (1) lot or two (2) or more contiguous lots, tracts or parcels of land for any purpose involving:

1. A group of two (2) or more residential or non-residential buildings, whether proposed initially or cumulatively, or a single non-residential building on a lot or lots regardless of the number of occupants or tenure; or
2. The division or allocation of land or space, whether initially or cumulatively, between or among two or more existing or prospective occupants by means of, or for the purpose of streets, common areas, leaseholds, condominiums, building groups or other features; or,
3. A subdivision of land.
4. **Land Development shall not include the following:**
  - a. The conversion of an existing single-family detached dwelling or single-family semi-detached dwelling into not more than three (3) residential units, unless such units are intended to be a condominium;
  - b. The addition of an accessory building, including farm buildings, on a lot or lots subordinate to an existing principal building; or
  - c. The addition or conversion of buildings or rides within the confines of an enterprise that would be considered an amusement park.
    - 1). For purposes of this subclause, an amusement park is defined as a tract or area used principally as a location for permanent amusement structures or rides. This exclusion shall not apply to newly acquired acreage by an amusement park until initial plans for the expanded area have been approved by proper authorities.
  - d. A building addition to an existing non-residential principal structure, provided that:
    - 1). The addition does not create a need for any additional parking, per the Township Zoning Ordinance; and
    - 2). The addition does not, in accordance with the Pennsylvania Sewage Facilities Act, Act 537 of 1966, as amended, create the need for a sewer facility plan revision (plan revision module for land development), or supplement; and
    - 3). The addition is not for the creation of additional units of occupancy; and
    - 4). The addition does not require approval from the Zoning Hearing Board; and

- 5). The addition complies with all provisions of applicable Township ordinances.
- 6). For the purpose of this non-residential principal structure exemption subclause, the building addition exemption criteria shall be reviewed cumulatively from the date of this Ordinance. The net addition size shall be the sum of all additions after the date of the adoption of this Ordinance.

**Land Disturbance.** Any Major or Minor Land Disturbance activity as herein defined involving grading, tilling, digging, or filling of ground; stripping of vegetation; or any other activity which causes land to be exposed to the danger of erosion.

**Landowner.** The legal or beneficial owner or owners of land including the holder of an option or contract to purchase (whether or not such option or contract is subject to any condition), a lessee if he is authorized under the lease to exercise the rights of the landowner or other person having a proprietary interest in land.

**Landscape Architect.** A professional landscape architect licensed as such in the Commonwealth of Pennsylvania.

**Lateral.** Conduits connecting individual buildings to utility services that are generally located within the street.

**Lineament.** A fracture on the order of tens of kilometers long usually extending to the basement below sedimentary rock.

**Location Map.** A map showing the site with relation to adjoining areas.

**Lot.** A designated parcel, tract or area of land established by a plat or otherwise as permitted by law and to be used, developed or built upon as a unit. A "lot" shall include one or more contiguous pieces, parcels, or deeded plots of land of record, intended to be used in common.

**Lot, Flag:** A lot whose frontage does not satisfy the minimum width requirements for the respective zone, but that does have sufficient lot width away from the lot's frontage.

**Lot Area.** The area contained within the property lines of the lot as shown on a subdivision plan, not including any area within a street right-of-way.

**Lot Width.** In the case of an interior lot, lot width shall be the horizontal distance measured at the minimum building setback line between the side lot lines. In the case of a corner lot, lot width shall be the horizontal distance measured at the minimum building setback line between each front lot line and its opposite lot line. Such distance shall be measured along a straight line which is at right angles to the axis of a lot. The mean lot width shall be not less than the required lot width.

**Mobile Home.** A transportable, single-family dwelling containing a minimum of eight hundred (800) square feet of floor area and intended for permanent occupancy, contained in one (1) unit, or in two (2) or more units designed to be joined into one (1) integral unit capable of again being separated for repeated towing, which arrives at a site complete and ready for occupancy except for minor and incidental unpacking and assembly operations, and constructed so that it may be used without a permanent foundation.

**Mobile Home Lot.** A parcel of land in a mobile home park, improved with the necessary utility connections and other appurtenances necessary for the erection thereon of a single mobile home.

**Mobile Home Park.** A parcel or contiguous parcels of land which have been so designated and improved which contains two (2) or more mobile home lots for the placement thereon of mobile homes.

**Modification.** The granting of an exception to these regulations which in the opinion of the Township Supervisors will not be detrimental to the general welfare, impair the intent of those regulations, or conflict with the Comprehensive Plan.

**Multiple Dwelling Building.** A building providing separate living quarters for two (2) or more families.

**Municipalities Planning Code.** The Pennsylvania Municipalities Planning Code, Act of July 31, 1968, P.L. 805, No. 247, as amended and reenacted.

**Natural Watercourse.** An existing watercourse or channel which is not man-made and contains a definite bed and banks which confine and conduct continuously or periodically flowing water.

**Non-Residential.** Any use other than single dwellings or multiple dwelling buildings. An institutional use in which persons may reside, such as a dormitory, prison, nursing home, or hospital, shall be considered a non-residential use.

**NWI.** National Wetland Inventory.

**On-Site Storm Water Management.** The control of runoff to allow water falling on a given site to be absorbed or retained on-site to the extent that after development the peak rate of discharge leaving the site is not significantly greater than if the site, subdivision, or land development had remained undeveloped.

**Parking Area.** An area on a lot utilized for the parking of vehicles for a single unit of occupancy, a farm or two (2) vehicles within a land development.

**Parking Compound.** An area on a lot containing any use other than an agricultural use or one (1) single-family detached dwelling for the parking of three (3) or more vehicles.

**Parking Space.** An off-street space available for the parking of a vehicle. The minimum area required for a single space shall be as provided by the Township Zoning Ordinance. For the purpose of this Ordinance, the minimum number of parking spaces as required by the Zoning Ordinance for any uses other than dwelling units shall not include space within garages. Parking spaces shall not be obstructed by another parking space or by any other structural impediments to vehicular access.

**Peak Discharge.** The maximum rate of flow of water at a given point and time resulting from a specified storm event.

**Plan.** The map or plan of a subdivision or land development, as follows:

1. **Final Plan.** A complete and exact subdivision and/or land development plan, including all supplementary data specified in Article 4 of this Ordinance.
2. **Lot Add-On Plan.** A complete and exact subdivision plan including all supplementary data specified in Article 4 of this Ordinance which does not alter a record plan.
3. **Preliminary Plan.** A subdivision and/or land development plan including all required supplementary data specified in Article 4 of this Ordinance, showing approximate locations.
4. **Record Plan.** A final plan which contains the original endorsement of the West Cocalico Township and Lancaster County Planning Commissions and the West Cocalico Township Supervisors which is intended to be recorded with the Lancaster County Recorder of Deeds.
5. **Revised Final Plan.** Any subdivision or proposed land development plan that changes or proposes to change property lines and/or public rights-of-way or other features of a record plan.
6. **Centerline Separation Subdivision.** A complete and exact subdivision plan including all supplementary data specified in Article 4 of this Ordinance.



7. **Sketch Plan.** An informal plan, not necessarily to exact scale, indicating salient existing features of a tract and its surroundings. with the general layout of a proposal prepared in accordance with Article 4 of this Ordinance.

**Planning Commission.** The West Cocalico Township Planning Commission.

**Planning Module for Land Development.** A revision to the Township's Official 537 Plan submitted in connection with the request for approval of a subdivision or land development in accordance with DEP regulations.

**Project Site.** An area of land subject to land disturbance or development and within the jurisdiction of this Ordinance.

**Public Facility.** A use, structure or facility owned, provided, or maintained by West Cocalico Township, the West Cocalico Authority, a public or private utility company, homeowner's association, or other bonafide entity recognized by West Cocalico Township.

**Public Sewer System.** A municipal sanitary sewer system approved and permitted by DEP and owned by a Sewer Authority or Township.

**Public Water System.** A municipal water supply facility approved and permitted by DEP and owned by a Water Authority or Township or a water supply facility owned by a public utility and operated in accordance with a certificate of public convenience granted by the Pennsylvania Public Utility Commission.

**Quadrant.** A circular or square plot of a given area used to determine the dominant plant species within a site.

**Record Drawings.** Set of prints of the original facilities showing those changes made during the construction process.

**Recorder of Deeds.** The Recorder of Deeds in and for Lancaster County, Pennsylvania.

**Regulated Activity.** An action or proposed action that has an impact upon storm water runoff and which is specified in Section 103 of this Ordinance.

**Replacement Location.** A location designated as the future location of an individual on-lot sewage system that shall be installed should the initial individual on-lot system installed or to be installed fail or otherwise become inoperable and which shall meet all the regulations of DEP and all applicable Township Ordinances for an individual on-lot sewage system.

**Retention Pond.** A pond containing a permanent pool of water and designed to store runoff for a given storm event and release it at a predetermined rate.

**Reverse Frontage Lot.** A lot extending between and having frontage on a major street and a minor street with vehicular access solely from the latter.

**Right-of-Way.** The total width of any land reserved or dedicated as a street, alley, pedestrian way, or for other specified public or private use.

**Sediment Basin.** A temporary dam or barrier constructed across a waterway or at other suitable locations to intercept the runoff and to trap and retain the sediment.

**Setback.** The required horizontal distance between a setback line and a property or street right-of-way line.

**Sight Distance.** The length of road visible to the driver of a passenger vehicle at any given point in the road when viewing is unobstructed by traffic.

**Storm Sewer.** A system of pipes, conduits, swales, or other similar structures including appurtenances which carry intercepted runoff, and other drainage, but excludes domestic and/or industrial sewage, effluent or waste.

**Storm Water.** Drainage runoff from the surface of the land resulting from precipitation or snow melt or ice melt.

**Storm Water Management.** A program of controls and measures designed to regulate the quantity and quality of storm water runoff from a development while promoting the protection and conservation of groundwater and groundwater recharge.

**Storm Water Management Facilities.** Those controls and measures used to implement a storm water management program.

**Street.** A strip of land, including the entire right-of-way, publicly or privately owned, serving primarily as a means of vehicular and pedestrian travel, and furnishing access to abutting properties, which may also be used to provide space for sewers, public utilities, storm water management facilities, shade trees and sidewalks. Street includes avenue, boulevard, road, highway, freeway, parkway, lane, alley, viaduct, and any other ways used or intended to be used by vehicular traffic or pedestrians whether public or private, but not including access drives and driveways.

Unless the existing streets within the Township are officially classified, the following general classifications will prevail:

1. **Alley.** A local street or road which is used primarily for vehicle and service access to the back or the side of properties otherwise abutting a street, or for placement of utilities.
2. **Arterial Street.** A street or road that is used primarily for fast or heavy traffic including all roads classified as main and secondary highways by the Department of Transportation.
3. **Collector (Major/Minor).** A street or road which carries traffic from minor streets to the major system or arterial streets, including the principal entrance or circulation streets of a residential development and all streets within industrial and/or commercial subdivisions or developments.
4. **Cul-de-sac.** A street or road intersecting another street or road at one end and terminating at the other in a vehicular turnaround.
5. **Local Access.** A street or road which is used primarily for access to the abutting properties.
6. **Public Street.** A public thoroughfare including a street, road, lane, alley, court, or public space which has been dedicated and deeded to the public for public use which has been accepted by the Township, and which affords principal means of access to abutting property.
7. **Private Street.** A street which is constructed in accordance with the applicable provisions of this Ordinance which is not owned by a public entity. West Cocalico Township shall not be responsible for any type of maintenance or snow removal on any private street.

**Street Line.** A line defining the edge of a street right-of-way and separating the street from abutting property or lots. Also known as the "street right-of-way line."

**Structure.** Any man-made object having an ascertainable stationary location on or in land or water, whether or not affixed to the land.

**Subdivider.** A developer.

**Subdivision.** The division or redivision of a lot, tract or parcel of land by any means into two (2) or more lots, tracts, parcels or other divisions of land including changes in existing lot lines for the purpose, whether immediate or future, of lease, partition by the court for distribution to heirs or devisees or co-

tenants, transfer of ownership or building or lot development; provided, however, that the subdivision by lease of land for agricultural purposes into parcels of more than ten (10) acres, not involving any new street or easement of access or any residential dwelling, shall be exempted.

**Surveyor.** A professional land surveyor licensed in the Commonwealth of Pennsylvania.

**The Plan.** A reference to the Cocalico Creek Watershed Act 167 Stormwater Management Plan.

**Township.** West Cocalico Township, Lancaster County, Pennsylvania, as represented by the Board of Supervisors, or its duly authorized agents.

**Tract, Parent.** All contiguous land owned by the same landowner which is or was contiguous except for the presence of public or private roads and/or the presence of lots or parcels adversed from the original parent tract at the date of an amendment to the West Cocalico Township Zoning Ordinance that classified the tract as part of the ES Ecologically Sensitive, A-1 Agricultural or A-2 Agricultural Zoning District(s).

**Tract, Subject.** Any portion or portions of the Parent Tract, area, lot, parcel, project, property, site, or any piece of land that is the subject of an application under the jurisdiction of this Ordinance.

**Transect.** A line along which quadrants are placed at intervals.

**Travel Trailer.** A portable structure, primarily designed to provide temporary living quarters for recreation, camping, or travel purposes. In addition to the above, any one of the following attributes are characteristic of a travel trailer:

1. The unit is of such size or weight as not to require a special highway movement permit from the Pennsylvania Department of Transportation when self propelled, or when hauled by a standard motor vehicle on a highway;
2. The unit is mounted or designed to be mounted on wheels;
3. The unit is designed to be loaded onto, or affixed to, the bed and/or chassis of a truck;
4. The unit contains, or was designed to contain, temporary storage of water and sewer; or,
5. The unit contains some identification by the manufacturer as a travel trailer.
6. Mobile homes and boats shall not be considered travel trailers.

**Undeveloped Land.** Land or parcels which are of sufficient size that could allow for the future subdivision and/or development in accordance with the terms of this Ordinance and the Zoning Ordinance.

**Unit of Occupancy.** A unit, the use of which is not subordinate or customarily incidental to a principal unit. A unit of occupancy can be either residential or non-residential and can be an independent unit within a structure or a separate detached structure. Types of units are as follows:

1. **Single Detached Unit.** A unit that is completely surrounded by open space.
2. **Semi-Detached Unit.** A unit within a structure in which two (2) units are side by side, each having open space on three (3) sides (e.g. a twin or semi-detached dwelling).
3. **Horizontally Attached Unit.** A unit within a structure in which three (3) or more units are attached by vertical walls and do not have horizontal divisions between units (e.g. town houses, row houses, shopping center with multiple store fronts).
4. **Vertically Attached Unit.** A unit within a structure in which two (2) or more units are attached by horizontal divisions (e.g., multi-story apartment building or multi-story office building).

**Urban Growth Boundary.** Areas as may be established within West Cocalico Township from time to time that contain sufficient buildable lands to meet the future land use needs of West Cocalico Township. The Urban Growth Boundaries separate areas appropriate for urban growth from areas intended for agricultural, rural and resource uses. The Urban Growth Boundaries are given official standing by their incorporation on the Future Land Use Maps and adoption in the West Cocalico Township and the Lancaster County Comprehensive Plans.

**Village Growth Boundary.** Areas as may be established within West Cocalico Township from time to time that includes a village at its center. The Village Growth Boundaries separate areas appropriate for village growth from areas intended for agricultural, rural and resource uses. The Village Growth Boundaries are given official standing by their incorporation on the Future Land Use Maps and adoption in the West Cocalico Township and the Lancaster County Comprehensive Plans.

**Wastewater Treatment Facility.** A system of piping and appurtenances, whether municipally or privately owned, designed for the collection and transmission of liquid and water carried wastes from residences, commercial buildings, industrial plants, and institutions to a central wastewater treatment plant for treatment and discharge (not including septic tanks or sub-surface disposal systems).

**Water Quality Volume (WQv).** The storage capacity required to treat storm water runoff equivalent to the first 1.2” of runoff from the developed areas of the site.

**Water Supply Facility.** A system of piping and appurtenances, whether municipally or privately owned, designed for the transmission and distribution of potable water from a centralized water supply or source to residences, commercial building, industrial plants, or institutions (not including individual on-lot wells).

**Wetlands.** Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil condition and as per the current federal and state manual(s) for identifying and delineating jurisdictional wetlands. Wetlands include, but are not limited to, swamps, bogs, marshes, and wet meadows.

**Wooded Area.** Areas or stands of trees, the majority of which are greater than twelve (12) inches in caliper at grade and covering an area greater than one-quarter acre, or groves of mature trees without regard to minimum area, consisting of substantial numbers of individual specimens.

**Zoning Ordinance.** The West Cocalico Township Zoning Ordinance, as enacted by the Board of Supervisors and as may be amended.

# ARTICLE III

## PLAN PROCESSING PROCEDURES

### Section 301 General

This article sets forth the application requirements for obtaining approval of subdivisions and land developments. The form of the various plans referred to in this Article and information required to be forwarded with such plans shall be as specified in Article IV.

### Section 302 Compliance with Zoning Ordinance and Zoning Hearing Board Decisions

- A. The applicant for subdivision or land development approval must submit with the application proof that all approvals required by the zoning ordinance, such as variances, special exceptions and conditional uses, have been obtained prior to submission of a subdivision or land development plan. A copy of any applicable zoning decisions shall be included with the application, and the plan shall be designed and developed in accordance with such decision, including any conditions attached thereto.
- B. Verification: A signed verification from the municipal zoning officer shall be submitted with the subdivision and land development plan and application, attesting to the fact that the proposal is in conformance with applicable zoning regulations.

### Section 303 Application and Processing Requirements

**ALL** applications shall follow these application and processing requirements (except Sketch Plans as provided hereafter).

- A. **Formal Application/Submission Deadlines.** All applications for approval of a subdivision plan, land development plan or lot add-on plan, including the initial plan submission or subsequent submission of revised plans, shall be made by the developer or owner by filing with the Township an application on a form adopted by resolution and to be supplied by the Township, together with the appropriate plans, studies, reports, supporting data, and required filing fee. Applications may be filed with the Township on any business day; however, the Planning Commission may review a plan at a particular meeting only if the plan was filed at least fifteen (15) business days prior to that meeting.
- B. **Application Requirements.** All plan applications shall include the following:
  - 1. Seven (7) copies of the plan(s). All plans shall be either black on white or blue on white paper prints and prepared in conformance with the provisions of Article IV of this Ordinance.
  - 2. Two (2) copies of all reports, notifications, and certifications which are not provided on the preliminary plan.

3. Two (2) copies of the application form as provided in the Appendix.
  4. Filing and Review Escrow fees in the amounts as specified on the fee schedule adopted by resolution of the Board of Supervisors and available at the Township Office.
  5. Two (2) copies of zoning decisions.
  6. Verification of review by Zoning Officer.
  7. Two (2) copies of all reports required by Article IV.
  8. Verification that the plans have been properly filed with the Lancaster County Planning Commission, as well as any and all other required approving agencies (local, state, and federal agencies, water and sewer authorities, utilities, etc.)
  9. The applicant shall provide the Township with five (5) copies of the most current plan at least five (5) business days before the plan is scheduled to be reviewed by the Planning Commission or the Board of Supervisors.
- C. **Distribution.** The applicant shall submit one copy of the above required information to the Township and one copy to the Township Engineer for their respective reviews.
- D. **Initial Application.** The Township staff shall have seven (7) business days from the date of submission of an application to check the plans and documents to determine if on their face they are in proper form and contain all information required by this Ordinance. If defective, the application shall be returned to the applicant with a statement explaining the reason(s) for rejection, within twelve (12) business days following the date of submission by the applicant; otherwise, it shall be deemed accepted for filing as of the date of submission. Acceptance for filing shall not, however, constitute a waiver of any deficiencies or irregularities. Under this Section, the applicant may appeal a decision by the Township staff to the Board of Supervisors within fifteen (15) days of its return.
- E. **Amendments or Corrections to an Application.** The Township staff shall have seven (7) business days from the date of submission of an amended or corrected application or plan to determine whether such amended or corrected application results in a substantial amendment to the plan, including but not limited to, a change in the number of lots or density, a change in the design or layout of storm water management facilities, a change in street design or layout, a change in block or lots size(s) or a change of the proposed land use or if the application or plan filed changed in any other way so as to be considered a new plan. If the Township staff determines that the amended or corrected application constitutes a substantial amendment, the applicant shall be informed of the determination within twelve (12) business days from the date of the submission of the amended or corrected application and the Township staff shall further inform the applicant that the Township shall consider the ninety (90) day review procedure to have been restarted as of the date of the filing of the substantial amendment. If the Township staff determines that the amended or corrected application constitutes a new plan, he shall so inform the applicant and shall inform the applicant that a new application and new fees are required. Under this Section, the applicant may appeal a decision by the Township staff to the Board of Supervisors within fifteen (15) days.

F. **Plan Review Process.**

1. **Review by the Township Staff and Consultants**

- a. The Township Zoning Officer and any Township personnel as directed by the Board shall review the application documents to determine if they are in compliance with this Ordinance, the Zoning Ordinance, the Comprehensive Plan, the Township's planning objectives, and accepted planning standards. These personnel shall provide comments and recommendations, including written findings when directed by the Board.
- b. The Township Engineer and/or other consultants designated by the Board of Supervisors shall review the application documents to determine compliance with this Ordinance, and any other applicable Township Ordinances, Township standards and good engineering practices. He shall prepare a written report of his findings and recommendations which shall be presented to the Township and the applicant.

2. **Briefing Item**

- a. At the plan's first presentation to the Planning Commission, no action need be taken on any application. The plan will be presented by the Township as a briefing item for introduction to the Planning Commission and for general comments. The applicant and/or their representative are not required to attend this meeting.
- b. Plans will be presented by the Township as a briefing item at the regular meeting of the Board, following the first presentation of the plan as a briefing item to the Planning Commission. The applicant and/or their representative are not required to attend this meeting.

3. **Compliance Submission.** All resubmissions for approval of a subdivision plan, land development plan or lot add-on plan shall be made by the developer and supplied to the Township and the Township Engineer, together with the appropriate plans, studies, reports, supporting data (and required filing fee if any). Resubmissions may be filed with the Township on any business day; however, the Planning Commission will review a plan at a particular meeting only if the plan was filed with the Township and the Township Engineer at least fifteen (15) business days prior to that meeting.

4. **Planning Commission Review.** The Planning Commission will review the application with the developer or his agent at a regular meeting following the meeting where the application was introduced to the Planning Commission as a briefing item, and after comments are received from the Lancaster County Planning Commission. The Planning Commission will review the application to determine if it meets the standards set forth in the Township's Ordinances. The application shall then be submitted by the Planning Commission, together with its analysis and recommendations, including those of the Township staff and Engineer, to the Board. The applicant and or their representative are required to attend this meeting. Generally, the plan will not be forwarded to the Board until it has been recommended for unconditional approval or disapproval.

5. **Board Review Process**

- a. Generally, following review and recommendation by the Planning Commission, the Board of Supervisors will place the plan on its agenda for review and action and provide written notice to the applicant of such action. The applicant and/or their representative are required to attend this meeting.
- b. All applications for approval of a plan shall be acted upon by the Board. The Board shall render its decision and communicate it to the applicant not later than ninety (90) days following the date of the regular meeting of the Planning Commission next following the date the application is filed, provided that should the said next regular meeting occur more than thirty (30) days following the filing of the application, the said ninety (90) day period shall be measured from the thirtieth (30th) day following the day the application has been filed.
- c. **Notification of Board of Supervisors Action.** The decision of the Board shall be in writing and shall be communicated to the applicant personally or mailed to him at his last known address not later than fifteen (15) days following the decision.
  - 1). When the application is not approved in terms as filed, the decision shall specify the defects found in the application and describe the requirements which have not been met and shall, in each case, cite the provisions of the Ordinance relied upon.
  - 2). Failure of the Board to render a decision and communicate it to the applicant within the time and in the manner required herein, unless a greater period of time has been authorized by the Municipalities Planning Code, shall be deemed an approval of the application in terms as presented, unless the applicant has agreed in writing to an extension of time or change in the prescribed manner or presentation of communication of the decision; in which case, failure to meet the extended time or change in manner of presentation of communication shall have like effect.
- d. **Compliance with the Board of Supervisors Action.** If the Board conditions its plan approval upon receipt of additional information, changes and/or notifications, such data shall be submitted and/or alterations noted on two (2) copies of the plan to be submitted to the Township for approval. Such data shall be submitted to the Board within ninety (90) days of their conditional approval, unless the Board grants a modification by extending the effective time period.
- e. **Board of Supervisors Approval and Certification.** The Board will acknowledge the satisfactory compliance with all conditions, if any, of the plan approval at a regularly scheduled public meeting. After receipt of plan approval and compliance with all conditions of approval, a plan shall be presented to the Township for acknowledgement through a formal approval certification statement on the plan as provided in the Appendix. Two (2) copies (one for the Township and one for the applicant) of the plan shall be provided for the Board to sign the approval certificate.



## Section 304 Pre-Application Review (Sketch Plan)

Applicants are strongly urged to discuss possible development sites and plan with the staff of the Township prior to formal submission of any plan. The purpose of the pre-application meeting or sketch plan review is to afford the applicant an opportunity to receive the advice and assistance of the Township Planning Commission, Board of Supervisors, and staff. Submission of a sketch plan is optional and will not constitute formal filing of a plan with the Township.

- A. **Pre-Application Plans and Data Procedure.** Prior to the preparation and filing of the preliminary plan for subdivision or land development, the applicant may submit to the Township the following plans and data which shall be forwarded to the Planning Commission and Board of Supervisors for consideration. The plans should include those elements that should be considered in the design of the subdivision or land development.
- B. **Submission of Pre-Application (Sketch) Plans.** Prospective applicants submitting a pre-application plan for review by the Planning Commission shall include those items listed in Section 402 of this Ordinance. Plans shall be considered for informal review and discussion and shall not constitute formal filing of the plan with the Township. Plans shall be submitted fifteen (15) business days prior to the regularly scheduled monthly meeting of the Planning Commission. All plan submittals shall be accompanied by a completed application as provided in the Appendix and a filing fee in an amount as specified on the fee schedule adopted by resolution of the Board of Supervisors and available at the Township Office. The applicant may proceed to the preliminary plan process following the meeting with the Planning Commission and Board of Supervisors. The applicant shall incorporate the comments or concerns of the Planning Commission, Board of Supervisors, and staff and make every effort to address these items in the preliminary plan.

## Section 305 Preliminary Plan Application

- A. **Preliminary Plan Application.** With the exceptions noted in Section 308 of this Ordinance, a preliminary plan is required for applications that propose new streets, all land development plans, and subdivision plans that create five (5) or more new lots either initially or cumulatively as of the date of the adoption of this Ordinance. All other plans may be submitted as final plans in accordance with Section 306.
- B. **Approval of a Preliminary Plan application.** Approval of a preliminary plan application shall constitute approval of the proposed subdivision and/or land development as to the character and intensity of development and the general arrangement of streets, lots, structures, and other planned facilities, but shall not constitute final plan approval. The preliminary plan may not be recorded in the office of the Recorder of Deeds.
- C. **Construction of Improvements.** As an alternative to processing a final plan and guaranteeing the completion of required improvements by a corporate bond or surety, and, after an applicant has received official notification that the preliminary plan has been unconditionally approved, the applicant may initiate the construction of required improvements prior to approval of the final plan.
- D. **Completion of Improvements.** Upon completion of the improvements required by this Ordinance, the applicant may proceed to submit a final plan and application which shall include notice of approval of the improvements by the authority which is to accept the improvement.

## Section 306 Final Plan Application

- A. **Prerequisites to Filing Final Plan Application.** An application for final plan approval can be submitted only after one of the following, when required, have been completed:
1. The receipt of an unconditional preliminary plan approval in accordance with Section 303 of this Ordinance, when a preliminary plan approval is required, and/or,
  2. The completion of the improvements required by this Ordinance in accordance with the approved preliminary plan, when the improvements are not assured by the posting of financial security as provided in Article V of this Ordinance.
- B. **Final Plan Applications**
1. The final plan may be submitted in sections, each section covering a reasonable portion of the entire proposed subdivision as shown on the approved preliminary plan; provided that each section, except for the last section, shall contain a minimum of twenty-five (25) percent of the total number of units of occupancy as depicted on the approved preliminary plan.
  2. The Township may accept a final plan modified to reflect a change to the site or its surroundings that occurs after the preliminary plan review. The Board, with a recommendation from the Township Planning Commission, shall determine whether a modified final plan will be accepted or whether a new preliminary plan shall be submitted.
- C. **Application Requirements.** In addition to the application requirements of Section 303, Final Plans which require access to a highway under the jurisdiction of the PA Department of Transportation, shall include two (2) copies of the plans prepared to support the application for a Highway Occupancy Permit.
- D. **Final Plan Certification.** After the Board's approval of the final plan and the required changes, if any, are made, the applicant shall proceed to prepare two (2) sets of final plans, which shall be transparent reproductions of the original plan with black line on stable plastic base film (mylar or equal) and one (1) set of final plans which shall be a paper copy for the Township's files.
- E. Upon compliance with all conditions of plan approval to the satisfaction of the Township and compliance with Article V of this Ordinance, two (2) transparent copies of the final plan shall be certified in the following manner: both final plans shall be presented to the Planning Commission and the Board for the signature of the respective Chairman or Vice Chairman or their designees. Final plans will not be signed by the Board prior to certification by the Planning Commission or if submitted more than ninety (90) days from the Board's final approval action unless the Board grants a modification by extending the effective time period of the approval.
- F. **Final Plan Recordation.** Upon approval and certification of a final plan and payment of any and all outstanding fees, the applicant shall record the plan in the office of the Recorder of Deeds. Should the applicant fail to record the final plan within ninety (90) days of the Board's final plan approval, the Board's action on the plan shall be null and void unless the Board grants a modification by extending the effective time period of the approval.
1. The final plan shall be filed with the Recorder of Deeds and proof of such recording shall

be provided to the Township before proceeding with the sale of lots.

2. The final plan shall be filed with the Recorder of Deeds before proceeding with the construction of any improvement except as provided for in Section 307 of this Ordinance.
  3. No subdivision or land development plan may be recorded unless it bears the endorsement of the Board.
- G. **Effect of Recording of Final Plan.** Recording the final plan, after approval of the Board, shall have the effect of an irrevocable offer to dedicate all streets and other areas designated for public use, unless reserved by the landowner as provided in Article IV of this Ordinance. However, the approval of the Board shall not impose any duty upon the Commonwealth, County, or Township concerning acceptance, maintenance, or improvement of any such dedicated areas or portion of same until the proper authorities of the Commonwealth, County, or Township actually accept same by ordinance or resolution, or by entry, use, or improvement.
- H. The landowner may place a notation on the final plan to the effect that there is no offer of dedication to the public of certain designated areas, in which event the title to such area shall remain with the owner, and neither the Commonwealth, County, Township, nor any applicable authorities shall assume any right to accept ownership of such land or right-of-way.

## **Section 307 Storm Water Management Plans**

- A. When a Storm Water Management Plan is required as part of a Subdivision and/or Land Development Plan, the Storm Water Management Plan will be an integral part of the Subdivision and/or Land Development Plan and those plan processing procedures, as outlined in this Ordinance, shall apply. The procedures set forth in Section 303 shall be adhered to for all other Regulated Activities, which require the submittal of a Storm Water Management Plan.
1. Approval of a Storm Water Management Plan by the Township shall be obtained by the applicant/developer prior to the issuance of a zoning permit by the Township. No construction of storm water management facilities may begin until proof of recording of an ownership and maintenance program, prepared in accordance with the requirements of Section 610, is presented (if required) and a zoning permit is obtained by the applicant in accordance with the Township Zoning Ordinance.
- B. Regulated Activities meeting the following criteria are exempt from the requirement to submit a Storm Water Management Plan:
1. Lands improved with existing structures may be exempted for an additional 1,000 square feet of impervious surface in all Zoning Districts provided that flows from the site after development leave the site in the same manner as the pre-development condition and there are no adverse effects on adjacent properties.

2. \*\*The following criteria shall apply to all existing lots in the ES – Ecologically Sensitive, A-1 – Agricultural and A-2 – Agricultural Zoning Districts:

Total Parcel Size	Minimum Distance* (Feet)	Cumulative New Impervious Areas Exempt from Ordinance
0-0.5 acre	10	500 sq. ft
0.5-1 acre	50	2500 sq. ft
1-2 acre	100	10,000 sq. ft
>2-5 acres	250	15,000 sq. ft
>5 acres	500	20,000 sq. ft

\*The minimum distance between the proposed impervious area and/or storm water controls/structure discharge point to the down slope property line of the Parent Tract. In lieu of meeting the minimum distance criteria, the applicant may provide documentation from a Qualified Registered Professional in the state of Pennsylvania that the increased flows from the site leave the site in the same manner as the pre-development condition and that there will be no adverse effects to the adjacent property, or the increased flows reach a natural drainage way or existing storm water management structure before affecting adjacent property.

\*\*All farms for which the exemption is requested shall have a Conservation Plan approved by the appropriate officials

3. Activities on lands which have an approved Storm Water Management Plan, which was approved prior to the adoption of this Ordinance and which, in the opinion of the Township, adequately manages storm water flows resulting from the proposed activities, are exempt from the requirements of this Ordinance;
4. Use of the land for gardening and landscaping of property, when performed as an accessory use of the property; and,
5. Agricultural plowing and tilling, and the science of forestry when operated in accordance with approved conservation and erosion control practices.

## **Section 308 Plans Exempted from Preliminary Plan Procedures**

Plans that meet the criteria as listed hereafter shall be exempt from the requirement to process a preliminary plan and may process a final plan prepared in accordance with Article IV.

### **A. Lot Add-On Plans.**

1. Lot Add-On Plans shall meet the following criteria:
- a. A lot add-on plan shall only be prepared for the conveyance of land for the sole purpose of increasing the size of a contiguous parcel.
  - b. A lot add-on plan shall not create any additional lot(s).

- c. A lot add-on plan shall not result in any nonconformity with the design standards found in Article VI of this Ordinance or the Zoning Ordinance.
  - d. No lot add-on plan shall have the result of placing any utility such as an individual on-lot sewage system or well, on a lot different from the building which it is designed to serve.
  - e. A lot add-on plan shall not alter the site and/or existing storm water management facilities in a manner that affects the discharge of storm water to an adjacent property or significantly relocates a major storm water management facility within the project.
  - f. A lot add-on plan shall not alter a recorded plan or revise any approved final plan which has not yet been recorded. The alteration of a recorded plan or an approved final plan which has not been recorded shall be by a revised final plan (See Section 308.D).
2. In every case where a proposal conforms to the above, the application shall comply with the following procedures:
- a. The applicant shall submit to the Township two (2) black on white or blue on white paper copies of a lot add-on plan prepared to the standards specified in Section 406 of this Ordinance and one (1) application form as provided in the appendix. In addition to submitting the required material, the applicant shall provide all filing fees as required by the Township plus documentation that plans have been properly submitted to the County Planning Commission.
  - b. If the plan qualifies, the applicant shall prepare two (2) plans for recording, which shall be either (a) black ink on tracing cloth or (b) a transparent reproduction of the original plan with black line on cloth or stable plastic base film, and one (1) set of paper copies of the plan for the Board's files. The two (2) transparent copies of the plan shall be certified by the Board. The applicant shall record the plans with the Recorder of Deeds. These plans shall be filed with the Recorder of Deeds prior to the execution of a deed for the land.
3. In every case where a plan conforms to the above, the applicant shall follow the plan processing and recording procedures for a Final Plan as outlined in Section 306 of this Ordinance.

**B. Centerline Separation Subdivision.**

- 1. Centerline Separation subdivision plans may be used to divide one lot into two lots whose common boundary is the centerline of an existing street.
- 2. The proposed lots to be created by the centerline separation subdivision plan shall conform to all the following:
  - a. The proposed lots shall be separated by the existing street along its entire length through the parent tract; and,

- b. The proposed lots shall conform to the design standards found in Article VI of this Ordinance; and,
  - c. The proposed lots shall conform to requirements of the Zoning Ordinance.
3. In every case where a plan conforms to the above, the applicant shall follow the plan processing and recording procedures for a Final Plan as outlined in Section 306 of this Ordinance.

C. **Minor Subdivision/Land Development.**

- 1. In the case of a subdivision plan of five (5) lots or less, either initially or cumulatively from the effective date of this Ordinance, which does not require provisions for a new street, the applicant may at his discretion concurrently submit preliminary and final plans for action at the Board meeting. For the purpose of interpreting this Section of the Ordinance, a subdivision of not more than five (5) lots shall include the remaining tract.
- 2. In the case of a land development plan proposing: 1) The construction of one (1) non-residential building not exceeding 10,000 square feet of building area; or, 2) The construction of an addition to a non-residential building not exceeding 5,000 square feet of additional building area, the applicant may at his discretion concurrently submit preliminary and final plans for action by the Township.
- 3. In every case where a plan conforms to the above, the applicant shall follow the plan processing and recording procedures for a Final Plan as outlined in Section 306 of this Ordinance.
- 4. All other plans shall be submitted in accordance with Section 305 of this Ordinance.

D. **Revised Subdivision and/or Land Development Plans.** Any replatting, revision, or resubdivision of recorded plans or any replatting, revision, or resubdivision of any approved final plan which has not been recorded, excluding lot grading plans in subdivisions, shall be considered as a new application and shall comply with all requirements of this Ordinance, except that plans may be changed, provided that in making such changes:

- 1. No lot or tract of land shall be created that does not meet the minimum design standards required by this Ordinance and existing Township regulations.
- 2. No structure shall be relocated which does not meet the minimum design standards required by this Ordinance and existing Township regulations.
- 3. No increase is made in the overall density and no additional lots are created.
- 4. The site and/or storm water management facilities are not altered in a manner that affects the discharge of storm water to an adjacent property or significantly relocates a major storm water management facility within the project.
- 5. Street locations and block sizes shall not be changed.

6. The character and land use of the original application shall be maintained.
  7. In every case where a plan alteration conforms to the above, the applicant shall follow the plan processing and recording procedures for a Final Plan as outlined in Section 306 of this Ordinance.
- E. **Accessory Dwelling Plans.** Accessory dwelling plans shall be processed in accordance with the Accessory Dwelling Policy and Guidelines as provided in the Appendix.

## **Section 309 Procedure for Requesting the Consideration of a Modification of the Provisions of This Ordinance**

- A. **Application Requirements.** A request for a modification may be submitted to the Township at any time. All requests shall be in writing and include a completed application for consideration of a modification as provided in the Appendix, and accompanied by a plan prepared at least to the standards of a sketch plan (See Section 402). The written request shall identify:
1. The specific section of this Ordinance which is requested to be modified.
  2. The provisions proposed as an alternate to the requirements. The alternate provisions must be consistent with the intent of this Ordinance and shall not be detrimental to the health, safety and welfare of the general public.
  3. Justification for the modification. The request shall state in full the grounds and facts of unreasonableness or hardship on which the request is based.
- B. **Township Action.**
1. A modification request that is submitted as part of an application for subdivision, land development plan, lot add-on, improvement construction or storm water management plan shall be processed along with that application of which it is a part. The plan processing procedures outlined in Section 303 shall apply.
  2. If a modification request is not submitted with an application for subdivision, land development, lot add-on, improvement construction or storm water management plan, then the processing procedures outlined in Section 303 shall apply.

# ARTICLE IV

## INFORMATION TO BE SHOWN ON OR SUBMITTED WITH SUBDIVISION AND LAND DEVELOPMENT PLANS

### Section 401 General

This article sets forth the plan and report preparation standards. The following standards shall apply to the preparation of all sketch plans, subdivision, and land development plans and reports. All plan information reports shall be provided in an easy to read format and shall be legible in every detail to the satisfaction of the Township. All plans shall be prepared in general accordance with the Standard Plan Format as provided in the Appendix.

### Section 402 Sketch Plans

#### A. General.

1. For major development or unusual circumstances that could benefit from the pre-planning process, applicants are encouraged to submit Sketch Plans as a means of facilitating the approval process. While the Township knows that Sketch Plan comments are not binding on either the Township or the applicant, the Township has identified the Sketch Plan process as one which allows for the exchange of information that is important in the planning process.
2. Sketch Plans should include any features of the Township's future land use plan, thoroughfares plan, community facilities plan, or of any plans of the Township, including but not limited to, proposed streets, recreation areas, drainage reservation, future schools sites and public areas. A specific site analysis should be provided which highlights man-made and natural features. The analysis should include information pertaining to soil types and stability, wetlands, scenic vistas, water courses, drainage patterns, slope, and transportation patterns and systems including deficiencies of existing roadways, public utilities, recreational facilities, and any other features of the site and nearby areas which may be affected or impacted by the proposed development and land use.

#### B. Drafting Standards. The scale and sheet size of sketch plans shall be as required for subdivision and land development plans in Section 403.1. The sketch plan may be prepared by qualified landowner or individual, or an engineer, surveyor, or landscape architect licensed to practice in the Commonwealth of Pennsylvania. The sketch plan shall show or be accompanied by the following data, legible in every detail and drawn to scale, but not necessarily containing precise dimensions:

1. Name and address of the developer (if applicable) and landowner.
2. Name of the individual and/or the firm that prepared the plan.
3. Location map with sufficient information to enable the Board to locate the property.



4. North arrow.
5. Written and graphic scales.
6. Approximate tract boundaries with the name(s) of adjacent landowner(s), if known.
7. Name of the municipality or municipalities in which the project is located, including the location of any municipal boundaries if located within the vicinity of the tract.
8. Significant topographical and man-made features [e.g., structures, streets, buildings, tree masses, sloped areas, quarries, bodies of water, floodplains, and potential wetland areas and GIS contours.]
9. Location of all proposed streets, alleys, street names, rights-of-way and easements; proposed lot lines with approximate dimensions; proposed minimum building lines for each street; playgrounds; public buildings; public areas; historical sites; and parcels of land proposed to be dedicated or reserved for public use.
10. Proposed land use; if several land uses are proposed, the location of each land use shall be indicated.
11. Statement explaining the methods of water supply and sewage disposal to be used.

## **Section 403 General Requirements for Preliminary and Final Subdivisions and Land Development Plans**

Preliminary and final subdivisions and land development plans shall be prepared by an engineer, surveyor, or landscape architect licensed to practice in the Commonwealth of Pennsylvania. The plans shall be prepared in accordance with the **STANDARD PLAN FORMAT** as provided in the Appendix and shall be accompanied by, or prepared in accordance with the following:

### **Section 403.1 Drafting Standards**

All subdivision and land development plans shall be prepared in accordance with the following drafting standards.

- A. The plan shall be clearly and legibly drawn at a horizontal scale of 10 feet, 20 feet, 30 feet, 40 feet, or 50 feet to the inch.
- B. All profiles of storm water management facilities, streets, sanitary sewer facilities, and water supply facilities shall be drawn at a horizontal scale of 1" = 50' and at a vertical scale of 1" = 10', or 1" = 5'.
- C. A north arrow, graphic scale and written scale shall be provided.
- D. Dimensions shall be in feet and decimals; bearings shall be in degrees, minutes and seconds. Lot line descriptions shall read in a clockwise direction.
- E. The survey shall not have an error of closure greater than one (1) foot in ten thousand (10,000) feet.

- F. The sheet size shall be no smaller than eighteen by twenty-two (18 x 22) inches and no larger than twenty-four by thirty-six (24 x 36) inches. If the plan is prepared in two (2) or more sections, a key map showing the location of the sections shall be placed on each sheet. If more than one (1) sheet is necessary, each sheet shall be the same size and numbered to show the relationship to the total number of sheets in the plan (e.g. Sheet 1 of 5).

## **Section 403.2 Project Location and Identification**

The following location and identification shall be included on all subdivision and land development plans:

- A. The proposed project name or identifying title.
- B. Name of the municipality or municipalities in which the project is located, including the location of any municipal boundaries if located within 200 feet of the subject tract.
- C. The name and address of the owner of the tract (or his authorized agent), the developer/subdivider, and the firm that prepared the plans.
- D. The file or project number assigned by the firm that prepared the plan, the plan date and the date(s) of all plan revisions.
- E. The entire existing tract boundary with bearing and distances. If it is the intention of the landowner to retain a single lot with a lot area in excess of ten (10) acres, the boundary of that lot may be identified as a deed-plotting and may be drawn at any legible scale; if the retained lot has a lot area of ten (10) or less acres, it must be described to the accuracy of the requirements of this Ordinance. In the case of lot add-on plans, and revised final plans, the boundary of the receiving tract shall also be identified as a deed plotting and may be drawn at any legible scale.
- F. The total acreage of the entire existing tract.
- G. The location of existing lot line markers along the perimeter of the entire existing tract.
- H. The zoning district, lot size and/or density requirements of the Township Zoning Ordinance.
- I. A statement on the plan indicating the granting of a prior zoning amendment, special exception or variance, if applicable, along with any prior modifications granted by the Board to sections of this Ordinance.
- J. The names of all adjacent landowners; both adjoining and across existing rights-of-way along with the plan book record numbers of all previously recorded plans for adjacent properties.
- K. A location map, drawn to scale, relating the subdivision or land development to at least two (2) intersections of street centerlines, including the approximate distance to the intersection of centerlines of the nearest improved street intersection.
- L. Source of title, deed, book, page, plan book (if applicable), and tax map, block, and parcel number.

## Section 403.3 Existing Features

The following features shall be shown on all subdivision and land development plans and shall be shown on **a separate sheet** titled "Existing Features". No proposed features shall be included on this sheet.

A. Existing contours shall be shown at the following minimum vertical intervals:

<u>Average Natural Slope</u>	<u>Required Contour Interval</u>
0 to 3 %	1 foot contour interval
4 to 20%	2 foot contour interval
21% and greater	5 foot contour interval

1. Contour interval may be adjusted based upon horizontal scale with concurrence of the Township Engineer.
2. Contours shall be accompanied by the location of the bench mark and a notation indicating the datum used. The datum used by an Authority shall be used in all plans indicating connection to an Authority's public sewer system or public water system.
3. Contours plotted by interpolation of Lancaster County GIS mapping will only be accepted when there is no new construction or earth disturbance proposed by the plan.
4. Contours plotted by interpolation of the United States Geodetic Survey 7.5' mapping will not be accepted.

B. The following items **when located upon or within two hundred (200) feet** of the tract:

1. The location and name of existing rights-of-way and cartways for private or public streets, alleys and driveways.
2. The location and size of the following features and any related right-of-way: sanitary sewer mains, water supply mains, fire hydrants, buildings, and storm water collection, conveyance and management facilities.
3. The location and size of existing on-lot sewage systems and wells.
4. The location of existing rights-of-way and easements for electric, gas and oil transmission lines, and railroads.
5. Significant environmental or topographic features such as floodplains, wetlands, quarry sites, solid waste disposal areas, historic structures, cemetery or burial sites, archaeological sites, highly erosive soils, or wooded areas.

C. The following items **when located within** the subject tract:

1. The size, capacity and condition of the existing storm water management system and any other facility that may be used to convey storm flows.

