

# **North Wales Borough, Montgomery County, PA**

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## **Article I. General Provisions**

### **§ 184-1 Title.**

This chapter shall be known and may be cited as the "Borough of North Wales Subdivision and Land Development Ordinance."

### **§ 184-2 Conformity with State Law.**

This chapter has been enacted in conformance with the following statutes:

- A. The Pennsylvania Municipalities Planning Code, Act No. 247 of 1968, including provisions from Article V, Subdivision and Land Development and Article VII-A, Traditional Neighborhood Design.
- B. The Pennsylvania Storm Water Management Act, P.L. 864 (Act 167), as amended.

### **§ 184-3 Content of Chapter.**

This chapter contains regulations which include, but are not limited to, the following:

- A. Provisions for the filing, processing, review, and approval of all subdivision and land development plans;
- B. Design standards and guidelines for the overall layout, configuration, and placement of lots, roads, open space, parks, public facilities and other physical improvements on property to promote orderly development compatible with the North Wales Borough 2040 Comprehensive Plan (2018);
- C. Engineering and technical standards, including appropriate financial guarantees, governing the manner by which various improvements including streets, bridges, common facilities, water supply and sewage facilities infrastructure, stormwater management facilities, walkways, lighting, and other improvements are properly constructed.

### **§ 184-4 Purposes.**

The following are the purposes of this chapter:

- A. To accomplish the coordinated development of the Borough of North Wales, thereby ensuring the overall health, safety, and general welfare of the residents of the Borough;
- B. To ensure that development within the Borough of North Wales is orderly, efficient, integrated, and in harmony with the built and natural environment;
- C. To guide the future growth and development of the Borough of North Wales in conformance to Borough of North Wales Comprehensive Plan and to other relevant regulations, maps, studies, and reports adopted in furtherance thereof;

- D. To ensure that streets and sidewalks throughout and bordering a subdivision or land development shall be coordinated with existing streets, sidewalks, parks, and other public amenities of the borough; and shall be of such widths and grades, and in such locations as deemed necessary to efficiently accommodate pedestrian accessibility, safety, and experience; prospective vehicular and bicycle traffic and parking; and emergency services apparatus and personnel;
- E. To require adequate, appropriately located easements or rights-of-way for utilities and storm drainage facilities;
- F. To ensure that any lands offered for dedication or otherwise reserved for use as public or common grounds shall be of suitable size, configuration, and topographical character for their designated uses;
- G. To preserve existing trees, vegetation, and other natural features; and where land development requires the removal of trees and vegetation, to encourage and require replacements, so that present and future generations may enjoy the benefits of an attractive, healthy and green environment;
- H. To ensure that new development, infill, and redevelopment activities complement and enhance the existing historic and pedestrian-oriented built form of North Wales Borough;
- I. To ensure that new development enhances the streetscape and creates an environment that is welcoming to pedestrians;
- J. To ensure conformance of subdivision and land development proposals with the availability of municipal services and public facilities and the coordination of inter-municipal programs;
- K. To protect lands subject to inundation or flooding from subdivision or land development which would endanger life or property or further aggravate or increase the existing flooding or inundation conditions;
- L. To encourage and promote flexibility, economy and ingenuity in the layout and design of subdivisions and land developments, including provisions authorizing the Borough to modify the requirements of this chapter in accordance with concepts and practices consistent with the modern and evolving generally accepted principles of site planning and land development; and
- M. To provide equitable and expeditious handling of all subdivision and land development proposals by providing uniform procedures and standards.

#### **§ 184-5 Construal of Provisions.**

The provisions of this chapter shall be the minimum requirements to meet the above-stated purposes. Where the provisions of this chapter impose greater restrictions than those of any other statute, ordinance or regulations, then the provisions of this chapter shall prevail. Where the provisions of any other statute, ordinance or regulations impose greater restrictions than those of this chapter, the provisions of such statute, ordinance or regulations shall take precedence.

## **§ 184-6 Subdivision and Land Development Control.**

Borough Council shall, with the recommendation of the Planning Commission, review and act upon as appropriate all subdivision and land development plans as defined below and in **Article II, Definitions**, of this chapter which are located entirely or in part of the Borough of North Wales.

- A. Subdivision of a lot or construction, opening or dedication of a street. No subdivision or land development of any lot, tract or parcel of land shall be made and no street, alley, sanitary sewer, storm drain, water main, gas, oil or electric line or other improvements in connection therewith shall be laid out, constructed or dedicated for public use or travel or for the common use of occupants of a building abutting thereon, except in strict accordance with this chapter.
- B. Sale of lots, issuance of building permits or erection of buildings. No lot in a subdivision or land development may be sold and no permit to erect, alter or repair any building upon land in a subdivision or land development will be issued, unless and until a subdivision and/or land development plan has been approved and, where required, recorded and until the required improvements in connection therewith have either been constructed or guaranteed for construction in the form of a bond, escrow or other means approved by Borough Council under the advice of the Borough Engineer and Solicitor, in accordance with the laws of the Commonwealth of Pennsylvania.
- C. Condominiums. No provision of this chapter shall be construed to prohibit condominium ownership as permitted by the applicable enabling legislation of the Commonwealth of Pennsylvania.

## **Article II. Definitions**

### **§ 184-7 Word Usage.**

For purposes of this chapter, certain words shall be interpreted as follows:

- A. Words used in the present tense include the future.
- B. The singular number includes the plural and the plural includes the singular.
- C. The phrase "used for" includes "arranged for," "designed for," "intended for," "maintained for," and "occupied for."
- D. The word "person" includes an individual, corporation, partnership, incorporated association, or any other similar legal entity.
- E. The words "include" or "including" shall not limit the term to the specified examples, but are intended to extend the meaning to all other instances of like kind and character.
- F. The word "building" shall always be construed as if followed by the words "or part thereof."
- G. The word "may" is permissive, and the words "shall" and "will" are always mandatory.
- H. The words: "he" or "she" or "they" are to be used interchangeably with the word person.
- I. The word "street" includes road, highway, avenue, boulevard, or expressway.
- J. The word "stream" includes watercourse, creek or river, and, where referenced, a seasonal or intermittent stream.
- K. Unless otherwise specified, the words "day" or "days" or "business days" shall mean days when the municipal administration offices are open for regular business, which therefore excludes municipally recognized holidays.
- L. The names of organizations including government agencies shall be construed to include their successors.

### **§ 184-7 Definitions.**

#### **ABUTTING**

To be joined at a border, property line, or zoning district boundary. Abutting properties include properties across a street or alley, or a railroad right-of-way.

#### **ACCELERATED SOIL EROSION**

The removal of the surface of the land through the combination of earthwork activities and natural

processes at a rate greater than would occur from natural processes upon undisturbed land alone.

#### ACCELERATION LANE

The portion of a roadway adjoining the traffic lane constructed for the purpose of enabling a vehicle entering a roadway to increase its speed to a rate at which it can safely merge with traffic.

#### ACCEPTED ENGINEERING PRACTICE

That which conforms to accepted principles, tests or standards of nationally recognized technical, scientific, and/or engineering authorities.

#### ACCESS STRIP

A piece of land which provides physical access to and legal road frontage for a lot, but which does not comply with the minimum lot width regulations of the Zoning Ordinance. Access strips provide access to "flag," "rear," or "interior" lots. The area of an access strip shall not be included in the minimum lot area under the provisions of the Zoning Ordinance.

#### ACCESSIBLE

A site, building, facility, or portion thereof that provides accommodation for those with physical disabilities and that is in compliance with the ADA Standards for Accessible Design (2010), the Architectural Barriers Act (ABA) Accessibility Guidelines (2005), and the U.S. Access Board *Public Rights-of-Way Accessibility Guidelines* (2023).

#### ACCESSORY BUILDING

A subordinate, uninhabitable building, located on the same lot as the principal building and clearly incidental and subordinate to that principal building. Any portion of a principal building devoted or intended to be devoted to an accessory use is not an accessory building. Examples of accessory buildings include, but are not limited to, detached garages, sheds, greenhouses, gazebos, carports and covered decks, patios, or terraces.

#### ACCESSORY STRUCTURE

A subordinate, uninhabitable structure, located on the same lot as the principal building and clearly incidental and subordinate to that principal building. Examples of accessory structures include, but are not limited to, swimming pools, pergolas, fences or walls, signs, walkways, driveways, parking areas and uncovered decks, patios, or terraces.

#### ACCESSORY USE

A use subordinate to the principal use of land or of a building on a lot and customarily incidental thereto.

#### AISLE

The traveled way by which cars enter and depart parking spaces.

## ALLEY

Land over which there is a right-of-way, municipally or privately owned, on which no dwelling or stores may front, serving as a secondary means of access to two or more lots.

## ALTERATION

As applied to a building, any change or rearrangement in the structural parts, or any enlargement, whether by extending on any side or by increasing in height, or moving from one location or position to another.

## ANTENNA

Any system of wires, rods, discs, panels, flat panels, dishes, whips, or other similar devices used for the transmission or reception of wireless signals. An antenna may include an omnidirectional antenna (rod), directional antenna (panel), parabolic antenna (disc) or any other wireless antenna. An antenna shall not include tower-based wireless communications facilities defined below.

## APPLICANT

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

## APPLICATION FOR DEVELOPMENT

Every application, whether preliminary, tentative 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 plat or for the approval of a development plan.