2. The location and size of existing on-lot sewage systems and wells.
3. The location and use of existing buildings and other man-made features.
4. Important natural, cultural and historic features as identified in the West Cocalico Strategic Plan and the Cocalico Region Strategic Plan including, but not limited to:
  - a. Steep Slopes;
  - b. Wooded Areas;
  - c. Natural habitats;
  - d. PNDI sites;
  - e. Streams, Creeks, Springs and Groundwater Seeps;
  - f. Floodplains;
  - g. Drainage Channels;
  - h. Alluvial Soils;
  - i. Wetlands and subsequent data or information required by Section 409 of this Ordinance;
  - j. High Water Table Soils;
  - k. Prime Agricultural Soils;
  - l. Highly erosive soils;
  - m. Historic Places, Structures and subsequent data or information required by Section 409 of this Ordinance;
  - n. Cemetery or burial sites;
  - o. Archaeological sites;
  - p. Underlying geology with any hazardous geology noted;
  - q. Quarry sites; and,
  - r. Solid waste disposal areas.

## Section 403.4 Proposed Features and Plan Information

The following proposed features and plan information shall be shown on all subdivision and land development plans and shall be shown on a separate sheet entitled "Proposed Features". The proposed features and plan information shall be overlaid upon a copy of the existing features plan. The existing features shall be "screened" or "shaded" on the proposed features plan.

- A. Block and lot numbers in consecutive order (e.g. Block "A", Lots 1 through 10; Block "B", Lots 11 through 22).
- B. The location and configuration of proposed buildings, parking compounds, streets, alleys, driveways, common open space, recreational areas, and all other significant planned facilities.
- C. Total number of lots, units of occupancy, density, and proposed land use. If a multiple land use is proposed, the location of each land use shall be indicated.
- D. Easements and rights-of-way.
- E. Building setback line and building envelope.
- F. Identification of buildings to be demolished.
- G. Typical street cross-section for each proposed public or private street and typical cross-section for any existing street which will be improved as part of the application. Each cross-section shall include the entire right-of-way width.
- H. Storm water management data and plans designed in accordance with Section 610 of this Ordinance. This information may be provided on a sheet with other data or on separate sheets and need not necessarily be recorded with the final plan. In the case of any dispute in the methodology used in the design of any storm water management plan and/or in the presentation of such information, the Board shall make the final determination on the design criteria, methodology and form of presentation. The following information shall be included:
  - 1. All calculations, assumptions, criteria, and references used in the design of the storm water management facilities, the establishment of existing facilities capacities, and the pre-and post-development discharges.
  - 2. All plans and profiles of the proposed storm water management facilities, including the horizontal and vertical location, size, and type of material.
  - 3. For all basins, a plotting or tabulation of the storage volumes and discharge curves with corresponding water surface elevations, inflow hydrographs, and outflow hydrographs.
  - 4. The guidelines for lot grading within the subdivisions. This information shall identify the direction of storm water runoff flow within each lot and the areas where storm water runoff flows will be concentrated. This information shall be shown by flow arrows or topographical data.

- I. A table indicating the existing zoning district, total tract area, required lot size, required setbacks, required maximum and/or minimum development density, maximum building height, maximum lot coverage, and number of lots in the proposed subdivision along with the proposals for each of these parameters.
- J. A statement on the plan indicating the granting of a zoning amendment, special exception or variance, if applicable, along with modifications granted by the Board to sections of this Ordinance.
- K. Where a proposed subdivision is located in the Ecologically Sensitive, A-1 Agricultural or A-2 Agricultural Zoning Districts, either in whole or part, a deed plotting of the parent tract as it existed on December 24, 1989, or the date of an amendment to the West Cocalico Township Zoning Ordinance that classified the tract as part of the Ecologically Sensitive, A-1 Agricultural or A-2 Agricultural Zoning Districts, shall be provided. The deed plotting shall include (1) All parcels subdivided from the parent tract after December 24, 1989, or the date of an amendment to the West Cocalico Township Zoning Ordinance that classified the tract as part of the Ecologically Sensitive, A-1 Agricultural or A-2 Agricultural Zoning Districts; (2) The deed reference for each lot subdivided after December 24, 1989, or the date of an amendment to the West Cocalico Township Zoning Ordinance that classified the tract as part of the Ecologically Sensitive, A-1 Agricultural or A-2 Agricultural Zoning Districts; and (3) The recording date and subdivision plan book reference of the subdivision. In addition to the foregoing, the following note shall be included for all subdivisions which are located in the Ecologically Sensitive, A-1 Agricultural or A-2 Agricultural Zoning Districts, either in whole or part: *"As provided for by the West Cocalico Township Zoning Ordinance, the available quota of single family dwelling units was \_\_\_\_\_ units as of December 24, 1989 or the date of an amendment to the West Cocalico Township Zoning Ordinance that classified the tract as part of the Ecologically Sensitive, A-1 Agricultural or A-2 Agricultural Zoning District(s). This subdivision represents \_\_\_\_\_ of the remaining \_\_\_\_\_ allotted single-family dwelling units. Lot No. \_\_\_\_\_ shall carry with it the right to erect the \_\_\_\_\_ remaining quota of single family dwelling units."*
- L. Where the proposed subdivision or land development is located partially or wholly within an area prone to frequent flooding (either by impoundment or conveyance) as indicated by the flood boundary and floodway map, profiles, and supporting data, soil type or local historical record; the developer shall supply the location and elevation of all proposed roads, fills, utilities, buildings, storm water management, and erosion control facilities.
- M. Location of all percolation test holes, deep probe holes and proposed well locations.
- N. Easements for the on-lot sewage replacement locations.
- O. Clear sight triangles and stopping sight distances for all intersections as described in Section 602.10 of this Ordinance shall be shown on the plan.
- P. The location of all trees and/or woodlands on the site and location of trees and/or woodland to be removed and trees and/or woodlands to remain.

## Section 403.5 Certifications

The following certifications shall be included on all subdivision and land development plans.

- A. Certificate, signature and seal of the surveyor registered in the Commonwealth of Pennsylvania to the effect that the survey is correct as provided in the Appendix.
- B. Certificate, signature and seal of a professional registered in the Commonwealth of Pennsylvania and qualified to perform such duties, to the effect that the plan is correct as provided in the Appendix.
- C. Certificate, signature and seal of a professional registered in the Commonwealth of Pennsylvania and qualified to perform such duties, indicating compliance with the provisions of the storm water management requirements of this ordinance as provided in the Appendix.
- D. Certificate, signature and seal of a professional registered in the Commonwealth of Pennsylvania and qualified to perform such duties, indicating that the developer's professional has verified that the detention basin is or is not underlain by carbonate geology as provided in the Appendix.

## Section 403.6 Notifications

The following notifications shall be included on all subdivision and land development plans, where applicable.

- A. **Emergency Services Provider Review.**
  - 1. The Township may, at its sole discretion, require the review of any proposed project by the Emergency Services Provider(s) responsible for providing protection in that area of the Township.
  - 2. The purpose of this review shall be to provide notice to the Emergency Services Provider of the type and extent of the proposed use; to allow the Emergency Services Provider the opportunity to provide the Township and the applicant with comments on their ability to adequately respond to the proposed use; to recommend appropriate locations for dry hydrants; and, to allow the Emergency Services Provider to comment on the proposed horizontal and vertical geometry to insure adequate access for emergency response equipment.
  - 3. The Emergency Services Provider shall respond, in writing, to the applicant's request within 30 days of the receipt of the applicant's submission. Failure of the Emergency Services Provider to respond within the above prescribed time period shall be deemed their concurrence with the proposed project.
  - 4. The applicant shall address the Emergency Services Provider's comments to the satisfaction of the Township.

**B. Public Utility Lines.**

1. Where the tract described in the application includes any public utility, electric transmission line, gas pipeline, or petroleum product transmission line located within the tract, the applicant or lessee of such right-of-way shall notify the owner of the right-of-way of his intentions.
2. A note stating any conditions regarding the use of the land, minimum building setback or right-of-way lines shall be included on the plan.
3. This requirement may also be satisfied by submitting a copy of the recorded agreement.

**C. Natural Resource Easement.**

1. Where the land included in the subject application has an agricultural, woodland or other natural resource easement located within the tract, the application shall be accompanied by a letter from the party holding the easement stating any conditions on the use of the land.
2. This requirement may also be satisfied by submitting a copy of the recorded easement.

## **Section 403.7 Reports**

The following reports, as applicable, shall be included with all subdivision and land development plans.

- A. A hydrologic/hydraulic or storm water management report as required by Section 610 of this ordinance.
- B. A water feasibility report as described in Section 409.1 of this Ordinance.
- C. A sewer feasibility report as described in Section 409.2 of this Ordinance.
- D. A traffic evaluation study as described in Section 409.3 of this Ordinance.
- E. A wetland study as described in Section 409.4 of this Ordinance.
- F. A historical features report as described in Section 409.5 of this Ordinance.



## **Section 404 Specific Requirements for Preliminary Plans**

In addition to the requirements listed in Section 403, the following additional information shall be included on all preliminary subdivision and land development plans.

### **Section 404.1 Proposed Features and Plan Information**

The following proposed features and plan information shall be shown on the "Proposed Features" sheet(s).

- A. The layout of streets, alleys and sidewalks, including cartway and right-of-way widths.
- B. The layout of lots with approximate dimensions, gross and net acreage.
- C. Street centerline profile for each proposed public or private street shown on the preliminary plan including corresponding centerline stationing.
- D. The preliminary design of the proposed storm water facilities, sanitary sewer mains, and water supply mains and facilities. This information shall include the approximate size, vertical location and horizontal location, if applicable.
- E. Proposed street names.
- F. Where the preliminary plan covers only a part of an intended larger development, a sketch plan of the future development, in a form suitable to the Township and in compliance with the requirements of this Ordinance, including the logical extension of the sewer and water facilities for the unsubmitted part shall be furnished. The street system of the plan under consideration may be subject to review, and the submitted part will be considered in light of adjustments and connections with future streets and utilities in the part not submitted.
- G. In case of a preliminary plan calling for the installation of improvements beyond a five (5) year period, a schedule delineating all proposed sections as well as deadlines within which applications for final plan approval of each section are intended to be filed shall be provided. Each section in any residential subdivision or land development, except for the last section, shall contain a minimum of twenty-five (25) percent of the total number of dwelling units as depicted on the preliminary plan.
- H. Certificate of review by the Planning Commission as provided in the Appendix.
- I. Certificate for approval by the Board of Supervisors as provided in the Appendix.

## **Section 405 Specific Requirements for Final Plans**

In addition to the requirements listed in Section 403, the following additional information shall be included on all final subdivision and land development plans. Revised Final Plans, as defined herein, shall not be required to include the off-site existing features information as specified in Section 403.3.B.

### **Section 405.1 Drafting Standards**

All sheets to be recorded by the Recorder of Deeds shall be twenty-four by thirty-six (24 x 36) inches.

### **Section 405.2 Proposed Features and Plan Information**

The following proposed features and plan information shall be shown on the "Proposed Features" sheet(s).

- A. Complete description of the centerline and right-of-way line for all new streets, whether public or private, and alleys. This description shall include distances and bearings with curve segments comprised of radius, tangent, arc, and chord.
- B. Lot lines with accurate bearings and distances and lot areas for all parcels. Curve segments shall be comprised of arc, chord, bearings, and distances. Along existing street rights-of-way the description may utilize the existing deed lines or street centerlines; along all proposed street rights-of-way, the description shall be prepared to the right-of-way lines.
- C. Total number of lots, units of occupancy, density, and proposed land use. If a multiple land use is proposed, the location of each land use shall be indicated.
- D. Final vertical and horizontal alignment for proposed public or private streets and alleys, sanitary sewer, and water distribution systems. All street profiles shall show at least the existing (natural) profile along the centerline, proposed grade at the centerline and the length of all proposed vertical curves for streets. All water distribution and sanitary sewer systems shall provide manhole locations and size and type of material. This information may be provided on separate sheets and is not subject to recording with the final plans.
- E. Final street names.
- F. Location and material of all permanent monuments and lot line markers, including a note that all monuments and lot markers are set or indicating when they will be set.
- G. A detailed grading plan. The grading plan shall include finished grades and ground floor elevations. This information may be provided on separate sheets and is not subject to recording with the final plans.
- H. Identification of any lands to be dedicated or reserved for public, semi-public or community use.
- I. In the case of a plan which requires access to a highway under the jurisdiction of the Department of Transportation, the inclusion of the following plan note:

"A Highway Occupancy Permit is required pursuant to Section 420 of the Act of June 1, 1945 (P.L. 1242, No. 428), known as the 'State Highway Law', before access to a state highway is permitted. Access to the state highway shall be as authorized by a Highway Occupancy Permit, and the Board of Supervisors' approval of this plan in no way implies that such a permit can be acquired."

- J. All final plans proposing residential development or residential uses within or adjoining the Agricultural Zoning Districts or agricultural uses must contain in conspicuous form the following language: *"WARNING: The property described herein is located within an area where land is used for agricultural production. Owners, residents and other users of this property may be subjected to inconvenience, discomfort and the possibility of injury to property and health arising from normal accepted agricultural practices and operations, including but not limited to, noise, odors, dust, operation of machinery of any kind including aircraft, storage and disposal of manure, and application of fertilizers, soil amendments, herbicides, and pesticides. Owners, occupants and users of this property should be prepared to accept such inconveniences, discomfort and possibility of injury from normal agricultural operations, and are hereby put on official notice that Section 4 of Pennsylvania Act 133 of 1982 'The Right to Farm Law' may bar them from obtaining a legal judgment against such normal agricultural operations."* A copy of the final plan shall be issued to the purchaser of each lot within the subject subdivision. The note shall be included on all deeds of the subject subdivision.
- K. A complete landscape plan, prepared by a landscape architect, showing the location, size and type of all plant material required by provisions of this Ordinance or any other applicable Township regulations, including but not limited to, screening, buffer planting, parking landscaping, replacement trees, and street trees. The landscape plan should be provided on separate sheets and must include the signature and seal of the registered landscape architect responsible for preparation of the plan.
- L. A detailed schedule of inspections, as generally outlined by Section 504 of this Ordinance, which is tailored for the site under consideration.
- M. In the case of Land Development Plans, architectural elevations shall be submitted for review by the Township.

### **Section 405.3 Certificates**

- A. Certificate of review by the Planning Commission as provided in the Appendix.
- B. Certificate for approval by the Board of Supervisors as provided in the Appendix.
- C. Certificate for approval by the Township Engineer as provided in the Appendix.
- D. A statement duly acknowledged before an officer authorized to take acknowledgment of deeds and signed by the landowner, certifying that the subdivision or land development shown on the plan is the act and the deed of the owner; that all those signing are all the owners of the property shown on the survey and plan; that they desire the same to be recorded as such, and that all streets and other property identified as proposed public property are dedicated for public use, as provided in the Appendix. This must be dated following the last change or revision to said plan.
- E. Certification of review by the County Planning Commission as provided in the Appendix.
- F. A certificate to accommodate the Recorder of Deeds information as provided in the Appendix.

## **Section 405.4 Notifications**

- A. Notification from DEP that approval of the sewage facility plan revision (plan revision module for land development), supplement or exemption request has been granted or notice from DEP that such approval is not required.
- B. Notice from Lancaster County-Wide Communications stating that the proposed private and/or public street names are acceptable.
- C. Notice from the Lancaster County Conservation District of the approval of the Erosion and Sedimentation Pollution Control Plan.
- D. It shall be the developer's responsibility to verify if the development is underlain by carbonate geology. The following note shall be attached to all Storm Water Management Site Plans and signed and sealed by the developer's qualified professional, "I, \_\_\_\_\_, certify that the proposed detention basin is not underlain by carbonate geology."
- E. Written notice from the Township Engineer and the appropriate Authority Engineer that all proposed improvements have been designed to the standards of the Township and/or the Authority and that financial guarantees in a form suitable to the Board of Supervisors and the appropriate Authority have been received. (See the Appendix and Article V).
- F. When the applicant posts financial guarantee in lieu of completion of the improvements, the Final Plan shall be accompanied by a completed improvement guarantee agreement. General examples of these agreements are provided in the Appendix.
- G. Such written notices of approval as may required by this Ordinance, including written notices approving the water supply systems, sanitary sewage systems and storm water runoff to adjacent properties.
- H. The submission of a controlling agreement in accordance with Section 602 when an application proposes to establish a street which is not offered for dedication to public use.
- I. Notification from the appropriate state and federal agencies that permits have been issued, or are not required, for any proposed activities within streams, wetlands or any other state or federally regulated body of water. These permits include, but are not limited to, Floodplain Encroachment Permits, Dam Safety Permits, Earth Disturbance Permits, Stream Encroachment Permits, and General Permits.
- J. When the final plan is submitted in sections, the above notifications for all applicable activities on the entire site, shown on the approved preliminary plan shall be provided upon submittal of the first final phase of the project.
- K. A note shall be placed on the plan indicating any area that is not to be offered for dedication, if applicable.
- L. A note shall be placed on the plan indicating any activities that will require Highway Occupancy Permits from the Township.

## **Section 405.5 Reports**

- A. A final hydrologic/hydraulic report as required by Section 610 of this Ordinance.

- B. A final traffic evaluation study as described in Section 409.3 of this Ordinance.

## **Section 406 Lot Add-On Plans**

Lot add-on plans shall be prepared by an engineer, surveyor, or landscape architect licensed to practice in the Commonwealth of Pennsylvania. The plan shall be accompanied by, or prepared in accordance with the following:

- A. **Drafting Standards.** The same standards shall be required for a lot add-on plan as specified for subdivision and land development plans in Section 403.1 of this Ordinance.
- B. **Project Location and Identification.** The same standards shall be required for a lot add-on plan as specified for subdivision and land development plans in Section 403.2 of this Ordinance.
- C. **Existing Features.** The same standards shall be required for a lot add-on plan as specified for subdivision and land development plans in Section 403.3 of this Ordinance with the exception of topography required by Section 403.3.A and the off-site features required by Section 403.3.B.
- D. **Proposed Features and Plan Information.** The same standards shall be required for a lot add-on plan as specified for subdivision and land development plans in Section 403.4 and for final plans in Section 405.2 of this Ordinance.

### **Section 406.1 Certificates**

- A. Certificate, signature and seal of a surveyor registered in the Commonwealth of Pennsylvania to the effect that the survey is correct as provided in the Appendix.
- B. Certificate, signature and seal of a professional registered in the Commonwealth of Pennsylvania and qualified to perform such duties, to the effect that the plan is correct as provided in the Appendix.
- C. Certificate of review by the Planning Commission as provided in the Appendix.
- D. Certificate for approval by the Board of Supervisors as provided in the Appendix.
- E. Certificate for approval by the Township Engineer as provided in the Appendix.
- F. A statement, duly acknowledged before an officer authorized to take acknowledgement of deeds and signed by the landowner, to the effect that the subdivision or land development shown on the plan is the act and the deed of the owner, that all those signing are all the owners of the property shown on the survey and plan, and that they desire the same to be recorded as such, as provided in the Appendix.
- G. Certification of review by the County Planning Commission as provided in the Appendix.
- H. A certificate to accommodate the Recorder of Deeds information as provided in the Appendix.

## Section 407 Centerline Separation Subdivision Plans

Centerline separation subdivision plans shall be prepared by an engineer, surveyor, or landscape architect licensed to practice in the Commonwealth of Pennsylvania. The plan shall be accompanied by, or prepared in accordance with the following:

- A. **Drafting Standards.** The same standards shall be required for a centerline separation subdivision plan as specified for subdivision and land development plans in Section 403.1 of this Ordinance with the exception that all sheets to be recorded in the Recorder of Deeds Office shall be no larger than twenty-four by thirty-six (24 x 36) inches.
- B. **Project Location and Identification.** The same standards shall be required for a centerline separation subdivision plan as specified for subdivision and land development plans in Section 403.2 of this Ordinance.
- C. **Existing Features.** The same standards shall be required for a centerline separation subdivision plan as specified for subdivision and land development plans in Section 403.3 of this Ordinance with the exception of topography required by Section 403.3.A and the off-site features required by Section 403.3.B.
  - 1. For any centerline separation subdivision proposing new construction, existing and proposed contours shall be provided for all areas of proposed earth disturbance at the vertical interval as specified for subdivision and land development plans in Section 403.3.A of this Ordinance.
- D. **Proposed Features and Plan Information.** The same standards shall be required for a separation plan as specified for subdivision and land development plans in Section 403.4 and for final plans in Section 405.2 of this Ordinance.

### Section 407.1 Certificates

- A. Certificate, signature and seal of a surveyor registered in the Commonwealth of Pennsylvania to the effect that the survey is correct as provided in the Appendix.
- B. Certificate of review by the Planning Commission as provided in the Appendix.
- C. Certificate for approval by the Board of Supervisors as provided in the Appendix.
- D. Certificate for approval by the Township Engineer as provided in the Appendix.
- E. A statement, duly acknowledged before an officer authorized to take acknowledgement of deeds and signed by the landowner, to the effect that the subdivision or land development shown on the plan is the act and the deed of the owner, that all those signing are all the owners of the property shown on the survey and plan, and that they desire the same to be recorded as such, as provided in the Appendix.
- F. Certification of review by the County Planning Commission as provided in the Appendix.
- G. A certificate to accommodate the Recorder of Deeds information as provided in the Appendix.
- H. Notification from DEP that approval of the sewer facility plan revision (planning module), supplement, or exemption request has been granted or notice from DEP that such approval is not required.

## **Section 408 Storm Water Management Plans For Regulated Activities**

### **Section 408.1 Minor Land Disturbance Activities**

- A. The Minor Land Disturbance Plan shall include a general plan of the lot configuration, existing and proposed building locations, grading, storm water management facilities, and erosion and sedimentation control facilities.
- B. The Plan need not demonstrate literal compliance with all the provisions of this Ordinance, however the plan shall demonstrate that the proposed activity will comply with the intent of this Ordinance as provided for in Section 102.
- C. The Township staff, as designated by the Board, or other duly authorized representative of the Township, may require additional information, or invoke any section of this Ordinance, as deemed necessary to adequately demonstrate compliance with the intent of this Ordinance. These requirements may be appealed to the Supervisors.

### **Section 408.2 Major Land Disturbance Activities**

- A. When a Storm Water Management Plan is required as part of a Subdivision and/or Land Development Plan, the Storm Water Management Plan shall be prepared in accordance with the requirements for, and processed as an integral part of, the Subdivision and/or Land Development Plan.
- B. For all major land disturbance activities which require the submittal of a Storm Water Management Plan, the following items shall be included as part of the Storm Water Management Plan:
  - 1. **Drafting Standards.** The same standards shall be required for a storm water management plan as specified for subdivision and land development plans in Section 403.1 of this Ordinance.
  - 2. **Project Location and Identification.** The same standards shall be required for a storm water management plan as specified for subdivision and land development plans in Section 403.2 of this Ordinance.
  - 3. **Existing Features.** The same standards shall be required for a storm water management plan as specified for subdivision and land development plans in Section 403.3 of this Ordinance.
  - 4. **Proposed Features and Plan Information.** The same standards shall be required for a storm water management plan as specified for subdivision and land development plans in Section 403.4 and for final plans in Section 405.2 of this Ordinance.
  - 5. A final hydrologic/hydraulic report and plan as required by Section 610 of this Ordinance.

6. **Certificates.** The following plan certificates shall be provided for all storm water management plans:
- a. Certificate, signature and seal of a professional registered in the Commonwealth of Pennsylvania and qualified to perform such duties, to the effect that the plan is correct as provided in the Appendix.
  - b. Certificate, signature and seal of a professional registered in the Commonwealth of Pennsylvania and qualified to perform such duties, indicating compliance with the provisions of the storm water management requirements of this Ordinance as provided in the Appendix.
  - c. Certificate, signature and seal of a professional registered in the Commonwealth of Pennsylvania and qualified to perform such duties, indicating that the developer's professional has verified that the detention basin is or is not underlain by carbonate geology as provided in the Appendix
  - d. Certificate of review by the Planning Commission as provided in the Appendix.
  - e. Certificate for approval by the Board of Supervisors as provided in the Appendix.
  - f. Certificate for approval by the Township Engineer as provided in the Appendix.
  - g. A statement, duly acknowledged before an officer authorized to take acknowledgement of deeds and signed by the landowner, to the effect that the storm water management facilities shown on the plan is the act and the deed of the owner, that all those signing are all the owners of the property shown on the survey and plan, and that they desire the same to be recorded as such, as provided in the Appendix.

## **Section 409 Required Reports**

The following reports shall be included with all subdivision and land development plans as stipulated herein:

### **Section 409.1 Water Service Feasibility Report**

- A. The applicant shall submit a report concerning the source of water to serve the proposed subdivision or land development. Said report shall be prepared by a registered professional engineer and be submitted in conjunction with the preliminary plan for review by the Township and the applicable authority.
- B. Prior to initiating the preparation of a water service feasibility report the applicant shall provide a description of the methodology to be used to complete the report. The description shall include the location and size of the tract, the intended use including amount of daily water usage and general terrain and geologic features. The exact methodology of the study area should be based on engineering judgment and an understanding of existing geologic conditions at the site. In all instances, however, the study methodology must be mutually agreed upon by the applicant, their engineer, and the Township.



- C. All lots created, and any land development plan that proposes flows equal to or greater than four hundred (400) gallons per day, within any Urban or Village Growth Boundary, or within any area that the 537 Plan identifies to be served by public utilities, shall be served by public water where available.
1. If connection to an existing public water supply system is proposed, the subdivider or developer shall submit an agreement committing the Authority or public utility to provide such water as will be utilized by the subdivision or land development for such period of time and under such terms and conditions as the Authority or public utility provides water service elsewhere in its service area including but not limited to the following:
    - a. The locations and kind of fire hydrants shall be in accordance with the specifications of the Authority or public utility that operates such water system in concert with the local fire department thread requirements. A copy of the approval of such system by the Authority or the public utility shall be submitted.
    - b. The final plan application shall include a statement from the Authority or the public utility indicating the approval of the plans for design, installation and possible financial guarantees.
    - c. The installation and construction shall be in accordance with the specifications of the Authority or the public utility. The Authority or the public utility shall establish requirements for the ownership and maintenance of such system.
  2. If water is to be provided by means other than private wells owned and maintained by the individual owners of lots within the subdivision or land development, the applicant shall present evidence that the subdivision or land development is to be supplied by a certified public utility, a bona fide cooperative association of lot owners or by the Authority. A copy of a certificate of public convenience or an application for such certificate, a cooperative agreement or a commitment to serve the area in question, whichever is appropriate, shall be acceptable evidence.
  3. If community water systems are proposed, these systems shall be in compliance with the regulations of DEP and the design standards of the Authority. All community systems shall be offered for dedication to the Authority.
- D. If the water supply system proposed involves the utilization of water obtained from the tract being subdivided or developed (irrespective of whether that water is being distributed as a part of a community water supply system), the report shall include certification by the applicant's engineer that a water supply system exists upon all lots created and upon any land development plan, which supply is capable of supplying potable water as follows:
1. **Minimum Residential Yield and Demand Requirement.** - The report shall show that the proposed well(s) is (are) capable of supplying potable water at the minimum rate of 315 gallons per day per unit of residential occupancy at a demand rate of not less than two (2) gallons per minute for one (1) hour, either with or without the use of a storage system.
  2. **Minimum Principal Non-Residential Yield and Demand Requirement.** - The report shall show that the proposed well(s) is (are) capable of supplying potable water at the minimum rate of 200 gallons per day per unit of non-residential occupancy at a demand rate of not less than two (2) gallons per minute for one (1) hour, either with or without the use of a storage system.

3. **Recharge Requirement** - The report shall show that the ground water recharge on the tract in question after development will exceed the anticipated water usage. Water usage shall be based upon DEP sewage flows provided by DEP.
4. **Non-Residential Uses** - When industrial, agricultural or commercial use is intended, the report shall set forth the proposed nature of the use, the proposed number of employees and whether or not water will be used for cleanup and/or processing or otherwise in connection with the use. The applicant shall in addition set forth the proposed allocation of available water supply between or among the proposed uses and shall set forth a plan or proposal pursuant to which such allocation can reasonably be monitored and enforced by the Township or Authority.
5. **Aquifer Test Required.** Prior to installation of any new water supply system or the subdivision of land into lots which would be served by individual wells in areas of, or in proximity to areas of, known groundwater contamination or inadequate yields of potable supplies, aquifer and water quality tests shall be performed. Areas of known groundwater problems shall be mapped and such information shall be maintained in the Township offices. Areas of known ground water problems shall include, but are not limited to:
  - a. Areas in proximity [one (1) mile] of sinkholes, ghost lakes, or drainage entering the ground.
  - b. Contaminated aquifers, including designated clean-up sites.
  - c. Other areas with documented water quantity or quality problems, including pollutants in excess of federal safe drinking water standards.
6. **Aquifer Test Standards and Procedures.** No person shall develop land within an area of known groundwater quantity problems without administering and passing on said land the aquifer test required by this Section. Prior to conducting the required testing, the applicant shall provide the Township and the Township Engineer with the proposed test methodology that shall demonstrate compliance with the following objectives and standards:
  - a. To obtain sufficient data for the calculations of aquifer performance, including the coefficients of transmissibility and storage, permeability, and specific yield.
  - b. To determine the location and character of geologic boundaries.
  - c. To ascertain the effects of well interference.
  - d. To provide a guide in the spacing of wells for the development of a well field.
  - e. In all cases the applicant shall demonstrate that the water to be supplied shall be potable and shall meet all applicable standards of DEP or the United States Environmental Protection Agency.

7. **Criteria for a Request of Exemption.** A proposed land development or subdivision which intends to use a groundwater source to supply water to the property may be exempted from these requirements by the Township if one or more of the following criteria are satisfied:
- a. The proposed project is located one quarter (1/4) mile or less, in the same geologic unit, from a previous aquifer test, within the past two (2) years, and the previous test showed transmissibility (T) values greater than one thousand (1,000).
  - b. The proposed project has had two (2) aquifer tests on different sides of the proposed project within one-half (1/2) mile in the same geologic unit within the past two (2) years, with "T" values greater than one thousand (1,000).
  - c. The proposed land development or subdivision is recommended for exemption by a qualified geologist based upon certified hydrogeological information.
  - d. If Section 409.1.D.5 applies to the proposed project and the documented water problem relates to quality and not quantity, then the aquifer test may be exempted. However, a water quality test must be conducted and the method of water quality remediation identified.

## **Section 409.2     Sewer Service Feasibility Report**

- A. The applicant shall submit a report concerning the availability of a public sewer system in or near the proposed subdivision or land development. Said report shall be prepared by a registered professional engineer and be submitted in conjunction with the preliminary plan for review by the Township, the applicable authority, and for recommendations by the local office of DEP.
- 1. For those areas not located within an Urban or Village Growth Boundary or within any area that the 537 Plan identifies to be served by public utilities, the feasibility report is not required for residential subdivisions of four (4) lots or less, including remaining lands; and land development plans which propose flows less than four hundred (400) gallons per day.
- B. The report shall state the type of sewage disposal desired for each of the proposed lots. If other than connection to a public sewer system or the installation of a conventional on-site sewage disposal system is intended on any of the lots, that fact shall be indicated on the plan itself.
- 1. Subdivisions proposing a lot or lots utilizing alternate or experimental on-site sewage disposal systems will not be approved by the Board unless:
    - a. The Township Sewage Enforcement Officer and/or a sanitarian of DEP certifies that a proposed sewage disposal site cannot reasonably be located so as to enable the lot to utilize a conventional on-site sewage disposal system; and,
    - b. The lot itself cannot reasonably be redesigned or relocated consistent with the Township Zoning Ordinance and other Township regulations so as to enable utilization of a conventional on-site sewage disposal system.

- C. All lots created, and any land development plan that proposes flows equal to or greater than four hundred (400) gallons per day, within any Urban or Village Growth Boundary, or within any area that the 537 Plan identifies to be served by public utilities, shall be served by public sewer.
1. If connection to an existing public sewer system is proposed, the subdivider or developer shall submit an agreement committing the Authority or public utility to provide such sewage disposal as will be utilized by the subdivision or land development for such period of time and under such terms and conditions as the Authority or public utility provides sewage disposal service elsewhere in its service area.
    - a. The final plan application shall include a statement from the Authority or public utility indicating the approval of the plans for design, installation and possible financial guarantees.
    - b. The sewerage installation shall be in accordance with the specifications of the Authority or public utility. The Authority or public utility shall establish requirements for the ownership and maintenance of such system.
  2. If the applicant proposes to provide a public community sewer system, its construction and installation shall be in accordance with applicable Authority or public utility specifications and all regulations of DEP. The applicant shall obtain all permits and approvals required by the Authority, public utility or DEP prior to final plan approval. All community systems shall be offered for dedication to the Authority or Township.

D. **On-Lot Sewage Disposal.**

1. If the applicant proposes installation of on-lot sewage disposal and has presented documentation satisfactory to the applicable Sewer Authority and the Board proving the unfeasibility of connection to public or community sewer systems, the following documentation shall be provided:
  - a. **Sewage Testing Required for all Proposed Lots.** Each lot or lots to be created shall contain a suitable location for the installation of an initial individual on-lot sewage system except when such lot or lots to be created are to be served by a community sewage system. The Sewage Enforcement Officer shall perform or observe all tests required by DEP and this Ordinance for the location of an individual on-lot sewage system to confirm the suitability of the location.
  - b. **Replacement Location for On-Lot Sewage Systems Required.** Each lot or lots to be created shall contain a suitable location for the installation of a replacement individual on-lot sewage system. The Sewage Enforcement Officer shall perform or observe all tests required by DEP and this Ordinance for the location of an individual on-lot sewage system to confirm the suitability of the replacement location. The replacement location shall comply with all regulations issued by DEP concerning individual on-lot sewage systems, including isolation distances, and with the terms of this Ordinance and any other applicable Township Ordinances.

c. **Identification of Replacement Location.**

- 1). Each applicant shall demonstrate to the satisfaction of the Sewage Enforcement Officer and/or a sanitarian certified by DEP that an area exists on the lot or on each lot to be created for an initial individual on-lot sewage system and for the replacement location. The Sewage Enforcement Officer or sanitarian shall perform all tests required by DEP regulations for the location of an individual on-lot sewage system to confirm the suitability of the replacement location. Allowance of open land for the replacement location without such testing shall not constitute compliance with the requirements of this Section.
- 2). The location of each initial individual on-lot sewage system and each replacement location shall be noted on the plans. An appropriate easement shall be provided around the replacement location and shown on the final plan. A note shall be added to the plans stating that no improvements shall be constructed upon the replacement location easement.
- 3). Any revisions to a permit or plan affecting a replacement location that previously has been approved pursuant to the provisions of this Ordinance shall be approved by the Township or its authorized representative.

d. **Construction of Improvements Upon or Disturbance of Replacement Location Prohibited.**

The replacement location shall not be excavated, graded, filled, or otherwise disturbed in any manner that would prevent its use as a future location for an on-lot sewage disposal system during development of the lot. No permanent or temporary improvements of any character other than the planting of trees, shrubs or other plant matter shall be constructed upon the replacement location unless the person who desires to construct such improvements shall demonstrate to the satisfaction of the Sewage Enforcement Officer that an alternate replacement location which complies with all applicable Township Ordinances exists upon the lot. If such an alternate replacement location shall be identified, the alternate replacement location may be considered to be the replacement location required by this Ordinance, shall be designated as the replacement location, and the plans shall be accordingly revised and submitted to the Planning Commission. The newly designated replacement location shall thereafter be considered the replacement location for the purposes of this Ordinance.

2. The limits of both the initial individual on-lot sewage system and the replacement system location easement for each lot must be staked and roped off, or other acceptable measures, prior to issuance of building permits for each lot and properly maintained during construction until the issuance of an occupancy permit.

## Section 409.3 Traffic Evaluation Study

- A. Whenever a proposed project will (a) have twenty (20) or more dwelling units or (b) will generate sixty (60) new vehicle trips in the peak direction (inbound or outbound) during the site peak traffic hour, the applicant shall perform a traffic impact study. Based on this study, certain improvements may be identified to provide safe and efficient access to the development. All applicants with developments which do not meet the above stated criteria shall submit the information required in Section 409.3.B.4.
1. In addition, a traffic impact study shall be prepared whenever either one of the following conditions exist within the impact study area:
    - a. Current traffic problems exist in the local area, such as a high-accident location, confusing intersection, or a congested intersection which directly affects access to the development.
    - b. The ability of the existing roadway system to handle increased traffic, or the feasibility of improving the roadway system to handle increased traffic, is limited.
  2. The applicant is responsible for assessing the traffic impacts associated with a proposed development that meets any condition set forth above. The Township or its designee will review the applicant's assessment and supply available data upon request to aid the applicant in preparing the study. The applicant shall be responsible for all data collection efforts required in preparing a traffic impact study including peak period turning movement counts. In addition, the applicant is responsible for ensuring that any submitted development plans meet the minimum state and local standards for geometric design. The study shall be conducted only by a professional engineer that has verifiable experience in traffic engineering. Upon submission of a draft study, the Township or its designee may review the data sources, methods and findings and provide comments in written form. The applicant shall be responsible for all costs for such review. The applicant will then have the opportunity to incorporate necessary revisions prior to submitting a final study.
- B. **Traffic Impact Study Contents.** A traffic impact study prepared for a specific site development proposal shall follow the basic format shown below. Additions or modifications should be made for a specific site, when appropriate. This basic format allows for a comprehensive understanding of the existing site, future conditions without the proposed use and the impacts associated with the proposed development plan. Following is a brief narrative for each section of a traffic impact study.
1. **Introduction.** This section identifies the land use and transportation setting for the site and its surrounding area.
    - a. **Site and study area boundaries.** A brief description of the size of the land parcel, general terrain features, legal right-of-way lines of the highway, and the location within the jurisdiction and the region should be included in this section. In addition, the roadways that afford access to the site and are included in the study area should be identified. The exact limits of the study area should be based on engineering judgment and an understanding of existing traffic conditions at the site. In all instances, however, the study limits must be mutually agreed upon by the developer, its engineer, and the Township.
    - b. **Site description.** This section should contain a brief narrative that describes the

proposed development in terms of its function, size and near and long term growth potential. This description should be supplemented by a sketch which clearly shows the proposed development within the site boundaries, its internal traffic circulation pattern and the location and orientation of its proposed access points.

- c. **Existing and proposed site uses.** The existing and proposed uses of the site should be identified in terms of the various zoning categories in the jurisdiction. In addition, identify the specific use on which the request is made since a number of uses may be permitted under the existing ordinances.
  - d. **Existing and proposed nearby uses.** Include a complete description of the existing land uses in the vicinity of the site as well as their current zoning. The applicant should also state the proposed uses for adjacent land, if known. This latter item is especially important where large tracts of underdeveloped land are in the vicinity of the site and within the prescribed study area.
  - e. **Existing and proposed roadways and intersections.** Within the study area, describe existing roadways and intersections (geometrics and traffic signal control) as well as improvements contemplated by government agencies.
2. **Analysis of Existing Conditions.** This section describes the results, as well as the data collection efforts, of the volume/capacity analysis to be completed for the roadways and intersections in the vicinity of the site under existing conditions.
- a. **Daily and peak hour(s) traffic volumes.** Provide schematic diagrams depicting daily and peak hour(s) traffic volumes for roadways within the study area. Turning movement and mainline volumes are to be presented for the three (3) peak hour conditions (AM, PM and site generated) while only mainline volumes are required to reflect daily traffic volumes. Include the source and/or method of computation for all traffic volumes.
  - b. **Volume/capacity analyses at critical points.** Utilizing techniques described in the Highway Capacity Manual or Derivative nomographs, include an assessment of the relative balance between roadway volumes and capacity. Perform the analysis for existing conditions (roadway geometry and traffic signal control) for the appropriate peak hours.
  - c. **Level of service at critical points.** Based on the results obtained in the previous section, levels of service (A through F) are to be computed and presented. This section should also include a description of typical operating conditions at each level of service.
3. **Analysis of Future Conditions Without Development.** This section describes the anticipated traffic volumes in the future and the ability of the roadway network to accommodate this traffic without the proposed zoning or subdivision request. The future year(s) for which projections are made will be specified by the Township and will be dependent on the timing of the proposed development.
- a. **Daily and peak hour(s) traffic volume.** Clearly indicate the method and assumptions used to forecast future traffic volumes in order that the Township can duplicate these calculations. The schematic diagrams depicting future traffic volumes will be similar to those described in Section 409.3.B.4. in terms of locations and times (daily and peak hours).

- b. **Volume/capacity analyses at critical locations.** Describe the ability of the existing roadway system to accommodate future traffic (without site development). If roadway improvements or modifications are committed for implementation, present the volume/capacity analysis for these conditions.
  - c. **Levels of service at critical points.** Based on the results obtained in the previous section, determine levels of service (A through F).
- 4. **Trip Generation.** Identify the amount of traffic generated by the site for daily and the three (3) peak conditions. The trip generation rates used in this phase of the analysis shall be justified and documented to the satisfaction of the Township.
- 5. **Trip Distribution.** Identify the direction of approach for site generated traffic for the appropriate time periods. As with all technical analysis steps, the basic method and assumptions used in this work must be clearly stated in order that the Township can replicate these results.
- 6. **Traffic Assignment.** Describe the utilization of study area roadways by site generated traffic. The proposed traffic volumes should then be combined with anticipated traffic volumes from Section 3 to describe mainline and turning movement volumes for future conditions with the site developed as the applicant proposes.
- 7. **Analysis of Future Conditions With Development.** This section describes the adequacy of the roadway system to accommodate future traffic with development of the site.
  - a. **Daily and peak hour(s) traffic volumes.** Provide mainline and turning movement volumes for the highway network in the study area as well as driveways and internal circulation roadways for the appropriate time periods.
  - b. **Volume/capacity analyses at critical points.** Perform a volume/capacity analysis for the appropriate peak hours for future conditions with the site developed as proposed, similar to Sections 409.3.B.2.b and 409.3.B.3.b.
  - c. **Levels of service at critical points.** As a result of the volume/capacity analysis, compute and describe the level of service on the study area roadway system.
  - d. Final design must address both traffic flow and traffic safety considerations to provide safe operational characteristics.
- 8. **Recommended Improvements.** In the event that the analysis indicates unsatisfactory levels of service will occur on study area roadways, a description of proposed improvements to remedy deficiencies should be included in this section. The levels of service shall not deteriorate to worse than C if they are currently A or B, must be maintained if they are C, and improved to C if they are D, E, or F. In addition, there shall be no increase in delay if a satisfactory level of service can not be attained. These proposals would not include committed projects by the state and local jurisdictions that were described in Section 409.3.B.1 and reflected in the analysis contained in Sections 409.3.B.2 and 409.3.B.3.
  - a. **Proposed recommended improvements.** Describe the location, nature and extent of proposed improvements to assure sufficient roadway capacity. Accompanying this list of improvements are preliminary cost estimates, sources of funding, timing, and likelihood of implementation.



- b. **Volume/capacity analyses at critical points.** Another iteration of the volume/capacity analysis will be described which demonstrates the anticipated results of making these improvements.
  - c. **Levels of service at critical points.** As a result of the revised volume/capacity analysis presented in the previous section, present levels of service for the highway system with improvements.
- 9. **Conclusion.** The last section of the report should be a clear concise description of the study findings. This concluding section should serve as an executive summary.
- C. **Contribution in Lieu of Preparation of Studies.** If an applicant believes that the preparation of traffic study and report required herein is not warranted, he may request the Board to waive the preparation of such study.
  - 1. The applicant for approval of any residential subdivision or land development shall provide the Township with a certification of the number and type of dwelling units to be constructed for the purpose of determining the contribution in lieu of preparation of studies.
  - 2. The applicant for approval of any commercial, industrial or institutional subdivision or land development shall provide the Township with a certification of the usable building floor area to be constructed for the purpose of determining the contribution in lieu of preparation of studies.
  - 3. The contribution in lieu of preparation of studies provided for herein shall be in addition to all charges imposed by any Authority for tapping and connection fees and shall be in addition to all other review, inspection and other fees or charges imposed by the Township and/or any Authority, and all sums otherwise agreed to be paid by the applicant.
  - 4. The applicant shall enter into an agreement with the Township setting forth the contribution in lieu of preparation of studies to be paid and the studies to be waived by the Township. All such agreements shall be in a form satisfactory to the Township Solicitor.
  - 5. All contributions in lieu of preparations of fees shall be paid prior to approval of the final plan by the Township Supervisors.
  - 6. All developments receiving a modification of preparation of a traffic evaluation study in accordance with this section shall provide, as a minimum, the information required in Section 409.3.B.4.

## Section 409.4 Wetlands Study

- A. The applicant shall submit a wetland study with the submittal of all subdivision and land development plans. The purpose of the study shall be to determine the presence and extent of wetlands on the site.
- B. The study shall be performed by a qualified wetland scientist. Qualified individuals should possess a minimum of a bachelor's degree in biology, botany, zoology, ecology, or environmental sciences. In general, other professionals, such as engineers, landscape architects, surveyors, planners, and geologists are not considered fully qualified to perform wetland delineations, unless they possess special ecological training and experience beyond their discipline. The Township reserves the right, in as much as no recognized certification program exists for wetland scientists, to determine the qualification of those preparing wetland delineations. Should a state or federal wetland scientist certification program be established, the Township will consider only those certified individuals qualified to perform delineations.
- C. For sites on which no wetlands occur, an abbreviated report may be submitted. The abbreviated report should contain the results and discussion and conclusions information as required by Section 409.4.D.2 of this Ordinance. Site location, NWI and soil maps shall be provided.
- D. Requirements for Wetland Studies:
  - 1. Delineations should follow the procedures outlined in the 1989 Federal Manual for Identifying and Delineating Jurisdictional Wetlands, and any subsequent amendments.
  - 2. Delineations shall be supported by reports. The reports shall contain the following sections:
    - a. **Introduction.** Description of the physical features of the site, its location and the proposed plans for the site.
    - b. **Methods.** Description of the methods used for the survey, with particular emphasis on any deviation from the outlined federal method. Relevant information includes the date of the field studies, the number of transects and plots used, the size of vegetation quadrants employed, the size of soil pits used, taxonomic references used, and the disposition of any voucher specimens.
    - c. **Results and Discussion.** Description of the findings of the study. Soils, vegetation and hydrology for wetland and upland areas of the site should be discussed. Any problem areas should be thoroughly treated.
    - d. **Conclusions.** The extent of wetlands on the site should be discussed. The impact of the proposed project on these wetlands should also be considered.
- E. Included in the report as appendices or tables should be:
  - 1. Site location map (USGS 7.5' quadrangle will suffice).
  - 2. NWI map.
  - 3. Soil survey map with soil descriptions.