## AUTOMATIC DAYLIGHT SHUTOFF

A photocell device that automatically prevents operation of a fixture during daylight hours.

## BACKLIGHT UPLIGHT GLARE (B.U.G.)

An Illumination Engineering Society rating system of the light distribution of a luminaire.

## BASE FLOOD

A flood having a 1% chance of being equaled or exceeded in any given year. This is the regulatory standard also referred to as the "100-year flood."

## BASE FLOOD ELEVATION

The elevation of surface water resulting from a flood that has a 1% chance of equaling or exceeding that level in any given year. The BFE is shown on the Flood Insurance Rate Map (FIRM) for zones AE, AH, A1-A30, AR, AR/A, AR/AE, AR/A1-A30, AR/AH, AR/AO, V1-V30 and VE.

## BERM

An artificial ridge or embankment, usually made of compacted soil, separating areas in a vertical way. Berms are designed to slow, pond, or filter runoff; divert runoff on a construction site to a sediment trap/basin; and/or ensure clean upland runoff does not move into disturbed areas.

#### BEST MANAGEMENT PRACTICES or BMP

Activities, facilities, measures, or procedures used to manage the volume, rate and water quality of stormwater runoff as prescribed in the Pennsylvania Stormwater Best Management Practices Manual.

#### BIORETENTION

A regenerative upland-based water quality and quantity control practice that uses the physical, biological and chemical properties of plants, microbes and soils to remove pollutants from stormwater runoff.

#### BLOCK

The lots included in an area on both sides of a street between consecutive cross streets that includes only homes with a mailing address for that street.

#### BOND

Any form of surety bond in an amount and form satisfactory to North Wales Borough Council. All bonds shall be approved by North Wales Borough Council whenever a bond is required by ordinance or regulations.

#### BUFFER

An area designed and functioning to separate the elements and uses of land which abut it and to ease the transition between them. Unless otherwise specified, buffers may be included as part of the required setbacks and yard areas.

#### BUILDING

A structure under a roof, used for the shelter or enclosure of persons, animals or property, and including covered or uncovered porches, steps and ramps, bay windows and chimneys. The word "building" shall include any part thereof.

#### BUILDING AREA

The horizontal cross-sectional area of a building on a lot above the ground level, measured at the greatest outside dimensions. This definition excludes: cornices, eaves, gutters, or chimneys projecting not more than two feet, bay windows not extending through more than one story and not projecting more than five feet, steps, and ramps.

#### BUILDING ENVELOPE

The area of a lot within which a principal building may be erected. This area is defined by the limits

of the minimum front, side, and rear yard areas, and encompasses the area of the lot not found in the yard areas, legal rights-of-way, or other areas defined in the Zoning Ordinance.

#### BUILDING FRONTAGE

The maximum linear width of a building measured in a single straight line parallel with the adjacent public street or parking lot.

#### BUILDING HEIGHT

The vertical distance measured from the elevation of the proposed finished grade at the front of the building to the midpoint between the highest and lowest point of the roof. Chimneys, spires, towers, mechanical penthouses, tanks, communications antennas and similar structures shall not be included in calculating the building height.

#### BUILDING, PRINCIPAL

A building in which is conducted as the principal use of the lot on which it is situated.

#### CALIPER

Tree trunk diameter measured in inches at a height specified according to the plant type as specified by American Hort's American Standard for Nursery Stock (ASNS), current edition, as amended.

#### CANOPY

The upper and outermost part of a tree created by the tree's crown and shall mean, in the case of contiguous trees, the upper and outermost parts of the trees' crowns.

#### CANOPY COVERAGE

The canopy/ground coverage, as is indicated or typical of a plant species at five (5) years growth after planting as specified by AmericanHort's American Standard for Nursery Stock (ASNS), 2014.

#### CAPITAL IMPROVEMENT PLAN

A plan setting forth, by category of public facility, those public improvements and that portion of their costs that is attributable to servicing new development within a designated service area for such public facilities over a specified period of years.

#### CARTWAY

The paved portion of a street, alley, or highway designed for vehicular traffic (this does not include paved shoulders).

#### COMMERCIAL TRAFFIC VISIT

Any visit or delivery, except regular mail delivery or express mail services, by a vehicle to a property on which a home occupation is conducted, such being made in connection with the home

occupation.

#### COMMON OPEN SPACE

A parcel or parcels of land or 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.

#### COMMON PARKING

Any parking area used by three or more dwelling units and having space for six or more motor vehicles.

#### COMPREHENSIVE PLAN

Maps, charts, descriptive matter officially adopted by the Borough's Planning Commission and the Borough Council showing, among other things, recommendations for the most appropriate use of land; for the most desirable density of population; for a system of thoroughfares, parkways and recreation areas; for the general location and extent of facilities for water, sewer, light and power; and for the general location, character and extent of community facilities.