4. Data sheets for each plot.
  5. **Wetland boundary map.** Wetland boundaries shall be surveyed by a registered professional surveyor and shown on a plan of appropriate scale. The limits of the wetland study shall be clearly shown. The plan shall also show the location of all plots and/or transects used in the study, the date of the delineation, a statement of the method used for the study, the name of the consulting firm which performed the delineation, the name of the surveyor, and a disclaimer statement indicating no wetland boundary is considered jurisdictional until approved by DEP and COE.
  6. Color photos of wetlands areas on the site, with locations and directions of view keyed to the wetland boundary map.
  7. Resumes of the wetland scientist(s) who performed the delineation.
- F. All subdivision plans shall contain notes for future lot owners. The wetland boundary on each lot will be clearly marked. Each lot which contains wetlands, or to which access may be restricted by wetlands, shall have a note which states that state and federal laws require permits for all activities which result in a deposition of fill into delineated wetlands. The note shall also state that refusal of such a permit may restrict some uses of all or portions of the lot.
- G. Compensatory mitigation projects required as part of state or federal permits shall be shown on the subdivision plans. Future lot owners whose property encompasses all or part of a mitigation area shall be notified that the portion of their property that includes the mitigation area may not be altered, and is considered a jurisdictional wetland by the state and federal governments. Lot owners may be responsible for maintenance of mitigation areas. In order to help ensure the long-term viability of wetland mitigation efforts, the Township discourages multiple ownership of mitigation areas. Ownership by one individual or a homeowners association is encouraged. Responsibility for maintenance and perpetuation of the wetland mitigation areas must be clearly identified on the plans.
- H. The Township reserves the right to reject any submitted wetland delineations. Should the Township feel the actual wetland area differs from that shown on the subdivision plan, the Township has the right to secure, at the developer's expense, qualified personnel to check the delineation and redraw the boundary as necessary. Should the developer subsequently disagree with the Township's delineation, a jurisdictional delineation by DEP and COE will be requested. Any charges for the jurisdictional delineation will be the responsibility of the developer.
- I. Where the study shows the existence of wetland areas, the delineated boundary shall be properly fenced off to prevent encroachment. Snow fence or other acceptable material shall be used (the use of silt fence is not acceptable). The fence shall be properly installed, at a minimum distance of five (5) feet outside the delineated boundary, prior to any construction or issuance of building permits. The fence must be properly maintained until all occupancy permits have been issued and/or for the extent of all construction.

## Section 409.5 Historical Features Report

- A. The applicant shall submit a historical features report with the submittal of all subdivision and land development plans that contain historical places, sites and structures identified by the Cocalico Region Strategic Plan. No project shall be developed on a site identified by the Cocalico Region Strategic Plan as containing features of historical significance until a report has been submitted to the Township.
  - B. The purpose of the report shall be to identify and examine the opportunities for the preservation and/or re-use of the historical place, site or structure in a manner that supports the integrity of the historical place, site or structure.
  - C. The report shall describe how the subdivision or land development shall be designed to preserve, adaptively reuse, or otherwise provide for the preservation of historical places, sites and structures identified by the Cocalico Region Strategic Plan.
  - D. The report shall identify any modifications or exterior alterations to historical places, sites and structures or new construction adjacent to historical places, sites and structures and detail how the modifications shall be consistent with the character and visually complementary of the historical place, site or structure.
  - E. The report shall identify how subdivisions and land developments will be designed so that new structures do not block historic views, or obstruct the view of historic properties.
  - F. The report shall identify if the proposed land development or subdivision will jeopardize the historic value of a site or structure because of size, scale, construction material, or type of use of new construction and detail how new construction will be screened or otherwise visually buffered.
  - G. Modifications or exterior alterations shall be consistent with the Secretary of the Interior standards for the rehabilitation of historic properties published by the National Park Service.
  - H. No historical place, site or structure identified by the Cocalico Region Strategic Plan or otherwise identified as a historic resource by West Cocalico Township shall be demolished or moved from its original foundations as part of any subdivision or land development without approval of the Township.
- 1. Subdivision or land development plans that include an historical place, site or structure identified by the Cocalico Region Strategic Plan shall include the following note on the plan sheet to be recorded:

*“Future demolition of the historical place, site or structure identified on this plan shall be in accordance with the requirements of Section 409.5.G of the West Cocalico Subdivision, Land Development and Storm Water Management Ordinance. The owner of the identified historical place, site or structure shall provide the Township with a letter from the State Historic Preservation Officer, the Preservation Trust of Lancaster County or other qualified Historic Preservation Specialist identifying the significance of the property, potential effects of the project that would be adverse, and possible mitigation measures that could be employed. If required by the Township, the owner of the identified historical place, site or structure shall document the resource in accordance with the Pennsylvania Historical and Museum Commission guidelines and shall provide a report to the Township for review and approval prior to commencement of demolition.*

2. In all cases when demolition is proposed, the applicant shall submit to the Township a letter from the State Historic Preservation Officer, or from the Preservation Trust of Lancaster County or other qualified Historic Preservation Specialist identifying the significance of the property, potential effects of the project that would be adverse, and possible mitigation measures that could be employed.
  3. In evaluating any request for demolition of a historic feature the Township shall take into account the significance of the property, the condition of the feature, the potential for repair, restoration, stabilization, and reuse, the impact of the feature in relation to the total project, and the hardship, if any, on the applicant.
- I. Applicants are encouraged to perpetuate historic names or geographic references that are traditionally associated with the area in which a project is located, rather than proposing project names that are not consistent with Lancaster County traditions or culture.

# ARTICLE V

## IMPROVEMENT CONSTRUCTION ASSURANCES

### Section 501 Completion of Improvements or Guarantee Thereof Prerequisite to Final Plan Approval

- A. No plan shall be finally approved unless the streets shown on such plan have been improved as may be required by this Ordinance, and any walkways, curbs, gutters, street lights, fire hydrants, shade trees, water mains, sanitary sewers, storm drains, storm water management facilities, or other improvements as may be required by this Ordinance have been installed in accordance with this Ordinance, except that the surface course of streets shall not be completed until such time as ninety (90) percent of the lots in the subdivision or land development have been improved by the construction of a dwelling if approved for residential development or by the construction of the proposed commercial or industrial structures if the lots are approved for such uses.
- B. In lieu of the construction and completion of the improvements required by this Ordinance as a condition for final plan approval, the developer may deposit with the Township and/or the Authority, as applicable, a letter of credit, or other financial security authorized by the Municipalities Planning Code and acceptable to the Board and/or the Authority in an amount equal to one hundred ten (110) percent of the estimated cost of the required improvements at a time ninety (90) days following the date scheduled for completion of the respective improvements by the developer.
- C. The amount of financial security required by the Township shall be based upon an estimate of the cost of the improvements, submitted by a developer and prepared by a professional engineer licensed as such in this Commonwealth and certified by such engineer to be a fair and reasonable estimate of such cost. The estimated cost of the surface course shall be computed separately from the estimated cost of completing the other improvements and shall be based upon the developer's projected timetable for completion of the development. The Township, upon the recommendation of the Township Engineer, may refuse to accept such estimate for good cause shown. If the developer and the Township are unable to agree upon an estimate, then the estimate shall be recalculated and recertified by another professional engineer licensed as such in this Commonwealth and chosen mutually by the Township and the developer. The estimate certified by the third engineer shall be presumed fair and reasonable and shall be the final estimate. In the event that a third engineer is so chosen, fees for the services of said engineer shall be paid equally by the Township and the developer.
- D. Annually the Township and/or the Authority may adjust the amount of required financial security by redetermining the estimated cost for completion of the uncompleted improvements as of the expiration of the ninetieth (90th) day after either date scheduled for completion or a rescheduled date of completion. Subsequent to said adjustment, the Township may require the developer to post additional security in order to insure that the financial security equals one hundred ten (110) percent of the estimated cost of the Township and/or the Authority completing the improvements at a time ninety (90) days following the date scheduled for completion or alternatively reduce the required security so that it equals such amount. Any additional security shall be posted by the developer within thirty (30) days after being notified of the same. The amount of financial security required by the Authority shall be computed in accordance with the Authority's rules and regulations.

- E. As the work of installing the required improvements proceeds, the party posting the financial security may request the Township to release or authorize the release from time to time, such portions of the financial security necessary for the payment to the contractor or contractors performing the work. Any such request shall be in writing and addressed to the Board and the Board shall have forty-five (45) days from the receipt of such request to allow the Township Engineer to certify, in writing, to the Board that such portion of the work has been completed in accordance with the approved plan. Upon such certification, the Board shall authorize release from the required financial security of an amount as estimated by the Township Engineer as representing the value of the work completed.
- F. The value of the work completed shall be determined by subtracting one hundred ten (110) percent of the estimated cost of the completion of the remaining uncompleted work from the total amount of security deposited.
- G. At such time as all of the lots in the subdivision or land development have been improved as set forth above, or at the expiration of the time as may be agreed to by the applicant and the Board for completion of all improvements excepting the surface, the Township may notify the developer to complete the surface course within sixty (60) days from the date of such notice. In computing the sixty (60) day requirement, the period from October 1 to April 1 shall not be counted.

## **Section 502 Release from Financial Security**

- A. When the developer has completed all of the improvements as shown on the final plans, the developer shall notify the Board, in writing, by certified or registered mail, of the completion of the aforesaid improvements, enclosing therewith certification by the engineer responsible for the design of the improvements that they have been installed as designed, and shall send copies of the notice and certification to the Township Engineer. All requests shall include as-built plans as specified in Section 508 and of any other improvements to be dedicated to the Township and/or the Authority and of all streets, whether or not such streets shall be dedicated.
- B. The Board shall, within ten (10) days after receipt of such notice, direct and authorize the Township Engineer to inspect all of the aforesaid improvements. The Township Engineer shall thereupon file a report, in writing, with the Board and shall promptly mail a copy of the same to the developer by certified or registered mail. The report shall be made and mailed within thirty (30) days after receipt by the Township Engineer of the aforesaid authorization from the Board, said report shall be detailed and shall indicate approval or rejection of said improvements, either in whole or in part, and if said improvements or any portion thereof shall not be approved or shall be rejected by the Township Engineer, said report shall contain a statement of the reasons for such non-approval or rejection. Improvements shall not be considered completed unless the developer can demonstrate compliance with the requirements of this Ordinance, and all other applicable ordinances, statutes and regulations.
- C. The Board shall notify the developer within fifteen (15) days of receipt of the engineer's report, in writing by certified or registered mail, of its action with relation thereto. If the Board or Township Engineer fails to comply with the time limitation provisions contained herein, or such time limitations as contained in the Municipalities Planning Code, whichever requirements shall contained a longer time period for action by the Township, all improvements will be deemed to have been approved and the developer's posted financial security shall be released.
- D. If any portion of the said improvements shall not be approved or shall be rejected by the Board, the developer shall proceed to complete the same and, upon completion, the same procedure of notification, as outlined herein, shall be followed.
- E. Nothing herein, however, shall be construed in limitation of the developer's right to contest or question by legal proceedings or otherwise any determination of the Board or Township Engineer.

## **Section 503 Remedies to Affect Completion of Improvements**

In the event that any improvements that may be required have not been installed as provided in this Ordinance or in accordance with the approved final plan, the Board may enforce any letter of credit or other financial security by appropriate legal and equitable remedies. If proceeds of such financial security are insufficient to pay the cost of installing or making repairs or corrections to all the improvements covered by said security, the Board may, at its option, install such improvements in all or part of the subdivision or land development and may institute appropriate legal or equitable action or recover the monies necessary to complete the remainder of the improvements. All the proceeds, after deducting the costs of collection, whether resulting from the financial security or from any legal or equitable action brought against the developer or both, shall be used solely for the installation of the improvements covered by such security, and not for any other Township purpose.

## **Section 504 Inspection During Construction**

The Township and/or the Authority shall inspect the improvements during construction. The developer shall pay the cost of any such inspection in accordance with the provisions of Article V of the Municipalities Planning Code. The developer shall provide at least twenty-four (24) hours notice prior to the start of construction of any improvements that are subject to inspection. All inspections of completed items shall be requested, in writing, at least forty-eight (48) hours in advance of the inspection time and date.

It is generally required that the following phases of site construction have mandatory inspection. This general list of phases may be amended by mutual agreement of the Township and developer when the site requires special construction procedures. The inspection schedule must be recorded with the final plan or shown on the approved improvement construction plan.

### **A. General Site Construction.**

1. Upon completion of preliminary site preparation including stripping of vegetation, stockpiling of topsoil and construction of temporary erosion and sedimentation control devices.
2. Upon completion of rough grading, but prior to placing topsoil, permanent drainage, or other site development improvements and ground covers.
3. During the construction of permanent storm water management and BMP facilities.
4. Upon the final completion of permanent storm water management and BMP facilities, including the establishment of ground covers and plantings.
5. After review of the as-built drawings required by Section 508, but prior to final release of the financial guarantee for completion of final grading, vegetative controls required by the BMP standards, or other site restoration work.

### **B. Street Construction**

1. **Preparation of Road Subgrade.** At the time of this observation, the subgrade should be proof rolled and the proposed crown and grade should be checked. It is recommended that



a developer's/contractor's representative accompany the observer when the crown and grade are checked. Proof rolling should be performed with a fully loaded, tandem-axle dump truck.

2. **Placement and Compaction of Road Subbase.** At the time of this observation, the depth of subbase should be checked after compaction, the subbase should be proof rolled in the same manner as the subgrade and the crown and grade should be checked again. This observation must occur prior to any binder or base course being placed.
  3. **Placement and Compaction of the Binder/Base Course.** At the time of this observation, the depth of the binder/base course should be checked, ambient temperature should be monitored (this is important in early spring and late fall days when the temperature can go below acceptable limits), the temperature of the bituminous material should be checked (if possible), and it is recommended that copies of the weight slips for each truckload are obtained. The crown and grade should also be checked again. This observation must occur prior to the wearing course being placed.
  4. **Placement and Compaction of the Wearing Course.** At the time of this observation, the guidelines for the placement and compaction of the binder/base course should be followed.
- C. In addition to the above outlined observations, additional observations will be made at the request of the developer for reduction of financial securities. Random observations should be made at the frequency desired by the Township. At the time of any of the above listed observations, all ongoing construction (i.e. storm drainage, sanitary sewer, water, erosion control, etc.) should also be checked for compliance with the approved plans and the findings reported. Since the above inspections are mandatory, it is recommended that requests for reduction of financial guarantee to be submitted to coincide with the above inspections.

## **Section 505 Offers of Dedication**

- A. Any offer to dedicate any street or portion thereof shall be made on forms provided by the Township, along with all required supporting documentation and required fees and in accordance with all Township regulations. Offers for dedication may be submitted to the Township at any time during the calendar year after all construction and improvements are complete; however, the Township will not formally act upon any offer of dedication prior to April 15 nor later than September 1 of any calendar year.
- B. The offer to dedicate streets, parks or other areas or portions of them does not impose any duty upon the Township and/or the Authority concerning maintenance or improvement until the proper authorities of the Township and/or the Authority have made actual acceptance of the dedication by ordinance or resolution or by entry or improvement.
- C. Where the Township accepts dedication of all or some of the required improvements following completion, the Township may require the posting of financial security to secure structural integrity of said improvements as well as the functioning of said improvements in accordance with the design and specifications as depicted on the final plan for a term of eighteen (18) months from the date of acceptance of dedication. Said financial security shall be of the same type as otherwise required in Section 501 of this Ordinance with regard to installation of such improvements and the amount of such financial security shall not exceed fifteen (15) percent of the actual cost of the installation of the said improvements.

- D. Where the Authority accepts dedication of some or all of the required improvements, the Authority may require the posting of financial security in accordance with its rules and regulations and applicable law.
  - 1. In the event the Township accepts dedication of any land on or under which is located utilities to be incorporated within the Authority's water or sewer system, the Township shall assign all of its rights in such improvements and appurtenances to the Authority, together with an easement, but subject to a requirement of repair of retained Township improvements.

## **Section 506 Effect of Plan Recording on Dedication and Reservations**

Recording of the final plan after approval of the Board of Supervisors has the effect of an irrevocable offer to:

- A. Dedicate all streets and other public ways to public use, unless such streets are indicated on said plan as private streets.
- B. Dedicate all neighborhood parks and all areas shown on the plan as being local recreation sites to public use.

## **Section 507 Maintenance of Streets**

The developer shall maintain all streets in the subdivision or development in travelable condition, including the prompt removal of snow therefrom, until such time as the streets are accepted by the Township as part of the Township highway system; or, if such streets are not to be dedicated, until a homeowners' association or other entity responsible for the maintenance of the streets has been formed.

## **Section 508 As-Built Plan**

Prior to the final release of the financial security, the developer shall provide the Township with one (1) mylar and two (2) prints of the final as-built plan showing the following:

- A. Actual location of all concrete monuments which were set at all angle breaks, points of curvature and tangents around the perimeter of the total tract. When the outside perimeter of a tract falls within or along an existing road right-of-way, then the right-of-way of that roadway shall be monumented at the above referenced points.
- B. Actual location of all iron pins or drill holes in curbs for all individual lot lines.
- C. Actual cul-de-sac radius.
- D. Actual horizontal and vertical location of cartway centerline versus right-of-way centerline.
- E. Actual location of floodplain by elevation and dimension from property line.
- F. Actual location and cross section of swales and accompanying easements.
- G. Actual horizontal and vertical location of storm water management facilities including type and size of storm drainage pipes.

H. Detention basin:

1. Actual contours of the detention basin.
2. Actual outlet structure details including type, size and inverts of outlet pipes.
3. Actual elevation of the embankment and emergency spillway.
4. A table showing the stage/storage/discharge curve for the constructed conditions.
5. A table providing a comparison of the approved design vs. the as-built discharge rates from all detention facilities.

# ARTICLE VI

## DESIGN STANDARDS

### Section 601 General

The standards and requirements contained in this Article shall apply as minimum design standards for subdivision and/or land developments in the Township.

### Section 602 Streets

#### Section 602.1 General Design Standards

- A. Proposed streets shall conform to such township, county, and state street and highway plans as have been prepared, adopted and/or filed as prescribed by law.
- B. New streets shall be connected with streets of similar function, to form continuations thereof.
- C. Wherever there exists a dedicated or platted area reserved for future street usage along the boundary of a tract being developed, the adjacent street shall be extended into the proposed project.
- D. Local streets shall be laid out to discourage use by through traffic.
- E. The rigid rectangular street pattern need not be adhered to; the use of curvilinear streets may be provided when their use will result in a more desirable layout.
- F. Where a development abuts an existing or proposed major street, the Board may require the use of marginal access streets, reverse frontage lots or such other treatment that will provide protection for abutting properties, reduce the number of intersections with the major street and separate the local and through traffic.
- G. If lots resulting from original subdivision are large enough to permit re-subdivision or if a portion of the tract is not subdivided, adequate rights-of-way for streets and other required improvements shall be provided as necessary to permit further subdivision.
- H. All streets shall be arranged to conform as closely as possible to the original topography.
- I. Streets shall be laid out to provide convenient and safe access to the property.
- J. Streets shall be logically related to the topography so as to produce reasonable grades, satisfactory drainage and suitable building sites.
- K. As a minimum, all new streets shall be graded to the right-of-way line. All cut and fill slopes associated with the construction of the streets, within or beyond the limits of the street right-of-way, shall not exceed a maximum of a 3:1 slope.

- L. The design speed and proposed speed limits for new streets shall be noted on the plan and shall be approved by the Township.
- M. Snow removal stockpile easements shall be provided at all intersections and cul-de-sacs. The snow removal stockpile easement shall be a minimum of 40 feet in length along the cartway. The depth shall be measured from the edge of the cartway and shall be equivalent to the minimum building setback line but in no case less than thirty (30) feet. No on-street parking, driveway, structure, any above ground part of any utility, landscaping, or any other use shall be permitted along and within the snow removal stockpile easement that would interfere with the intended purpose of the easement. All snow removal stockpile easements shall be delineated on all plans and the restrictions on their use shall be noted on the plans. All locations shall be approved by the Township.
- N. Permanent concrete monuments shall be accurately placed to monument the right-of-way line along at least one (1) side of each street at the beginning and end of all curves and at all angles. When the outside perimeter of a tract falls within or along an existing road right-of-way, then the right-of-way of that roadway shall be monumented at the above referenced points.
  - 1. Monuments shall be of concrete, with a flat top having a minimum width or diameter of four (4) inches and a minimum length of thirty (30) inches. Cast-in-place or pre-cast concrete monuments shall be marked with center punch mark in a three- quarter (3/4) inch copper or brass dowel.
  - 2. All existing and proposed monuments shall be delineated on the final plan.
  - 3. All monuments shall be placed by a registered engineer or surveyor so that the scored or marked point shall coincide exactly with the point of intersection of the lines being marked.
  - 4. All monuments shall be inscribed with a proper inscription indicating the name of the surveyor responsible for the survey.

## **Section 602.2 Private Streets**

- A. All proposed streets shall be offered for dedication.
- B. Where a modification of this Section is granted by the Township, all private streets shall conform to the following requirements:
  - 1. Private streets shall meet all the design standards for public streets as required by this Ordinance.
  - 2. Applications that propose a private street shall include an agreement, in a form acceptable to the Township, which shall be recorded with the Recorder of Deeds as part of the final plan. This agreement shall establish the conditions under which the street will be constructed and maintained, as well as conditions controlling an offer of dedication, and shall stipulate:

- a. That the street shall be constructed and maintained to conform to the provisions of this Ordinance. The Township will not consider accepting dedication of any street which is not built and maintained to Township specifications.
- b. The method of assessing maintenance and repair costs.
- c. That an offer for dedication of the street shall be made only for the street as a whole.
- d. That the owners of the abutting lots will include with any offer of dedication sufficient funds, as estimated by the Township, to restore the street to the prevailing standards.
- e. That an agreement by the owners of fifty-one (51) percent of the front footage thereon shall be binding on the owners of the remaining lots.

### **Section 602.3 Street Names, Street Address, and Traffic Signs**

- A. Streets that are extensions of or obviously in alignment with existing streets shall bear the names of the existing streets.
- B. Street names shall not be repeated within the Township and all street names shall be subject to the approval of the Township and Lancaster County-Wide Communications.
- C. Street name signs shall be provided and installed by the developer at all intersections and shall identify both intersecting streets, and their design shall be approved by the Township.
- D. Street Address plans shall be prepared by the developer and submitted to the Township prior to the Township accepting dedication of any streets or prior to the final reduction in the project's financial guarantee.
- E. Regulatory signs shall be provided and installed by the developer at all locations identified by a traffic engineering study prepared by the developer and in accordance with PENNDOT Publication 201, Engineering Traffic Studies, as amended.
- F. Traffic signs shall be approved by the Township and shall be supplied and installed by the developer in accordance with Township regulations; PENNDOT Publication 68, Official Traffic Devices; and the Manual on Uniform Traffic Control Devices, FHWA, as amended.
- G. All traffic signs shall be installed by the developer prior to the occupancy of any units within the project.

## **Section 602.4 Guiderail**

- A. Streets shall be designed to preclude or minimize the need for guide rail. The Township may, however, require guide rail to be placed for protection on embankments when a barrier is indicated as warranted in Design Manual Part 2 Highway Design by PENNDOT, latest edition
- B. The design and selection of guide rail shall generally be in accordance with the standards in Design Manual Part 2 Highway Design, latest edition; however, the Township shall approve all guide rail systems.

## **Section 602.5 Reconstruction of Existing Streets**

- A. Where a subdivision or land development abuts an existing Township and/or State street and shall have a traffic impact on an existing Township and/or State street as indicated by a traffic study required to be performed in accordance with this Ordinance, the developer shall be required to make the following improvements:
  - 1. In cases where a subdivision or land development abuts an existing Township or State street, the street shall be reconstructed to the widths specified in this Ordinance.
  - 2. In cases where the development is situated only on one side of an existing street, the Township may require that only that side of the street be reconstructed.
  - 3. Where the developer of the subdivision or land development is required to provide a traffic study and report and the traffic study and report indicates that improvements are required, the developer shall install the improvements, including but not limited to traffic signals, traffic control devices additional traffic lanes, traffic dividers and highway markings.
  - 4. When the Township determines that the required improvements are not feasible at the time of development of the use, the developer shall deposit funds with the Township in the amount of one hundred and ten (110%) percent of the cost of the improvements computed in accordance with Article V of this Ordinance. The amount of the deposit shall be submitted for approval by the Township Engineer.
- B. If a subdivision or land development abuts an existing Township and/or State street which has a right-of-way width of less than the required right-of-way width set forth in Section 602.7, the applicant shall dedicate to the Township or Commonwealth, as applicable, that amount of land necessary so that the distance from the centerline of the street to the edge of the right-of-way abutting the proposed development is one-half the ultimate right-of-way as set forth in Section 602.7.
- C. The extension of existing streets which are presently constructed with a cartway different from current Township standards shall be provided with a transition area, the design of which is subject to Township approval
- D. Where a temporary cul-de-sac is being extended, the bulb shall be removed and the street reconstructed to Township street specifications and any existing sidewalk shall be extended through the area, and the remaining areas shall be regraded and seeded.
- E. When the proposed development requires construction within an existing street right-of-way, such as sewer, water or storm water lines, the Township may require construction of a new wearing course along the entire frontage and/or disturbed area. The extent of the new wearing course shall be approved by the Township.

## Section 602.6 Construction Standards

- A. All streets shall be constructed, and all existing streets shall be reconstructed in accordance with the applicable Township regulations and the following standards:

Street Classification	Base Course	Paved Surface
Arterial and Collector Streets	5" 3A Crushed Aggregate and 4" BCBC	3" ID-2 Binder 1½" ID-2 Wearing
Local Streets	8" 2A or 3A Crushed Aggregate	4" BCBC 1½" ID-2 Wearing
Alley	6" 2A or 3A Crushed Aggregate	4" BCBC 1½" ID-2 Wearing

- B. All crushed aggregate base material shall be put in place by a powered spreader.

## Section 602.7 Right-of-Way and Cartway Widths and Construction Standards

- A. The minimum street rights-of-way and cartway widths for new streets shall be in accordance with the applicable Township regulations and the following standards:

Street Classification	Minimum Cartway Width	Minimum Right-of-Way Width
Arterial Street (Highway)	As determined after discussion with the Township, PENNDOT, and the Lancaster County Planning Commission, however the minimums shall be as follows:	
	Forty (40) feet	Sixty (60) feet
Collector Street	Thirty-eight (38) feet	Fifty (50) feet
Local Street with curb	Thirty-three (33) feet	Fifty (50) feet
*Local Street with stabilized shoulder	Twenty-eight (28) feet with three (3) feet paved shoulders	Fifty (50) feet
Cul-de-sac Bulb	Eighty (80) foot diameter	One hundred (100) foot diameter
Alley, no parking	Twelve (12) feet	Twenty (20) feet (easement)

\* On-street parking is restricted to one (1) side of the street. The restricted parking area(s) shall be identified on the plan.



## Section 602.8 Horizontal Alignment

- A. Horizontal street alignments shall be measured along the centerline. Horizontal curves shall be used at all angle changes.
- B. The centerline of the street cartway shall correspond with the centerline of the street right-of-way.
- C. Plans with street locations along the perimeter of a property shall be required to show building setback lines and clear site triangles within the adjacent properties. Written permission from the effected adjacent landowner shall be provided prior to preliminary plan approval.
- D. There shall be a tangent of at least one hundred (100) feet between reverse curves for all local and collector streets.
- E. Horizontal curve centerline radii shall be designed in coordination with vertical geometry, subject to the approval of the Township Engineer. The minimum acceptable centerline radii shall be three hundred (300) feet for arterial and collector streets and one hundred fifty (150) feet for local residential streets

## Section 602.9 Vertical Alignment

- A. Vertical curves shall be used in all changes of grade.
- B. The minimum vertical grade for all streets shall be one (1) percent, the maximum vertical grade shall be ten (10) percent.
- C. The minimum length of vertical curve for all streets shall be seventy-five (75) feet.
- D. At street intersections, the through street shall be approached by side streets in accordance with the following standards; where the grade of the side street exceeds four (4) percent, there shall be an area on the side street within which the grade shall not exceed four (4) percent for a minimum distance of one hundred (100) feet (measured from the intersection of the centerlines of the streets).
- E. No side street shall intersect a through street when the through street exceeds seven (7) percent in grade.
- F. Notwithstanding the above minimum length of vertical curve, the actual length of vertical curve shall be based on the formula  $L = KA$ ; where "L" is the minimum length of curve in feet, "K" is the length of vertical curve per percent change in "A", and "A" is the algebraic difference in grade (in percent). Values for "K" shall be based on the following criteria:

Design Speed (in miles per hour)	"K" Crest Vertical Curves	"K" Sag Vertical Curves
20	10	20
25	20	30
30	30	40
35	45	50
40	70	70
45	100	90
50	150	110
55	220	130

## Section 602.10 Intersections

- A. Intersections involving the junction of more than two (2) streets are prohibited.
- B. Right angle intersections shall be used.
- C. All streets intersecting a state highway shall be subject to the approval of PENNDOT.
- D. A one-hundred (100) foot clear sight triangle shall be provided and maintained at all intersections.
  - 1. Clear sight triangles shall be indicated on all plans.
  - 2. No building, structure, landscaping, or other obstruction that would obscure the vision of a motorist shall be permitted within these areas.
- E. The distance between the centerline of streets intersecting with through streets shall be determined by the classification of the through street being intersected. The minimum separation distance shall be measured along the centerline of the through street being intersected and shall conform to the following:

Through Street Classification	Minimum Intersection Separation Distance
Arterial	800 feet
Collector	500 feet
Local	200 feet

- F. The cartway edge at street intersections shall be rounded by a tangential arc with a minimum radius as follows:
  - 1. Arterial streets - fifty-five (55) feet.
  - 2. Collector streets - fifty (50) feet.
  - 3. Local streets or alleys - thirty-five (35) feet
  - 4. The right-of-way radii at intersections shall be substantially concentric with the edge of the cartway.
  - 5. The Township may require larger radii based on the largest design vehicle using the intersection.
- G. Proper safe stopping sight distance shall be provided with respect to both horizontal and vertical road alignments at all intersections.
  - 1. The required and available safe stopping sight distance shall be included on the plans for all existing and proposed intersections.

2. Street intersections shall be located at a point that provides optimal sight distance in both directions.
3. Sight distance at street intersections shall provide the following minimum stopping distance for a vehicle traveling on an approaching street which has no stop or signal control:

a. Calculation of Safe Stopping Sight Distance.

- 1). For each intersection, the available sight distance in each direction shall equal or exceed the stopping sight distance computed from the following formula:

$$SSSD = 1.47 Vt + \frac{V^2}{30(f \pm G)}$$

WHERE:

SSSD = Minimum safe stopping sight distance (feet).

V = Velocity of vehicle (miles per hour).

t = Perception time of driver (2.5 seconds).

f = Wet friction of pavement (0.30).

G = percent grade of roadway divided by 100.

- 2). If the 85th percentile speed varies by more than ten (10) miles per hour from the speed limit, the Township may require the 85th percentile speed to be used to determine stopping distance.
- 3). A Minimum Safe Stopping Sight Distance table that specifies minimum safe stopping sight distance for selected speeds is provided in the Appendix. The sight distances in the table apply for roadway grades in whole numbers from +10% to -10% along with speeds from five (5) to sixty-five (65) miles per hour in increments of five (5) miles per hour. The designer may use this table in lieu of the above formula.

b. Measurement of Sight Distance.

- 1). The correct measurement of available sight distance at each proposed street intersection shall be the responsibility of the applicant.
- 2). For the purpose of measuring available sight distance, the height of the driver's eyes shall be 3.5 feet above the road surface, and the height of the object shall be 3.5 feet above the road surface. The lateral placement of vehicles on the roadway and at the proposed access point shall be consistent with the operation of the access and roadway.
- 3). For each direction, the shortest of the following measurements shall be considered the available sight distance for that direction:
  - a) The maximum length of roadway along which a driver at the proposed street intersection can continuously see another vehicle approaching on the roadway. The driver's eyes at the proposed point of access shall be ten (10) feet back from the near edge of the closest travel lane in the center of the intersection land.

- b) The maximum length of roadway along which a driver on the roadway can continuously see a vehicle which is located in his travel lane on the roadway in order to make a left turn into the proposed access or as a result of a left or right turn out of the proposed access.
- c) The maximum length of roadway along which the driver of a vehicle intending to make a left turn into the proposed access can continuously see vehicles approaching from the other direction. This is measured from the point where the left turning vehicle stops.

c. Inadequate Sight Distance Remedies.

If it is impossible to achieve required safe stopping sight distance in both directions the Township may:

- 1). Prohibit left turns by entering or exiting vehicles;
- 2). Require alteration of the horizontal or vertical geometry of the roadway or access; all such work shall be at the expense of the applicant;
- 3). Require removal of physical obstruction from the line of sight, at the expense of the applicant;
- 4). Require installation of a separate left turn standby lane; or,
- 5). Deny access to the roadway.

## **Section 602.11 Curbing**

- A. Curbs shall be required in the RR-Rural Residential, SR-Special Residential, VR, Village Residential, VC-Village Center and IC-Industrial/Commercial Zoning Districts. Curbs shall be provided along all existing streets in subdivisions; along all proposed streets, access drives, and all interior landscaping and traffic control islands within parking compounds in land developments; and along all existing streets in and abutting both subdivisions and land developments. The developer shall submit the location and grade of all curbs to the Township for consideration.
- B. Curbs shall be constructed and installed in accordance with the specifications in this Ordinance or any other Ordinance enacted by the Board of Supervisors setting requirements for the construction of roads, curbs and sidewalks or, in lieu of such standards, in accordance with the standards of PENNDOT Publication 408, latest edition.
- C. Standard vertical curb shall be provided along all state highways and along all Township streets that the Township has classified as an arterial or collector street, and where vertical curbs exist. Standard slant curb shall be provided along all other streets.

## Section 602.12 Sidewalks

- A. Sidewalks shall be required in the RR-Rural Residential, SR-Special Residential, VR, Village Residential, VC-Village Center and IC-Industrial/Commercial Zoning Districts as provided herein.
  - 1. Sidewalks are required to provide access to and/or within a commercial, industrial or community facility.
  - 2. Sidewalks that are provided as part of such non-residential facilities shall be designed and constructed to service the projected pedestrian needs.
  - 3. All public areas shall be designed barrier free in accordance with applicable federal and state standards, including but not limited to, the Americans with Disabilities Act.
- B. Sidewalks shall be installed on both sides of all streets in subdivisions and land developments as herein specified.
- C. Sidewalks shall be located, if possible, within the street right-of-way line, and shall be a minimum of four (4) feet in width.
- D. Pedestrian easements shall be provided when the sidewalk is not located entirely within the street right-of-way.
- E. A minimum two (2) foot wide grass planting strip shall be provided between the back of curb and sidewalk.
- F. All utility services and mains shall be extended to the building side of the sidewalk.
- G. Sidewalks shall be constructed of Class A cement concrete four (4) inches thick, containing steel mesh of six by six by fourteen (6 x 6 x 14) inch gauge, upon a properly prepared subgrade as follows:
  - 1. Four (4) inches of AASHTO #57 crushed stone shall be properly compacted using a mechanical tamper.
  - 2. Upon the crushed stone, the sidewalks shall be constructed by pouring concrete in separate slabs a maximum of thirty (30) feet in length.
  - 3. The slabs shall be completely separated by one-quarter (1/4) inch expansion joint and scored every five (5) feet.
  - 4. Appropriate details shall be provided on the plans.

## **Section 602.13 Street Lighting**

- A. Any subdivision or land development plan that proposes new streets within the RR-Rural Residential, SR-Special Residential, VR, Village Residential, VC-Village Center or IC-Industrial/Commercial Zoning Districts shall provide street lighting along all existing and proposed streets in accordance with the following:
1. Lighting shall be provided at a minimum average of one-half (½) foot candles at an elevation of three (3) feet above the surface.
  2. All lighting shall be so arranged as to reflect the light downward and away from adjoining premises.
  3. Poles for mounting lights shall not exceed twenty-five (25) feet in height.
  4. All lighting plans shall be delineated on the plan and shall include photometrics.
  5. Appropriate footer and mounting details shall be included on the plans.
  6. Light fixture and pole styles shall be approved by the Township.

## **Section 602.14 Cul-de-sac and Dead-End Streets**

- A. A cul-de-sac shall not be permitted when a through street is feasible.
1. The feasibility of a through street will be based on the following:
    - a. Physical features of the tract proposed for development;
    - b. The potential for extension of the street to adjoining lands;
    - c. Restrictions imposed by other government regulations; and,
    - d. The ability of the design to meet all other requirements of this Ordinance.
  2. When cul-de-sac streets are proposed, the application shall be accompanied by a written analysis of the merits of the design and the reasons that a through street would not be feasible.
  3. Approval of cul-de-sac streets shall be at the sole discretion of the Township.
- B. Where any adjacent stub street is not proposed for extension as a through street, the developer shall construct a cul-de-sac in compliance with Township standards.
- C. Permanent cul-de-sac streets shall be designed as follows:
1. Minimum length - two hundred fifty (250) feet;
  2. Maximum length - six hundred (600) feet;

3. The length of the cul-de-sac street shall be measured from the centerline intersection of the intersecting street to the center of the cul-de-sac turn-around;
  4. Permanent cul-de-sac streets must be provided with a paved turn-around with a minimum diameter of eighty (80) feet to the face of curb or edge of paving and of one hundred (100) feet to the street right-of-way;
  5. Unless future extension is clearly impractical or undesirable, the turn-around right-of-way shall be placed adjacent to the tract boundary with sufficient additional width provided along the boundary line to permit extension of the street at full width; and,
  6. Drainage of cul-de-sac streets shall preferably be toward the open end. If drainage is toward the closed end, water shall be conveyed away in an underground storm sewer or by other means approved by the Township. The minimum grade on cul-de-sacs shall be designed to ensure a minimum of one (1) percent along the curb line to the designed low points. The maximum grade on cul-de-sacs shall not exceed four (4) percent.
- D. Temporary cul-de-sac streets shall be designed as follows:
1. Minimum length - two hundred fifty (250) feet;
  2. Maximum Length - eight hundred (800) feet in length;
  3. Temporary cul-de-sacs shall be designed to the same cartway width and drainage criteria as required for permanent cul-de-sacs; and,
  4. Temporary easements shall be provided for the effected adjoining properties until such time that the street is extended.
- E. Dead-end streets:
1. Dead-end streets are prohibited unless designed as cul-de-sac streets.
  2. The Township may waive the requirements of providing a turn-around for streets which are planned for future extension into adjoining tracts subject to the following requirements:
    - a. The street will be no longer than the depth of one (1) lot; and,
    - b. The street will not be the primary means of access to any lot or dwelling unit.
- F. Any street temporarily dead-ended in order to provide for future continuation of the street into adjoining property or for authorized stage development shall be fully constructed and all utilities installed.
- G. A barricade to prevent vehicular access to adjoining property shall be constructed at the termination point of the street. The barricade shall be designed and constructed in accordance with Penn DOT Publication 72, Standards for Roadway Construction, RC-63, as amended.

## Section 602.15 Alleys

A. Alleys shall have the following characteristics:

1. A property that utilizes an alley shall maintain frontage along a public or private street.
2. No part of any structure shall be located within eight (8) feet of the edge of the cartway of an alley.
3. The cartway of all alleys shall be constructed in accordance with the specifications of this Ordinance.
4. The vertical and horizontal alignments of alleys shall be in accordance with the local street specifications of this Ordinance.
5. Alleys and their intersections shall in accordance with the local street specifications of this Ordinance.
6. Alleys which form a cul-de-sac shall be designed as follows:
  - a. The alley shall not exceed four hundred (400) feet in length, measured from the centerline intersection of a street that is not a cul-de-sac; and,
  - b. Alley cul-de-sacs which do not terminate in a parking compound shall be provided at the terminus with a fully paved turn-around designed in accordance with one of the following methods:
    - 1). The turn-around for residential purposes shall be designed in accordance with one of the following methods:
      - a.) An eighty (80) foot paved diameter.
      - b.) T-shaped turn-around with a twelve (12) foot width and the flared portions rounded by minimum radii of twenty (20) feet as shown on the detail in the Appendix.
    - 2). The turn-around for commercial and industrial uses shall be a cul-de-sac designed to accommodate a WB-50 truck turning movements.
7. Alleys offered for dedication will not be accepted by the Township.
8. Applicants proposing alleys within a development may request that the Township reduce the width requirements of the local streets proposed within the development. The request shall be in the form of a modification request and shall be accompanied by adequate justification.

B. Applications that propose an alley shall include an agreement, in a form acceptable to the Township, which shall be recorded with the Recorder of Deeds as part of the final plan. This agreement shall establish the conditions under which the alley will be constructed and maintained and shall stipulate:



1. That the alley shall be constructed and maintained to conform to the provisions of this Ordinance; and,
  2. The method of assessing maintenance and repair costs.
    - a. The applicant shall provide for private maintenance through the formation of a homeowners' association or through the setting forth of the maintenance responsibilities in easements and in the deeds to the lots which have the right to use the alley. If a homeowners' association is formed, a document setting forth the maintenance responsibilities of such association and the right of such association to assess lots within the development shall be recorded at the same time as the final plan is recorded. All such documents shall be in a form acceptable to the Township Solicitor; and,
    - b. All persons who shall purchase a lot abutting or having the right to use an alley shall be given a copy of the final plan, and, if a homeowners' association has been formed, shall be given a copy of all such documents relating to the maintenance responsibilities of such homeowners' association.
- C. The final plan, for recordation with the Recorder of Deeds, shall include a plan note which identifies the following:
1. The specific alleys;
  2. The recorded maintenance agreement; and,
  3. Notification that the alleys do not qualify for dedication to the Township and that the Township will not assume any responsibility for their maintenance.

## **Section 603 Access Drives**

### **Section 603.1 General Standards**

- A. The cartway of all access drives shall be constructed in accordance with the collector street specifications of this Ordinance.
- B. Access drives do not require a specific right-of-way; however, the following standards for cartway width shall apply:

Number of Lanes	Cartway Width
Three (3) lanes	Thirty-six (36) feet
Two (2) lanes	Twenty-four (24) feet
One (1) lane	Twelve (12) feet

- C. Parallel parking may be permitted along one side of access drives provided the required width is increased by eight (8) feet.

- D. The same vertical and horizontal alignment standards shall be required for access drives that are required for local streets in this Ordinance.
- E. The same intersection standards shall be required for access drives that are required for local streets in this Ordinance.
- F. Access drives shall be located a minimum of fifteen (15) feet from side or rear property lines.
- G. Access drives shall be provided with an unobstructed green area (setback) that is parallel to, and along the entire length of the access drive.
  - 1. The width of the green area shall be measured from the face of curb and be a minimum of fifteen (15) feet in width.
  - 2. The green area may be utilized for storm water management facilities, utilities, lighting, landscaping and other compatible uses. In no case shall any building or any structure other than those permitted by this subsection be located within the required green area.
- H. Access drives which terminate in a cul-de-sac shall not exceed one thousand six hundred (1,600) feet in length, measured from the centerline intersection of a street or access drive which is not a cul-de-sac to the center of the turnaround area. All cul-de-sacs shall be constructed in accordance with Section 602.14.

## **Section 603.2 Access Drive Lighting**

Any subdivision or land development plan that proposes an access drive within the RR-Rural Residential, SR-Special Residential, VR, Village Residential, VC-Village Center or IC-Industrial/Commercial Zoning Districts shall provide access drive (street) lighting in accordance with Section 602.13.

## **Section 603.3 Emergency Access Requirements**

- A. All subdivisions or land developments containing fifty (50) or more dwelling units, or non-residential buildings or buildings containing twenty-five thousand (25,000) or greater square feet of gross floor area shall be provided with at least two (2) separate and distinct means of access to the subdivision or land development.
  - 1. Access may be provided through the location of two (2) or more public or private streets, each of which intersects with an existing public street. Such public or private streets shall meet all the requirements of this Ordinance concerning design and construction.
  - 2. Access for a land development may be provided through two (2) or more driveways into the land development. Such driveways shall be separated by a distance of at least one hundred fifty (150) feet and shall comply with all requirements of this Ordinance.
  - 3. If the applicant is unable to provide access to the subdivision or land development through two (2) or more public or private streets each of which intersect with an existing public street or two (2) or more access drives which intersect with one (1) or more existing public streets an emergency access shall be provided.

- a. The emergency access shall be improved so that emergency vehicles may safely transverse it and shall be indicated on the plans.
- b. The emergency access shall be acceptable to the providers of emergency services within the Township. Applicants proposing to provide emergency access shall submit evidence of such approval.
- c. The emergency access may be located so that access to the subdivision or land development is gained from a public street at a location unsuitable for regular access with an existing public street.
- d. The emergency access may be located so that access is gained from an adjacent tract. For example, a subdivision or land development adjoining a parking lot of another use may provide emergency access through a point with a break chain. Applicants with plans indicating emergency access through an adjoining private tract shall provide evidence that the adjoining property owner has consented to such emergency access location.

## **Section 604 Driveways**

- A. Driveways shall be located as to provide minimum safe stopping sight distance at intersections with streets and shall not be located within any required clear sight triangle in accordance with Section 602.10.
- B. Residential driveways shall be designed in accordance with the requirements provided in the appendix and the Township Zoning Ordinance.
- C. Where required by the Township, and along all arterial or collector streets, all driveways shall include an off-street turn-around area. Vehicles shall not exit driveways by backing onto any arterial or collector street.
- D. Driveways shall not interfere with the normal traffic movement or be inconsistent with the design, maintenance and drainage of the street.
- E. Driveway locations shall be delineated on all plans.

## **Section 605 Vehicular Parking Facilities**

- A. Parking Areas. Off-street vehicular parking facilities shall be provided in accordance with the Township Zoning Ordinance.
- B. Parking compound dimensions shall be no less than those listed in Appendix.
- C. Landscaping and screening shall be provided in accordance with the Township Zoning Ordinance.
- D. No portion of a parking compound will be permitted within ten (10) feet of side or rear property lines or street right-of-ways.
- E. Not less than five (5) foot radius of curvature shall be permitted for horizontal curves in parking areas.

- F. All dead-end parking lots shall be designed to provide sufficient back-up area for all end stalls.
- G. Painted lines, arrows and dividers shall be provided and maintained to control parking when necessary to direct vehicular circulation.
- H. Parking areas, main entrances and exits, pedestrian areas and service areas which are open to the public shall be lighted to the following standards:
  - 1. Lighting shall be provided at a minimum average of two (2) foot candles and a maximum average of four (4) foot candles at an elevation of three (3) feet above the surface.
  - 2. All lighting shall be so arranged as to reflect the light downward and away from adjoining premises and public rights-of-way.
  - 3. Poles for mounting lights shall not exceed twenty-five (25) feet in height.
  - 4. All lighting plans shall be delineated on the plan and shall include photometrics.
  - 5. Appropriate footer and mounting details shall be included on the plans.
- I. All parking compounds and access drives shall be paved to meet the following minimum standards:
  - 1. Crushed aggregate base course of 2A or 3A with a minimum thickness of six (6) inches.
  - 2. The bituminous surface shall consist of a minimum of two (2) inches of ID-2 binder course and one and one-half (1½) inches ID-2 wearing course. Material shall be equal or superior to PENNDOT Specifications, Publication 408, latest revision, and shall be applied in accordance with those same specifications.
  - 3. Truck areas may require a heavier pavement section.

## **Section 606 Blocks**

- A. The configuration of blocks and lots shall be based upon the lot area requirements, the salient natural features, the existing man-made features, and the proposed type of structure.
- B. Lot configurations should provide for flexibility in building locations while providing safe vehicular and pedestrian circulation.
- C. Lots with areas that are two (2) or more times the minimum requirements shall, wherever feasible, be designed with configurations that allow for additional subdivision.
- D. Block length in a residential subdivision shall not exceed one thousand five hundred (1,500) feet.
- E. Blocks in non-residential areas may vary from the above requirement for residential blocks when required by the nature of the use. Adequate provisions shall be made for off-street parking, loading areas and traffic circulation.

## **Section 607 Lot and Parcel Configuration**

### **Section 607.1 General Design Standards**

- A. Lot and parcel size configuration, and/or intensity shall conform to the requirements of the Township Zoning Ordinance.
- B. Whenever practical, side lot lines shall be radial to street lines.
- C. In order to avoid jurisdictional problems, lot lines shall, wherever feasible, follow municipal boundaries rather than cross them. Where a lot is divided by a municipal boundary, the minimum standards of both municipalities shall apply.
- D. All lots shall front on an approved public or private street and maintain a minimum lot width as required by the Township Zoning Ordinance at the building setback line and street right-of-way.
- E. Double frontage lots are prohibited except where provided as reverse frontage lots.
  - 1. Reverse frontage lots are only permitted when a reduction of driveway intersections along a street with a high volume of vehicular movements is desired.
  - 2. All reverse frontage lots shall include an identification of the frontage for use as a road access.
  - 3. All reverse frontage lots shall have a rear yard in accordance with the Township Zoning Ordinance, measured at the shortest distance from the proposed dwelling unit to the street right-of-way.
  - 4. Reverse frontage lots shall, within each rear yard and immediately adjacent to the street right-of-way, have a planted buffer at least ten (10) feet in width, across which there shall be no vehicular access.
    - a. Buffer areas shall include a suitable and uninterrupted evergreen planting of a minimum height of thirty-six (36) inches designed to reach sufficient height and density to give maximum screening.
    - b. Such screening shall be permanently maintained and replaced where necessary to present an attractive appearance.
  - 5. Reverse frontage lots shall be approved at the sole discretion of the Township.
- F. All remnants of land (areas remaining after subdivision) shall conform to the lot area and configuration requirements.
- G. Metallic markers shall be set at all points where existing or proposed lot lines intersect with any street right-of-way line, curves, other property lines and any other right-of-way or easement.

1. Metallic markers shall consist of solid steel bars at least thirty (30) inches along and not less than one-half (½) inch in diameter. Alternative monumentation methods will be at the discretion of the Township Engineer.
2. All existing and proposed markers shall be delineated on the final plan.
3. All markers shall be placed by a registered engineer or surveyor so that the scored or marked point shall coincide exactly with the point of intersection of the lines being marked.

## **Section 607.2 Flag Lots**

- A. Within the ES - Ecologically Sensitive District, flag lots may be used in an effort to locate development in an area that promotes the purpose of the ES – Ecologically Sensitive District to protect the wooded hillsides of northern West Cocalico Township within the headwaters of the Cocalico Creek watershed. Existing soil and topographic characteristics severely limit development potential in this area, and the District has been established to prevent unnecessary destruction of the Township’s woodland concentrations and related environmental degradation. More than eighty (80) percent of approximately five-thousand (5000) acres of this District contains soils which are classified by the Soil Survey of Lancaster County Pennsylvania as having severe limitations for building site development, sanitary sewage facilities, and shallow excavations due to wetness, slope, or flooding. This soil survey categorizes severe limitations as conditions which are unfavorable and difficult to overcome without special design considerations, significant increases in construction costs, increased maintenance, and/or special feasibility studies. The soil survey also classifies these same soils as having moderately high, high, or very high capabilities for the productivity of important trees.
- B. Within the A-1 - Agricultural District and the A-2 – Agricultural District flag lots may be used in an effort to locate development in an area that promotes the purpose of the A-1 – Agricultural District and the A-2 – Agricultural District to promote the continuation and preservation of agricultural activities within the area of West Cocalico Township having the most productive agricultural soils. These Districts intend to protect and stabilize the Township’s viable agricultural economy by eliminating land uses not compatible with agriculture and allowing for on-farm occupations to provide supplemental income to the Township’s farmers in residence. Residential uses are limited and any future inhabitants in these districts may be subject to some common characteristics of agriculture which are sometimes regarded as objectionable, including but not limited to odor, dust, night, holiday, early morning and weekend operations, noise, heavy vehicle use of roads, the storage and disposal of manure, the application of fertilizers, herbicides, etc. Residents, owners, and users of property in these districts should accept these factors as normal and unavoidable characteristics of an agricultural area and are hereby put on official notice that Section 4 of the Pennsylvania Act 133 of 1982, referred to as “The Right to Farm Law”, may bar them from obtaining a legal judgment against such normal agricultural operations.
- C. Within the OS-Woodland District, flag lots may be used in an effort to locate development in an area that promotes the purpose of the OS-Woodland District to preserve and protect open areas, essential watersheds, and woodlands from intensive development and limits land uses to those which do not degrade the environmental quality of lands within the District. This District is characterized by sparse residential

land uses and contains provisions which seek to provide additional protection of rural residences from the impacts of other non-residential uses.

- D. Flag lot shall conform to the requirements of the Township Zoning Ordinance.
- E. Flag lots shall not be created when lots can be designed that provide the required lot width at the minimum building setback line. The Board at its sole discretion may approve the plotting of flag lots when:
  - 1. The "flagpole" or access portion of the flag lot shall maintain a minimum width of twenty-five (25) feet and shall not exceed thirty-five (35) in width.
  - 2. The "flagpole" or access portion of the flag lot may change direction more than once.
  - 3. The Board may attach any reasonable conditions to the creation of flag lots as it finds necessary or desirable to promote the purpose of the zoning district in which the proposed development is located and to provide for the orderly development of land and street systems.

### **Section 607.3 Specific Building Setback Requirements**

- A. On any lot abutting a railroad or railroad right-of-way, no dwelling shall be placed within twenty-five (25) feet of any portion of the railroad right-of-way.
- B. On any lot abutting or traversed by a high voltage transmission line, no dwelling shall be placed within twenty-five (25) feet of any portion of the right-of-way.

## **Section 608 Easements**

### **Section 608.1 General Standards - Sewer, Water, Electric, Cable, Telephone, Gas and Others**

- A. Easements for sanitary sewer facilities, storm water drainage facilities, public utilities, or pedestrian access shall meet the following standards:
  - 1. To the fullest extent possible, easements shall be adjacent to property lines.
  - 2. Nothing shall be placed, planted, set, or put within the area of an easement that would adversely affect the function of the easement or conflict with the easement agreement.
    - a. This requirement shall be noted on the final plan.
    - b. This requirement shall be included in all deeds for lots that contain an easement.
  - 3. Pedestrian easements shall have a minimum width of six (6) feet.
  - 4. Utility easements shall have a minimum width of thirty (30) feet, and all utility companies are encouraged to use common easements.

## **Section 608.2 Storm Water Easements**

- A. The applicant shall reserve easements where storm water or surface water drainage facilities are existing or proposed, whether located within or beyond the boundaries of the property.
- B. Easements shall have a minimum width of twenty (20) feet.
- C. Easements shall be adequately designed to provide area for the following:
  - 1. The collection and discharge of water;
  - 2. The maintenance, repair and reconstruction of the drainage facilities and the passage of machinery for such work; and,
  - 3. The easements shall clearly identify who has the right-of-access and responsibility of maintenance.
    - a. This requirement shall be noted on the final plan.
    - b. This requirement shall be included in all deeds for lots that contain an easement.
- D. Where a subdivision or land development is adjacent to or traversed by a water course, drainageway, channel, or stream, there shall be provided a drainage easement conforming substantially with the line of such water course, drainageway, channel, or stream of such width as will be adequate to preserve the unimpeded flow from a one hundred (100) year design rainfall.

## **Section 608.3 Petroleum, Electrical, and Communication Transmission Lines**

- A. Where any petroleum product, electrical, or communication transmission line traverses a subdivision or land development, the applicant shall confer with the applicable transmission or distribution company to determine the minimum distance which shall be required between each structure and the centerline of such petroleum or petroleum product transmission line.
- B. The Township will require, with the final plan application, a letter from the owner of the transmission line stating any conditions on the use of the tract which shall contain the above.

## **Section 608.4 Multi-family Units**

- A. When a subdivision proposes multi-family attached dwellings, such as townhouses, the plans shall include access easements to allow all lots owners access to front and rear yards as for maintenance and non-licensed vehicles as follows:
  - 1. Along the front and rear property lines of all units;
  - 2. The side property lines of the end units;
  - 3. The access easement shall have a minimum width of six (6) feet; and,
  - 4. This requirement shall be noted on the final plan and shall be included in all deeds for lots that contain the easement.



## **Section 609 Landscaping and Miscellaneous Site Requirements**

### **Section 609.1 Commercial and Industrial Landscaping**

- A. A completely planted visual barrier or vegetative screen, designed to reach a density sufficient to visually screen the use from ground level to a point at least six (6) feet high within five (5) years, shall be provided between any commercial or industrial use and any contiguous properties which are residentially zoned or which are used for residential purposes.
  - 1. The width of the area containing the vegetative screen shall be a minimum of twenty (20) feet.
  - 2. This vegetative screen shall be comprised of plants and trees arranged to form both a low level and a high level screen in accordance with the Landscaping Requirements of the Township Zoning Ordinance.
  - 3. The Board may waive the screening requirements where, in the sole opinion of the Township, the applicant has demonstrated that an adequate natural or man-made physical barrier exists that would provide similar or better results.
- B. Any portion of the commercial or industrial tract which is not used for buildings, structures, parking, etc. shall be planted or landscaped in accordance with an overall plan prepared in accordance with the requirements of this Ordinance and the Zoning Ordinance.

### **Section 609.2 Residential Landscaping**

- A. A landscape barrier designed in accordance with the requirements of Section 609.1.A shall be provided between residential projects that propose a net density that is twenty five (25) percent or more than the net density of existing adjoining residential uses.
- B. Any portion of any residential tract which is not used for buildings, structures, parking, etc. shall be planted or landscaped in accordance with an overall plan prepared in accordance with the requirements of this Ordinance and the Zoning Ordinance.

### **Section 609.3 Fencing**

- A. The Township may permit the use of fencing, in lieu of screen plantings under the following conditions:
  - 1. The fencing material shall be approved by the Township.
  - 2. The fencing shall be installed along the tract boundary within a ten (10) foot easement located on the developed property and shall be permanently maintained by the property owner.
  - 3. Notation indicating maintenance responsibilities shall be placed on the final plan and included in all deeds for lots that contain the easement.

## **Section 609.4 Existing Wooded Areas**

- A. Existing wooded areas shall be protected as follows:
1. At least fifty (50) percent of the number of trees within any wooded area that exist at the time of plan submission shall be maintained or replaced immediately following construction.
  2. Replacement trees shall be:
    - a. A species that is native to the area.
    - b. A minimum trunk caliper of two (2) inches at a height of six (6) inches above finished grade.
    - c. Located within unbuildable sections of the site (i.e. steeper-sloped and setback areas).

## **Section 609.5 Street Trees**

- A. Street trees shall be required by the Township with the following standards:
1. The trees shall be nursery grown in a climate similar to that of the locality of the project. Varieties of trees shall be subject to the approval of the Township.
  2. All trees shall have a normal habit of growth and shall be sound, healthy and vigorous; they shall be free from disease, insects, insect eggs, and larvae.
  3. The caliper of the trunk, measured at a height of six (6) inches above finished grade, shall be a minimum of two (2) inches.
  4. Trees shall be planted between the street right-of-way line and the building setback line except where the Township has authorized placement of trees within the street right-of-way. The tree growth shall not interfere with the street cartway, sidewalk or utility line.
  5. All planting shall be performed in conformance with good nursery and landscape practice including proper guying and staking.
  6. Requirements for the measurements, branching, grading, quality, balling, and burlapping of trees shall follow the code of standards recommended by the American Association of Nurserymen, Inc., in the American Standard for Nursery Stock, ANSI Z60, 1-1973, as amended.
  7. For residential land developments, one (1) street tree shall be provided for each building containing two (2) or less dwelling units and two (2) trees for buildings containing three (3) or more dwelling units.
  8. A minimum of one (1) street tree shall be provided for each residential lot, and spaced not less than forty (40) feet nor more than sixty (60) feet apart along the

entire length of each existing or proposed street. In commercial and industrial zoning districts, street trees shall be provided with each land development plan and spaced not less than forty (40) feet nor more than sixty (60) feet apart along each street frontage.

9. Street trees shall be selected from the following species:

Acer rubrum cultivars	Red Maple
Aesculus x cornea	Red Horsechestnut
Cladrastus lutea	American Yellowwood
Fraxinus pennsylvania cultivars	Green Ash
Ginkgo biloba (males only)	Ginkgo
Gleditsia triacanthos inermis Cultivars	Thornless Honey Locust
Liquidambar styraciflua	Sweet gum
Nyssa sylvatica	Black Tupelo
Quercus acutissima	Sawtooth Oak
Quercus phellos	Willow Oak
Quercus rubra	Red Oak
Sophora japonica	Japanese Pagoda Tree
Tilia cordata	Littleleaf Linden
Tilia x euchlora	Crimean Linden
Tilia tomentosa	Silver Linden
Zelkova serrata cultivar	Japanese Zelkova
Pyrus calleryana Redspire	Redspire Pear

## **Section 609.6 Refuse Collection Stations (Dumpsters)**

- A. Refuse collection stations shall be located within a side or rear yard and screened in accordance with the requirements of the Township Zoning Ordinance.
- B. Outdoor refuse collection stations shall be provided for garbage and trash removal when individual collection is not made and indoor storage is not provided.
- C. Refuse collection stations shall be located so as to be separated adequately from habitable buildings to avoid being offensive, but at the same time be convenient for both collectors and residents and shall be screened and landscaped adequately.
- D. Refuse collection stations shall be so constructed as to prevent the escape of refuse by wind, water or other natural elements and prevent animals, rodents, etc. from entering.

## **Section 610 Storm Water Management and Floodplain Controls**

All storm water management, collection, conveyance, erosion control, and floodplain considerations shall be accomplished in accordance with the following provisions:

### **Section 610.1 General Requirements**

Prior to the final approval of any subdivision or land development plan, or the commencement of any regulated activity within the jurisdiction of this Ordinance, the developer shall submit a Storm Water Management Plan to the Township for approval.

- A. When plan applications, whether preliminary or final, are submitted in sections, a generalized Storm Water Management Plan for the entire project site shall be submitted in addition to the detailed Storm Water Management Plan for the proposed section. This generalized plan shall demonstrate how the storm water of the proposed section will relate to the entire development. The amount and velocity at the discharge point of the section shall be included in the data submitted. If temporary facilities are required for construction of a section, such facilities shall be included in the submitted plans.
- B. The type, location and extent of all erosion and sedimentation control measures shall be shown on an erosion and sedimentation control plan that conforms to the requirements of the Soil Erosion and Sedimentation Control Manual of the Pennsylvania Department of Environmental Protection and the Design Standards of Section 610.6 of this Ordinance.
- C. A written report shall be submitted that includes the following information:
  - 1. Storm water runoff calculations for both pre-development and post-development conditions.
  - 2. An erosion and sedimentation control plan narrative that conforms to the requirements of the Soil Erosion and Sedimentation Control Manual of the Pennsylvania Department of Environmental Protection and provides a description of all erosion and sedimentation control measures, temporary as well as permanent, including the staging of earth moving activities, sufficient in detail to clearly indicate their function.
  - 3. An ownership and maintenance program, in recordable form, that clearly sets forth the ownership and maintenance responsibility of all temporary and permanent storm water management facilities and erosion and sedimentation control facilities, including:
    - a. Description of temporary and permanent maintenance requirements;
    - b. Identification of a responsible individual, corporation, association or other entity for ownership and maintenance of both temporary and permanent storm water management and erosion and sedimentation control facilities;
    - c. Establishment of suitable easements for access to all facilities;
    - d. The intent of these regulations is to provide private ownership and maintenance of storm water management and erosion and sedimentation control facilities. Where the Board of Supervisors accepts dedication of storm water management facilities, the Board of Supervisors may require the developer to establish, at the time of dedication, a maintenance fund, in an amount determined by the Township, adequate for the perpetual care of such facilities, including detention basins;
    - e. For all proposed detention basins and retention basins, except temporary sedimentation basins, the documentation shall include a plotting or tabulations of storage volumes with corresponding water surface elevations and the outflow rates for those water surfaces; and,
    - f. For all proposed detention basins and retention basins, except temporary sediment basins, documentation shall set forth the design hydrograph, the shortcut routing method or a method of equal caliber acceptable to the Township Engineer, utilized to determine the function of the basin.

## Section 610.2 Design Standards

- A. Where applicable, storm water management facilities shall comply with the requirements of Chapter 105 (Water Obstructions and Encroachments) of Title 25, Rules and Regulations, as amended, of the Pennsylvania Department of Environmental Protection.
- B. Storm water management facilities that involve a State Highway shall also be subject to the approval of the Pennsylvania Department of Transportation.
- C. Storm water management facilities located within or affecting the floodplain of any watercourse shall comply with the requirements of the flood plain regulations provided in the Zoning Ordinance or any future ordinances regulating construction or development within areas of the Township subject to flooding.
- D. The minimum floor elevations for all structures that would be affected by a basin, other temporary impoundments, or open conveyance systems where ponding may occur shall be two (2) feet above the Q100 year water surface. If basement or underground facilities are proposed, detailed calculations addressing the effects of the storm water ponding on the structure and water-proofing and/or flood proofing design information shall be provided for review and approval.
- E. Storm water discharge points onto an adjacent property shall comply with the following:
  - 1. Storm water runoff from a project site shall flow directly into a natural watercourse or into an existing storm sewer system. If neither of these is available, the applicant shall obtain an easement from the downstream landowner(s) to allow the site's runoff discharge to reach a natural watercourse or an existing storm sewer system through the easement. If an easement is obtained, post-developed flow characteristics must be similar to or better than the runoff characteristics (spread, velocity, and peak rate) of the pre-developed flows. The easement from the downstream property owner(s) shall be to allow for a piped storm sewer system, an overland flow system, or a combination of the two. The downstream system design shall conform to the design requirements of this ordinance.
  - 2. When the applicant provides verification that the downstream landowner(s) refuses to grant an easement at reasonable terms in the sole opinion of the Township, the site shall be designed such that the discharge from the applicant's site shall be in a non-erosive, sheet flow condition. For all design year storms, including the 100-year storm, runoff from the applicant's site shall flow onto the adjacent property in a manner similar to the runoff characteristics (spread, velocity, and peak rate) of the pre-developed flow. The use of level spreaders is discouraged.
  - 3. Storm water runoff shall not be transferred from one watershed to another unless the watersheds are sub-watersheds of a common watershed which join together within the perimeter of the property, or both of the following apply: 1) the effect of the transfer does not alter the peak discharge onto adjacent lands, and, 2) drainage easements from the affected landowners are provided.
- F. Unless an alternate design is submitted to the Township for review, and said design is prepared by a licensed (in the Commonwealth of Pennsylvania) geologist or geotechnical engineer:

1. No storm water facilities shall be placed in, over or within a distance that will impact the following features:
    - a. Sinkholes
    - b. Closed depressions
    - c. Lineaments in carbonate areas
    - d. Fracture traces
    - e. Caverns
    - f. Intermittent Streams
    - g. Ephemeral streams
    - h. Bedrock pinnacles (surface or subsurface)
  2. The minimum isolation distance from storm water management basins to the listed geologic features shall be as follows:
    - a. One hundred (100) feet from the rim of sinkholes or closed depressions;
    - b. One hundred (100) feet from disappearing streams;
    - c. Fifty (50) feet from lineaments or fracture traces;
    - d. Twenty-five (25) feet from surface or identified subsurface pinnacles.
  3. Storm water runoff from any subdivision or land development activities shall not be discharged into sinkholes.
- G. All storm water runoff flowing over the project site shall be considered in the design of the storm water management facilities.
- H. The calculated peak rates of runoff for storm water originating on the project site must meet the following conditions, for all watersheds flowing from the project site:
1. The 2, 10, 25, 50, and 100-year post-development peak flow must be less than or equal to 50% of the calculated 2, 10, 25, 50, and 100-year pre-development peak flows, except where the post-development hydrograph does not exceed the pre-development hydrograph at all points in time for all design storms.
  2. “No Harm Option” – For any proposed development, the developer has the option of using a less restrictive runoff control if the developer can prove that “no harm” would be caused by discharging at a higher runoff rate than that specified by “the Plan.” Proof of “no harm” would need to be shown from the development site through the remainder of the downstream drainage network until there is no additional flow increase. Proof of “no harm” must be shown using the capacity criteria of Section 610.4 of the Ordinance if downstream capacity analysis is a part of the “no harm” justification.
    - a. The “no harm” option does not apply to the water quality requirements of this Ordinance.

- b. The “no harm” option does not apply to the groundwater recharge requirement, unless it can be shown that the development site is underlain by carbonate geology and infiltration cannot be safely accomplished.
- c. Attempts to prove “no harm” based upon the downstream peak flow versus capacity analysis shall be governed by the following provisions:
  - 1). The peak flow values to be used for the downstream areas for the design return period storms (2-, 5-, 10-, 25-, and 100-year) shall be the values from the calibrated TR-20 model for the Cocalico Creek Watershed as found in “the Plan.” These flow values are available from Lancaster County upon request by the developer.
  - 2). At peak flow, any available capacity in the downstream conveyance system (as documented by the developer) may be used only in proportion to the proposed development site acreage relative to the total upstream developed acreage (i.e. if the site is 10% of the upstream undeveloped acreage, the developer may use up to 10% of the documented downstream capacity at peak flow.
  - 3). Developer proposed runoff controls which would generate peak flow rates as documented storm drainage problem areas would, by definition, be precluded from successful attempts to prove “no harm,” except in conjunction with proposed capacity improvements consistent with Section 610.4 of the Ordinance.
- 3. Infiltration – Developers and/or landowners are encouraged to provide infiltration facilities or utilize other techniques which will allow the post-development hydrograph to match the pre-existing hydrograph, along all parts of the hydrograph for the site. This option is most feasible for small subdivisions in areas of non-carbonate geology. Provisions for groundwater recharge and water quality must be included in this option.
- 4. Runoff can be managed regionally, by one or more developers, either on-site or off-site. The design and release rate shall be consistent with “the Plan.” Groundwater recharge and water quality must be addressed in this option.
- I. Storm water management facilities shall be supplemented by BMPs as outlined in Section 610.7. Required storage volume shall be provided to minimize impacts to water quality of receiving waters.
- J. Storm water management facilities shall be supplemented by groundwater recharge devices as outlined in Section 610.8 of the Ordinance. Recharge volume may be counted against the requirements for Water Quality Treatment Volumes.

### **Section 610.3 Methods of Calculation of Runoff**

- A. The methods of computation used to determine peak discharge and runoff shall be:
  - 1. The Soil-Cover-Complex Method (as set forth in the latest edition of Urban Hydrology for Small Watersheds, Technical Release No. 55 as published by SCS) shall be used for all detention facilities with a drainage area greater than or equal to sixty (60) acres.
  - 2. The Rational Method shall be used for all:

- a. Collection Facilities;
  - b. Conveyance Facilities;
  - c. Detention Facilities with drainage areas less than sixty (60) acres.
3. Any other method approved by the Township Engineer.
  4. If the Soil-Cover-Complex (SCS) Method is used, storm water runoff shall be based on the following 24-hour storm events:

<u>Storm Event (years)</u>	<u>Inches of Rainfall</u>
2	3.1
5	4.1
10	5.0
25	5.5
50	6.2
100	7.0

5. If the Rational Method is used, the Rainfall Intensity–Duration–Frequency Chart shown in the Appendix shall be used to compute the rainfall intensity in inches per hour.
6. Runoff Coefficients “C” and Curve Numbers “CN” shall be based on the charts contained in the Appendix.
7. For the purpose of calculating peak discharges, all agricultural lands that contribute storm drainage to or from the project site shall be considered cultivated lands with conservation measures in good hydrologic condition.
8. Design of on-site conveyance systems calculations may use the Rational Method of  $Q=CI A$  where Q is the peak discharge of the watershed in cubic feet per second, C is the coefficient of runoff, I is the intensity of rainfall in inches per hour, and A is the area of the watershed in acres; or any other method approved by the Township.
9. Runoff calculations shall include a hydrologic and hydraulic analysis indicating volume and velocities of flow and the grades, sizes, and capacities of water carrying structures, sediment basins, retention and detention structures and sufficient design information to construct such facilities. Runoff calculations shall also indicate both pre-development and post-development rates for peak discharge of storm water runoff from the project site.
10. Flow calculations for water carrying structures shall be presented in tabular form using the flow tabulation form provided in the Appendix (or equal).
11. Permanent detention basins shall be designed with a primary outlet discharge that is less than or equal to the requirements for post-development peak rate of runoff established by Section 610.2.H of this Ordinance.
12. Runoff calculations will also be made to insure that the runoff from the upstream watershed area can be accommodated by the pipes, drainage easements, watercourses, etc. on the site.



## **Section 610.4 Design Standards – Water Carrying Facilities**

- A. All storm sewer pipes, grass waterways, open channels, swales and other water carrying facilities that service drainage areas within the site shall be designed to convey the twenty-five (25) year storm event unless in the opinion of the Township or Township Engineer the character of development and potential for damage warrant design for the 50 or 100 year storm.
- B. Storm water management facilities that convey off-site water through the site shall be designed to convey the fifty (50) year storm event.
- C. All developments shall include provisions that allow for the overland conveyance and flow of the post-developed one hundred (100) year storm event without damage to public or private property.
- D. All storm sewer pipes, culverts, manholes, inlets, endwalls and end sections shall be constructed in accordance with Pennsylvania Department of Transportation, Form 408, as amended.
- E. Storm sewer pipes, culverts, manholes, inlets, endwalls, and end sections proposed for dedication or located along streets shall conform to the requirements of the Pennsylvania Department of Transportation, Bureau of Design, Standards for Roadway Construction, Publication No. 72, in effect at the time the design is submitted, as modified by the Township.
- F. Storm sewer pipes and culverts shall be reinforced concrete pipe (RCP) or smooth lined corrugate polyethylene pipe (SLCPP), shall have a minimum diameter of eighteen (18) inches, and shall be installed on a sufficient slope to provide a minimum velocity of three (3) feet per second when flowing full.
- G. All storm sewer pipe shall be laid to a minimum depth of one (1) foot from subgrade to the crown of pipe.
- H. Endwalls and end sections shall be used where storm water runoff enters or leaves the storm sewer horizontally from a natural or manmade channel.
- I. Inlets shall be placed on both sides of the street at low spots, at a maximum of six hundred (600) feet apart along a storm sewer pipe, at points of abrupt changes in the horizontal or vertical directions of storm sewers, and at points where the flow in gutters exceeds three (3) inches. Inlets shall normally be along the curb line at or beyond the curb radius points. For the purpose of inlet location at corners, the depth of flow shall be considered for each gutter. At intersections, the depth of flow across the through streets shall not exceed one (1) inch. Inlets shall be depressed two (2) inches below the grade of the road-side swale, curb line, or ground surface. Manholes may be substituted for inlets at locations where inlets are not required to collect surface runoff.
- J. Storm water roof drains and pipes, wherever possible shall discharge water to encourage dispersion or infiltration and not into storm sewers or street gutters.
- K. All existing and natural watercourses, channels, drainage systems and areas of surface water concentration shall be maintained in their existing condition unless an alteration is approved by the Township.

- L. Flow velocities from any storm sewer shall not result in a degradation of the receiving channel.
- M. Energy dissipaters shall be placed at the outlets of all storm sewer pipes where flow velocities exceed maximum permitted channel velocities.
- N. The capacities of grassed waterways shall be computed from the Manning Equation. Permissible open channel velocities and design standards shall be in accordance with good engineering practice as documented in the Engineering Field Manual for Conservation Practices, U.S.D.A., S.C.S., or in Design Charts for Open-Channel Flow, Hydraulic Design Series No. 3, U.S. Department of Transportation.
- O. Grassed waterways may be utilized in place of conduit piping in those areas where soil conditions allow recharge of groundwater. All newly installed grassed waterways must be well-established sod of good quality or matted with an approved stabilizing material. The usage of grassed waterways is not recommended in areas of year round or seasonally high ground water table unless provisions are made to handle long duration flows, for example by means of subsurface drainage of stone centered waterways.
  - 1. The shape of the waterway shall permit hydraulic efficiency and ease of maintenance. Allowable velocities within the waterway shall be limited to those values that would not cause erosion of the soil or cover material. Vegetation or durable materials shall be established on all channels where design velocities exceed the maximum values for base earth channels. Permanent channels should be designed using grass or other suitable material.
  - 2. The following information should be utilized in selecting adequately sized channels that do not exceed maximum velocities. The maximum permissible velocity shall be selected as the lowest value from Sections 610.4.O.2.a and 610.4.O.2.b which follow:
    - a. Guidelines for maximum permissible velocities relevant to individual site conditions:
      - 1). 3.0 feet per second where only sparse vegetation can be established and maintained because of shade or soil conditions.
      - 2). 3.0 - 4.0 feet per second should be used under normal conditions where the vegetation is to be established by seeding.
      - 3). 4.0 - 5.0 feet per second should be used only in areas where a dense vigorous sod is obtained quickly or where water can be diverted out of the waterway during establishment of vegetation. (Use where netting and mulch or other special methods of establishing vegetation are used).
      - 4). 5.0 - 6.0 feet per second may be used on well-established sod of good quality (use where establishment of vegetation is by sodding or water is introduced to a previously sodded channel).

- b. Soil characteristics, design velocities and the level of desired maintenance should be considered in determining seed mixtures and methods of establishment of vegetation. Soils information for various soil types is contained in the "Lancaster County Soil Survey." Maximum permissible velocities in feet per second based on vegetation, slope of waterway and soil erodibility are as follows:

Channel Grade (percent)	0-5 %	5-10 %	Greater than 10 %
*Seeding with Kentucky Blue Grass, Tall Fescue, Smooth Brome Grass or a mixture of Tall Fescue and Birdsfoot Trefoil (mow occasionally)			
"k" less than .37	5 fps	4 fps	**3 fps
"k" = .70 or greater	6 fps	6 fps	5 fps
*Seeding with Red Fescue or similar lawn mixtures (mow frequently)			
"k" less than .37	2.5 fps	Not recommended on slopes over 5%	
"k" = .70 or greater	3.5 fps	Not recommended on slopes over 5%	
* Redtop is recommended for use as a companion seeding			
** Recommended only with special engineering consideration			
"k" is the erosion factor found in Table 16 of the May 1985 "Soil Survey of Lancaster County, PA"			
Refer to the Penn State Agronomy Guide, Erosion Control and Conservation Plantings for additional seed mixtures and rates of applications.			

- c. Velocities for other channels are as follows:

<u>Channel Lining</u>	<u>Maximum Permissible Velocity (feet/second)</u>
6" rip-rap	4
9" rip-rap	8
Durable Bedrock	8
Asphalt	7
12" rip-rap	9
Concrete or steel	12

## Section 610.5 Design Standards – Detention and Retention Basins

- A. All basins shall be structurally sound and shall be constructed of sound and durable materials. The completed structure and the foundation of all basins shall be stable under all probable conditions of operation and shall be capable of discharging the peak discharge of a post-development 100-year storm event through the emergency spillway facilities, in a condition that assumes the primary outlet(s) are blocked, which will not damage the integrity of the facility or the downstream drainage areas.

- B. The effect on downstream areas if the basin embankment fails shall be considered in the design of all basins. Where possible, the basin shall be designed to minimize the potential damage caused by such failure of the embankment.
- C. The maximum depth of water for basins without restricted access shall not exceed six (6) feet unless approved by modification by the Board of Supervisors.
  - 1. Access to basins with a maximum depth of water greater than six (6) feet shall be restricted by fencing that will discourage access
- D. Basins without restricted access shall have impoundment areas with side slopes no greater than five (5) horizontal to one (1) vertical.
  - 1. Access to basins with steeper side slopes shall be restricted by fencing that will discourage access.
- E. All detention basins shall include an outlet structure to permit draining the basin to a completely dry position within twenty-four (24) hours. (Exclusive of BMP storage)
- F. All outlet structures and emergency spillways shall include a satisfactory means of dissipating the energy of flow at its outlet to assure conveyance of flow without endangering the safety and integrity of the basin and the downstream drainage area.
- G. A cutoff trench of relatively impervious clay material shall be provided within all basin embankments, except for those embankments with side slope ratios of three (3) horizontal to one (1) vertical or flatter. Embankments with flatter side slopes shall have a key trench.
- H. All culverts through basin embankments shall have properly spaced concrete cutoff collars or welded anti-seep collars.
- I. A minimum one (1) foot freeboard above the design elevation of the water surface at the emergency spillway shall be provided.
- J. No outlet structure from a detention basin or swale shall discharge directly onto any publicly used Township, state or private road but shall discharge into a culvert under or along the road.
- K. The minimum top width of dams up to ten (10) feet in height shall be equal to two-thirds (2/3) of the dam height, but in no case shall the top width be less than five (5) feet.

## **Section 610.6 Design Standards - Erosion and Sediment Control**

- A. All earthmoving activities shall be conducted in such a way as to minimize accelerated erosion and resulting sedimentation. Measures to control erosion and sedimentation shall, at a minimum, meet the standards of the Lancaster County Conservation District and Chapter 102 (Erosion Control) of Title 25, Rules and Regulations of the Pennsylvania Department of Environmental Protection.
- B. The Erosion and Sedimentation Control Plan shall be submitted to the Lancaster County Conservation District for its review and approval.

- C. Approval of an Erosion and Sedimentation Control Plan by the Township shall not be construed as an indication that the plan complies with the standards of any agency of the Commonwealth.
- D. The following principles shall be applied to the design plan and construction schedule to minimize soil erosion and sedimentation.
  - 1. Stripping of vegetation, grading or other soil disturbance shall be done in a manner that will minimize soil erosion.
  - 2. Whenever feasible, natural vegetation shall be retained and protected.
  - 3. The extent of the disturbed area and the duration of its exposure shall be kept to a minimum, within practical limits.
  - 4. Either temporary seeding, mulching or other suitable stabilization measures shall be used to protect exposed critical areas during construction.
  - 5. Drainage provisions shall accommodate the storm water runoff both during and after construction.
  - 6. Soil erosion and sedimentation facilities shall be installed prior to any on-site grading.

## **Section 610.7 Design Standards – Best Management Practices**

- A. Best Management Practices (BMPs) shall be implemented in West Cocalico Township in order to protect the Township's water quality. BMPs shall be applied to all subdivisions, land developments and regulated activities.
- B. BMPs shall be designed in accordance with the following standards, or in accordance with the Pennsylvania Handbook of Best Management Practices for Developing Areas. The purpose of the design standards is to provide designers with guidance to meet BMP requirements. Designers are encouraged to evaluate new innovations as this field is in its infancy. West Cocalico Township recognizes that modifications may be necessary as new methods become available. Innovations are strongly encouraged in order to meet the objectives at a reasonable cost.
- C. The strategy employed avoids the use of performance standards related to effluent standards. Instead, it establishes a suggested long-term storage volume to be provided with any proposed land use. Other design methods are available and may be utilized provided documentation is furnished and the Township Supervisors approve the design. Other measures of control, including the use of natural open space, may be substituted for structural measures. The use of non-storage related measures must be carefully evaluated to ensure the water quality goals are being met.

D. General Conditions:

1. Minimize on-site impervious area.
  - a. Preserve natural wooded cover and drainageways on-site.
  - b. Pervious surfaces such as porous pavement are considered BMPs.
2. Maximize the amount of on-site drainage areas that are directed to BMPs. Minimum accepted area is 70% of the site. To the greatest extent practicable, impervious areas shall be directed to BMPs.
3. Minimize directly connected impervious area. Promote natural removal of pollutants using vegetation and soil. Direct impervious area runoff to pervious area.
  - a. For example:
    - i. Roof downspouts to lawns
    - ii. Driveways to lawns
    - iii. Parking areas to lawns or grassed swales.
4. Minimize mixing of off-site and on-site runoff, unless the upstream drainage area is insignificant in size.
5. Delay construction of BMPs until all other land disturbing activities are complete to minimize the potential for clogging and maintenance or remedial action.
6. The design shall incorporate the site's soil conditions to ensure the maximum effectiveness and life of the facility.
7. Use water tolerant vegetation (orchard and Bermuda grass, perennial rye, Fescue, and Reed Canary grass) in swales with slopes of 2 % or less and where swale dikes are utilized.
8. Provide a length to width ratio in basins/pond of at least 2:1 and avoid short circuiting. Maximize the distance between inflow and outflow.
9. Provide proper erosion protection at all pipe outlets.
10. Underdrains may be used as a BMP outlet if properly sized.
11. Size BMP outlets to release water at a rate producing approximately a 36-hour drawdown time. Orifices should be sized to accomplish this (minimum ½" diameter holes). To prevent clogging around a vertical riser, use a cone of gravel or a non-corrosive fine-mesh screen.
12. Infiltration trenches provided for storm water management do not require additional storage volume calculations for BMPs.

E. System of Controls:

1. The West Cocalico Township approach to protect water quality is to minimize the impact of pollutants in storm water runoff through a system of controls. These controls can be at the source, in the lot, at the site, or at some regional facility, Examples are listed below:
2. Source Controls-eliminate the opportunity for pollutants to mix with storm water runoff.
  - a. Street sweeping
  - b. Cover chemical storage areas
  - c. Dike potential spill areas
  - d. Regular sediment removal from drainage system
3. Lot Controls-minimize the potential for concentrating pollutants and concentrating storm water runoff.
  - a. Minimize directly connected impervious areas
  - b. Minimize impervious areas
  - c. Utilize grass swales and filter strips
  - d. Utilize infiltration trenches, where applicable
  - e. Utilize porous pavement
4. Site Controls-structural methods required to meet storage volume requirements and water quality objectives.
  - a. Grass swales
  - b. Infiltration basins
  - c. Detention ponds
  - d. Wetlands
5. Regional Controls (D.A. > 100 Acres) - off-site structural measures for large projects.
  - a. Detention ponds
  - b. Retention ponds

F. Design Procedure:

1. BMP Storage Volume Calculation and Design

- a. The volume of runoff from the first 1.2 inches of rainfall shall be detained from each storm.
- b. The detained volume from the first 1.2 inches shall be released slowly over a minimum of 24 hours, with an optimum release time of 36 hours.
- c. The design of the water quality facility shall minimize the chances of clogging and sedimentation.
- d. The Water Quality Volume shall be based on the following equation:

$$WQ_v = [(1.2) (R_v) (A) ] / 12$$

WQ<sub>v</sub> = Water Quality Volume in acre-feet

A = Area of watershed in acres

R<sub>v</sub> = 0.05 + 0.9(I), where I = net increase in impervious area / A

- e. Water Quality Volume shall be designed as a part of storm water management facilities in accordance with design specifications contained in Section 610.7.G and in the "Pennsylvania Handbook of Best Management Practices for Developing Areas, 1998."

G. Design Standards:

1. Filter Strip - vegetative strip across which storm water sheet flows before entering the storm water collection systems. For filter strips to be effective in pollutant removal the runoff from the impervious area must also be in sheet flow.

- a. Minimum Flow Length - 20 feet
- b. Maximum Slope - 5:1

Refer to the Pennsylvania Handbook of Best Management Practices for Developing Areas for additional details.

2. Grass Swale - vegetated storm water conveying channel with relatively flat side slopes and longitudinal slope to promote pollutant removal.

- a. Side slopes - 3:1 or flatter
- b. Longitudinal Slopes - 0.5 - 4%
- c. Provide velocity checks at 100-foot intervals. Longer spacing is permitted provided documentation shows flow velocities do not exceed 2 feet per second (fps) using 2-year storm intensity.

Refer to the Pennsylvania Handbook of Best Management Practices for Developing Areas for additional details.

3. Infiltration Trench - long, narrow excavation back-filled with crushed aggregate which provides storage in the voids and allows for infiltration into the surrounding soil; includes drywells.

- a. Maximum drainage area - 5 acres



- b. High seasonal water table or bedrock at minimum two (2) feet below the bottom of the trench. Soil sampling or augering required.

- c. Permeability - infiltrate storage volume within 72 hrs.

Maximum rate - 12"/hr.

Minimum rate - .5"/hr.

Testing to be performed at the depth of the proposed trench bottom. Procedure followed for determining suitability for on-site sewage disposal facilities is acceptable.

- d. Storage Volume - if infiltration trenches are sized for storm water management purposes, no additional calculations are required. If the infiltration trench is provided for BMP only, then follow the design procedure in Section 610.7.F.1

- e. Sample calculation

Given: Percolation Rate = 1"/hr.

Required Storage Volume = 1,750 CF

Trench Volume =  $1,750 \div 0.40 = 4,375$  CF

Drawdown = Trench Depth / Perc. Rate =  $36'' \div 1''/\text{hr.} = 36$  hrs ok

Refer to the Pennsylvania Handbook of Best Management Practices for Developing Areas for additional details.

- 4. Infiltration Basin - shallow excavation or depression for the storage of storm water for infiltration.

- a. Maximum drainage area - 5 acres

- b. Storage Volume - see 610.7.F.1

- c. High seasonal water table or bedrock at minimum of two (2) feet below bottom elevation. Soil sampling or augering required.

- d. Permeability - see Section 610.7.G.3.c.

- e. Maximum side slopes - 3:1

Refer to the Pennsylvania Handbook of Best Management Practices for Developing Areas for additional details.

- 5. Extended Dry Detention Pond - modified storm water detention basin. BMP storage volume is provided below the storm water management outlet elevation.

- a. Storage Volume - see Section 610.7.F.1.
- b. Side Slopes - 3:1 or flatter
- c. Retention time - 36 hours.
- d. Minimum hole diameter - 1/2"
- e. High seasonal water table bedrock -Minimum two (2) feet below bottom of pond. Soil sampling or augering required.
- f. Vegetation - provide water tolerant species in BMP storage area
- g. Length to width ration - 2:1
- h. Sample drawdown calculation

$$T = (76.2 V) \div (h^{0.5} \times d^2 \times 3600)$$

T= time, hrs.

V= volume ft<sup>3</sup>

H= head over orifice, ft.

D= hole diameter, inches

$$T = 76.2 (30492) \div (4^{0.5} \times 3.67^2 \times 3600)$$

$$= 24 \text{ hrs.} < 36 \text{ ok}$$

- i. Access - Provide a clear access of 20 feet in width at an operable slope. Situate pond in close proximity to public right-of-ways to minimize length of accessways.

Refer to the Pennsylvania Handbook of Best Management Practices for Developing Areas for additional details.

- 6. Wet (retention) Basin - basin with permanent pool of water. BMP storage volume is provided above the permanent pool elevation and released gradually.
  - a. Storage Volume - see 610.7.F.1.
  - b. Length to width ration - 2:1.
  - c. Permeability - documentation should be provide to show that basin will retain a permanent pool of water.
  - d. Retention - 36 hrs.
  - e. Drawdown - see 610.7.G.5.h.

- f. Access - provide a clear access of 20 feet in width at an operable slope. Situate ponds in close proximity to public right-of-ways to minimize length of accessways.

Refer to the Pennsylvania Handbook of Best Management Practices for Developing Areas for additional details.

- 7. Wetlands - area inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation adapted for life in saturated soil conditions. Includes swamps, marshes, and bogs. Wetlands can be very effective in the removal of pollutants from storm water runoff.

- a. For design criteria - refer to most recent Pennsylvania DEP Manual
- b. Inflow must be greater than infiltration rate
- c. Depth requirements

25% @ 2-3' deep near the outlet

25% @ 6-12" deep

50% @ 6" deep near the inflow

- d. Length to width ration - 2:1

- 8. Water Quality Inlet - For use only with small parking areas with oily wastes.

- a. Volume - 200 cu. Ft. per impervious acre

Refer to the Pennsylvania Handbook of Best Management Practices for Developing Areas for additional details.

## **Section 610.8 Design Standards for Groundwater Recharge**

- A. Infiltration BMPs intended to receive runoff from developed areas shall be selected based on the suitability of the soils and site conditions and shall be constructed on soils that have the following characteristics:

- 1. A minimum depth of 48 inches between the bottom of the facility and the seasonal high water table and/or bedrock (limiting zones).
- 2. An infiltration and/or percolation rate sufficient to accept the additional storm water load and drain completely as determined by field tests conducted by the Owner's design professional.
- 3. Infiltration BMPs receiving only roof runoff may be placed in soils having a minimum depth of 24 inches between the bottom of the facility and the limiting zones.

B. Design Procedure

1. The size of the recharge facility shall be based upon the following equation:  
$$Re_v = [(S) (R_v)(A)] / 12$$

$Re_v$  = Recharge volume in acre-feet  
 $A$  = Area of watershed in acres  
 $R_v = 0.05 + 0.9(I)$  , where  $I$  = net increase in impervious area /  $A$   
 $S$  = Soil Specific Recharge factor and varies according to soil type:

Hydrologic Soil Group	Soil Specific Recharge Factor (S)
A	0.32
B	0.22
C	0.10
D	0.05

2. If more than one hydrologic soil group (HSG) is present at a site, a composite recharge volume shall be computed based upon the proportion of total site area within each HSG.
3. The recharge volume at the site shall be directed to the most permeable HSG available.
4. The recharge facility shall be capable of completely infiltrating the impounded water volume within 48 hours after the end of the design storm.
5. Watersheds where the post-development impervious area is equal to or less than the pre-development impervious area shall not be required to provide groundwater recharge volume, unless required by NPDES II.
6. Extreme caution shall be exercised (1) where infiltration is proposed in geologically susceptible areas such as carbonate or limestone areas, and (2) where salt or chloride would be a pollutant since soils do little to filter this pollutant and it may contaminate groundwater. A detailed geologic investigation may be required to determine the suitability of recharge facilities and to specifically address soil permeability, depth to bedrock, susceptibility to sinkhole formation, and subgrade stability.
7. If the developer can prove through analysis that the development site is in an area underlain by carbonate geology, and such geologic conditions may result in sinkhole formation, then the development site is exempt from recharge requirements. However, the development site shall still be required to meet all other hydrologic and water quality management standards.
8. Structural storm water management facilities which provide treatment and recharge of the required Recharge Volume shall be designed as part of a storm water management facility which incorporates groundwater recharge BMPs as a primary benefit using that facility, in accordance with design specifications contained in "Pennsylvania Handbook of Best Management Practices for Developing Area", 1998.

## **Section 610.9 Ownership and Maintenance of Storm Water Management Facilities**

- A. Prior to granting of final approval by the Township of a plan the applicant shall either (1) satisfactorily establish that the permanent facilities are part of a portion of ground to be dedicated to the Township for reasons other than the maintenance of land subject to this Ordinance, or (2) present to the Township a copy of a specific declaration of restriction along with an affidavit stating that such restrictions shall be added to the deed of conveyance to each initial grantee to whom property of the development is to be conveyed.
- B. When permanent storm water management facilities and ownership to these facilities are dedicated to and accepted by the Township, it shall be the Township's responsibility to maintain these facilities.
- C. The Township shall have the right, in addition to those provisions above set forth, to require the applicant, owner or developer to post a bond with the Township prior to the time of approval of the plan in order to assure the faithful performance of the requirements of this Ordinance in the course of completing the land development.
  - 1. Where the Township accepts dedication of all or some of the required storm water management facilities following completion, the Township may require the posting of financial security to secure structural integrity of said facilities as well as the functioning of said facilities in accordance with the design and specifications as depicted on the approved storm water management plan for a term not to exceed eighteen (18) months from the date of acceptance of dedication. Said financial security shall be the same type as required with regard to installation of such facilities, and the amount of the financial security shall not exceed fifteen (15%) percent of the actual cost of installation of said facilities
- D. Maintenance is an essential part of the successful functioning of a storm water management system.
- E. Maintenance during development of a project shall be the responsibility of the developer and/or landowner and shall usually include but not be limited to:
  - 1. Removal of silt from all debris basins, traps or other structures or measures when 60% of capacity is filled with silt;
  - 2. Periodic maintenance of temporary control facilities such as replacement of straw bale dikes, straw filters or similar measures;
  - 3. Establishment or reestablishment of vegetation by seeding and mulching or sodding of scoured areas or areas where vegetation has not successfully been established;
  - 4. Installation of necessary controls to correct unforeseen problems caused by storm events within design frequencies; and,
  - 5. The contractor or developer shall be responsible for removal of all temporary measures and installation of permanent measures upon completion of the project.

F. Maintenance of the project after physical completion:

1. The applicant or his agent shall demonstrate that any facilities intended to be installed and located on an individual or group of individual lots can be adequately maintained by the homeowner(s) and/or lot owner(s).
2. It is the purpose of this Ordinance that West Cocalico Township shall not become responsible for maintenance and supervision of developed areas. Such responsibility falls upon the party responsible for land development who shall remain personally responsible for those areas of the development which are subject to the requirements of this Ordinance. This responsibility may be retained or assigned to third persons as is deemed most acceptable to the party responsible for land development. In the event that any portion of land development would, but for the existence of areas requiring maintenance subject to this Ordinance, be dedicated to the Township, the contractor or developer may make application to the Township for acceptance by the Township of such portions of the land development. In the event that the Township, by formal action, accepts such portions of land development, maintenance and responsibility for such portions shall fall upon the Township.
3. It is the intent of this Ordinance that the purposes of the Ordinance shall be carried out through the exercise of responsibility by private parties, and, therefore, it is anticipated that control plans shall be developed with the view towards projects which can effectively be contained within the tracts to be owned and maintained by private parties. To foster this purpose, with respect to portions or parts of a project as shown on a plan of a developer or contractor, which portions will not otherwise become part of municipal property, such portions shall become the responsibility of the individual property owners on whose property such portions of a project lie including but not limited to retention ponds, detention ponds, sediment basins, energy dissipaters or grassed water-ways. Persons including contractors and developers conveying property of a development to another party, which property contains any portions of a Storm Water Management Plan, after that plan has been established, shall include a specific declaration of restriction to such grantee's responsibility for the maintenance and care of the portions of such project as are included within said grantee's conveyed property. The deed reference to such portions shall be in the form of a declaration of restriction imposing responsibilities upon said property owner for the maintenance of the portions of the project within the boundary lines of said property as may be necessary for proper maintenance of the project in accordance with the terms of this Ordinance. Such maintenance shall include the following:
  - a. Liming and fertilizing vegetation to maintain good grass cover in channels and other areas.
  - b. Reestablishment of vegetation by seeding and mulching or sodding of scoured areas or areas where vegetation has not been successfully established.
  - c. Mowing as necessary to maintain adequate strands of grass and to control weeds. Chemical weed control may be used if state and local regulations are met. Selection of seed mixtures shall be acceptable to the Township.

- d. Removal of silt from all permanent structures which trap silt or sediment in order to keep the material from building up in grass waterways and thus reducing their capacity.
  - e. Repair of structural damage or deterioration including, but not limited to, the repair and maintenance of pipes, berms, outlet structures and other storm water management facilities, sinkholes and/or similar failures whether naturally occurring or created by human action.
  - f. Regular inspection of the areas in question is recommended to assure proper maintenance and care.
4. The declaration of restriction hereinabove mentioned shall also include notice that in the event the individual property owners should fail to comply with the terms of this Ordinance for the maintenance and care of the land in question, the Township of West Cocalico shall have the authority to carry out those duties hereby imposed upon individual property owners. The Township may, after giving notice to an individual property owner that he is not properly maintaining the areas subject to this Ordinance, and by making demand that such compliance shall be made within thirty (30) days, enter upon said private property and take such actions as may be required to bring the area into compliance with this Ordinance. The property owner shall be responsible for reimbursing the Township for any and all costs incurred by the Township in its actions required to bring the area into compliance with this Ordinance. Should the property owner fail to reimburse the Township, the Township shall further have the right to file a municipal lien against such property for the cost of maintenance work carried out under this section. The Township shall in addition to the filing of a municipal lien have any other remedies provided by law against any property owner who should fail to comply with the terms of this Ordinance.

## **Section 610.10 Modification of Facilities**

A modification which involves a change in storm water management control methods or techniques, or which involves the relocation or redesign of control measures, or which is necessary because soil or other conditions are not as stated on the approved plan, shall require the submission of a revised plan by the developer in accordance with the plan requirements as set forth in Article III of this Ordinance.

## **Section 610.11 Prohibition Against Non-Storm Water Discharges**

### Prohibited Discharges

- A. No person in the Township shall allow, or cause to allow, storm water discharges into the Township's separate storm sewer system, which are not composed entirely of storm water, except (1) as provided in the subsection B below, and (2) discharges allowed under a state or federal permit.

- B. Discharges which may be allowed, based on a finding by the Township that the discharge(s) do not significantly contribute to pollution to surface waters of the Commonwealth, are:
1. Discharges from fire fighting activities.
  2. Potable water sources including dechlorinated water line and fire hydrant flushing.
  3. Irrigation drainage.
  4. Routine external building wash down (which do not use detergents or other compounds).
  5. Air conditioning condensate.
  6. Water from individual residential car washing.
  7. Springs.
  8. Water from crawl space pumps.
  9. Uncontaminated water from foundation or from footing drains.
  10. Flows from riparian habitats and wetlands.
  11. Lawn watering.
  12. Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spill material has been removed) and where detergents are not used.
  13. Dechlorinated swimming pool discharges.
  14. Uncontaminated groundwater.
- C. In the event that the Township determines that any of the discharges identified in Subsection B significantly contribute to pollution of waters of the Commonwealth, or is so notified by DEP, the Township will notify the responsible person to cease the discharge.
- D. Upon notice provided by the Township under Subsection C, the discharger will have a reasonable time, as determined by the Township, to cease the discharge consistent with the degree of pollution caused by the discharge.
- E. Nothing in this Section shall affect a discharger's responsibilities under state law.
- F. The following connections are prohibited, except as provided in Section B above:
1. Any drain or conveyance, whether on the surface or subsurface, which allows any non-storm water discharge including sewage, process wastewater, and wash water, to enter the separate storm sewer system, and any connections to the storm drain system from indoor drains and sinks; and,
  2. Any drain or conveyance connected from a commercial or industrial land use to the separate storm sewer system which has not been documented in plans, maps, or equivalent records, and approved by the Township.



## **Section 610.12 Floodplains**

- A. Floodplain areas shall be established and preserved as provided by the Township Zoning Ordinance.
- B. Whenever a floodplain is located within or along a lot, the plan shall include the following:
  - 1. The boundary of the floodplain and the elevation or locational dimensions from the centerline of the watercourse;
  - 2. A plan note that the floodplain shall be kept free of structures, fill and other encroachments; and,
  - 3. A plan note that floor elevations for all structures adjacent to the floodplain shall be two (2) foot above the one hundred (100) year flood elevation.

## **Section 611 Public Dedication of Park and Recreation Land.**

- A. In accordance with the recommendations of the Parks and Recreation provisions of the 1993 Cocalico Recreation, Parks, and Open Space Plan, the 1995 West Cocalico Township Strategic Comprehensive Plan, the 2003 Cocalico Region Strategic Comprehensive Plan and the January 26, 2004 Standards for the Mandatory Dedication of Park Lands report, all residential subdivisions and residential land developments shall be provided with park and recreation land that shall be dedicated to the Township.
- B. The developer may request that the Township not require the dedication of land, and any such request shall be accompanied by:
  - 1. An offer to pay a fee in lieu of dedication of the land, computed in accordance with the regulations provided herein;
  - 2. An offer to construct recreational facilities; and /or,
  - 3. An offer to privately reserve land for park or recreation purposes.
- C. The land reserved for park, recreation and open space usage shall be a lot or lots, the location of which shall be mutually agreeable to the Township and the developer, shall comply with the requirements of this Ordinance and the Zoning Ordinance and shall be accessible to the public.
  - 1. No more than fifteen (15) percent of the lot shall consist of floodplain, wetlands, slopes in excess of seven (7) percent or other features that shall render the lot undevelopable.
    - a. In the event that the tract contains natural features which are worthy of preservation, the developer may request that the Board permit the provision of recreational land configured in such a manner as to best preserve natural features.
  - 2. No storm water management facilities designed to retain or detain water from other portions of the development shall be permitted on such land reserved for park, recreation and open space usage.

3. All lands proposed for reservation or dedication as park, recreation or open space use shall be reviewed by the West Cocalico Parks and Recreation Board which shall provide recommendations to the Board of Supervisors on the suitability of the proposed park, recreation or open space lands.
  4. The park, recreation and open space land shall be accessible to utilities such as sewer, water and power that are provided within the subdivision. The developer shall extend such utilities to the park, recreation and open space land.
  5. If the adjoining property has previously been developed and recreational land has been provided at the boundary of that previously developed property, the Board shall require that the recreational land required of the development shall be located adjoining the previously provided recreational land.
- D. For any residential subdivision that proposes to create five (5) or more residential lots or any residential land development plan that proposes to create five (5) or more dwelling units, either initially or cumulatively from the effective date of this Ordinance, a minimum of six one-hundredths (0.060) acres of land shall be reserved as park or recreational land for each residential lot created in a subdivision or each dwelling unit created in a residential land development. Notwithstanding the foregoing, in all cases the minimum area of land reserved as park and recreation land shall be equal to the minimum lot size in the district in which the subdivision or land development is located.
- a. For the purposes of this subsection, the total number of residential lots or residential dwelling units created and the requirement to reserve park or recreational land shall be based upon the parent tract, regardless of ownership, as it existed on the effective date of this Ordinance.
- E. The developer may request that the Board permit the provision of park and recreation land other than through public dedication of land as set forth above. The developer shall set forth, in writing, the means by which he will fulfill this requirement which may include the payment of a fee in lieu of dedication of all or a portion of the amount of land required to be dedicated, construction of recreational facilities, the private reservation of land, or any combination of dedication, fees, construction of recreational facilities, or private reservation.
1. If a fee in lieu of dedication is proposed by the developer, said fee shall be the fair market value of the land required to be dedicated under Subsection (D) above.
    - a. The developer shall provide the Board with all information necessary to determine that fair market value of the land, including but not limited to:
      - 1). A copy of the agreement of sale if the developer is an equitable owner and has purchased the land within the past two (2) years, or,
      - 2). An appraisal of the property conducted by an MAI appraiser acceptable to the Township.
    - b. Fair market value shall be computed by dividing the total price for the tract by the number of acres within the tract and then multiplying that number by the amount of land required to be dedicated.
  2. Payment of all such fees shall be a condition of final plan approval, and no plans shall be signed by the Board until such fees are paid.
  3. All fees shall be held and used by the Township in accordance with the requirements of Article V of the Municipalities Planning Code.

4. If the developer proposes to construct recreational facilities, the developer shall present a sketch plan of such facilities and an estimate of the cost of construction.
5. If the developer proposes the private reservation of land, the developer shall provide for the maintenance of such land through either the inclusion of such land as common elements of a condominium or the creation of a home owners' association which shall meet the requirements for a unit owners' association contained in the Pennsylvania Uniform Condominium Act, 68 Pa. C.S. §3101 et seq.
  - a. Such documentation shall be recorded, shall provide that the land cannot be further developed and shall give the Township the rights to maintain the land as set forth in Article VII of the Municipalities Planning Code dealing with the maintenance of common open space in planned residential developments.
  - b. Notwithstanding the foregoing, the developer may request that the Board approve transfer of the land to an organization dedicated to the conservation of natural resources with deed restrictions preventing further development acceptable to the Township Solicitor.
6. The developer shall enter into an agreement with the Township setting the fees to be paid, the facilities to be constructed, or the land to be privately reserved and the method of its maintenance. All such agreements shall be in a form satisfactory to the Township Solicitor.

# **ARTICLE VII**

## **MOBILE HOME PARKS**

### **Section 701 General**

Mobile home park plans shall be processed in accordance with Article III of this Ordinance. The design of mobile home parks shall comply with applicable design standards of this Ordinance and the Township Zoning Ordinance.

### **Section 702 Lot Size and/or Density**

Lot size and density shall comply with the Township Zoning Ordinance.

### **Section 703 Water Supply**

Water supply shall conform with Article XV, Section 1505 of the Township Zoning Ordinance.

### **Section 704 Sewage Disposal**

Sewage disposal shall conform with Article XV, Section 1506 of the Township Zoning Ordinance.

### **Section 705 Storm Drainage, Erosion and Sedimentation, and Floodplain Controls**

All mobile home parks shall conform to the storm water requirements of Section 610 of this Ordinance.

### **Section 706 Interior Streets and Access Drives**

- A. Private streets shall be provided in the park as the principal traffic way, and each mobile home lot shall abut and have access to such a street.
- B. All streets and access drives shall be designed and constructed in accordance with the requirements of Section 602 of this Ordinance.

### **Section 707 Vehicular Parking Facilities**

Off-street parking spaces shall be provided in all mobile home parks in accordance with the requirements of the Township Zoning Ordinance.

## **Section 708 Sidewalks and Curbs**

- A. **Location.** All mobile home parks shall have sidewalks and curbs along parking compounds and private streets, and from mobile home units to service buildings.
- B. **Construction.** Curbs and sidewalks required by Section 708.A shall comply with the requirements of Sections 602.11 and 602.12 of this Ordinance.

## **Section 709 Lighting**

All streets, alleys and parking compounds shall be lighted to provide an average minimum two (2) foot candle level of illumination at an elevation of three (3) feet above the grade for the safe movement of pedestrians and vehicles at night. All lighting shall be so arranged as to reflect the light away from adjoining premises and public rights-of-way.

## **Section 710 Landscaping**

Landscaping shall be provided in accordance with the requirements of the Township Zoning Ordinance.

## **Section 711 Street Trees**

Street trees shall be provided in accordance with Section 609.5 of this Ordinance.

## **Section 712 Building Setbacks and Separations**

Mobile homes shall conform to the building setback and separation requirements of the Township Zoning Ordinance.

## **Section 713 Solid Waste Disposal**

- A. Solid waste disposal shall be the responsibility of the mobile home park operator and shall be performed in accordance with the requirements of DEP.
- B. All solid waste shall be stored in dumpsters located throughout the facility, but in no case more than three hundred (300) feet from any unit served.
- C. All proposed refuse collection stations shall be in compliance with Section 609.6 of this Ordinance.

## **Section 714 Travel Trailer Parks (Campgrounds)**

- A. Travel trailer park (campgrounds) plans shall be processed as final plans in accordance with Article III.
- B. Travel trailer parks (campgrounds) shall be subject to the design requirements of the Township Zoning Ordinance.

# ARTICLE VIII

## ADMINISTRATION, ENFORCEMENT AND PENALTIES

### Section 801 Fees

#### A. Fee Resolution

1. The Board shall establish by resolution a collection procedure and schedule of fees to be paid by the applicant at the time of submission of all plans.
2. Fees for all other permits required for and by the Township shall be established by the resolution.
3. Said schedule of fees shall be posted in the Township Office.

#### B. Engineering Fees

1. Engineering fees required to be paid in accordance with this Ordinance shall be paid to the Township by the applicant for the below listed services:
  - a. Reviewing all information submitted in conformance with provisions of this Ordinance. This includes all originally submitted and revised plans, reports and specification.
  - b. Inspecting the layout of the site for conformance to the submitted survey, plan and specifications.
  - c. Reviewing planning modules for land development.
  - d. Reviewing cost estimates of required improvements as submitted by the developer.
  - e. Inspecting required improvements during construction.
  - f. Final inspections of completion of installation of the required improvements.
  - g. Such other technical services as deemed necessary or required by the Township.

### Section 802 Modifications

- A. The provisions of these regulations are intended as a minimum standard for the protection of the public health, safety and welfare. If the literal compliance with any mandatory provision of these regulations is shown by the applicant to the satisfaction of the Board present at a public meeting to be unreasonable and to cause undue hardship as it applies to the particular property, the Board may grant a modification from such mandatory provision so that substantial justice may be done and the public interest secured while permitting the reasonable utilization of the property. However, the granting of a modification shall not have the effect of making null and void the intent and purpose of this Ordinance.

**B. Application Requirements**

1. All requests for modifications shall be made in accordance with the provisions of Section 309 of this Ordinance.
2. Should a revision to a submitted plan require a modification which was not apparent at the time of the initial plan submission, the request for a modification shall be submitted in accordance with Section 309 of this Ordinance.

**C. Action On Modification Requests**

1. At a public meeting, and after review and recommendation by the Planning Commission, the Board shall review the request to determine if the literal compliance with any mandatory provision of this Ordinance is demonstrated by the applicant to exact undue hardship because of peculiar conditions pertaining to the land in question, provided that such modification will not be contrary to the public interest and that the purpose and intent of this Ordinance is observed.
2. The applicant shall demonstrate that an alternative proposal will allow for equal or better results and represents the minimum modification necessary. If the Board determines that the applicant has met his burden, it may grant a modification from the literal compliance with the terms of this Ordinance.
3. In granting modifications, the Board may impose such conditions as will, in its judgement, secure the objectives and purposes of this Ordinance.
4. When a modification is granted with conditions, a statement of the approved modification including the imposed condition(s) shall be provided on the final plan.

## **Section 803 Enforcement**

It shall be the duty of the Zoning Officer and/or other such duly authorized representative of the Township, and they are hereby given the power and authority to enforce the provisions of this Ordinance.

The Zoning Officer shall require that the application for a zoning permit contain all information necessary to enable him to ascertain whether the proposed building, alteration, or use is located in an approved subdivision or land development. No zoning permit shall be issued until the Zoning Officer has determined that the site for the proposed building, alteration or use complies with all the provisions of this Ordinance and conforms to the site description as indicated on the approved and recorded final plan.

## **Section 804 Penalties and Preventive Remedies**

- A. Any person, partnership, corporation or the members of such partnership or the officers of such corporation who or which being the owner or agent of the owner of any lot, tract or parcel of land shall lay out, construct, open and/or dedicate any street, sanitary sewer, storm sewer, water main, or other improvement for public use, travel or other purposes or for the common use of occupants of buildings abutting thereon; or who sells, transfers or agrees or enters into an agreement to sell any

land in a subdivision or land development, whether by reference to or by use of a plan of such subdivision or land development or otherwise; or who erects any building thereon, unless and until a final plan has been prepared in full compliance with the provisions of this Ordinance and has been recorded as provided herein; or who in any other way be in violation of any of the provisions of this Ordinance shall, upon being found liable therefore in a civil enforcement proceeding commenced by the Township, pay a judgment of not more than five hundred dollars (\$500.00) plus all court costs, including reasonable attorney fees incurred by the Township as a result thereof. No judgment shall commence or be imposed, levied or payable until the date of the determination of a violation by the District Justice. If the defendant neither pays nor timely appeals the judgment, the Township may enforce the judgment pursuant to the applicable rules of civil procedure. Each day that a violation continues shall constitute a separate violation unless the District Justice determines that there was a good faith basis for the person, partnership or corporation violating the Ordinance to have believed that there was no such violation, in which event there shall be deemed to have been only one such violation until the fifth (5th) day following the date of determination of a violation of the District Justice, and thereafter each day that a violation continues shall constitute a separate violation.

- B. In addition to other remedies, the Township may institute and maintain appropriate actions at law or in equity to restrain, correct or abate violations of this Ordinance, to prevent unlawful construction, to recover damages and/or to prevent illegal occupancy of a building, structure or premises.
- C. The description by metes and bounds in the instrument of transfer or other documents used in the process of selling or transferring shall not exempt the seller or transferor from such penalties or from the remedies herein provided.
- D. The Township may further 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 Ordinance. The authority to deny such permit or approval shall apply to any of the following applicants:
  - 1. The owner of record at the time of such violation.
  - 2. The vendee or lessee of the owner of record at the time of such violation without regard to whether such vendee or lessee had actual or constructive knowledge of the violation.
  - 3. The current owner of record who acquired the property subsequent to the time of the violation without regard as to whether such current owner had actual or constructive knowledge of the violation.
  - 4. The vendee or lessee of the current owner of record who acquired the property subsequent to the time of violation without regard as to whether such vendee or lessee had actual constructive knowledge of the violation.
- E. As an additional condition for the issuance of a permit or the granting of an approval to any such owner, current owner, vendee, or lessee for the development of any such real property, the Township may require compliance with the conditions that would have been applicable to the property at the time the applicant acquired an interest in such real estate.



# **ARTICLE IX**

## **APPEALS, INTERPRETATION AND EFFECTIVE DATE**

### **Section 901 Appeals**

- A. All appeals from decisions of the Board in the administration of this Ordinance shall be made in accordance with the provisions of the Municipalities Planning Code.
- B. All appeals by the applicant from decisions of the Township staff, to the Board of Supervisors, shall be submitted to the Township in writing. The appeal shall contain the legal name and address of the appellant, the date of the appeal, shall briefly state the nature of the appeal, and shall state the specific sections of the Ordinance that are the subject of the appeal. In making an appeal, the applicant agrees to suspend the running of the 90 day clock for plan approval, as specified in Section 508 of the Pennsylvania Municipalities Planning Code (MPC), until a decision is made on the applicant's appeal. Failure of the applicant to file an appeal from the decisions of Township staff in the manner prescribed herein shall result in the dismissal of the appeal.

### **Section 902 Interpretation and Application of Provisions**

In the interpretation and application of the provisions of this Ordinance, said provisions shall be deemed to be the minimum requirements necessary for the promotion and protection of the public health, safety and welfare. Where the provisions of this Ordinance and all standards and specifications implementing it impose greater restrictions upon subdivision or land development than those of any other Township Ordinance or any regulation or any applicable land development agreement, the provisions of this Ordinance and its standards and specifications shall be controlling. Where the provisions of any statute, regulation, other Township Ordinance or applicable land development agreement impose greater restrictions upon subdivision or land development than this Ordinance, the provisions of such statute, regulation, other Ordinance, or applicable land development agreement shall be controlling.

### **Section 903 Application of Ordinance**

With the exception of Sections 903.A and 903.B, the provisions of this Ordinance shall apply to and control all subdivisions and/or land developments whose plans have not been recorded in the Office of the Recorder of Deeds prior to the effective date of these regulations.

- A. The provisions of this Ordinance shall not adversely affect an application for approval of a preliminary or final plan which was duly filed with the Lancaster County Planning Commission with a copy thereof submitted to the Township, and is pending action at the time of the effective date of this Ordinance, and in which case the applicant shall be entitled to a decision in accordance with the provisions of the governing ordinances or plans as they stood at the time the application had been duly filed. When a preliminary plan has been duly approved, the applicant shall be entitled to final plan approval in accordance with the terms of the approved preliminary plan. However, if an application is properly and finally denied, any subsequent application shall be subject to the provisions of this Ordinance.

- B. If an applicant has received approval of a preliminary or final plan prior to the effective date of this Ordinance, no provision of this Ordinance shall be applied to adversely affect the right of the applicant to commence and complete any aspect of the approved development in accordance with the terms of such approval within five (5) years from the date of such approval. When approval of the final plan has been preceded by approval of a preliminary plan, the five (5) year period shall be counted from the date of preliminary plan approval. If there is any doubt as to the terms of approval, the terms shall be construed in light of the provisions of the governing ordinances or plans as they stood at the time when the application for such approval was duly filed.

## **Section 904 Construction**

Nothing in this Ordinance shall be construed to affect any suit or proceeding pending in any court, or any rights or liability incurred, or any permit issued, or any approval granted, or any cause or causes of action existing prior to the enactment of this Ordinance.

## **Section 905 Severability**

The provisions of this Ordinance are severable, and if any section, sentence, clause, part, or provision hereof shall be held illegal, invalid or unconstitutional by any court of competent jurisdiction, such decision of the court shall not affect or impair the remaining sections, sentences, clauses, parts, or provisions of this Ordinance. It is hereby declared to be the intent of the Board that this Ordinance would have been enacted if such illegal, invalid or unconstitutional section, sentence, clause, part, or provision had not been included herein.

## **Section 906 Effective Date**

This Ordinance shall take effect and be in force five (5) days after its enactment by the Board of Supervisors of the Township of West Cocalico, as provided by law.

**DULY ORDAINED AND ENACTED** by the Board of Supervisors of the Township of West Cocalico, Lancaster County, Pennsylvania, on the 3<sup>rd</sup> day of June 2004, in lawful session duly assembled.

TOWNSHIP OF WEST COCALICO

\_\_\_\_\_  
(Vice) Chairman, Board of Supervisors

Attest: \_\_\_\_\_  
Secretary

\_\_\_\_\_  
[TOWNSHIP SEAL]

## APPENDICES

PAGE NO.	APPENDIX TITLE
A-2	Certification of Plan Accuracy
A-2	Certification of Survey Accuracy
A-3	Storm Drainage Plan Certification
A-3	Carbonate Geology Certification
A-4	Certificate of Ownership, Acknowledgement of Plan, and Offer of Dedication
A-7	West Cocalico Township Board of Supervisors Preliminary Plan Approval Certificate
A-7	West Cocalico Township Board of Supervisors Final Plan Approval Certificate
A-8	West Cocalico Township Board of Supervisors Approval Certificate for a Lot Add-On Plan
A-8	West Cocalico Township Engineer Review Certificate
A-8	West Cocalico Township Planning Commission Review Certificate
A-9	Lancaster County Planning Commission Review Certificate
A-9	Recorder of Deeds Certificate
A-10	Application for Consideration of a Subdivision and/or Land Development Plan
A-12	West Cocalico Township Subdivision, Land Development and Storm Water Management Ordinance Fee Schedule
A-13	Request for Review of a Subdivision of Land Development Plan by the Lancaster County Planning Commission
A-14	Notice of Acceptance of an Improvement Guarantee
A-15	Required Improvements Cost Estimate
A-16	Notice of Completion and Approval of Improvements
A-17	Application for Consideration of a Modification
A-18	West Cocalico Township Accessory Dwelling Guidelines
A-20	Sample Legal Documents
A-60	Standard Street Section Details
A-68	Standard Driveway and Access Drive Details
A-70	Standard Curb and Sidewalk Details
A-76	Standard Trench Restoration Details
A-78	Standard Storm Water Details
A-80	Standard Parking Compound Details
A-81	Standard Flag Lot Detail
A-82	Rainfall Intensity-Duration-Frequency Chart
A-84	Flow Tabulation Form for Water Carrying Structures
A-85	Runoff Coefficients
A-86	Runoff Curve Numbers
A-87	Safe Stopping Sight Distance Chart
A-88	West Cocalico Township Standard Plan Format

## **CERTIFICATION OF PLAN ACCURACY**

I hereby certify that, to the best of my knowledge, the plan shown and described hereon is true and correct to the accuracy required by the West Cocalico Township Subdivision, Land Development and Storm Water Management Ordinance.

\_\_\_\_\_, 20\_\_\_\_ \* \_\_\_\_\_

- \* Signature and seal of a professional registered in the Commonwealth of Pennsylvania qualified to perform such duties and responsible for the preparation of the plan.

## **CERTIFICATION OF SURVEY ACCURACY**

I hereby certify that, to the best of my knowledge, the survey shown and described hereon is true and correct to the accuracy required by the West Cocalico Township Subdivision, Land Development and Storm Water Management Ordinance.

\_\_\_\_\_, 20\_\_\_\_ \* \_\_\_\_\_

- \* Signature and seal of a professional registered in the Commonwealth of Pennsylvania qualified to perform such duties and responsible for the preparation of the plan.

## **STORM DRAINAGE PLAN CERTIFICATION**

I hereby certify that, to the best of my knowledge, the storm drainage facilities shown and described hereon are designed in conformance with the West Cocalico Township Subdivision, Land Development and Storm Water Management Ordinance.

\_\_\_\_\_, 20\_\_\_\_ \* \_\_\_\_\_

\* Signature and seal of a professional registered in the Commonwealth of Pennsylvania qualified to perform such duties and responsible for the preparation of the storm drainage plan.

## **CARBONATE GEOLOGY CERTIFICATION**

I \_\_\_\_\_, hereby certify that the proposed detention basin is not underlain by carbonate geology.

\_\_\_\_\_, 20\_\_\_\_

**CERTIFICATE OF OWNERSHIP, ACKNOWLEDGEMENT OF PLAN,  
AND OFFER OF DEDICATION**

**(INDIVIDUAL)**

**COMMONWEALTH OF PENNSYLVANIA**

**COUNTY OF LANCASTER**

On this, the \_\_\_\_ day of \_\_\_\_\_, 20\_\_, before me, the undersigned officer, personally appeared \_\_\_\_\_, who being duly sworn according to law, deposes and says that he is the  
\* \_\_\_\_\_ of the property shown on this plan, that the plan thereof was made at his direction, that he acknowledges the same to be his act and plan, that he desires the same to be recorded, and that all streets and other property identified as proposed public property (excepting those areas labeled "NOT FOR DEDICATION") are hereby dedicated to the public use.

\*\* \_\_\_\_\_

\*\*\* \_\_\_\_\_

My Commission Expires \_\_\_\_\_, 20\_\_.

\* Identify Ownership or Equitable Ownership

\*\* Signature of the Individual

\*\*\* Signature and Seal of Notary Public or Other Authorized to Acknowledge Deeds.

**CERTIFICATE OF OWNERSHIP, ACKNOWLEDGEMENT OF PLAN,  
AND OFFER OF DEDICATION**

**(COPARTNERSHIP)**

**COMMONWEALTH OF PENNSYLVANIA**

**COUNTY OF LANCASTER**

On this, the \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, the undersigned officer, personally appeared \_\_\_\_\_, being the members of the firm of \_\_\_\_\_ who being duly sworn according to law, deposes and says that the copartnership is the \* \_\_\_\_\_ of the property shown on this plan, that the plan thereof was made at its direction, that it acknowledges the same to be its act and plan and desires the same to be recorded, and that all streets and other property identified as proposed public property (excepting those areas labeled "NOT FOR DEDICATION") are hereby dedicated to the public use.

\*\*

\_\_\_\_\_

\*\*\*

\_\_\_\_\_

My Commission Expires \_\_\_\_\_, 20\_\_\_\_

\* Identify Ownership or Equitable Ownership

\*\* Signature of the Individual

\*\*\* Signature and Seal of Notary Public or Other Officer Authorized to Acknowledge Deeds.

**CERTIFICATE OF OWNERSHIP, ACKNOWLEDGEMENT OF PLAN,  
AND OFFER OF DEDICATION**

**(CORPORATE)**

**COMMONWEALTH OF PENNSYLVANIA**

**COUNTY OF LANCASTER**

On this, the \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, the undersigned officer, personally appeared \_\_\_\_\_, being \* \_\_\_\_\_ of \*\* \_\_\_\_\_ who being duly sworn according to law, deposes and says that the corporation is the \*\*\* \_\_\_\_\_ of the property shown on this plan, that he is authorized to execute said plan on behalf of the corporation, that the plan is the act and deed of the corporation, that the corporation desires the same to be recorded and on behalf of the corporation further acknowledges, that all streets and other property identified as proposed public property (excepting those areas labeled "NOT FOR DEDICATION") are hereby dedicated to the public use.

\*\*\*\* \_\_\_\_\_

\*\*\*\*\* \_\_\_\_\_

\*\*\*\*\* \_\_\_\_\_

My Commission Expires \_\_\_\_\_, 20\_\_\_\_

\* Individual's Title  
\*\* Name of Corporation  
\*\*\* Identify Ownership or Equitable Ownership  
\*\*\*\* Signature of Individual  
\*\*\*\*\* Corporate Seal  
\*\*\*\*\* Signature and Seal of Notary Public or Other Officer Authorized to Acknowledge Deeds



## **WEST COCALICO TOWNSHIP BOARD OF SUPERVISORS PRELIMINARY PLAN APPROVAL CERTIFICATE**

At a meeting on \_\_\_\_\_, 20\_\_\_\_, the West Cocalico Township Board of Supervisors granted PRELIMINARY PLAN APPROVAL of this project, including the complete set of plans marked sheet(s) \_\_\_\_\_ through \_\_\_\_\_ which form a part of the application dated \_\_\_\_\_, last revised \_\_\_\_\_, and bearing West Cocalico Township File No. \_\_\_\_\_. This plan may not be recorded in the office of the Lancaster County Recorder of Deeds, nor may any construction be initiated.

\* \_\_\_\_\_

\* Signature of the Chairman or Vice Chairman or their designee.

## **WEST COCALICO TOWNSHIP BOARD OF SUPERVISORS FINAL PLAN APPROVAL CERTIFICATE**

At a meeting held on \_\_\_\_\_, 20\_\_\_\_, the West Cocalico Township Board of Supervisors approved this project including the complete set of plans and information which are filed with the Supervisors in File No. \_\_\_\_\_, based upon its conformity with the standards of the West Cocalico Township Subdivision, Land Development and Storm Water Management Ordinance.

\* \_\_\_\_\_

\* Signature of the Chairman or Vice Chairman or their designee.

**WEST COCALICO TOWNSHIP BOARD OF SUPERVISORS  
APPROVAL CERTIFICATE FOR A LOT ADD-ON PLAN**

This lot add-on plan, bearing West Cocalico Township File No. \_\_\_\_, approved by the West Cocalico Township Board of Supervisors this \_\_\_\_ day of \_\_\_\_, 20 \_\_\_\_.

\* \_\_\_\_\_

\* Signature of the Chairman or Vice Chairman or their designee.

**WEST COCALICO TOWNSHIP ENGINEER  
REVIEW CERTIFICATE**

Reviewed by the West Cocalico Township Engineer this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\* \_\_\_\_\_

\* Signature of the West Cocalico Township Engineer.

**WEST COCALICO TOWNSHIP PLANNING COMMISSION  
REVIEW CERTIFICATE**

At a meeting held on \_\_\_\_\_, 20\_\_\_\_, the West Cocalico Township Planning Commission reviewed this plan and a copy of the review comments is on file in the Township office.

\* \_\_\_\_\_ \* \_\_\_\_\_

\* Signatures of the Chairman or Vice Chairman or their designee.

## LANCASTER COUNTY PLANNING COMMISSION REVIEW CERTIFICATE

The Lancaster County Planning Commission, as required by the Pennsylvania Municipalities Planning Code, Act 247 of 1968, as amended, reviewed this plan on \_\_\_\_\_, 20\_\_\_\_, and a copy of the review is on file at the office of the Planning Commission in LCPC File No. \_\_\_\_\_. This certificate does not indicate approval or disapproval of the plan by the Lancaster County Planning Commission, and the Commission does not represent nor guarantee that this plan complies with the various ordinances, rules, regulations, or laws of the local municipality, the Commonwealth or the Federal government.

\* \_\_\_\_\_ \* \_\_\_\_\_

\* Signatures of the Chairman or Vice Chairman or their designee.

## RECORDER OF DEEDS CERTIFICATE

Recorded in the office for Recording of Deeds, in and for Lancaster County, Pennsylvania, in Subdivision Plan Book \_\_\_\_\_, Volume \_\_\_\_\_, Page \_\_\_\_\_. Witness by hand and seal of office this \_\_\_\_\_ day of \_\_\_\_\_ A.D. 20\_\_\_\_\_.

\_\_\_\_\_Recorder

# APPLICATION FOR CONSIDERATION FOR A SUBDIVISION AND/OR LAND DEVELOPMENT PLAN

WCT FILE NO. \_\_\_\_\_

DATE OF RECEIPT/FILING \_\_\_\_\_  
(FOR TOWNSHIP USE ONLY)

The undersigned hereby applies for approval under the West Cocalico Township Subdivision, Land Development and Storm Water Management Ordinance of 2004 for the (Subdivision) (Land Development) (Storm Water Management) Plan submitted herewith and described below:

1. Plan Name \_\_\_\_\_ Plan No. \_\_\_\_\_ Plan Date \_\_\_\_\_

2. Project Location \_\_\_\_\_

3. Name of Applicant (if other than owner) \_\_\_\_\_

Address \_\_\_\_\_ Phone No. \_\_\_\_\_

4. Name of Property Owner(s) \_\_\_\_\_

Address \_\_\_\_\_ Phone No. \_\_\_\_\_

5. Land Use and Number of Lots and/or Units (indicate answer by number):

\_\_\_ Single-Family (Detached) \_\_\_ Commercial

\_\_\_ Multi-Family (Attached-Sale) \_\_\_ Industrial

\_\_\_ Multi-Family (Attached-Rent) \_\_\_ Institutional

6. Total Acreage

7. Application Classification: (Check One)

\_\_\_ Preliminary Plan

\_\_\_ Final Plan

\_\_\_ Lot Add-On Plan for processing  
In accordance with Section 308  
of the Ordinance.

\_\_\_ Revised Subdivision and/or Land  
Development Plan for processing  
In accordance with Section 308 of  
the Ordinance.

\_\_\_ Minor Plan

\_\_\_ Storm Water Management Plan

8. Firm That Prepared Plan \_\_\_\_\_  
Address \_\_\_\_\_ Phone No. \_\_\_\_\_  
Person Responsible for Plan \_\_\_\_\_
9. Have all zoning approvals been obtained? \_\_\_Y\_\_\_N Please specify approvals:
10. Type of water supply proposed: \_\_\_Public\_\_\_ \_\_\_Community\_\_\_ \_\_\_Individual\_\_\_
11. Type of sanitary sewer disposal proposed: \_\_\_Public\_\_\_ \_\_\_Live\_\_\_ \_\_\_Community\_\_\_  
\_\_\_Capped\_\_\_ \_\_\_Individual\_\_\_
12. Lineal feet of new street \_\_\_\_\_  
Identify all street(s) not proposed for dedication: \_\_\_\_\_
13. Acreage proposed for park or other public use: \_\_\_\_\_
14. Have plans been submitted to the Lancaster County Planning Commission? \_\_\_Y\_\_\_N
15. Have plans been submitted to the Lancaster County Conservation District? \_\_\_Y\_\_\_N
16. Have plans been submitted to the PA Department of Environmental Protection? \_\_\_Y\_\_\_N
17. Have plans been submitted to any other review agency? \_\_\_Y\_\_\_N. If so, please specify? \_\_\_\_\_

I am aware that I cannot commence development of the property and cannot commence excavation, earthmoving, grading, or construction until a plan has been recorded in the office of the Recorder of Deeds or until an Improvement Construction Plan has been approved by the Board of Supervisors of the Township of West Cocalico. By signing this application, I certify that all facts in the application and all accompanying documentation are true and correct. This application is being made by me to induce official action on the part of West Cocalico Township, and I understand that any false statements made herein are being made subject to the penalties of 18 Pa. C.S. Section 4904 relating to unsworn falsification to authorities.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Landowner or Applicant

**WEST COCALICO TOWNSHIP**

**SUBDIVISION, LAND DEVELOPMENT AND  
STORM WATER MANAGEMENT ORDINANCE FEE SCHEDULE**

<b>RATE SCHEDULE</b>		
<b>Plan Type</b>	<b>Administrative Fee</b>	<b>Deposit Account</b>
Sketch	\$ 100	\$250
Lot Add on	\$ 250	\$ 1000
Revised Plan	\$ 250	\$ 1000
Separation Plan	\$ 250	\$ 1500
Preliminary or Final Plan	\$ 500	\$ 1500

<b>FEE CALCULATION</b>			
<b>Plan Type</b>	<b>Administrative Fee</b>	<b>Deposit Account</b>	<b>Total</b>

**NOTES:**

1. Fees for modification requests that are included with the original submission of a subdivision or land development plan application package shall be processed at no additional charge to the applicant. Additional modification requests submitted during the processing of a subdivision or land development plan shall require the submission of the deposit account fee as provided for sketch plans. Modification requests not submitted with or during the processing of a subdivision or land development plan shall include the administrative and deposit account fee as provided for sketch plans.
2. The administrative fee is non-refundable.
3. The deposit account is for engineering costs outlined by Section 801 of this Ordinance. If actual costs are less then the deposit, a refund will be issued. If actual costs are higher than the deposit, the additional costs must be paid by the applicant.
4. Fees for storm water management plans shall be the same as those for preliminary or final plans.

**REQUEST FOR A REVIEW OF A SUBDIVISION OR LAND  
DEVELOPMENT PLAN BY THE LANCASTER COUNTY PLANNING  
COMMISSION  
(To Be Submitted By Applicant)**

**LCPC FILE NO:**\_\_\_\_\_

**DATE OF RECEIPT:**\_\_\_\_\_  
**(FOR COMMISSION USE ONLY)**

**TO:** Lancaster County Planning Commission  
50 North Duke Street  
P.O. Box 3480  
Lancaster, Pennsylvania 17608-3480

**SUBJECT:** Request for Review of a Subdivision or Land Development Plan, West Cocalico Township

We do hereby request the Lancaster County Planning Commission to review the enclosed subdivision or land development plan in accordance with the Pennsylvania Municipalities Planning Code, Act 247 of 1968, as amended, Article V, Section 502.

Plan Identification (check or complete the following items):

<input type="checkbox"/> Sketch Plan	Municipal Plan No. (if any) _____
<input type="checkbox"/> Preliminary Plan	Plan Name: _____
<input type="checkbox"/> Final Plan	

Other (specify) \_\_\_\_\_

Name of Landowner(s) \_\_\_\_\_

Address \_\_\_\_\_

Additional Comments \_\_\_\_\_

Signature \_\_\_\_\_

Print Full Name \_\_\_\_\_

Title \_\_\_\_\_

## NOTICE OF ACCEPTANCE OF AN IMPROVEMENT GUARANTEE

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

West Cocalico Township Board of Supervisors  
156B West Main Street  
PO Box 244  
Reinholds, PA 17569

**SUBJECT:** Acceptance of Improvement Guarantee

Dear Supervisors:

The developer of the project known as \_\_\_\_\_ has provided an improvement guarantee in the form of a \_\_\_\_\_ to assure the proper installation of the following improvements:

☐ Roadway Improvements      ☐ Storm Sewer Facilities  
☐ Sanitary Sewer Facilities      ☐ Water Supply Facilities      ☐ Fire Hydrants

This form of improvement guarantee was accepted by formal action of the Board of Supervisors at a meeting on \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Authorized Signature



## REQUIRED IMPROVEMENTS COST ESTIMATE

Plan Name: \_\_\_\_\_

The following form is to be used to prepare the Improvements Cost Estimate as required per Article V. Attach additional sheets if necessary:

<u>Improvements</u>	<u>Quantity</u>	<u>Units</u>	<u>Price Per Unit</u>	<u>Construction Cost</u>
Street Grading	_____	_____	_____	_____
Street Subbase	_____	_____	_____	_____
Street Binder Course	_____	_____	_____	_____
Street Wearing Course	_____	_____	_____	_____
Street Signs	_____	_____	_____	_____
Traffic Control Signs	_____	_____	_____	_____
Curbs	_____	_____	_____	_____
Sidewalks	_____	_____	_____	_____
Storm Sewer Facilities	_____	_____	_____	_____
Sanitary Sewer Facilities	_____	_____	_____	_____
Water Supply Facilities	_____	_____	_____	_____
Fire Hydrants	_____	_____	_____	_____
Survey Monuments	_____	_____	_____	_____
Buffer Planting	_____	_____	_____	_____
Street Trees	_____	_____	_____	_____
Other (specify)	_____	_____	_____	_____

<b>ESTIMATED COST:</b>	\$ _____
<b>CONTINGENCIES (10%):</b>	\$ _____
<b>INSPECTION FEE DEPOSIT (5%):</b>	\$ _____
<b>REQUIRED FINANCIAL SECURITY:</b>	\$ _____

SIGNATURE OF ENGINEER \_\_\_\_\_

*Seal*

DATE \_\_\_\_\_

# NOTICE OF COMPLETION AND APPROVAL OF IMPROVEMENTS

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

West Cocalico Township Board of Supervisors  
156B West Main Street  
PO Box 244  
Reinholds, PA 17569

**SUBJECT:** Approval of Improvements

Dear Supervisors:

The developer of the project known as \_\_\_\_\_ has completed the installation of the following improvements in accordance with the improvement construction plan:

\_\_\_ Roadway Improvements    \_\_\_ Storm Sewer Facilities  
\_\_\_ Sanitary Sewer Facilities    \_\_\_ Water Supply Facilities    \_\_\_ Fire Hydrant  
\_\_\_ Other (specify) \_\_\_\_\_

\_\_\_\_\_ Authorized Signature

\_\_\_\_\_ Print Full Name

\_\_\_\_\_ Title

\_\_\_\_\_ Authority of Utility

\_\_\_\_\_ Address

\_\_\_\_\_ Phone No.

## APPLICATION FOR CONSIDERATION OF A MODIFICATION

WCT FILE NO. \_\_\_\_\_

DATE OF RECEIPT/FILING \_\_\_\_\_  
(FOR TOWNSHIP USE ONLY)

The undersigned hereby applies for approval of modification, submitted herewith and described below:

1. Name of Project \_\_\_\_\_
2. Project Location \_\_\_\_\_
3. Name(s) of Applicant (if other than owner) \_\_\_\_\_  
Address \_\_\_\_\_  
Phone No. \_\_\_\_\_
4. Name of Property Owner(s) \_\_\_\_\_  
Address \_\_\_\_\_  
Phone No. \_\_\_\_\_
5. Specify section(s) of the West Cocalico Township Subdivision, Land Development and Storm Water Management Ordinance for which waiver is requested: \_\_\_\_\_  
\_\_\_\_\_
6. The proposed alternative to the requirement \_\_\_\_\_  
\_\_\_\_\_
7. Justification for the waiver: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
8. Identification of plans, reports or supplementary data which is part of the application: \_\_\_\_\_  
\_\_\_\_\_

The undersigned hereby represents that, to the best of his knowledge and belief, all information listed above is true, correct and complete.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

# **WEST COCALICO TOWNSHIP ACCESSORY DWELLING GUIDELINES**

## **PURPOSE**

The West Cocalico Township Board of Supervisors desires to develop a policy, procedure, and guidelines to assist agricultural landowners with providing accessory dwellings units for immediate family members or farm help, and to provide other landowners with the ability to provide assisted living arrangements for immediate family members in accordance with the provisions of the Zoning Ordinance.

## **BACKGROUND**

The use of accessory dwellings for on-farm use and assisted living continues to increase within West Cocalico Township. These dwellings generally take the form of a separate dwelling constructed on the site, a mobile home placed on the site, or an addition to an existing dwelling which effectively creates a two-family dwelling. Generally speaking, this process requires some type of approval under the applicable subdivision and land development ordinance.

The West Cocalico Township Board of Supervisors believe that compliance with all of the requirements of the West Cocalico Township Subdivision, Land Development and Storm Water Management Ordinance for the purpose of providing accessory dwellings can be a timely and expensive process as these projects typically have a minimal impact or be of a temporary nature.

The West Cocalico Township Board of Supervisors hereby adopts these guidelines, by resolution and as may be revised from time to time as deemed necessary by the Township, for inclusion within the Appendix of the West Cocalico Township Subdivision, Land Development and Storm Water Management Ordinance.

## **PROCEDURE**

Accessory Dwelling Units shall be processed in accordance with the following procedure:

1. The applicant shall prepare a sketch plan and a narrative explaining the proposed use. The plan and narrative needs to be detailed enough to demonstrate compliance with the applicable provisions of the Zoning Ordinance and these guidelines.
2. The applicant shall submit the plan and narrative along with a plan preparation modification request in accordance with Sections 309 and 802 of the West Cocalico Township Subdivision, Land Development and Storm Water Management Ordinance.
3. The modification request shall be processed in accordance with the procedures outlined in Sections 309 and 802 of the West Cocalico Township Subdivision, Land Development and Storm Water Management Ordinance.

4. If deemed appropriate, and at the sole discretion of the Township, the modification request shall be approved subject to the continued compliance with these guidelines and any other conditions the Planning Commission or Board of Supervisors deems necessary to carry out the intent of the Township's ordinances.
5. The Township and the landowner shall enter into a mutually beneficial Agreement, as provided for by the Township, that sets forth the purpose of the accessory dwelling unit, the limitations on the re-use of the accessory dwelling, and the level of and types of approvals necessary for the construction or installation of the accessory dwelling.
6. The Agreement shall be recorded in the office of the Recorder of Deeds. Upon proof of recordation of the Agreement, the applicant shall have the necessary approvals under the West Cocalico Township Subdivision, Land Development and Storm Water Management Ordinance for the placement of an accessory dwelling unit.

#### **ACCESSORY DWELLING GUIDELINES**

Accessory Dwelling Units shall be subject to the following guidelines:

1. The accessory dwelling shall comply with the use, lot, area, and setback requirements of the Zoning Ordinance;
2. The proposed dwelling shall be provided with safe and suitable access and parking that complies with the requirements of applicable Township ordinances;
3. The proposed dwelling shall be served by an adequate water source and an approved method of sewage disposal;
4. The accessory dwelling shall be subject to yearly reviews to insure compliance with the approvals;
5. The landowner shall enter into an agreement with the Township, which shall be recorded, that sets forth the understandings and limitations of the accessory dwelling unit; and,
6. The change in use of the accessory dwelling to any use not specifically approved by the Township shall require additional approvals by the Township, including, but not limited to approval under the West Cocalico Township Subdivision, Land Development and Storm Water Management Ordinance.

## **SAMPLE LEGAL DOCUMENTS**

Exhibit A – Improvement Guarantee Agreement - Letter of Credit (Example)

Exhibit B – Improvement Guarantee Agreement - Cash (Example)

Exhibit C – Irrevocable Letter of Credit (Example)

Exhibit D – Request for Final Payment Under Irrevocable Standby Letter of Credit (Example)

Exhibit E – Demand for Payment (Example)

Exhibit F – Developer’s Agreement (Example)

Exhibit G – Storm Water Management and Declaration of Easement (Example)

Exhibit H – Accessory Dwelling Agreement (Example)

## EXHIBIT A

### IMPROVEMENT GUARANTEE AGREEMENT - LETTER OF CREDIT

**THIS AGREEMENT** is made this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and among West Cocalico Township, 156B West Main Street, Reinholds, Lancaster County, Pennsylvania, a political subdivision of the Commonwealth of Pennsylvania, hereinafter called "Township"; and \_\_\_\_\_ of \_\_\_\_\_, Pennsylvania, (hereinafter collectively referred to as "Owner").

#### WITNESSETH:

**WHEREAS**, Owner intends to build certain improvements shown on a plan prepared by \_\_\_\_\_, known as \_\_\_\_\_, Drawing No. \_\_\_\_\_, dated \_\_\_\_\_, 20\_\_\_\_, (hereinafter referred to as the "Plan"); and

**WHEREAS**, the Township requires that security be established to ensure construction in compliance with Township ordinances and resolutions; and

**WHEREAS**, Owner is willing to obtain an irrevocable \_\_\_\_\_ for the funds required to complete construction in compliance with the Township ordinances and resolutions;

**NOW, THEREFORE**, in consideration of the mutual covenants and promises contained therein, the parties do agree as follows:

**ARTICLE I:** Owner shall supply an irrevocable \_\_\_\_\_ (the copy of which is attached hereto and marked as "Exhibit A") issued by \_\_\_\_\_ in order to provide funds in the amount of \_\_\_\_\_ for excavation, street, sidewalk, curb, and storm water system construction (including retention/detention systems), signs, monument placement, and electric lines, (collectively referred to hereafter as "improvements") as-built drawings, and observation costs in accordance with Township specifications and the proposals attached to this Agreement as Exhibit "B". The aforesaid amount of the \_\_\_\_\_ is equal to one hundred ten percent (110%) of the estimated costs of completion of such improvements. In the event that the period for completion of the improvements as set forth below shall exceed one year, the aforesaid amount shall include an additional sum equal to ten percent (10%) of the approved costs of the improvements times as many years in excess of one year as will be required to complete the improvements. The aforesaid irrevocable \_\_\_\_\_ shall remain in effect until released by the Township.

**ARTICLE II:** Owner warrants that the improvements shall be completed within \_\_\_\_\_ of

the date of the execution of this agreement, except for the top coat of paving, PENNDOT specifications 1.5 inch I.D.-2W, which shall be completed within \_\_\_\_\_ of the date of execution of this agreement.

**ARTICLE III:** The Township, by its Engineer or other designated person, will inspect the construction of the improvements at progressive stages of completion as shall be required by the Township. The owner shall reimburse Township for all inspection fees incurred by Township according to the fee schedule adopted by the Township. Such reimbursement shall be due within thirty days from posting of a claim for same from Township to Owner. No release from the \_\_\_\_\_ shall be made until all such outstanding claims have been paid to the Township.

The Owner may request the release of a proportionate part of the security upon the completion of all curbing and the street base coat provided such work totals at least twenty percent (20%) of the total estimated costs of the improvements. Any such requests shall be in writing addressed to the Township, which shall have 45 days from receipt of such request within which to allow the municipal engineer to certify, in writing, that such portion of the work has been completed in accordance with the approved plan and any applicable Township ordinances or regulations. Upon certification as aforesaid, the Township shall authorize a release of the security equal to the amount estimated by the Township engineer to fairly represent the value of the improvements completed and certified. Failure by the Township to respond within the 45 day period shall be deemed an approval of the request for a release.

In the event that the engineer does not approve all or a portion of the work for which the release is requested, he shall specify in writing the nature of the objections and the steps necessary for correction and certification and forward same to Owner. Upon completion of the requested corrections, Owner shall resubmit the request for release as aforesaid. No partial release from any request shall be permitted.

The engineer's certification shall be solely for the purpose of determining that after reduction, the balance remaining on the \_\_\_\_\_ will be adequate to complete the remaining improvements. In no event shall the engineer's certification be construed as, nor is said certification intended as, a representation that the completed work is of any stated value, or deemed to constitute a warranty or representation as to the quality of the workmanship.

**ARTICLE IV:** In the event there is a difference of opinion as to the quality of the work completed, or as to the completion of the work to meet Township's specifications, the decision of Township's representative shall control and Owner's obligation to maintain the \_\_\_\_\_ shall continue until released in whole or in part by the Township.

**ARTICLE V:** It is intended that all improvements built pursuant to the Plan shall be private until offered for dedication and formally accepted by the Township pursuant to Article V.

**ARTICLE VI:** Upon written notice from Owner, the Township agrees to make a final inspection



and within 45 days release Owner from any obligation to maintain the \_\_\_\_\_ if the improvements meet Township's specifications. Despite final inspection, all improvements shall be deemed to be private improvements until such time as the same have been offered for dedication and formally accepted by the Township by ordinance, resolution, deed or other formal document.

In the event that the Township Engineer shall determine, in his sole discretion, that either the work does not comply with all applicable standards, or that work previously determined to be in compliance has been damaged or has unreasonably deteriorated, he shall notify Owner in writing of the work found to be unsatisfactory and shall provide the steps necessary to obtain compliance. Upon completion of the corrections, Owner may resubmit his request for a release as aforesaid. No final release shall be given until all costs of the township claimed to be due from Owner have been paid.

**ARTICLE VII:** Legal, engineering, and observation costs, including engineering and legal costs related to preparation of this agreement and related documents, incurred by the Township through or under this Agreement in regard to all improvements set forth in Article I shall be paid by Owner within 35 days of mailing of notice of claim.

All improvements as specified herein shall be completed in accordance with the standards established and the ordinances existing as of the date of the final plan approval for \_\_\_\_\_. Should said improvements not be completed, then and in that event the Township Engineer may notify the Township that the Owner has defaulted.

**ARTICLE VIII:** The specifications for the various improvements are those set forth on a plan dated \_\_\_\_\_, Drawing No. \_\_\_\_\_, prepared by \_\_\_\_\_, known as \_\_\_\_\_. All improvements shall be constructed in compliance with the Ordinances, Resolutions and Regulations of the Township and Lancaster County (where a conflict exists the most stringent requirement shall control), all of which are by reference made a part hereof.

**ARTICLE IX:** The Township will, prior to the final release at the time of completion and notification by its Engineer, require retention of ten percent (10%) of the estimated costs of the improvements specified herein, which shall be secured by a \_\_\_\_\_, for a period of eighteen (18) months from the date the improvements are constructed and accepted by the Township. It is understood and acknowledged that no improvement shall be accepted for dedication unless Owner shall comply with all of the terms and conditions of Ordinance #80.

**ARTICLE X:** Owner agrees to pay all costs involved in establishing and servicing the \_\_\_\_\_ with \_\_\_\_\_.

**ARTICLE XI:** The following shall be considered events of default under this agreements, whereupon Township shall be entitled to demand payment in full or complete any required improvements not yet completed or to correct or repair any unacceptable improvements and (1) with respect to a default under subparagraphs a-d, thereafter demand from the aforesaid \_\_\_\_\_ payment in full for such improvements or (2) with respect to a default under subparagraph e, immediately upon notice of non-renewal demand from the aforesaid \_\_\_\_\_ in the full amount of such

letter, which amount shall thereafter be held in an interest bearing account (selected by Township in its sole discretion, with interest to follow principal), pending completion of the improvements or substitution of another \_\_\_\_\_ acceptable to the Township:

- a. Failure to complete the improvements within the time allowed for completion above;
- b. Abandonment of the project (abandonment shall be construed to mean failure to perform significant work on the project for a period of ninety (90) consecutive days after the project has been commenced;
- c. Failure to commence correction of any unacceptable construction with thirty (3) days of posting to Owner of written notice as aforesaid or failure to complete such corrections within forty-five (45) days of commencement of correction, which period shall be extended for such time as Owner is unable to work due to acts of God;
- d. Entry by Owner into receivership, insolvency, voluntary or involuntary bankruptcy, or in the event the property upon which the improvements are constructed are listed for sheriff or tax sale; or
- e. Notice from \_\_\_\_\_ to township of intent not to renew Owner's \_\_\_\_\_, following which notice Owner does not within fifteen (15) days provide substitute equivalent security.

In the event that the reasonable cost to complete and or repair the improvements shall exceed the amount remaining available under the \_\_\_\_\_, Owner shall remain personally liable for any such excess. Township shall have the right to collect such excess by any means legally available to it for such purpose.

**ARTICLE XII:** This Agreement shall be construed, performed and enforced in accordance with the laws of the Commonwealth of Pennsylvania.

**ARTICLE XIII:** This Agreement is not transferable or assignable without the written consent of the Township.

**ARTICLE XIV:** This Agreement sets forth the entire Agreement and understanding among the parties as to the subject matter thereof and may be amended subsequent to the date hereof only in writing and if signed by the party to be bound hereby.

**IN WITNESS THEREOF,** and intending to be legally bound thereby, the parties hereto have caused these presents to be executed and their corporate seals thereunto affixed, the day and year first written above.

**WEST COCALICO TOWNSHIP**

BY: \_\_\_\_\_

ATTEST: \_\_\_\_\_

## EXHIBIT B

### IMPROVEMENT GUARANTEE AGREEMENT - CASH

**THIS AGREEMENT** is made this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and among West Cocalico Township, 156B West Main Street, Reinholds, Lancaster County, Pennsylvania, a political subdivision of the Commonwealth of Pennsylvania, hereinafter called "Township"; and \_\_\_\_\_ of \_\_\_\_\_, Pennsylvania, (hereinafter collectively referred to as "Owner");

#### WITNESSETH:

**WHEREAS**, Owner intends to build certain improvements shown on a plan prepared by \_\_\_\_\_, known as \_\_\_\_\_, Drawing No. \_\_\_\_\_, dated \_\_\_\_\_, 20\_\_\_\_, (hereinafter referred to as the "Plan"); and

**WHEREAS**, the Township requires that security be established to ensure construction in compliance with Township ordinances and resolutions; and

**WHEREAS**, The Township requires that security be established to ensure adequate funds to complete the improvements, or to repair any defect or deterioration of the improvements required and constructed according to the plan; and

**WHEREAS**, Owner is willing to provide a cash deposit for the funds required to insure that adequate funds are available to make repairs to such improvements;

**NOW, THEREFORE**, in consideration of the mutual covenants and promises contained therein, the parties do agree as follows:

**ARTICLE I:** Owner shall supply a cash deposit in the form of guaranteed funds in the amount of \_\_\_\_\_ in order to provide funds for excavation, street, sidewalk, curb, and storm water system construction (including retention/detention systems), signs, monument placement, and electric lines, (collectively referred to hereafter as "improvements") as-built drawings, and observation costs in accordance with Township specifications and the proposals attached to this Agreement as Exhibit "B". The aforesaid amount is equal to one hundred ten percent (110%) of the estimated costs of completion of such improvements. In the event that the period for completion of the improvements as set forth below shall exceed one year, the aforesaid amount shall include an additional sum equal to ten percent (10%) of the approved costs of the improvements times as many years in excess of one year as will be required to complete the improvements. The aforesaid shall remain in effect until released by the Township.

The Township shall have the right to deposit the aforesaid funds in any chartered depository in any

form of interest bearing account which it, in its sole judgment, shall deem advisable. Such account shall be titled the "West Cocalico Township/\_\_\_\_\_ Security Fund"; the only approved signatories shall be the Chairman and Secretary of the board of Supervisors of West Cocalico Township; and the account shall bear the social security number/tax identification number for the owner of the tract, which is \_\_\_\_\_; the Township shall have the absolute right to withdraw all or any portion of the fund at any time to effect any completion, repair or maintenance to the improvements during the holding period and for any breach of this agreement; thereafter, the Township shall give written notice of such withdrawal.

The Owner hereby waives and releases any claim which it may at any time have against the Township, its agents or employees, arising from the rate of interest received on the aforesaid account, the failure of the institution wherein the funds are deposited, the type of account chosen for the fund, any taxes or charges which may accrue for such account, and for any penalties resulting from early withdrawal. Upon successful completion of this agreement, all funds held plus accrued interest shall be returned to the Owner, less any withdrawals as aforesaid. In the event of a withdrawal of funds pursuant to this agreement, the interest shall be available for application towards the costs necessitating such withdrawal.

**ARTICLE II:** Owner warrants that the improvements shall be completed within \_\_\_\_\_ of the date of the execution of this agreement, except for the top coat of paving, PENNDOT specifications 1.5 inch I.D.-2W, which shall be completed within \_\_\_\_\_ of the date of execution of this agreement.

**ARTICLE III:** Owner warrants that the improvements will be properly constructed, completed according to the applicable plans and specifications, and that adequate provisions have been made to insure that the record owner of such improvements shall properly maintain same. It is hereby agreed that Township shall have no responsibility to maintain or clean the improvements and shall have complete discretion concerning what, if any, repairs are to be taken.

**ARTICLE IV:** The Township, by its Engineer or other designated person, will inspect the construction of the improvements at progressive stages of completion as shall be required by the Township. The owner shall reimburse Township for all inspection fees incurred by Township according to the fee schedule adopted by the Township. Such reimbursement shall be due within thirty days from posting of a claim for same from Township to Owner. No release from the cash deposit shall be made until all such outstanding claims have been paid to the Township.

The Owner may request the release of a proportionate part of the security upon the completion of all curbing and the street base coat provided such work totals at least twenty percent (20%) of the total estimated costs of the improvements. Any such requests shall be in writing addressed to the Township, which shall have 45 days from receipt of such request within which to allow the municipal engineer to

certify, in writing, that such portion of the work has been completed in accordance with the approved plan and any applicable Township ordinances or regulations. Upon certification as aforesaid, the Township shall authorize a release of the security equal to the amount estimated by the Township engineer to fairly represent the value of the improvements completed and certified. Failure by the Township to respond within the 45 day period shall be deemed an approval of the request for a release.

In the event that the engineer does not approve all or a portion of the work for which the release is requested, he shall specify in writing the nature of the objections and the steps necessary for correction and certification and forward same to Owner. Upon completion of the requested corrections, Owner shall resubmit the request for release as aforesaid. No partial release from any request shall be permitted.

The engineer's certification shall be solely for the purpose of determining that after reduction, the balance remaining of the cash deposit will be adequate to complete the remaining improvements. In no event shall the engineer's certification be construed as, nor is said certification intended as, a representation that the completed work is of any stated value, or deemed to constitute a warranty or representation as to the quality of the workmanship.

**ARTICLE V:** The Owner shall reimburse Township for all inspection fees incurred by Township according to the fee schedule adopted by the Township. Such reimbursement shall be due within thirty days from posting of a claim for same from Township to Owner. No release from the aforesaid fund to Owner shall be made until all such outstanding claims have been paid to the Township.

**ARTICLE VI:** In the event there is a difference of opinion as to the quality of the work completed, or as to the completion of the work to meet Township's specifications, the decision of Township's representative shall control the cash deposit shall be retained until it shall be released in whole or in part by the Township.

**ARTICLE VII:** It is intended that all improvements built pursuant to the Plan shall be private until offered for dedication and formally accepted by the Township pursuant to Article V.

**ARTICLE VIII:** Upon written notice from Owner, the Township agrees to make a final inspection and within 45 days refund to Owner the remaining cash deposit, less retainage for repairs as provided hereinafter, if the improvements meet Township's specifications. Despite final inspection, all improvements shall be deemed to be private improvements until such time as the same have been offered for dedication and formally accepted by the Township by ordinance, resolution, deed or other formal document.

In the event that the Township Engineer shall determine, in his sole discretion, that either the work does not comply with all applicable standards, or that work previously determined to be in compliance has been damaged or has unreasonably deteriorated, he shall notify Owner in writing of the work found to be unsatisfactory and shall provide the steps necessary to obtain compliance. Upon completion of the corrections, Owner may resubmit his request for a release as aforesaid. No final release shall be given until all costs of the township claimed to be due from Owner have been paid.

**ARTICLE IX:** Legal, engineering, and observation costs, including engineering and legal costs related to preparation of this agreement and related documents, incurred by the Township through or under this Agreement in regard to all improvements set forth in Article I shall be paid by Owner within 35 days of mailing of notice of claim.

All improvements as specified herein shall be completed in accordance with the standards established and the ordinances existing as of the date of the final plan approval for \_\_\_\_\_. Should said improvements not be completed, then and in that event the Township Engineer may notify the Township that the Owner has defaulted.

**ARTICLE X:** The specifications for the various improvements are those set forth on a plan dated \_\_\_\_\_, Drawing No. \_\_\_\_\_, prepared by \_\_\_\_\_, known as \_\_\_\_\_. All improvements shall be constructed in compliance with the Ordinances, Resolutions and Regulations of the Township and Lancaster County (where a conflict exists the most stringent requirement shall control), all of which are by reference made a part hereof.

**ARTICLE XI:** The Township will, prior to the final release at the time of completion and notification by its Engineer, require retention of ten percent (10%) of the estimated costs of the improvements specified herein, which shall be retained from the cash deposit for a period of eighteen (18) months from the date the improvements are constructed and accepted by the Township. It is understood and acknowledged that no improvement shall be accepted for dedication unless Owner shall comply with all of the terms and conditions of Ordinance #80. Such retained funds may be applied by Township to effect repairs of the improvements if repairs are not commenced within seven (7) days of posting of notice and completed within seven (7) days of commencement.

**ARTICLE XII:** Owner agrees to pay all costs involved in establishing and servicing the fund.

**ARTICLE XI:** The following shall be considered events of default under this agreements, whereupon Township shall be entitled to demand payment in full or complete any required improvements not yet completed or to correct or repair any unacceptable improvements and (1) with respect to a default under subparagraphs a-d, thereafter demand from the aforesaid \_\_\_\_\_ payment in full for such improvements or (2) with respect to a default under subparagraph e, immediately upon notice of non-renewal demand from the aforesaid \_\_\_\_\_ in the full amount of such letter, which amount shall thereafter be held in an interest bearing account (selected by Township in its sole discretion, with interest to follow principal), pending completion of the improvements or substitution of another \_\_\_\_\_ acceptable to the Township:

- a. Failure to complete the improvements within the time limits set forth above.
- b. In the event that Township shall offer Owner the opportunity to correct a defect or damage to the improvements, failure to commence correction of same within seven (7) days of posting to Owner of written notice as aforesaid, or failure to complete such corrections within seven (7) days of commencement of correction, which period shall be extended for such time as Owner is unable to work due to acts of God; or
- c. Entry by Owner into receivership, insolvency, voluntary or involuntary bankruptcy, or

in the event the property upon which the improvements are constructed are listed for sheriff or tax sale.

In the event that the reasonable cost to complete and or repair the improvements shall exceed the amount remaining available under the fund, Owner shall remain personally liable for any such excess. Township shall have the right to collect such excess by any means legally available to it for such purpose.

**ARTICLE XIV:** This Agreement shall be construed, performed and enforced in accordance with the laws of the Commonwealth of Pennsylvania.

**ARTICLE XV:** This Agreement is not transferable or assignable without the written consent of the Township.

**ARTICLE XVI:** This Agreement sets forth the entire Agreement and understanding among the parties as to the subject matter thereof and may be amended subsequent to the date hereof only in writing and if signed by the party to be bound hereby.

**ARTICLE XVII:** The Agreement shall be binding upon and shall inure to the benefit of the parties, their heirs, administrators, successors and assigns.

**IN WITNESS THEREOF,** and intending to be legally bound thereby, the parties hereto have caused these presents to be executed and their corporate seals thereunto affixed, the day and year first written above.

**WEST COCALICO TOWNSHIP**

BY:\_\_\_\_\_

ATTEST:\_\_\_\_\_

## EXHIBIT C

### IRREVOCABLE STANDBY LETTER OF CREDIT

No. \_\_\_\_\_

TO: TOWNSHIP OF WEST COCALICO  
156B West Main Street  
PO Box 244  
Reinholds, PA 17569

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

L/C #: \_\_\_\_\_  
AMOUNT: \_\_\_\_\_

FROM: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

EXPIRATION DATE: \_\_\_\_\_  
PHONE: \_\_\_\_\_

ON BEHALF OF:

\_\_\_\_\_  
Name of developer

\_\_\_\_\_  
Address

\_\_\_\_\_  
Phone

\_\_\_\_\_ (hereinafter called "Bank") hereby issues to the West Cocalico Township (hereinafter called "Issuee") on behalf of \_\_\_\_\_ (hereinafter called "Benefactor"), an irrevocable letter of credit (hereinafter called "Letter") in the amount of \_\_\_\_\_ (\$\_\_\_\_\_) US Dollars.

This Letter is issued on behalf of Developer and is intended to secure the completion of the public improvements shown in the final plan and related documents submitted by developer prepared by \_\_\_\_\_, dated \_\_\_\_\_, Project No. \_\_\_\_\_ and intended for immediate recording (hereinafter called "Final Plan").

THIS LETTER EXPIRES \_\_\_\_\_ (not prior to one year after its date), or upon Bank's receipt of written notification from Issuee of completion/satisfaction or the item(s) identified above as the obligation of the Benefactor, whichever shall first occur.

The expiration date of this Letter of Credit shall be automatically extended for additional on (1) year



periods beginning with the expiration date and upon each anniversary of such date, unless at least thirty (30) days prior to such expiration date or each anniversary of such date we notify West Cocalico Township in writing by certified mail, addressed to West Cocalico Township at PO Box 244, Reinholds, PA 17569, that we elect not to renew this Letter of Credit.

For each yearly period that this Letter of Credit is automatically extended beyond \_\_\_\_\_ (one year from date), the amount of this Letter of Credit shall be increased by an additional (Sum A) or ten (10%) percent of the outstanding balance, whichever is less, but such increases shall not exceed a total of more than (Sum A x 2) in the aggregate in any event.

Partial drawings are permitted but the aggregate total may not exceed the amount stated above.

PAYMENT will be available upon presentation to the Bank of the original of this Letter, your draft in the form attached and marked exhibit "D", and a statement that the draft is being submitted pursuant to the Improvement Guarantee Agreement between the parties. Any and all drafts must be presented to the Bank on or before the expiration date herein stated by an authorized officer/agent of the Issuee. The Township Solicitor or the Township Manager shall be deemed to be acceptable officers or agents for this purpose. Any other person presenting a draft shall also present documentation acceptable to (Name of Bank) as to the identity of such officer/agent, and his/her authorization to request regular payment.

Drafts under this credit must be marked: "Drawn under Standby Letter of Credit No. \_\_\_\_\_ dated \_\_\_\_\_ from the \_\_\_\_\_ (Name of Bank)."

Very truly yours ,

\_\_\_\_\_  
Name of lender

BY: \_\_\_\_\_  
Authorized signature

BY: \_\_\_\_\_  
Authorized signature

## EXHIBIT D

### SIGHT DRAFT

### REQUEST FOR FINAL PAYMENT UNDER IRREVOCABLE STANDBY LETTER OF CREDIT

TO: \_\_\_\_\_  
(Name of Bank)  
\_\_\_\_\_  
(Street /Mailing Address)  
\_\_\_\_\_  
(City, state, zip)

RE: Irrevocable Standby Letter of Credit No. \_\_\_\_\_ dated \_\_\_\_\_  
Aggregate Amount - \$ \_\_\_\_\_

On behalf of: \_\_\_\_\_  
(Name of Developer)  
\_\_\_\_\_  
(Street/mailling address)  
\_\_\_\_\_  
(City, state, zip)

Issuee: West Cocalico Township  
P.O. Box 244  
Reinholds, PA 17569

West Cocalico Township, Issuee above-named, hereby presents this Sight Draft – Request for Payment in accordance with the terms and conditions set forth in the above identified Irrevocable Standby Letter of Credit and by making this request the Issuee certifies as follows:

1. The Letter of Credit above referenced was issued on behalf of the Benefactor above named for the sole purpose of guaranteeing certain improvements shown on a plan prepared by (name of engineer) known as the Final Subdivision Plan for (name of developer), Drawing No. \_\_\_\_\_, dated \_\_\_\_\_.
2. The Letter of Credit above referenced has not expired by its terms nor have we, the Issuee, delivered written notification to (Name of Bank) that the item(s) identified above as the obligation of the Benefactor has been completed/satisfied; and,
3. The original of the above referenced Irrevocable Standby Letter of Credit is being presented with the Sight Draft – Request for Payment.
4. This Sight Draft – Request for Payment is in the amount of \$ \_\_\_\_\_ and as such does not

exceed the aggregate amount above set forth, i.e., \$\_\_\_\_\_.

5. This Sight Draft – Request for Payment is being presented by the Township Manager/the Township Solicitor, or if another, a duly authorized officer/agent of the Issuer, with documentation acceptable to (Name of Bank) as to the identity of such officer/agent and his/her authorization to request payment.

Dated at \_\_\_\_\_, Pennsylvania this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

West Cocalico Township

By: \_\_\_\_\_

Attachments: Original of Irrevocable Standby Letter of Credit No. \_\_\_\_\_;  
Issuer's officer/agent authorization.

## EXHIBIT E

### DEMAND FOR FINAL PAYMENT

TO: \_\_\_\_\_ Bank

Attention:

We hereby demand payment to the West Cocalico Township Supervisors the sum of \_\_\_\_\_ Dollars and \_\_\_\_\_ Cents (\$\_\_\_\_\_) and certify that this demand is due to failure of \_\_\_\_\_ to complete to our satisfaction improvements on \_\_\_\_\_, Drawing No. \_\_\_\_\_, dated \_\_\_\_\_, 20\_\_\_\_, for development known as \_\_\_\_\_, recorded in \_\_\_\_\_.

ATTEST:

**WEST COCALICO TOWNSHIP  
SUPERVISORS**

BY: \_\_\_\_\_

BY: \_\_\_\_\_

BY: \_\_\_\_\_

BY: \_\_\_\_\_

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

# EXHIBIT F

## DEVELOPER'S AGREEMENT

Date

Board of Supervisors  
West Cocalico Township  
156B West Main Street  
P.O. Box 244  
Reinholds, PA 17569

Developer's Agreement  
Re: Final Plan of **(1)**

Dear Supervisors:

In consideration for the Board of Supervisors of the Township of West Cocalico accepting an improvement guarantee in the form of a letter of credit from **(2)** in the amount of **(3)** as security for the completion of the necessary subdivision and/or land development improvements pertaining to the final plan of **(4)**, prepared by **(5)**, Project No. **(6)**, the undersigned agrees to complete all of the improvements, except as hereinafter provided, which are part of the above-referenced subdivision and/or land development on or before **(7)**, said time being of the essence of this commitment to complete said improvements.

All improvements to be constructed and/or installed and/or financed in whole or in part by the undersigned (as well as the estimated costs of completing each) are listed on Exhibit "A" attached hereto, which is expressly made a part of this commitment to complete said improvements. The following shall be applicable to the improvements:

- A. **General Construction.** All general earthwork shall be performed in accordance with Section 200 of the Pennsylvania Department of Transportation ("PENNDOT") Publication 408, latest edition.
- B. **Inspections.** The undersigned shall notify the Township at least one full working day (24 hours) prior to the start of any improvements subject to inspection. The undersigned shall request all inspections of completed required items, in writing, at least two full working days (48 hours) in advance. The undersigned shall so notify the Township for the following activities, which the undersigned acknowledges are activities for which inspection is required:
- C. **General Site.**
  - 1. Upon completion of preliminary site preparation, including stripping of vegetation, stockpiling of topsoil and construction of temporary erosion and sedimentation control devices, but prior to rough grading.
  - 2. Upon completion of rough grading, but prior to placing topsoil, permanent drainage or other site development improvements and ground covers.

3. Upon completion of storm sewer grading, but prior to backfilling
4. Upon finished grading of swales, spillways, and other facilities, but prior to placing of rock lining or grass cover.
5. Upon completion of detention basin outlet pipes, outlet structures, and anti-seep collars, but prior to backfilling.
6. Upon final completion of permanent storm water management facilities, including the establishment of ground covers and plantings.
7. After review of the as-built drawings, but prior to final release of the financial security to secure completion of the final grading and other site restoration work.

**D. Storm Water Management.**

1. The undersigned shall construct storm water management facilities as shown on the plans in order to adequately control and manage surface water. In the event that at any time during the construction period the Township Engineer determines that the storm water management facilities as designed are inadequate, the undersigned shall submit for approval a revised storm water management plan and shall make all the changes necessary to the storm water management facilities to adequately control and manage surface water. The undersigned shall obtain at its sole expense any necessary storm drainage easements. The undersigned shall insure that the owner and the Township shall enter into a separate agreement concerning the maintenance of the storm water management facilities.
2. Upon completion of storm sewer installation, but prior to backfilling.
3. Upon finished grading of swales, spillways, and other facilities, but prior to placing of rock lining or grass cover.
4. Upon completion of detention basin outlet pipes, outlet structures, and anti-seep collars, but prior to backfilling.
5. Upon final completion of permanent storm water management facilities, including the establishment of ground covers and plantings.

**E. Streets And Construction.**

1. **Preparation of Road Subgrade.** At the time of this observation, the subgrade should be proof rolled and the proposed crown and grade should be checked. It is recommended that a developer's/contractor's representative accompany the observer when the crown and grade are checked. Proof rolling should be performed with a fully loaded, tandem-axle dump truck.

2. **Placement and Compaction of Road Subbase.** At the time of this observation, the depth of subbase should be checked after compaction, the subbase should be proof rolled in the same manner as the subgrade and the crown and grade should be checked again. This observation must occur prior to any binder or base course being placed.
3. **Placement and Compaction of the Binder/Base Course.** At the time of this observation, the depth of the binder/base course should be checked, ambient temperature should be monitored (this is important in early spring and late fall days when the temperature can go below acceptable limits), the temperature of the bituminous material should be checked (if possible), and it is recommended that copies of the weight slips for each truckload are obtained. The crown and grade should also be checked again. This observation must occur prior to the wearing course being placed.
4. **Placement and Compaction of the Wearing Course.** At the time of this observation, the guidelines for the placement and compaction of the binder/base course should be followed.
  - a. If at the time the surface course is completed, less than ninety (90) percent of the total number of lots or units of occupancy of the entire project (as opposed to ninety (90) percent of the total number of lots or units of occupancy of a particular phase) are complete, the Township shall require the posting of an agreement and financial security to secure against street damage caused by construction of the remaining lots or units of occupancy. Said agreement shall be in a form acceptable to the Township, and the financial security shall be of the same type as otherwise required in Section 509 of the Pennsylvania Municipalities Planning Code (MPC) with regard to installation of such improvements and the amount of such financial security shall be five (5) percent of the actual cost of the installation of the said street and related improvements or portion thereof. The agreement and financial security shall be irrevocable and remain in effect until such time as a minimum ninety (90) percent of the total number of lots or units of occupancy of the entire project (as opposed to ninety (90) percent of the total number of lots or units of occupancy of a particular phase) are completed. The Township shall hold such financial security and utilize it to pay for the repair of any damage occurring to the street and related improvements or portion thereof during the period between the commencement of construction of any particular lot or unit of occupancy and the completion of such construction irrespective of whether or not it can be established that the damage to the road was caused by contractors or other persons working in and about the lot or unit of occupancy. The developer shall submit a request in writing for the release of the agreement and financial security provided to secure against street damage caused by construction of the remaining lots or units of occupancy.
5. **Signs.** The undersigned shall erect such street sign or signs, traffic control sign or signs and no parking sign or signs within the tract as shall be determined exclusively by the Township. Such signs shall be of the type, size and construction designated by the Township and shall be paid for by the undersigned. The undersigned shall also pay for the cost of any traffic studies required to be performed under the Vehicle Code and any legal and advertising costs incurred by the Township to enact the necessary traffic ordinances in connection with the erection of such signs.

- F. Prior to the submission of any final plan for (1) and prior to final release of financial security, the developer shall provide the Township with two (2) sets of paper prints of the as-built plan showing the following:
1. Actual location of all concrete monuments which were placed to monument the right-of-way line along at least one (1) side of each street at the beginning and end of all curves including intersection radii and at all angles. When the outside perimeter of a tract falls within or along an existing road right-of-way, then the right-of-way of that roadway shall be monumented at the above referenced points.
  2. Actual location of all iron pins or drill holes in curbs for all individual lot lines.
  3. Actual cul-de-sac radius.
  4. Actual horizontal and vertical location of cartway centerline versus right-of-way centerline.
  5. Actual location of floodplain by elevation and dimension from property line.
  6. Actual location and cross section of swales and accompanying easements.
  7. Actual horizontal and vertical location of storm water management facilities including type and size of storm drainage pipes.
  8. Detention basin:
    - a. Actual contours of the detention basin.
    - b. Actual outlet structure details including type, size and inverts of outlet pipes.
    - c. Actual elevation of the embankment and emergency spillway.
    - d. A table showing the stage/storage/discharge curve for the constructed conditions.
    - e. A table providing a comparison of the approved design vs. the as-built discharge rates from all detention facilities.
- G. **Signs.** The undersigned shall erect such street sign or signs, traffic control sign or signs and no parking sign or signs within the tract as shall be determined exclusively by the Township. Such signs shall be of the type, size and construction designated by the Township and shall be paid for by the undersigned. The undersigned shall also pay for the cost of any traffic studies required to be performed under the Vehicle Code and any legal and advertising costs incurred by the Township to enact the necessary traffic ordinances in connection with the erection of such signs.
- H. **Miscellaneous.** In addition to the above outlined observations, additional observations may be made at the request of the undersigned for reduction of financial security. Random observations will be made at the frequency desired by the Township. At the time of any of the above-listed observations, the undersigned acknowledges that all ongoing construction (i.e. storm drainage, erosion control, etc.) will also be checked for compliance with the approved plans and the



findings reported. Since the above inspections are mandatory, the undersigned agrees that requests for reduction of financial security shall be submitted to coincide with the above inspections.

- I. During construction the undersigned agrees to maintain the tract in a safe and sanitary fashion and shall insure the collection and proper disposal of all waste material, such as paper, cartons and the like and shall prevent the same from being deposited, and then either thrown or blown upon the tracts adjacent to the tract or upon the tract itself.
- J. The undersigned agrees to pay all inspection fees imposed by the Township in connection with the inspection of the improvements set forth on Exhibit "A". The undersigned also agrees to reimburse the Township for the necessary legal and advertising expenses in the preparation of traffic ordinances, deeds and resolutions for the acceptance of streets, the review of improvements guarantees and like matters.
- K. In the event all of said improvements are not completed on or before (7), and all inspection fees are not paid, the undersigned acknowledges that the Township shall have the right, without further notice to the undersigned, to submit a demand to (8) for disbursement of funds under the aforesaid letter of credit. The undersigned also acknowledges that if the proceeds of such letter of credit are insufficient to pay the cost of installing or making repairs or corrections to all of the improvements covered by said letter of credit and to pay all inspection fees, the Township may, at its option, install all or part of said improvements and may institute appropriate legal or equitable actions to recover the monies necessary to complete the remainder of the improvements and to collect any inspection fees.
- L. The Township shall also have the right to demand payment of all or a portion of the letter of credit in the event the Township receives notice that the letter of credit will be canceled or terminated prior to the time that all of the improvements have been completed and approved by the Township Engineer. Furthermore, in accordance with the provisions of Section 509 of the Pennsylvania Municipalities Planning Code ("MPC"), the undersigned agrees to post additional security with the Township if, as a result of annual adjustments concerning the estimated cost for the completion of the remaining improvements, such additional security is necessary to assure that the financial security in effect at that time equals one hundred ten (110%) percent of the estimated cost of completion calculated in the manner required by said Section 509 of the MPC.
- M. With respect to any of the improvements which are dedicated to and accepted by the Township following completion, the undersigned, if required to do so by the Township, shall post financial security or otherwise guarantee the structural integrity of said improvements as well as the functioning of said improvements in accordance with the design and specifications as depicted on the final plan for a term not to exceed eighteen (18) months from the date of acceptance of dedication. Said financial security, if required, shall be in the form and in the amount required by Section 509 of the MPC.
- N. The construction of all improvements shall be completed in strict conformity to the specifications and regulations of the Township, the County and the Pennsylvania Department of Transportation. The undersigned shall comply with all applicable requirements regarding the development of steep slopes.

- O. The Township, its agents, servants and employees, shall have no responsibility or liability with regard to the design, inspection, observation and/or installation of the improvements which are to be installed in connection with the development of this subdivision, and the undersigned shall indemnify and hold harmless the Township, its agents, servants and employees, from any costs of investigation or defense, attorneys' fees, claims, liability or damages arising therefrom.
- P. In the event any existing Township streets, drainage structures or other facilities are disturbed, subjected to excessive wear and tear, damaged or destroyed during the course of the development of the tract or the installation of the above-described subdivision or land development improvements, including but not limited to damages resulting from openings into Township streets to install underground facilities or resulting from travel or use by vehicles or construction equipment, the undersigned agrees, at its cost, to repair or, if necessary, replace such Township facilities.
- Q. This commitment shall be binding upon the successors and assigns of the undersigned.
- R. Unless the contrary clearly appears from the context, for the purposes of this document the singular number includes the plural number and vice versa; and each gender includes the other genders.

IN WITNESS WHEREOF, the undersigned, intending to be legally bound by the herein stated commitments, has signed this letter this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

(Individual or Husband and Wife Developer)

\_\_\_\_\_(SEAL)  
(Signature of Individual)

\_\_\_\_\_(SEAL)  
(Signature of Spouse if Husband  
and Wife are Co-Developers)

Witness:

Trading and doing business as:

\_\_\_\_\_

\_\_\_\_\_

(Partnership Developer\*)

\_\_\_\_\_  
(Name of Partnership)

Witness:

\_\_\_\_\_

By: \_\_\_\_\_ (Seal)  
Partner

\_\_\_\_\_

By: \_\_\_\_\_ (Seal)  
Partner

\_\_\_\_\_

By: \_\_\_\_\_ (Seal)  
Partner

\*All Partners must execute this Agreement

(Corporation Developer)

\_\_\_\_\_  
(Name of Corporation)

ATTEST:

By: \_\_\_\_\_  
(Assistant) Secretary

By: \_\_\_\_\_  
(Vice) President or  
\*\*Authorized Representative

[CORPORATE SEAL]

\*\*Attach appropriate proof, dated as of the same date as the Agreement, evidencing authority to execute on behalf of the corporation.

Instructions to Complete Developer's  
Letter-Agreement Regarding Subdivision and/or  
Land Development Improvements

1. Name of subdivision and/or land development
2. Name of lending institution issuing letter of credit.
3. Amount of letter of credit.
4. Full name of developer.
5. Name of firm which prepared subdivision or land development plan.
6. Drawing or Project Number of plan assigned by firm which prepared plan.
7. Date by which all improvements is (are) to be completed.
8. Name of lending institution issuing letter of credit.

## **EXHIBIT G**

### **STORM WATER MANAGEMENT AGREEMENT AND DECLARATION OF EASEMENT**

**THIS AGREEMENT AND DECLARATION OF EASEMENT** made this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, by and between **TOWNSHIP OF WEST COCALICO**, Lancaster County, Pennsylvania, a municipal corporation duly organized under the laws of the Commonwealth of Pennsylvania, with its municipal office located at 156B West Main Street, Reinholds, Pennsylvania, 17569 (hereinafter referred to as the "Township") and \_\_\_\_\_, a \_\_\_\_\_ with offices located at \_\_\_\_\_ (hereinafter whether singular or plural referred to as the "Grantor").

#### **BACKGROUND**

Grantor is the owner of premises located at \_\_\_\_\_, in the Township of West Cocalico, Lancaster County, Pennsylvania, as more specifically described in a deed recorded in Deed Book \_\_\_\_\_, Volume \_\_\_\_\_, Page \_\_\_\_\_ in the Office of the Recorder of Deeds in and for Lancaster County, Pennsylvania, and as shown on the plan for \_\_\_\_\_, prepared by \_\_\_\_\_, Drawing No. \_\_\_\_\_, dated \_\_\_\_\_, last revised \_\_\_\_\_, (hereinafter referred to as the "Premises").

Prior to beginning construction on any subdivision, Grantor is required, under the West Cocalico Township Subdivision, Land Development and Storm Water Management Ordinance (the "Township Ordinance") to file a plan with the Township and obtain approval from the Board of Supervisors. Section 610.9 of the Township Ordinance requires the Grantor to provide for the maintenance of the storm water management facilities. Section 610.9 of the Ordinance requires that Grantor's final plan reflect and/or be accompanied with supporting documentation which identifies the ownership of, and the method of administering and maintaining, all permanent storm water management facilities.

The purpose of this Agreement and Declaration of Easement is to describe the ownership and maintenance responsibilities for the storm water facilities which will be installed on the Premises and to impose the ownership and maintenance responsibilities upon Grantor, his heirs, personal representatives and assigns and upon successor owners of the Premises, and set forth the rights of the Township.

NOW, THEREFORE, intending to be legally bound hereby and in consideration of receiving approval of its Storm Water Management Plan from the Board of Supervisors, and in consideration of receiving permits from the Township to develop the Premises, Grantor, for Grantor and the heirs, personal representatives and assigns of Grantor, covenant and declare as follows:

1. The storm water facilities will be owned by Grantor, his heirs, personal representatives, successors

and assigns.

2. All drainage courses, swales, storm water inlets, pipes, conduits, detention basins and other storm water facilities shall be installed, constructed and maintained by Grantor, his heirs, personal representatives, successors and assigns, in a first-class condition in conformance with the Final Plan, as approved by the Board of Supervisors, including any accompanying storm water management plans and information, and as recorded in the Office of the Recorder of Deeds in and for of Lancaster County, and in compliance with the regulations of the Township Ordinance and in a manner sufficient to meet or exceed the performance standards and specifications set forth on the Final Plan, as approved by the Board of Supervisors, including any accompanying storm water management plans and information, and as recorded in the Office of the Recorder of Deeds in and for Lancaster County. These responsibilities shall include, but not be limited to, the following:
  - a. Liming, fertilizing, seeding and mulching of vegetated channels and all other unstablized soils or areas according to the specifications in the "Erosion and Sediment Pollution Control Manual" published by the Pennsylvania Department of Environmental Protection or such similar accepted standard.
  - b. Reestablishment of vegetation by seeding, mulching and use of erosion matting or sodding of scoured areas or areas where vegetation has not been successfully established.
  - c. Mowing as necessary to maintain adequate stands of grass and to control weeds. Chemical weed control may be used if federal, state and local laws and regulations are met. Selection of seed mixtures shall be subject to approval by the Township.
  - d. Removal of silt from all permanent structures which trap silt or sediment in order to keep the material from building up in grass waterways and thus reducing their capacity.
  - e. Regular inspection of the areas in question to assure proper maintenance and care.
  - f. All pipes, swales and detention facilities shall be kept free of any debris or other obstruction, including ice and snow.

Grantor, his heirs, personal representatives, successors and assigns, shall be responsible for performing the foregoing maintenance.

3. Grantor, for himself, his heirs, personal representatives, successors and assigns, agrees that the failure to maintain all drainage courses, swales, storm water inlets, pipes, conduits, detention basins, and other storm water management facilities in a first-class condition in conformance with this Agreement, the Township Ordinance and the Final Plan, as approved by the Board of Supervisors, including any accompanying storm water management plans and information, and as recorded in the Office of the Recorder of Deeds in and for Lancaster County, shall constitute a nuisance and shall be abatable by the Township as such.
4. Grantor, for himself, his heirs, personal representatives, successors and assigns, authorize the Township, at any time and from time to time, by its authorized representatives, to enter upon the Premises to inspect the storm water facilities.

5. The Township may require that Grantor, and assigns or any future owner or occupier of the Premises or any part thereof, take such corrective measures as the Township may deem reasonably necessary to bring the Premises into compliance with this Agreement, with the Township Ordinance, and with the Final Plan, as approved by the Board of Supervisors, including any accompanying storm water management plans and information, and as recorded in the Office of the Recorder of Deeds in and for Lancaster County.
6. Upon the failure of the owner or occupier of the Premises or any part thereof to comply with the terms of this Storm Water Management Agreement or to take corrective measures following reasonable notice from the Township, the Township, through its authorized representatives, may take such corrective measures as it deems reasonably necessary to bring the Premises into compliance with this Agreement, with the Township Ordinance and with the Final Plan, as approved by the Board of Supervisors, including any accompanying storm water management plans and information, and as recorded in the Office of the Recorder of Deeds in and for Lancaster County, including, but not limited to, the removal of any blockage or obstruction from drainage pipes and swales, and may charge the cost thereof to Grantor, his heirs, personal representatives, successors and assigns, or any owner of the Premises or any part thereof and, in default of such payment, may cause a municipal lien to be imposed upon the Premises or any part thereof.
7. If ownership or maintenance responsibility of the storm water management facilities is assigned to a home owners' association, condominium unit owners' association, or similar entity, the Township shall be notified. If such association fails to properly maintain the storm water management facilities, the Township shall have the same rights granted to municipalities under Section 705 of the Pennsylvania Municipalities Planning Code, Act of July 31, 1968, P.L. 805, No. 247, with reference to maintenance of common open space, to maintain the storm water management facilities. Any association so formed shall enter into an agreement with the Township recognizing its duties and the Township's rights under this Agreement.
8. Grantor hereby imposes upon the Premises for the benefit of all present and future owners of the Premises or part of the Premises, the Township, and all other property owners affected by the storm water facilities, the perpetual right, privilege and easement for the draining of storm water in and through the drainage courses, swales, storm water inlets, pipes, conduits, detention basins and other storm water facilities depicted on the plan or plans submitted to the Township or hereafter made of record and now or hereafter installed on or constructed upon the Premises and, in addition, easements of access to the storm water facilities.
9. Grantor agrees to indemnify the Township and all of its elected and appointed officials, agents and employees (hereafter collectively referred to as the "Indemnitees") against and hold Indemnitees harmless from any and all liability, loss or damage, including attorneys' fees and costs of investigation and defense, as a result of claims, demands, costs or judgments against Indemnitees which arise as a result of the design, installation, construction or maintenance of the storm water

facilities.

10. Grantor's personal liability under this Agreement shall cease at such time as (a) all storm water management facilities have been constructed in accordance with the specifications of the West Cocalico Township Subdivision, Land Development and Storm Water Management Ordinance and the approved plans; (b) the storm water management facilities have been inspected and approved by the Township Engineer; (c) all financial security, including any maintenance security, posted by Grantor has been released by the Township; and (d) Grantor has transferred all lots to be created from the Premises to third parties. Notwithstanding the foregoing, Grantor's personal liability shall continue for any violations of this Agreement and Declaration of Easement which occurred during the time that Grantor owned the Premises or any lot created from the Premises or in the event the storm water management facilities were not completed, inspected or approved as set forth in (a) through (c) herein.
11. It is the intent of the parties to this Agreement that personal liability and maintenance obligations shall pass to subsequent title owners upon change in ownership of the Premises or any lot created from the Premises, and such subsequent owners shall assume all personal liability and maintenance obligations for the time period during which they hold title. Personal liability shall remain for any violations of this Agreement and Declaration of Easement which occurred during the period in which an owner held title.
12. This Agreement and Declaration of Easement shall be binding upon the Grantor, the successors and assigns of Grantor, and all present and future owners of the Premises or any part thereof and is intended to be recorded in order to give notice to future owners of the Premises of their duties and responsibilities with respect to the storm water facilities. Grantor shall include a specific reference to this Agreement in any deed of conveyance for the Premises or any part thereof.
13. This Agreement and Declaration of Easement may be amended only by written instrument signed on behalf of all owners of the Premises and the Township.
14. When the sense so requires, words of any gender used un this Agreement and Declaration of Easement shall be held to include any other gender, and the words in the singular number shall be held to include the plural, and vice versa.

IN WITNESS WHEREOF, the undersigned have caused this Agreement and Declaration to be executed on the day and year first above written.

TOWNSHIP OF WEST COCALICO

Attest: \_\_\_\_\_  
(Assistant) Secretary

By: \_\_\_\_\_  
(Vice) Chairman Board of Supervisors

[TOWNSHIP SEAL]



(Individual Developer)

Witness:

\_\_\_\_\_  
(Signature of Individual) \_\_\_\_\_(SEAL)

Trading and doing business as:

\_\_\_\_\_

-----  
(Partnership Developer\*)

Witness:

\_\_\_\_\_  
(Name of Partnership)

\_\_\_\_\_  
By: \_\_\_\_\_(SEAL)  
Partner

\_\_\_\_\_  
By: \_\_\_\_\_(SEAL)  
Partner

\_\_\_\_\_  
By: \_\_\_\_\_(SEAL)  
Partner

\*All Partners must execute this Agreement

-----  
(Corporation Developer)

\_\_\_\_\_  
(Name of Corporation)

ATTEST:

By: \_\_\_\_\_  
(Assistant) Secretary

By: \_\_\_\_\_  
(Vice) President

[CORPORATE

SEAL]

(TOWNSHIP ACKNOWLEDGEMENT)

COMMONWEALTH OF PENNSYLVANIA     )  
                                                      )     SS:  
COUNTY OF LANCASTER                 )

On this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, the undersigned officer, a notary public in and for the aforesaid Commonwealth and County, personally appeared \_\_\_\_\_, who acknowledged \_\_\_\_self to be (Vice) Chairman of the Board of Supervisors of the Township of West Cocalico, Lancaster County, Pennsylvania, and that \_\_\_\_\_, as such officer, being authorized to do so, executed the foregoing Storm Water Management Agreement and Declaration of Easement, for the purposes therein contained, by signing the name of such Township by \_\_\_\_self as such officer.

IN WITNESS WHEREOF, I set my hand and official seal.

Notary Public

My commission expires:

(INDIVIDUAL DEVELOPER ACKNOWLEDGEMENT)

COMMONWEALTH OF PENNSYLVANIA     )  
                                                           )    SS:  
COUNTY OF LANCASTER                     )

On this the \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, the subscriber, a notary public in and for the aforesaid Commonwealth and County, came the above-named \_\_\_\_\_, known to me, (or satisfactorily proven) to be the person whose name is subscribed on the within instrument and acknowledged the foregoing Storm Water Management Agreement and Declaration of Easement to be act and deed and desired the same to be recorded as such.

Witness my hand and notarial seal.

---

Notary Public

My commission expires:

COMMONWEALTH OF PENNSYLVANIA     )  
                                                      )     SS:  
COUNTY OF LANCASTER                 )

IN WITNESS WHEREOF, I have hereunto set my hand and notarial seal.

My commission expires:

COMMONWEALTH OF PENNSYLVANIA     )  
                                                      )     SS:  
COUNTY OF LANCASTER                 )

IN WITNESS WHEREOF, I have hereunto set my hand and notarial seal.

My commission expires:

**JOINDER BY MORTGAGEE**

\_\_\_\_\_ ("Mortgagee") as holder of a certain mortgage on the within-described Premises, which mortgage, in the amount of \$\_\_\_\_\_, is dated \_\_\_\_\_, 19\_\_/20\_\_, and is recorded or is about to be recorded in the Recorder of Deeds Office in and for Lancaster County, Pennsylvania, as well as any other mortgages which Mortgagee may now or hereafter hold on the Premises (all such mortgages hereinafter collectively referred to as the "Mortgages"), joins in, consents to, and expressly approves the grant of easements and other rights and privileges described in the attached Storm Water Management Agreement and Declaration of Easement (the "Agreement").

The Mortgagee, for itself, its successors and assigns (which shall include any assignee of the Mortgages and any purchaser of the Premises at a sale in foreclosure of the Mortgages or otherwise), hereby covenants and agrees that the rights and privileges herein granted with respect to the Premises shall not be terminated or disturbed by reason of any foreclosure or other action which may be instituted by the Mortgagee, its successors and assigns, as a result of any default under the Mortgages or the debt instruments that such Mortgages secure. Mortgagee by consenting to the Agreement shall not by virtue of its interest as Mortgagee be deemed to have undertaken any of the obligations of the Grantor under the Agreement, including but not limited to construction, maintenance, inspection or indemnification.

IN WITNESS WHEREOF, Mortgagee hereby joins in the execution of the Agreement as of this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
(Name of Mortgagee)

ATTEST: \_\_\_\_\_

By: \_\_\_\_\_

[SEAL]

COMMONWEALTH OF PENNSYLVANIA )  
 ) SS:  
COUNTY OF LANCASTER )

Notary Public

June 3, 2004

## CONSENT AND JOINDER OF HOMEOWNERS' ASSOCIATION

The undersigned hereby consents to and joins in the attached Storm Water Management Agreement and Declaration of Easement (the "Agreement"). The undersigned shall maintain all storm water management facilities in accordance with the terms and provisions of the Agreement and in accordance with any separate Declaration of Restrictions. The undersigned specifically agrees that the Township shall have the rights referred to in Paragraph 7 of the Agreement.

IN WITNESS WHEREOF, the undersigned, intending to be legally bound, hereby consents to and joins in the Agreement.

(Name of Homeowners' Association or similar entity)

Attest: \_\_\_\_\_  
(Assistant) Secretary

By: \_\_\_\_\_  
(Vice) President

[SEAL]

COMMONWEALTH OF PENNSYLVANIA     )  
                                                      )     SS:  
COUNTY OF LANCASTER                 )

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, a Notary Public, the undersigned officer, personally appeared \_\_\_\_\_, who acknowledged \_\_\_\_self to be the \_\_\_\_\_ of \_\_\_\_\_, a nonprofit corporation, and that as such officer being authorized to do so, acknowledged the foregoing instrument for the purpose therein contained, by signing the name of the corporation by \_\_\_\_\_self as \_\_\_\_\_.

Notary Public

My commission expires:



# EXHIBIT H

## ACCESSORY DWELLING UNIT AGREEMENT

THIS AGREEMENT entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between WEST COCALICO TOWNSHIP, a second class township organized and existing under the laws of the Commonwealth of Pennsylvania with its municipal offices located at 156B West Main Street, Box 244, Reinholds, Pennsylvania, 17569, hereinafter referred to as the "Township", and \_\_\_, adult individuals and husband and wife who reside at \_\_\_\_\_, hereinafter referred to as the "Landowners".

WITNESSETH:

WHEREAS, Landowners are the owners of property situated in the Township and described in a deed recorded with the Lancaster County Recorder of Deeds in Record or Deed Book \_\_\_\_, Volume \_\_\_\_ Page \_\_\_\_ (the "Property"); and

WHEREAS, the Property has located on it \_\_\_\_\_; and  
(describe existing improvements)

WHEREAS, Landowners are desirous of temporarily placing a separate dwelling unit on the Property (the "Accessory Dwelling Unit") to the \_\_\_\_\_ of their existing single-family structure; and  
(indicate location of Accessory Dwelling Unit with reference to existing dwelling)

WHEREAS, the Accessory Dwelling Unit will be used solely by \_\_\_\_\_, immediate relatives of Landowners, and will be removed when \_\_\_\_\_ no longer occupies the unit; and  
(name of relative)

WHEREAS, the West Cocalico Township Subdivision, Land Development and Storm Water Management Ordinance of 2004 requires that the placement of the Accessory Dwelling Unit requires land development approval from the Board of Supervisors (the "Board"); and

WHEREAS, the Board on \_\_\_\_\_, 20\_\_\_\_ approved the grant of  
(date of modification)  
a modification of land development approval; and

WHEREAS, as a condition of the modification granted by the Board, Landowners are required to enter into an agreement with the Township concerning the removal of the Accessory Dwelling Unit after it is no longer occupied by \_\_\_\_\_; and  
(name of relative)

NOW, THEREFORE, in consideration of the mutual promises herein contained and intending to be legally bound hereby, the parties agree as follows:

1. Landowners stipulate and agree that:

- (a) The Accessory Dwelling Unit will be occupied solely by \_\_\_\_\_.  
(name of relative)
- (b) The Accessory Dwelling Unit will be located \_\_\_\_\_  
of the existing dwelling.  
(indicate location of Accessory Dwelling Unit with reference to existing dwelling)
- (c) The Accessory Dwelling Unit will be connected to a water supply and a sanitary sewer disposal system which will be approved by appropriate authorities and will be used and maintained in accordance with all applicable laws and regulations.
- (d) The Accessory Dwelling Unit will be removed when \_\_\_\_\_  
no longer occupies the unit.  
(name of relative)
- (e) Landowners will, between January 1 and January 31 of each year hereafter until termination of this Agreement and removal of the Accessory Dwelling Unit, notify the Township in writing that the use of the Accessory Dwelling Unit is consistent with this Agreement and that all conditions of the Agreement are being complied with.
- (f) For purposes of this Agreement, the term "immediate relative" shall mean, mother, father, sister, brother, son and daughter.

- 2. This Agreement shall be recorded for the purpose of imposing a restriction on the land which limits the use of the Accessory Dwelling Unit as specified herein and requires its removal in accordance with the terms of this Agreement. This restriction shall run with the land and is binding upon the heirs, personal representatives, successors and assigns of Landowners. Upon removal of the Accessory Dwelling Unit, a termination statement shall be recorded evidencing termination of this restriction.
- 3. Landowners shall obtain a zoning permit from the Township prior to the placement of the Accessory Dwelling Unit on the Property, and Landowners shall place the Accessory Dwelling Unit on the Property in accordance with all applicable Township Ordinances, rules and regulations. Landowners shall obtain all approvals and permits required by the Township Sewage Enforcement Officer for the provision for sanitary sewer service to the Accessory Dwelling Unit and shall modify their current on-lot disposal system if necessary.
- 4. Landowners specifically acknowledge and agree that they must obtain approval under, and shall comply with, all applicable Ordinances of the Township, including but not limited to the Zoning Ordinance.
- 5. Landowners shall pay to the Township all recording fees and all legal fees and costs incurred for the negotiation, preparation, recording or enforcement of this Agreement. If Landowners fail or refuse to pay such fees after receipt of an invoice therefore, the Township may place a municipal lien against the Property to secure payment for such costs and/or may require Landowners to remove the Accessory Dwelling Unit from the Property.
- 6. This Agreement will be construed, performed and enforced in accordance with the laws of the Commonwealth of Pennsylvania.
- 7. This Agreement is not transferable without the written consent of the Township.

8. This Agreement sets forth the entire agreement and understanding between the parties as to the subject matter thereof and may only be amended subsequent to the date hereof by a written instrument signed by the parties.
9. The parties hereto consent to the exclusive jurisdiction of the Court of Common Pleas of Lancaster County, Pennsylvania, with respect to any dispute which may arise in connection with this Agreement or the enforcement thereof.
10. For the purpose of this Agreement, the masculine gender shall be deemed to include the feminine and the neuter, and vice versa. Unless the context otherwise requires, the use of the singular and plural shall be interchangeable.
11. The provisions of this Agreement shall be binding upon and inure to the benefit of the heirs, personal representatives, permitted assigns, grantees, lessees and successors of the parties hereto and shall constitute covenants running with the land.

IN WITNESS THEREOF, the parties have caused this Agreement to be executed the day and year first written above.

WEST COCALICO TOWNSHIP

Attest:\_\_\_\_\_

(Assistant) Secretary

By:\_\_\_\_\_

(Vice) Chairman

Board of Supervisors

[TOWNSHIP SEAL]

Witness:

\_\_\_\_\_

\_\_\_\_\_(SEAL)

Landowner(s)

\_\_\_\_\_

\_\_\_\_\_(SEAL)

Landowner(s)

(TOWNSHIP ACKNOWLEDGEMENT)

COMMONWEALTH OF PENNSYLVANIA     )  
                                                      )     SS:  
COUNTY OF LANCASTER                 )

On this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, the undersigned officer, a notary public in and for the aforesaid Commonwealth and County, personally appeared \_\_\_\_\_, who acknowledged himself/herself to be (Vice) Chairman of the Board of Supervisors of WEST COCALICO TOWNSHIP, Lancaster County, Pennsylvania, and that he/she, as such officer, being authorized to do so, executed the foregoing Accessory Dwelling Unit Agreement for the purposes therein contained by signing the name of such Township by himself/herself as such officer.

IN WITNESS WHEREOF, I set my hand and official seal.

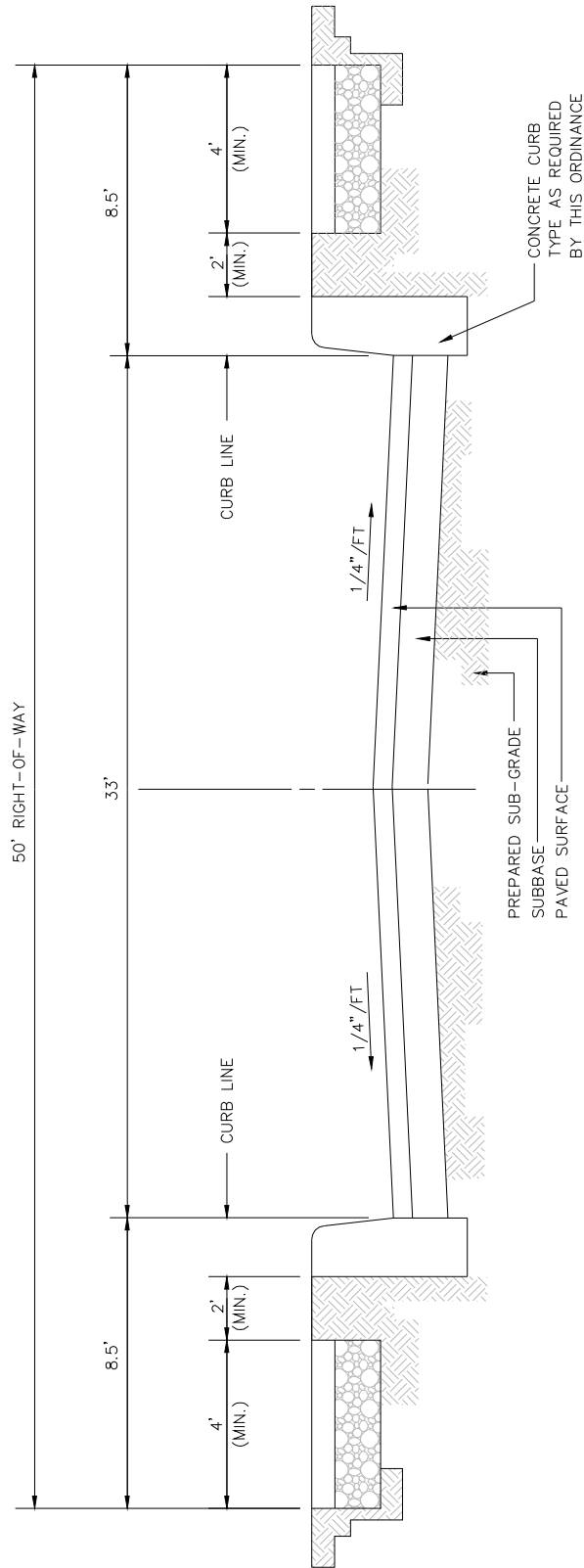
Notary Public

My commission expires:

COMMONWEALTH OF PENNSYLVANIA     )  
                                                      )     SS:  
COUNTY OF LANCASTER                 )

Witness my hand and notarial seal.

My commission expires:



## TYPICAL LOCAL STREET CROSS SECTION

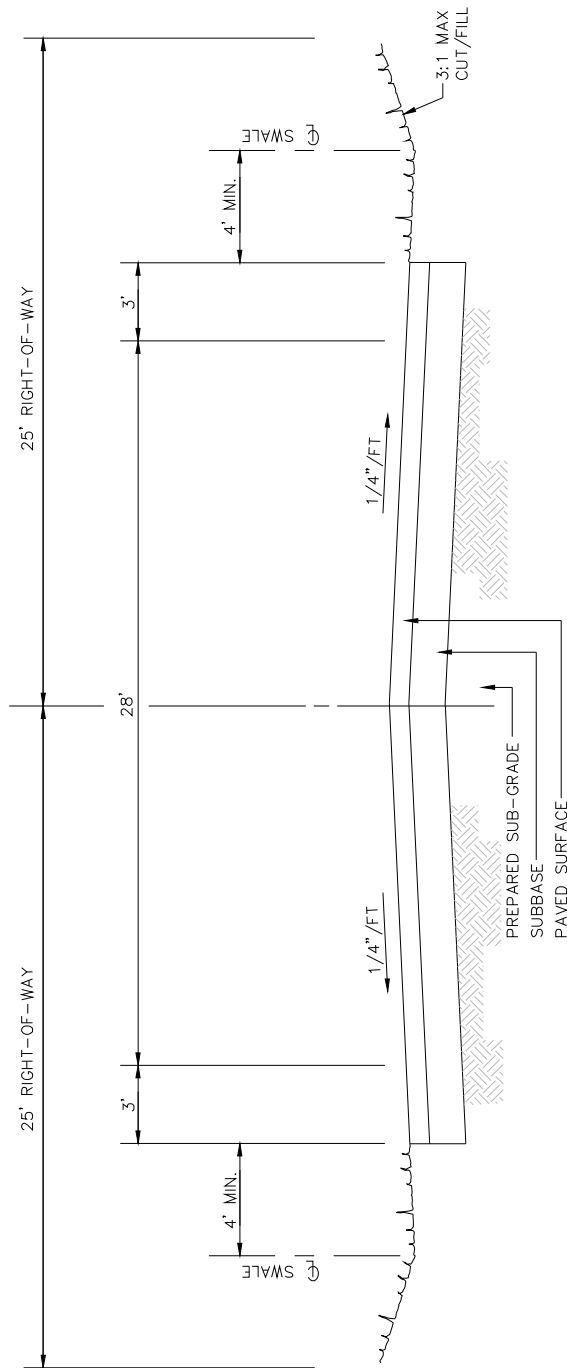
NOT TO SCALE

### NOTES:

1. ALL AREAS ADJACENT TO CURBS, INLETS, MANHOLE COVERS ETC., ARE TO BE SEALED WITH AC-20 FOR A DISTANCE OF TWELVE (12) INCHES FROM THE CURB, ETC.
2. THE TOWNSHIP OR THEIR AGENT SHALL INSPECT ALL WORK IN ACCORDANCE WITH THIS ORDINANCE.
3. MATERIALS, EQUIPMENT AND METHODS SHALL CONFORM TO PennDOT PUBL. 408, CURRENT VERSION.
4. VIBRATORY ROLLER REQUIRED FOR COMPACTION OF BITUMINOUS MATERIAL.
5. STORM SEWER INLETS SHALL BE PennDOT TYPE-C IN ALL CURBED STREETS.

## STREET CONSTRUCTION MATERIALS

SUBBASE (NO. 2A OR 3A)	PAVED SURFACE
8"	4" BCBC 1 1/2" ID-2 WEARING COURSE



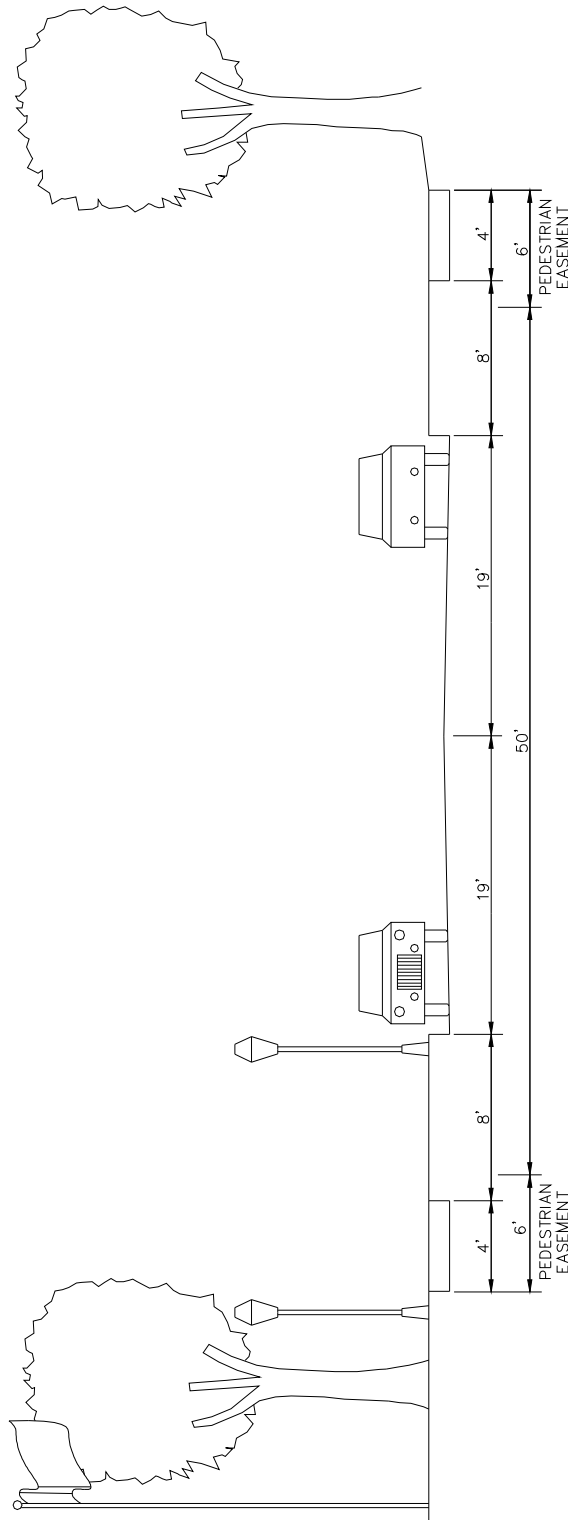
## TYPICAL LOCAL STREET CROSS SECTION (WITH STABILIZED SHOULDER)

NOT TO SCALE

- NOTES:
1. WHERE WHITE EDGE LINES ARE PAINTED, THEY SHOULD BE PAINTED TO PROVIDE A 14-FOOT LANE IN EACH DIRECTION. TWELVE (12) INCHES FROM THE CURB, ETC.
  2. THE TOWNSHIP OR THEIR AGENT SHALL INSPECT ALL WORK IN ACCORDANCE WITH THIS ORDINANCE.
  3. MATERIALS, EQUIPMENT AND METHODS SHALL CONFORM TO PennDOT PUBL. 408, CURRENT VERSION.
  4. VIBRATORY ROLLER REQUIRED FOR COMPACTION OF BITUMINOUS MATERIAL.
  5. PAVED SHOULDER SHALL BE CONSTRUCTED WITH A CROSS SLOPE OF 1/4"/FT AND THE SAME PAVING SECTION AS THE CARTWAY.
  6. WHERE WHITE EDGE LINES ARE PAINTED, THEY SHOULD BE PAINTED TO PROVIDE A 14' LANE IN EACH DIRECTION.

### STREET CONSTRUCTION MATERIALS

SUBBASE (NO. 2A OR 3A)	PAVED SURFACE
8"	4" BCBC 1 1/2" ID-2 WEARING COURSE



## STREET SECTION FOR COLLECTOR STREET

NOT TO SCALE

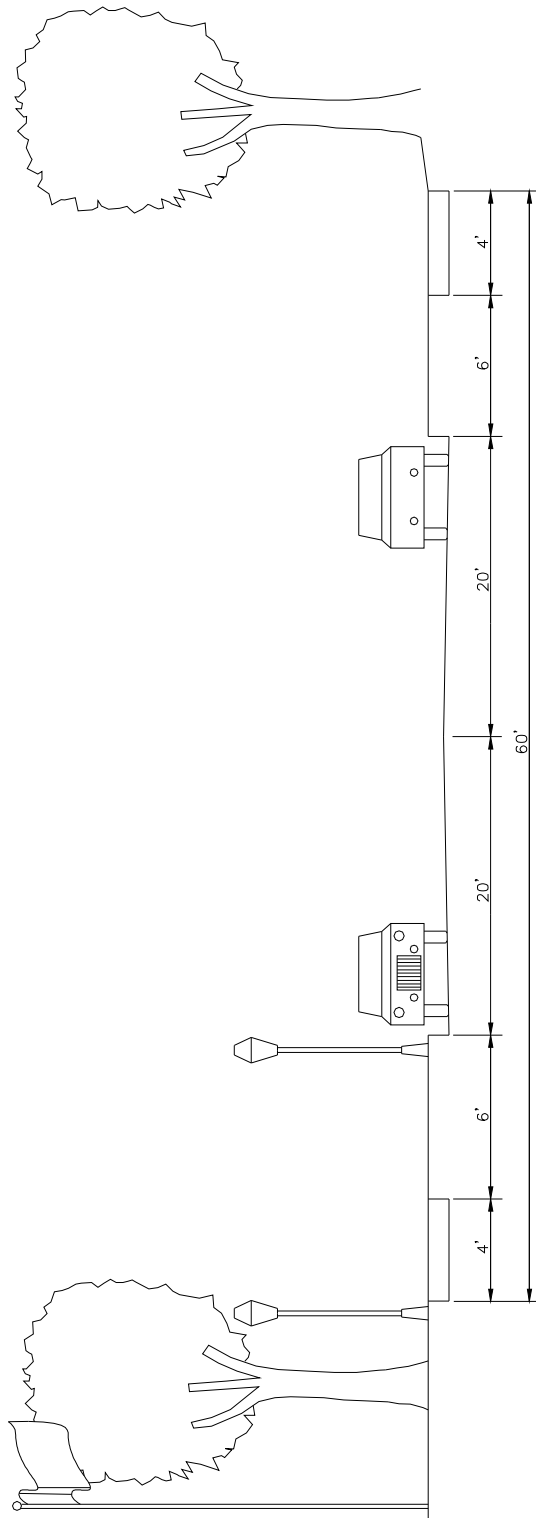
### NOTES:

1. ALL AREAS ADJACENT TO CURBS, INLETS, MANHOLE COVERS ETC., ARE TO BE SEALED WITH AC-20 FOR A DISTANCE OF TWELVE (12) INCHES FROM THE CURB, ETC.
2. THE TOWNSHIP OR THEIR AGENT SHALL INSPECT ALL WORK IN ACCORDANCE WITH THIS ORDINANCE.
3. MATERIALS, EQUIPMENT AND METHODS SHALL CONFORM TO PennDOT PUBL. 408, CURRENT VERSION.
4. VIBRATORY ROLLER REQUIRED FOR COMPACTION OF BITUMINOUS MATERIAL.
5. STORM SEWER INLETS SHALL BE PennDOT TYPE-C IN ALL CURBED STREETS.

### STREET CONSTRUCTION MATERIALS

SUBBASE (NO. 3A)	BASE COURSE	PAVED SURFACE
5"	4" BCBC	3" ID-2 BINDER COURSE 1 1/2" ID-2 WEARING COURSE





## STREET SECTION FOR ARTERIAL STREET

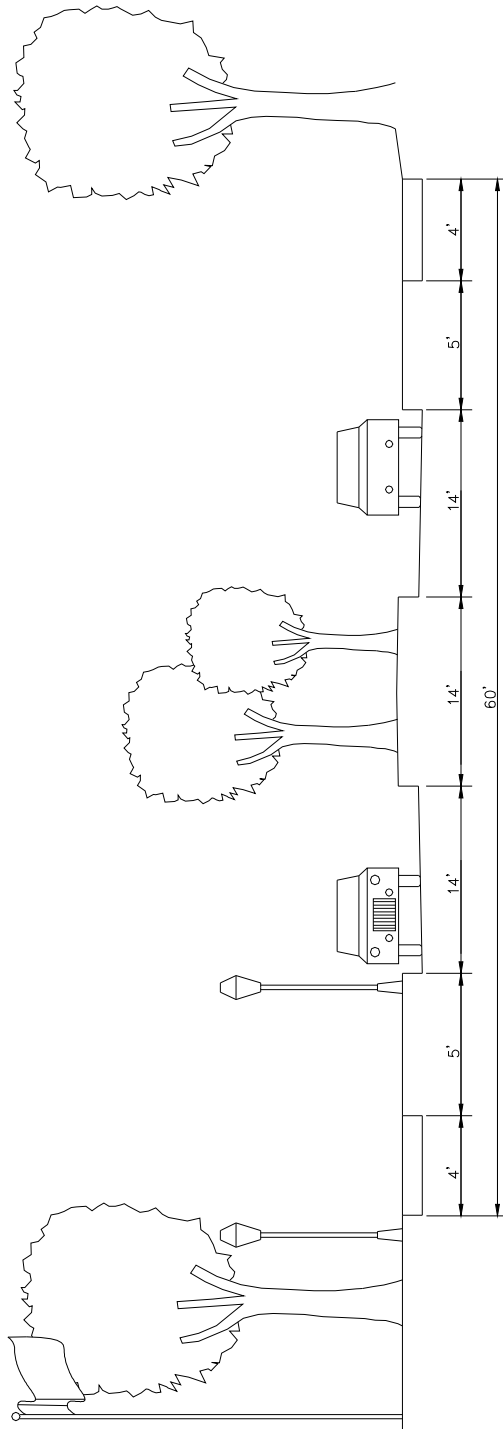
NOT TO SCALE

### STREET CONSTRUCTION MATERIALS

SUBBASE (NO. 3A)	BASE COURSE	PAVED SURFACE
5"	4" BCBC	3" ID-2 BINDER COURSE 1 1/2" ID-2 WEARING COURSE

#### NOTES:

1. ALL AREAS ADJACENT TO CURBS, INLETS, MANHOLE COVERS ETC., ARE TO BE SEALED WITH AC-20 FOR A DISTANCE OF TWELVE (12) INCHES FROM THE CURB, ETC.
2. THE TOWNSHIP OR THEIR AGENT SHALL INSPECT ALL WORK IN ACCORDANCE WITH THIS ORDINANCE.
3. MATERIALS, EQUIPMENT AND METHODS SHALL CONFORM TO PennDOT PUBL. 408, CURRENT VERSION.
4. VIBRATORY ROLLER REQUIRED FOR COMPACTION OF BITUMINOUS MATERIAL.
5. STORM SEWER INLETS SHALL BE PennDOT TYPE-C IN ALL CURBED STREETS.



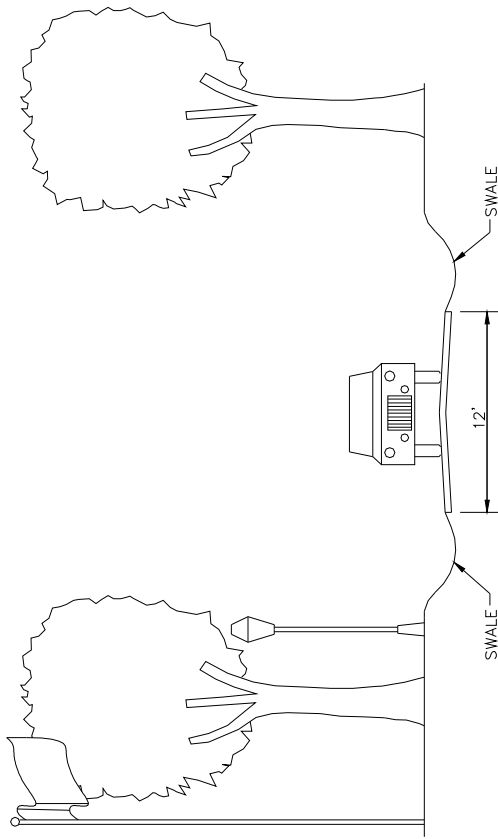
## STREET SECTION FOR BOULEVARD STREET

NOT TO SCALE

### STREET CONSTRUCTION MATERIALS

CLASSIFICATION	SUBBASE	BASE COURSE	PAVED SURFACE
LOCAL	8" NO. 2A OR 3A	4" BCBC	4" BCBC
ARTERIAL/COLLECTOR	5" NO. 3A	4" BCBC	1 1/2" ID-2 WEARING COURSE

- NOTES:
1. ALL AREAS ADJACENT TO CURBS, INLETS, MANHOLE COVERS ETC., ARE TO BE SEALED WITH AC-20 FOR A DISTANCE OF TWELVE (12) INCHES FROM THE CURB, ETC.
  2. THE TOWNSHIP OR THEIR AGENT SHALL INSPECT ALL WORK IN ACCORDANCE WITH THIS ORDINANCE.
  3. MATERIALS, EQUIPMENT AND METHODS SHALL CONFORM TO PennDOT PUBL. 408, CURRENT VERSION.
  4. VIBRATORY ROLLER REQUIRED FOR COMPACTION OF BITUMINOUS MATERIAL.
  5. STORM SEWER INLETS SHALL BE PennDOT TYPE-C IN ALL CURBED STREETS.



## STREET SECTION FOR ALLEY (SERVICE, OR MARGINAL ACCESS STREET)

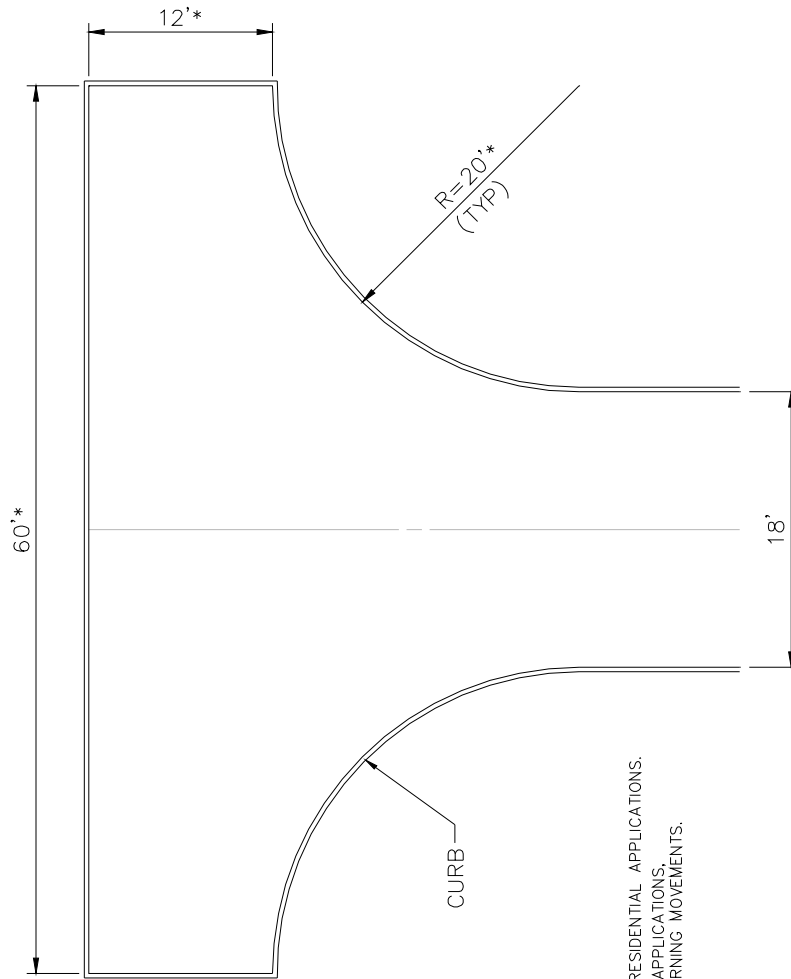
NOT TO SCALE

**NOTES:**

1. ALL AREAS ADJACENT TO CURBS, INLETS, MANHOLE COVERS ETC., ARE TO BE SEALED WITH AC-20 FOR A DISTANCE OF TWELVE (12) INCHES FROM THE CURB, ETC.
2. THE TOWNSHIP OR THEIR AGENT SHALL INSPECT ALL WORK IN ACCORDANCE WITH THIS ORDINANCE.
3. MATERIALS, EQUIPMENT AND METHODS SHALL CONFORM TO PennDOT PUBL. 408, CURRENT VERSION.
4. VIBRATORY ROLLER REQUIRED FOR COMPACTION OF BITUMINOUS MATERIAL.
5. STORM SEWER INLETS SHALL BE PennDOT TYPE-C IN ALL CURBED STREETS.

### STREET CONSTRUCTION MATERIALS

SUBBASE (NO. 2A OR 3A)	BASE COURSE	PAVED SURFACE
6"	_____	4" BCBC 1 1/2" ID-2 WEARING COURSE

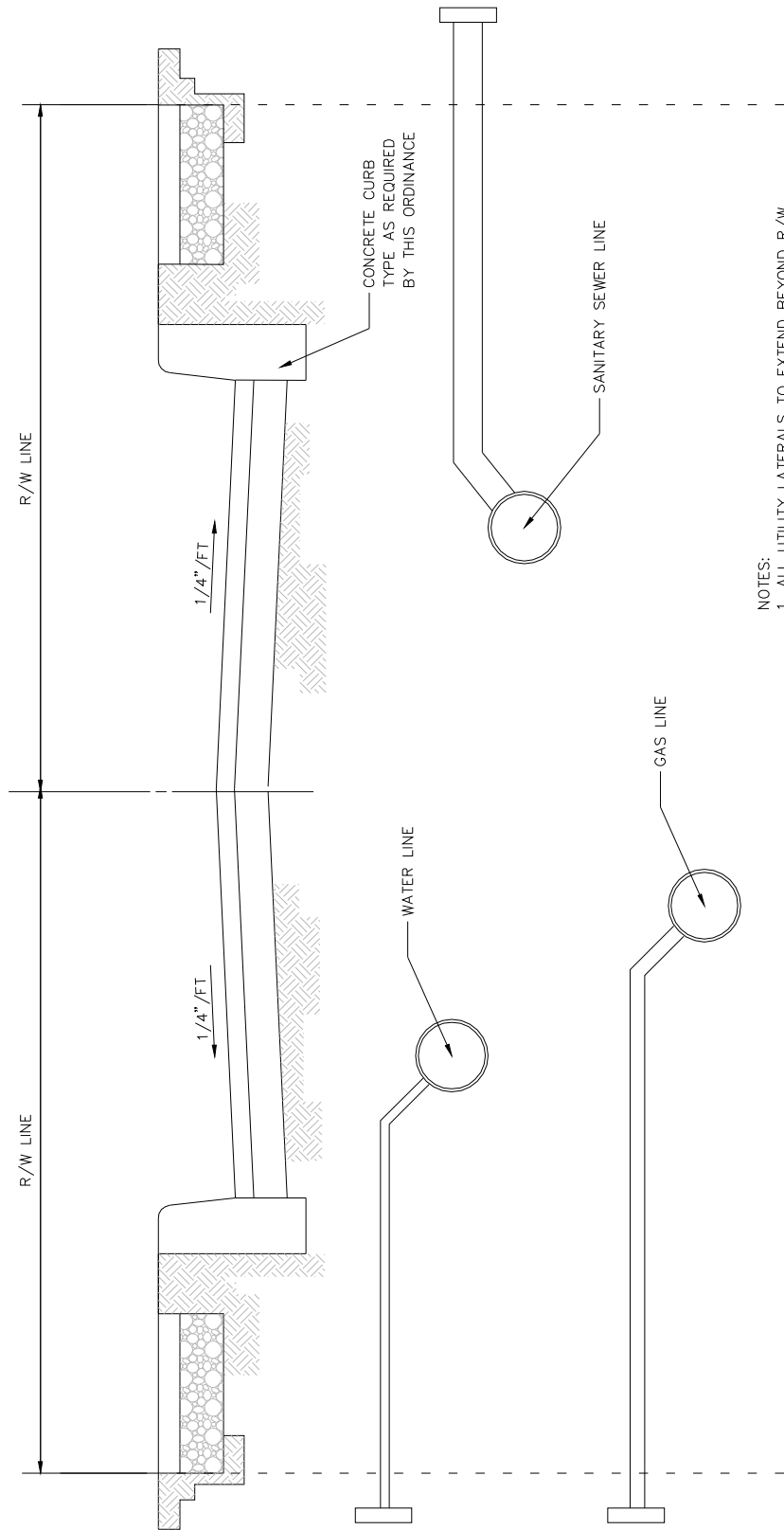


NOTES:

- \* DIMENSIONS SHOWN ARE FOR RESIDENTIAL APPLICATIONS.
- \* FOR INDUSTRIAL/COMMERCIAL APPLICATIONS,  
DESIGN FOR WB-50 TRUCK TURNING MOVEMENTS.

"T" - SHAPED TURN-AROUND  
(FOR SPECIAL PURPOSE STREETS AND ALLEYS)

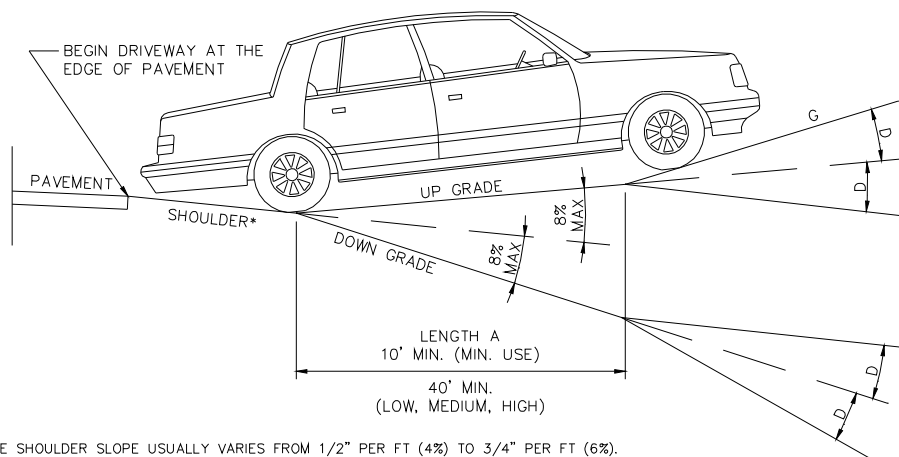
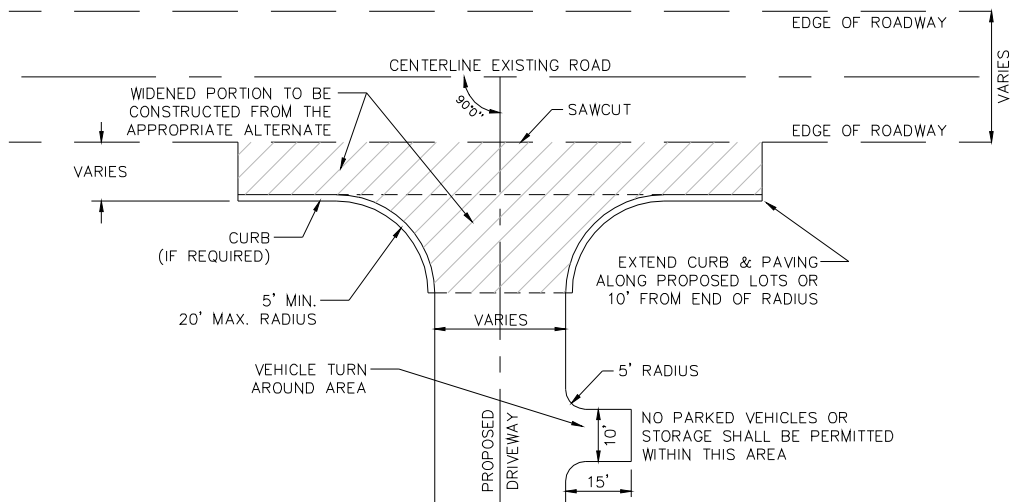
NOT TO SCALE



NOTES:  
1. ALL UTILITY LATERALS TO EXTEND BEYOND R/W.

## TYPICAL UTILITY INSTALLATION

NOT TO SCALE



\*THE SHOULDER SLOPE USUALLY VARIES FROM 1/2" PER FT (4%) TO 3/4" PER FT (6%). HOWEVER, THE SHOULDER SLOPE SHOULD BE MAINTAINED WHEN CONSTRUCTING THE DRIVEWAY.

FOR GRADE CHANGES GREATER THAN THOSE SHOWN ABOVE, VERTICAL CURVES AT LEAST 10 FEET LONG SHALL BE CONSTRUCTED AND LENGTH "A" SHALL BE INCREASED.

GRADES (G) SHALL BE LIMITED TO 15% FOR MINIMUM USE OF DRIVEWAYS AND FROM FIVE PERCENT TO EIGHT PERCENT FOR LOW, MEDIUM OR HIGH VOLUME DRIVEWAYS WITHIN THE RIGHT-OF-WAY.



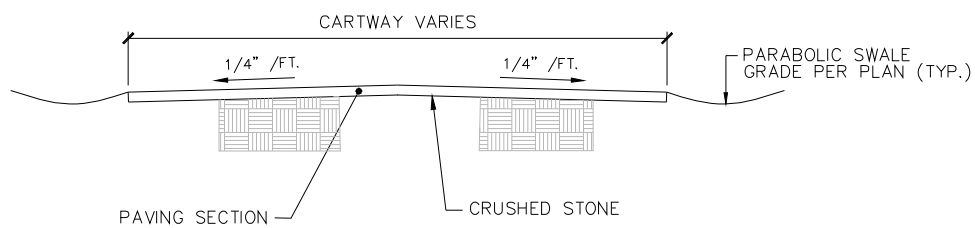
## TYPICAL DRIVEWAY

NOT TO SCALE

REV:

### MAXIMUM GRADE CHANGE (D)

	DESIRABLE	MAXIMUM
HIGH VOLUME DRIVEWAY	0%	±3%
MEDIUM VOLUME DRIVEWAY	±3%	±6%
LOW VOLUME DRIVEWAY	±6%	CONTROLLED BY VEHICLE CLEARANCE



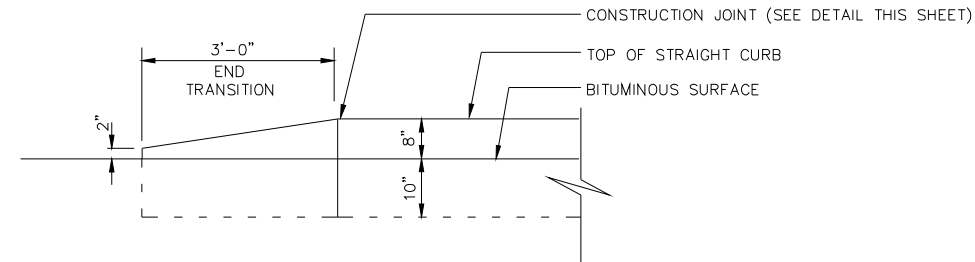
TYPICAL ACCESS DRIVE  
CROSS SECTION

NOT TO SCALE

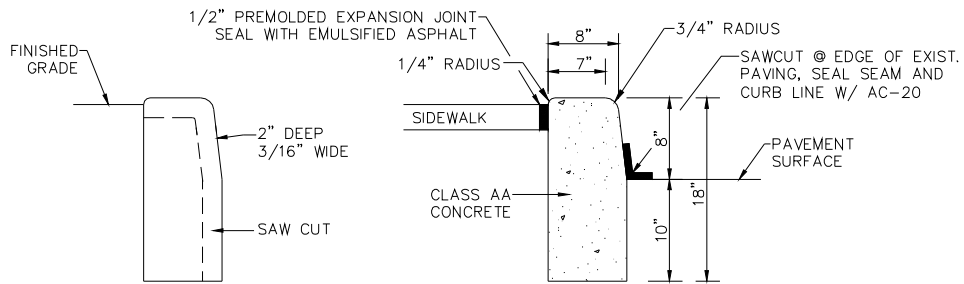
REV:

### STREET CONSTRUCTION MATERIALS

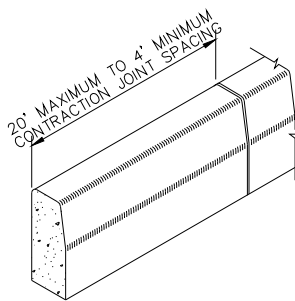
SUBBASE (NO. 3A)	BASE COURSE	PAVED SURFACE
5"	4" BCBC	3" ID-2 BINDER COURSE 1 1/2" ID-2 WEARING COURSE



**TYPICAL CURB END**  
NOT TO SCALE



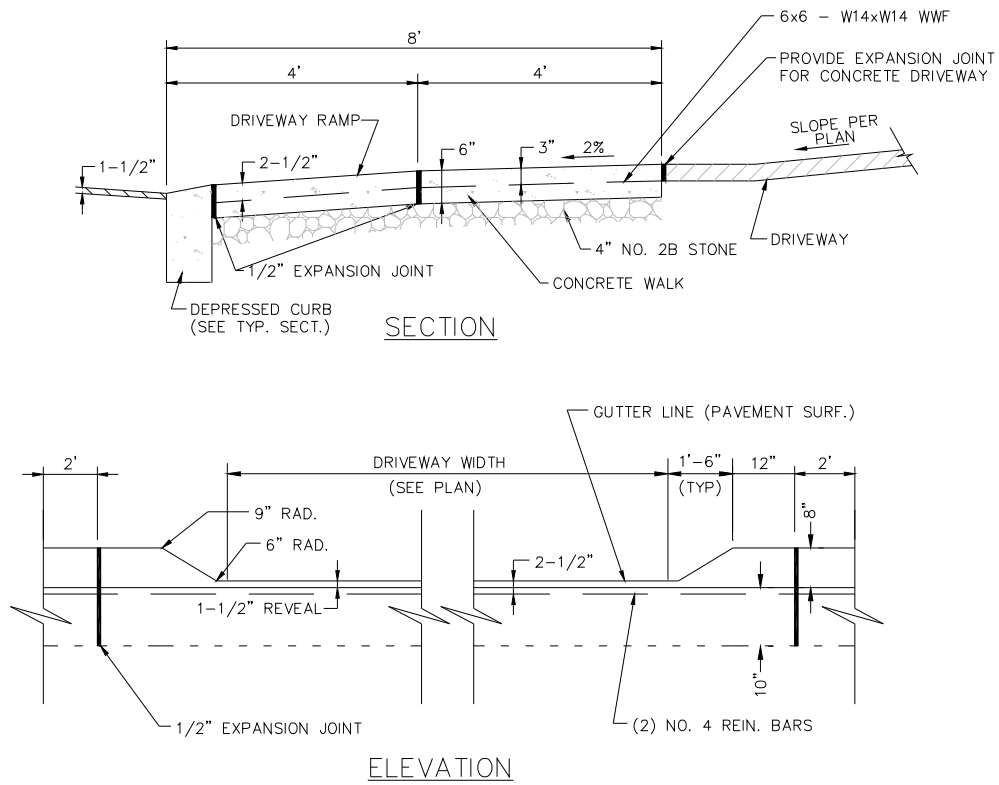
**CONTRACTION JOINT**      **TYPICAL CROSS SECTION**



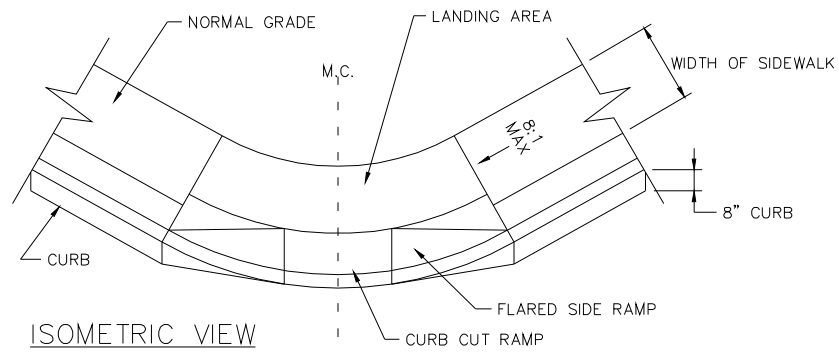
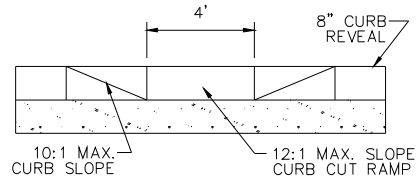
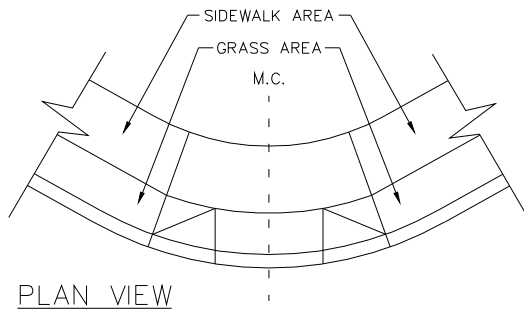
**PLAIN CEMENT CONCRETE CURB**

**TYPICAL VERTICAL CURB DETAIL**  
NOT TO SCALE

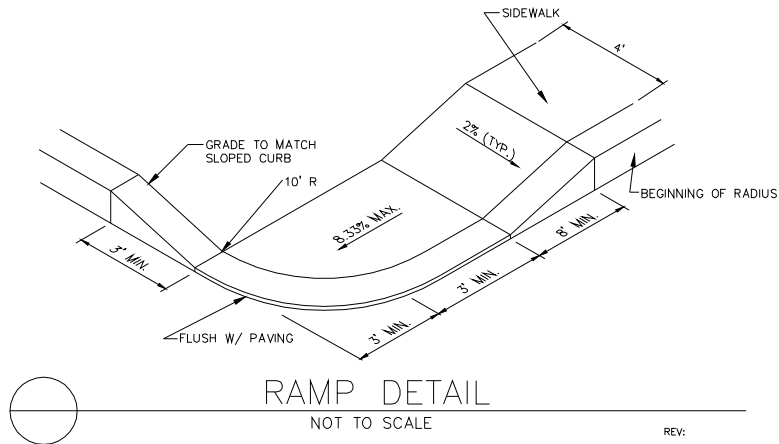




○ DEPRESSED CURB AT DRIVEWAY  
 NOT TO SCALE  
 REV:

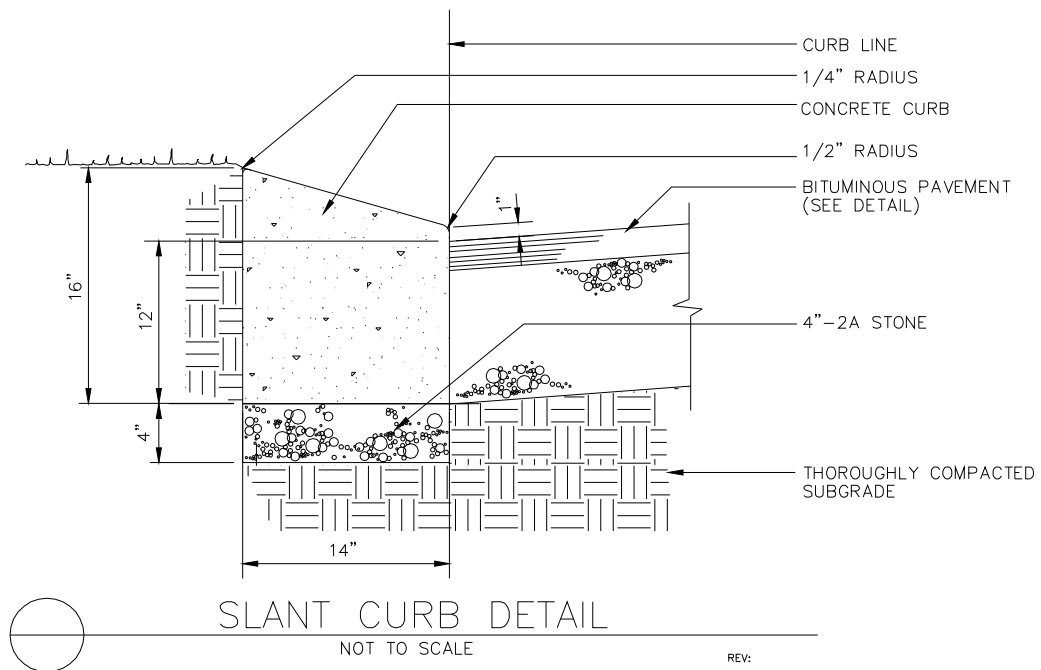


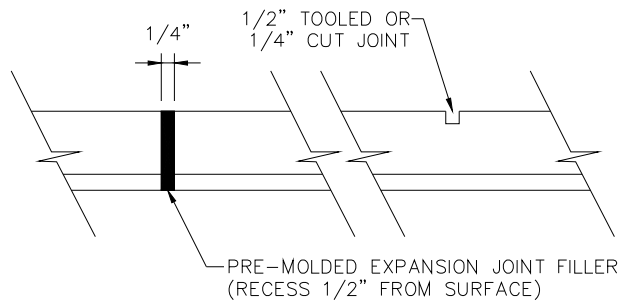
TYPE 2 SINGLE CURB CUT RAMP  
NOT TO SCALE  
REV:



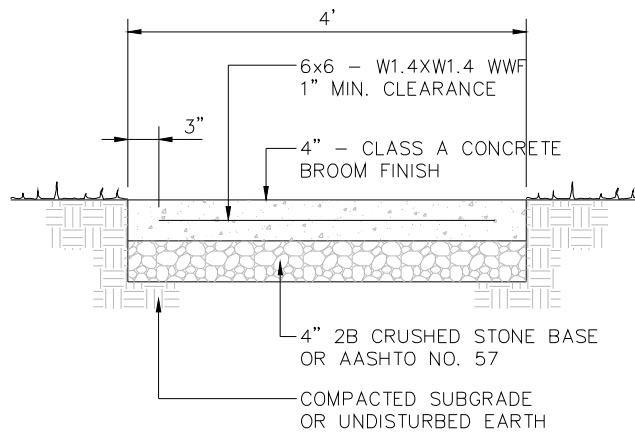
NOTE:  
THESE ARE MINIMUM STANDARDS. ALL CURB RAMPS  
SHALL COMPLY WITH ALL LATEST ADA REQUIREMENTS.







## TYPICAL EXPANSION & CONTRACTION JOINTS



### NOTES:

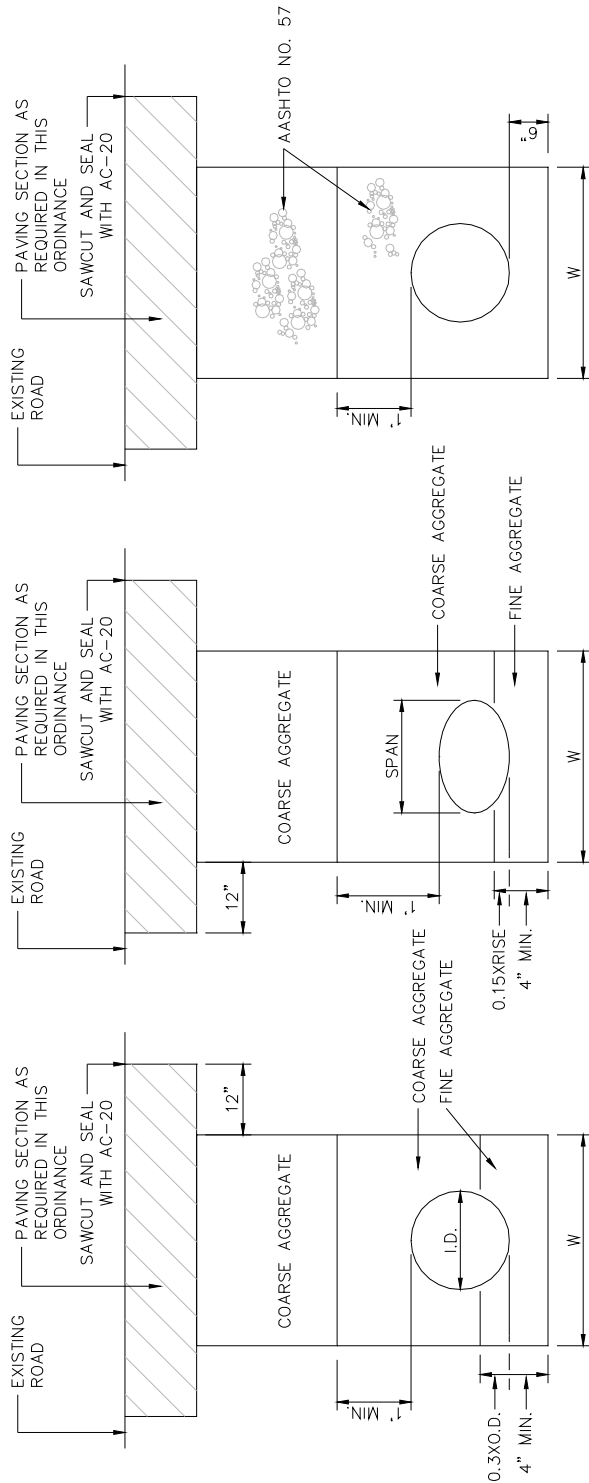
1. EXPANSION JOINTS LOCATED AT 20' O.C.
2. TOOLED JOINTS LOCATED AT 5' O.C.
3. SIDEWALK IS TO BE LIGHT BROOM FINISHED IN DIRECTION OF SIDEWALK WIDTH.
4. ALL SIDEWALKS TO HAVE A 2% CROSS SLOPE.



## CONCRETE SIDEWALK DETAIL

NOT TO SCALE

REV:



CIRCULAR CONCRETE  
& METAL PIPES

METAL PIPE-ARCH  
AND CONCRETE  
ELLIPTICAL PIPE

POLYETHYLENE  
CORRUGATED PIPE

## TRENCH RESTORATION DETAILS – STREETS

NOT TO SCALE

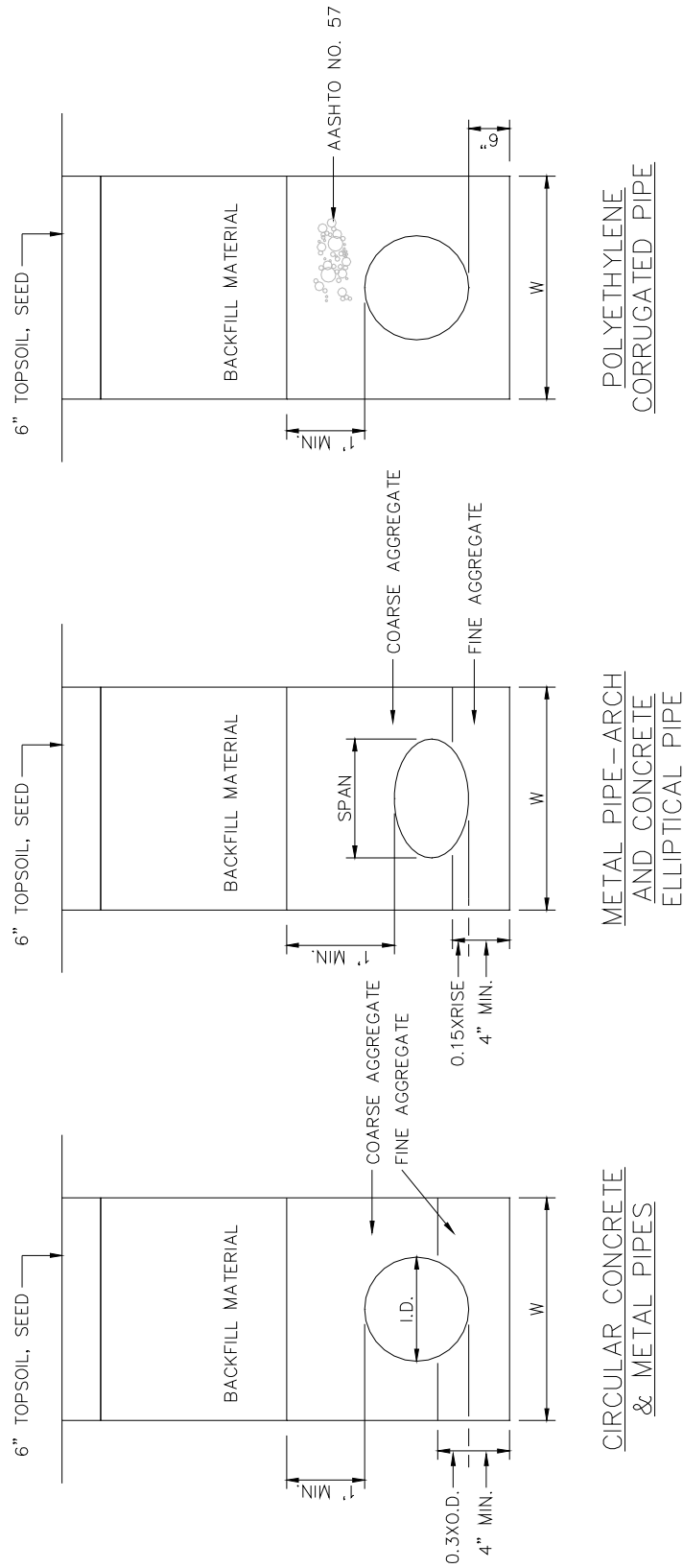
### CIRCULAR CONCRETE AND METAL PIPES

W= TRENCH WIDTH —  $\begin{cases} 2.0 \text{ FT.} + \text{O.D. FOR PIPES OR PIPE ARCHES 48" AND LESS I.D. OR SPAN} \\ 2.5 \text{ FT.} + \text{O.D. FOR PIPES OR PIPE ARCHES GREATER THAN 48" I.D. OR SPAN} \\ 1.0 \text{ TO } 2.0 \text{ FT. FOR 18" AND 24" POLYETHYLENE PIPE.} \end{cases}$

1. FINE AGGREGATE SHALL BE AASHTO NO. 10 STONE.
2. COARSE AGGREGATE SHALL BE SUBBASE MATERIAL, NO. 2A, OR AS SPECIFIED.

### COMPACTION REQUIREMENTS

1. THOROUGHLY COMPACT EACH LAYER OF BACKFILL WITH MECHANICAL TAMPERS OR BY OTHER ACCEPTABLE METHODS FOR THE FULL TRENCH WIDTH.
2. COMPACT TO NOT LESS THAN 100% OF THE DETERMINED DRY WEIGHT DENSITY OF THE BACKFILL MATERIAL.



## TRENCH RESTORATION DETAILS – LAWN AREAS

NOT TO SCALE

### CIRCULAR CONCRETE AND METAL PIPES

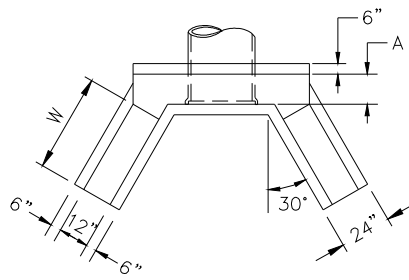
W= TRENCH WIDTH —  $\begin{cases} 2.0 \text{ FT.} + \text{O.D. FOR PIPES OR PIPE ARCHES 48" AND LESS I.D. OR SPAN} \\ 2.5 \text{ FT.} + \text{O.D. FOR PIPES OR PIPE ARCHES GREATER THAN 48" I.D. OR SPAN} \\ 1.0 \text{ TO } 2.0 \text{ FT. FOR 18" AND 24" POLYETHYLENE PIPE.} \end{cases}$

1. FINE AGGREGATE SHALL BE AASHTO NO. 10 STONE.
2. COARSE AGGREGATE SHALL BE SUBBASE MATERIAL, NO. 2A, OR AS SPECIFIED.

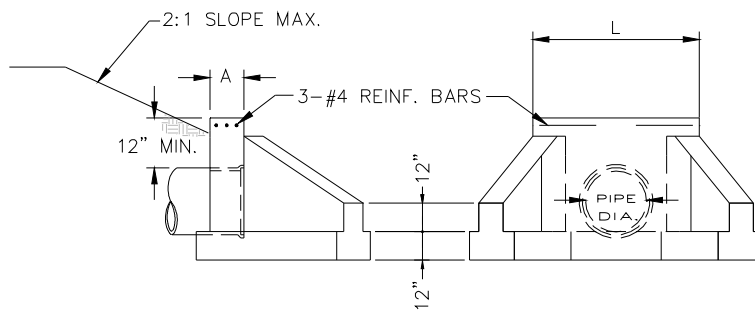
### COMPACTION REQUIREMENTS

1. THOROUGHLY COMPACT EACH LAYER OF BACKFILL WITH MECHANICAL TAMPERS OR BY OTHER ACCEPTABLE METHODS FOR THE FULL TRENCH WIDTH.
2. COMPACT TO NOT LESS THAN 100% OF THE DETERMINED DRY WEIGHT DENSITY OF THE BACKFILL MATERIAL.

PIPE DIAMETER	L	W	A
15" & 18"	4.0'	4.0'	12"
24"	4.6'	4.25'	12"
36"	5.8'	4.6'	12"
48"	6.9'	6.9'	12"
54"	7.5'	8.0'	12"
60"	8.1'	9.2'	15"
72"	9.2'	11.5'	15"



PLAN VIEW



SIDE ELEVATION

FRONT ELEVATION

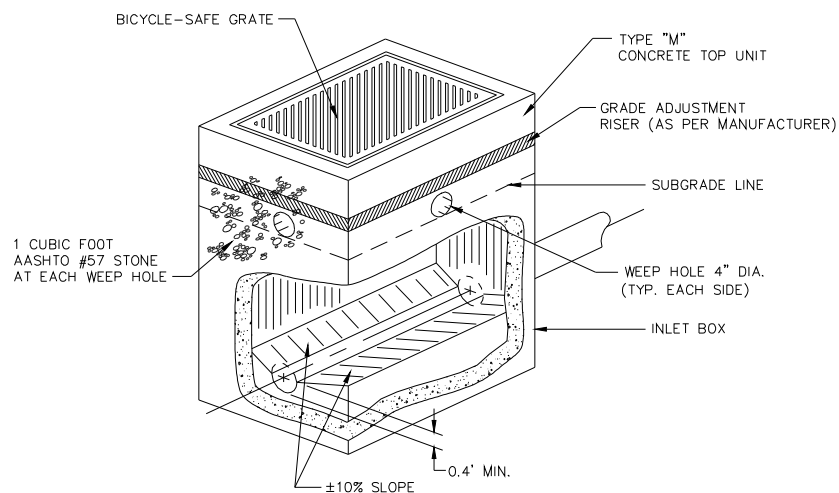


## TYPE D-W ENDWALL DETAIL

NOT TO SCALE

SD\SD005  
REV: 6/30/97

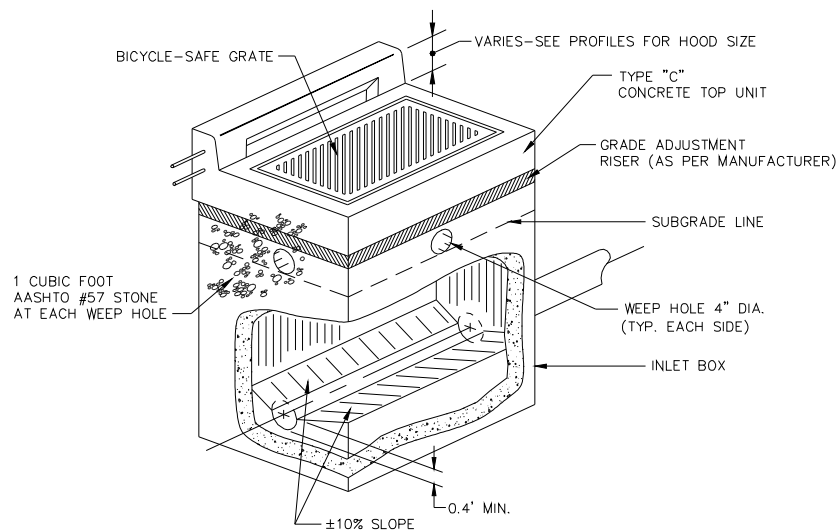




## PennDOT TYPE M INLET

NOT TO SCALE

SD\SD037  
REV: 12/10/99



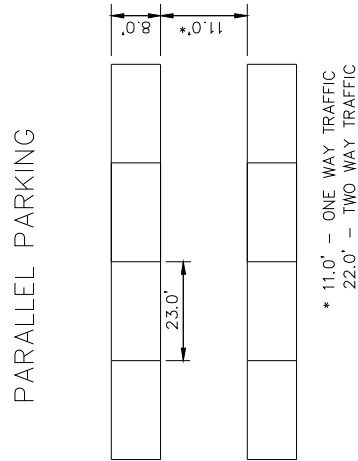
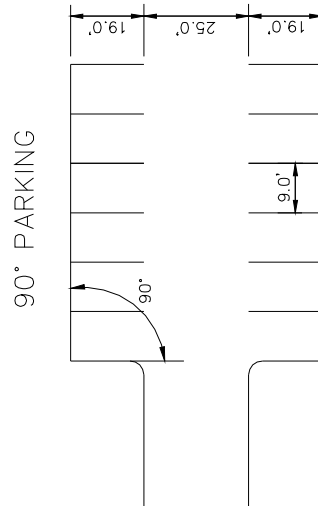
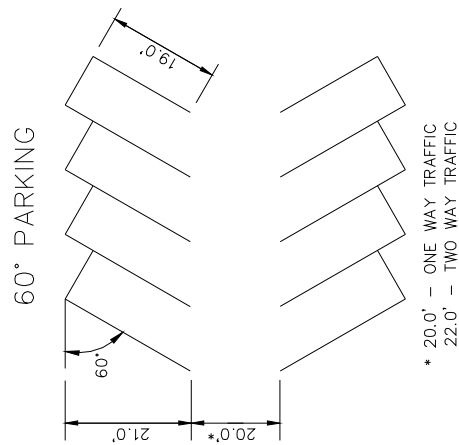
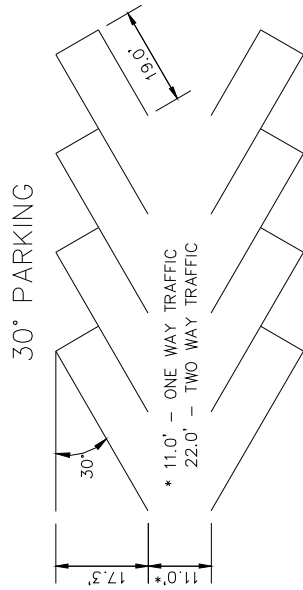
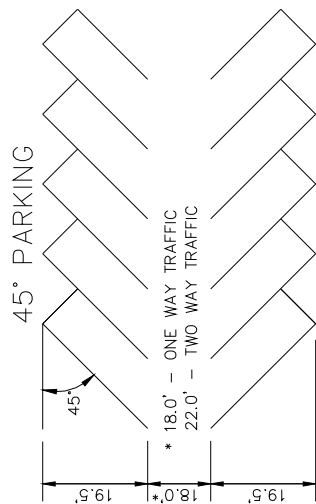
## PennDOT TYPE C INLET

NOT TO SCALE

SD\SD036  
REV: 12/10/99

### NOTES:

1. TYPE C INLET TO BE PROVIDED IN ALL CURB SITUATIONS.
2. ALL GRADE ADJUSTMENT RISERS TO BE PROVIDED BY MANUFACTURER.
3. LADDER RUNGS TO BE PROVIDED FOR ALL INLET BOXES THAT EXCEED THREE FEET (3') IN DEPTH.
4. ALL INLETS TO BE CONSTRUCTED AS SHOWN ON THE APPROVED PLAN.

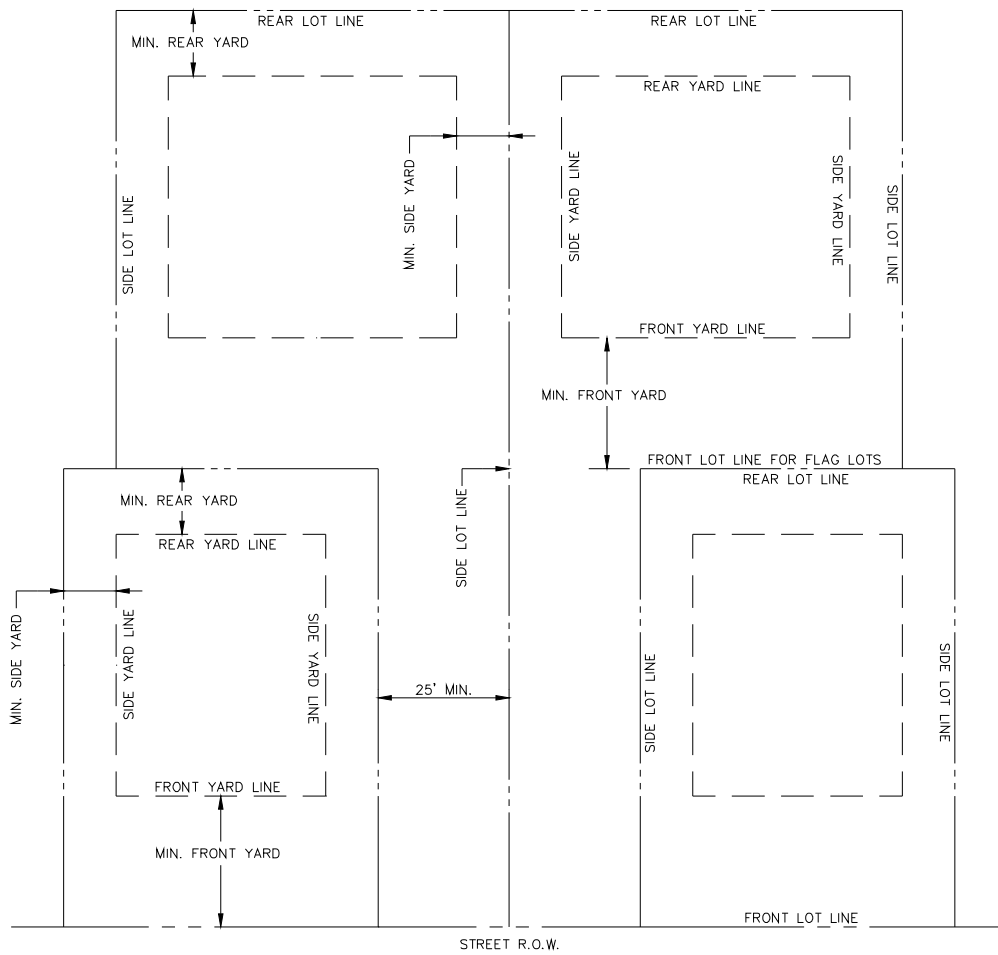


# PARKING LOT MINIMUM CONSTRUCTION MATERIALS

SUBBASE (NO. 2A)	BASE COURSE	PAVED SURFACE
6"	2" 1D-2 BINDER COURSE	1-1/2" 1D-2 WEARING COURSE

## PARKING SPACES

NOT TO SCALE



## TYPICAL FLAG LOT DETAIL

NOT TO SCALE

REV:

**WEST COCALICO TOWNSHIP ORDINANCE**  
**RAINFALL INTENSITY-DURATION-FREQUENCY CHART**

LANCASTER COUNTY, PENNSYLVANIA

Storm Event --	2 yrs.	10 yrs.	25 yrs.	50 yrs.	100 yrs.
Time of Concentration (Minutes)	Rainfall Intensity (Inches/Hour)				
5	4.63	6.02	6.70	7.51	8.19
6	4.34	5.70	6.39	7.22	7.90
7	4.12	5.42	6.10	6.95	7.62
8	3.92	5.17	5.85	6.70	7.36
9	3.75	4.95	5.62	6.47	7.12
10	3.59	4.75	5.41	6.26	6.90
11	3.45	4.58	5.22	6.07	6.70
12	3.32	4.42	5.05	5.88	6.50
13	3.21	4.27	4.89	5.71	6.33
14	3.10	4.13	4.74	5.55	6.16
15	3.00	4.00	4.60	5.40	6.00
16	2.91	3.89	4.47	5.27	5.85
17	2.83	3.78	4.35	5.13	5.71
18	2.75	3.68	4.24	5.01	5.58
19	2.67	3.58	4.13	4.89	5.46
20	2.60	3.50	4.03	4.78	5.34
21	2.54	3.41	3.94	4.68	5.23
22	2.48	3.33	3.85	4.58	5.12
23	2.42	3.26	3.77	4.48	5.01
24	2.36	3.19	3.68	4.39	4.92
25	2.31	3.15	3.61	4.30	4.83
26	2.26	3.05	3.53	4.22	4.74
27	2.22	2.99	3.47	4.14	4.65
28	2.17	2.93	3.40	4.06	4.57
29	2.13	2.88	3.33	3.99	4.49
30	2.09	2.82	3.27	3.92	4.41
31	2.05	2.77	3.21	3.85	4.34
32	2.01	2.72	3.16	3.79	4.27
33	1.97	2.67	3.10	3.72	4.20
34	1.94	2.63	3.05	3.66	4.14

**WEST COCALICO TOWNSHIP ORDINANCE**  
**RAINFALL INTENSITY-DURATION-FREQUENCY CHART**

LANCASTER COUNTY, PENNSYLVANIA

Storm Event --	2 yrs.	10 yrs.	25 yrs.	50 yrs.	100 yrs.
Time of Concentration (Minutes)	Rainfall Intensity (Inches/Hour)				
35	1.91	2.59	3.00	3.61	4.08
36	1.87	2.54	2.95	3.55	4.01
37	1.84	2.50	2.91	3.49	3.96
38	1.81	2.86	2.86	3.44	3.90
39	1.78	2.43	2.82	3.39	3.84
40	1.76	2.39	2.78	3.34	3.79
41	1.73	2.35	2.73	3.29	3.74
42	1.70	2.32	2.70	3.25	3.69
43	1.68	2.29	2.66	3.20	3.64
44	1.66	2.26	2.62	3.16	3.59
45	1.63	2.22	2.58	3.12	3.54
46	1.61	2.19	2.55	3.08	3.50
47	1.59	2.16	2.52	3.04	3.46
48	1.57	2.14	2.48	3.00	3.41
49	1.55	2.11	2.45	2.96	3.37
50	1.53	2.08	2.42	2.92	3.33
51	1.51	2.06	2.39	2.89	3.29
52	1.49	2.03	2.36	2.85	3.26
53	1.47	2.01	2.33	2.82	3.22
54	1.45	1.99	2.30	2.78	3.18
55	1.43	1.96	2.28	2.75	3.15
56	1.41	1.94	2.25	2.72	3.11
57	1.40	1.91	2.22	2.69	3.08
58	1.38	1.89	2.20	2.66	3.05
59	1.37	1.87	2.17	2.63	3.01
60	1.35	1.85	2.15	2.60	2.98

Source: Pennsylvania Department of Transportation, Rainfall Intensity-Duration Charts,  
developed by Penn State University, Department of Engineering, October 1986.

LOCATION _____		<b>FLOW TABULATION FORM FOR WATER CARRYING STRUCTURES</b>										DATE _____	
DEVELOPMENT _____												SHEET _____	
JOB NUMBER _____												COMPUTED BY _____	
25 YEAR STORM FREQUENCY, EXCEPT AS NOTED												CHECKED BY _____	

LOCATION		AREA	ACRES		COEFF. "C"	CA	SUM CA	TIME CONC. (min.)			INTEN. "I"	Q=CIA c.f.s.	PIPE "n"					REMARKS
FROM	TO		SUB.	TOTAL				INLET	DRAIN	TOTAL			SIZE	SLOPE	VEL.	LGTH.	CAP.	

## **RUNOFF COEFFICIENTS**

**("C" for use with Rational Formula)**

Soil Group			A			B			C			D		
Slope			0 - 2%	2 - 6%	6%+	0 - 2%	2 - 6%	6%+	0 - 2%	2 - 6%	6%+	0 - 2%	2 - 6%	6%+
Land Use														
<b>Cultivated Land</b>														
Winter conditions			0.14	0.23	0.34	0.21	0.32	0.41	0.27	0.37	0.48	0.34	0.45	0.56
Summer conditions			0.10	0.16	0.22	0.14	0.20	0.28	0.19	0.26	0.33	0.23	0.29	0.38
<b>Fallow Fields</b>														
Poor conditions			0.12	0.19	0.28	0.17	0.25	0.34	0.23	0.33	0.40	0.27	0.35	0.45
Good conditions			0.08	0.13	0.16	0.11	0.15	0.21	0.14	0.19	0.26	0.18	0.23	0.31
<b>Forest/ Woodland</b>			0.08	0.11	0.14	0.10	0.14	0.18	0.12	0.16	0.20	0.15	0.20	0.25
<b>Grass Areas</b>														
Good conditions			0.10	0.16	0.20	0.14	0.19	0.26	0.18	0.22	0.30	0.21	0.25	0.35
Average conditions			0.12	0.18	0.22	0.16	0.21	0.28	0.20	0.25	0.34	0.24	0.29	0.41
Poor conditions			0.14	0.21	0.30	0.18	0.28	0.37	0.25	0.35	0.44	0.30	0.40	0.50
<b>Impervious Areas</b>			0.90	0.91	0.92	0.91	0.92	0.92	0.92	0.93	0.94	0.93	0.94	0.95
<b>Weighted Residential</b>														
Lot size 1/8 acre			0.29	0.33	0.36	0.31	0.35	0.40	0.34	0.38	0.44	0.36	0.41	0.48
Lot size 1/4 acre			0.26	0.30	0.34	0.29	0.33	0.38	0.32	0.36	0.42	0.34	0.38	0.46
Lot size 1/3 acre			0.24	0.28	0.31	0.26	0.32	0.35	0.29	0.35	0.40	0.32	0.36	0.43
Lot size 1/2 acre			0.21	0.25	0.28	0.24	0.27	0.32	0.27	0.31	0.37	0.30	0.34	0.43
Lot size 1 acre			0.18	0.23	0.26	0.21	0.24	0.30	0.24	0.29	0.36	0.28	0.32	0.41

## **RUNOFF CURVE NUMBERS**

("CN" for use with SCS Method)

Soil Group			A			B			C			D		
Slope			0 - 2%	2 - 6%	6%+	0 - 2%	2 - 6%	6%+	0 - 2%	2 - 6%	6%+	0 - 2%	2 - 6%	6%+
Land Use														
<b>Cultivated Land</b>														
Winter conditions			48	60	75	62	73	82	68	78	90	77	88	95
Summer conditions			35	51	58	48	55	65	57	65	73	64	69	79
<b>Fallow Fields</b>														
Poor conditions			45	54	65	56	63	73	64	74	81	69	77	87
Good conditions			30	44	48	43	48	55	48	54	63	56	60	68
<b>Forest/ Woodland</b>			30	40	43	42	46	50	45	50	53	50	56	61
<b>Grass Areas</b>														
Good conditions			35	51	53	48	54	63	56	59	73	62	63	79
Average conditions			45	53	58	52	55	65	60	63	75	65	69	82
Poor conditions			48	55	67	56	67	77	66	74	85	73	81	90
<b>Impervious Areas</b>			96	97	98	96	97	98	96	97	98	96	97	98
<b>Weighted Residential</b>														
Lot size 1/8 acre			71	75	78	74	76	82	78	80	87	81	83	90
Lot size 1/4 acre			62	67	71	66	69	76	67	69	76	75	78	88
Lot size 1/3 acre			59	65	69	64	66	74	65	66	75	74	77	87
Lot size 1/2 acre			57	63	68	62	64	73	63	65	73	72	76	86
Lot size 1 acre			55	62	67	61	63	72	61	64	72	71	75	85

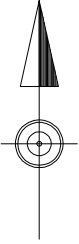


		Minimum Safe Sight Stopping Distance Chart																				
		Roadway Grade (Percent)																				
		0	1	-1	2	-2	3	-3	4	-4	5	-5	6	-6	7	-7	8	-8	9	-9	10	-10
Posted Speed Limit (MPH)	5	21	21	21	21	21	21	21	21	22	21	22	21	22	21	22	21	22	21	22	20	23
	10	48	48	48	47	49	47	49	47	50	46	50	46	51	46	51	46	52	45	53	45	53
	15	80	79	81	79	82	78	83	77	84	77	85	76	86	75	88	75	89	74	91	74	93
	20	118	117	119	115	121	114	123	113	125	112	127	111	129	110	131	109	134	108	137	107	140
	25	161	159	164	157	166	155	169	153	172	151	175	150	179	148	182	147	187	145	191	144	196
	30	210	207	214	204	217	201	221	198	226	196	230	194	235	191	241	189	247	187	253	185	260
	35	265	260	269	256	274	252	280	249	286	245	292	242	299	239	306	236	314	233	323	231	333
	40	325	319	331	314	337	309	345	304	352	299	360	295	369	291	379	287	389	284	401	280	414
	45	390	383	398	376	406	370	415	364	425	358	435	353	447	348	459	343	472	338	487	334	503
	50	462	453	471	444	481	436	492	429	504	422	517	415	531	409	546	403	563	397	581	392	600
	55	538	527	550	517	562	508	576	499	590	490	605	482	622	475	641	467	660	461	682	454	706
	60	621	608	634	596	649	584	665	573	682	563	701	554	721	545	742	536	766	528	792	521	821
65	708	693	725	679	742	666	760	653	781	641	802	630	826	620	851	609	879	600	910	591	943	

Based on  
the following  
formula --->

$$SSSD = 1.47 \times V \times t + \frac{V^2}{30 \times (f \pm g)}$$

$$\frac{V^2}{30 \times (f \pm g)}$$

CERTIFICATES	STANDARD PLAN FORMAT				LOCATION MAP (MIN. 1"=2000')	<div>FOR _____ BY: _____</div> <table><tr><td rowspan="5">MANAGER:</td><td>DESIGN BY:</td><td>CHKD BY:</td><td rowspan="5">DATE:</td><td rowspan="5">FIELDBOOK NO.</td></tr><tr><td>DRAWN BY:</td><td>CHKD BY:</td></tr><tr><td>SURV. CHIEF:</td><td></td></tr><tr><td colspan="2">SCALE</td></tr><tr><td colspan="2">CLIENT</td></tr><tr><td colspan="2">FIRM THAT PREPARED PLAN</td></tr><tr><td colspan="2">PRELIMINARY OR FINAL SUBDIVISION OR LAND DEVELOPMENT PLAN</td></tr><tr><td colspan="2">WEST COCALICO TOWNSHIP</td></tr><tr><td colspan="2">LANCASTER CO., PA</td></tr><tr><td colspan="2">SHEET NO. _____ OF _____</td></tr><tr><td colspan="2">DWG. NO. _____</td></tr><tr><td colspan="2">REVISION</td></tr></table>	MANAGER:	DESIGN BY:	CHKD BY:	DATE:	FIELDBOOK NO.	DRAWN BY:	CHKD BY:	SURV. CHIEF:		SCALE		CLIENT		FIRM THAT PREPARED PLAN		PRELIMINARY OR FINAL SUBDIVISION OR LAND DEVELOPMENT PLAN		WEST COCALICO TOWNSHIP		LANCASTER CO., PA		SHEET NO. _____ OF _____		DWG. NO. _____		REVISION	
	MANAGER:	DESIGN BY:	CHKD BY:	DATE:				FIELDBOOK NO.																									
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PLAN CERTIFICATE	<div>4</div> <div></div> <div>SUBDIVISION AND/OR LAND DEVELOPMENT PLAN</div> <div>THIS GENERAL LAYOUT/ORIENTATION SHALL BE USED FOR ALL PLAN SUBMITTALS IN <u>WEST COCALICO TOWNSHIP</u>.</div>																																
CERTIFICATE OF SURVEY ACCURACY																																	
STORM WATER MANAGEMENT CERTIFICATE																																	
OWNERSHIP CERTIFICATE																																	
BOARD OF SUPERVISORS CERTIFICATE																																	
WEST COCALICO TOWNSHIP PLANNING COMMISSION CERTIFICATE	NOTES:																																
LANCASTER COUNTY PLANNING COMMISSION CERTIFICATE	<div>GENERAL NOTES:</div> <div>1.</div> <div>2.</div> <div>3.</div> <div>4.</div> <div>STORM WATER NOTES:</div> <div>1.</div> <div>2.</div> <div>3.</div> <div>4.</div> <div>UTILITY NOTES:</div> <div>1.</div> <div>2.</div> <div>3.</div> <div>4.</div> <div>INSPECTION SCHEDULE:</div> <div>1.</div> <div>2.</div> <div>3.</div> <div>4.</div>																																
RECORDER OF DEEDS	ZONING DATA																																
	SITE DATA																																
	OWNER																																
	EQUITABLE OWNER																																
	TABLE OF CONTENTS																																
	MODIFICATIONS																																