#### CONDITIONAL USE

A form of permitted use, authorized by this chapter and by Section 603(c)(2) of the Municipalities Planning Code, under the jurisdiction of the Borough Council following recommendation by the Borough Planning Commission. The Borough Council is empowered to grant permission for conditional uses, consistent with the public interest, in compliance with the standards and procedures established in this chapter, following thorough examination of the proposal and hearing and under any reasonable safeguards necessary to implement the purposes and intent of this chapter and to protect the general welfare.

#### CONDOMINIUMS

Real estate, portions of which are designated for separate ownership and the remainder of which is designated for common ownership solely by the owners of those portions, created under the Pennsylvania Unit Property Act of July 3, 1963, or the Pennsylvania Uniform Condominium Act, 68 Pa.C.S.A. § 3301 et seq., as amended from time to time.

#### CONSERVATION DISTRICT

The Montgomery County Conservation District. A conservation district, as defined in Section 3(c) of the Conservation District Law [3 P.S. § 851(c)], which has the authority under a delegation agreement executed with the Pennsylvania Department of Environmental Protection to administer and enforce all or a portion of the erosion and sediment control program in their county.

#### CONSTRUCTION

The construction, reconstruction, renovation, repair, extension, expansion, alteration or relocation of a building or structure, including the placement of mobile homes.

## CONVERSION

The remodeling or alterations of a structure so as to accommodate the provision of more housing units or dwellings.

The edge of the vehicular pavement that may be detailed as a raised concrete or stone element.

## CROSSWALK

An improved right-of-way for pedestrian travel across a street connecting two blocks.

## CUL-DE-SAC

A local street with only one outlet and having an appropriate terminus for the safe and convenient reversal of traffic.

## CULVERT

A pipe, conduit or similar structure, including appurtenant works, not incorporated in a closed storm sewer system, which carries drainage water under a driveway, roadway, or other paved area.

## CURBLINE

A line formed by the face of the existing curb or in its absence, the outer edge of the shoulder, along which a curb would be otherwise located.

## DECK

A structure, with or without a roof, either freestanding or attached to a principal building, that may or may not have railings or access to the ground and is used primarily for private recreational purposes. A deck may be constructed of any materials.

## DEMOLITION

Any act or process that destroys or removes 51% or more of the exterior walls of a structure, improvement, or object.

## DEMOLITION BY NEGLIGENCE

The absence of routine maintenance and repair which can lead to a building's or structure's structural weakness, decay and deterioration resulting in its demolition.

## DENSITY

The number of dwelling units per developable acre.

## DESIGN STORM

The magnitude and temporal distribution of precipitation from a storm event measured in probability of occurrence (e.g., a five-year storm) and duration (e.g., 24 hours), used in the design and evaluation of stormwater management systems.

#### DEVELOPABLE ACRE

The developable acreage shall equal the gross acreage minus the following: all land contained within the existing, legal rights-of-way of all roads abutting or running through the land proposed for subdivision or land development; all slopes of 15% or greater; and all wetlands, 100-year floodplain and alluvial soils as defined by the Soil Survey of Montgomery County of 1967.

#### 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.

#### DEVELOPMENT

Any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, the placement of mobile homes, streets and other paving, utilities, mining, dredging, filling, grading, excavation or drilling operations.

#### 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," when used in this chapter, shall mean the written and graphic materials referred to in this definition.

#### DIAMETER AT BREAST HEIGHT or DBH

A measurement of the size of existing trees on the site, using the outside bark diameter at breast height. Breast height is defined as 4.5 feet (1.37 meters) above the forest floor from the highest adjacent grade of the tree. If a tree has more than one stem or trunk, the measurement shall be the sum of the diameter of the largest trunk and ½ the diameter of each additional trunk.

#### DISTURBED AREA

An unstabilized land area where vegetation has been removed and soil has been exposed, graded, or removed.

#### DRAINAGE STRUCTURES

The human-made features of land that are specifically designed to store or carry surface water runoff.

#### DRIVEWAY, ACCESS

A private way for vehicular and pedestrian access between a public street and a parking area within a lot or property. Also referred to as a "driveway."

#### DRIVEWAY, RIBBON

A driveway consisting of two parallel strips of concrete, mortar-set stone or brick, or solid or turf pavers with an open, unpaved space in between. Refer to § 208-61E(4)(a)[4] for design requirements specific to ribbon driveways. The total area of a ribbon driveway, as calculated using the perimeter on all sides, shall be included in the calculation of impervious coverage.

#### DWELLING

A house, an apartment, or other group of rooms, or a single room is regarded as a dwelling unit when it is occupied or intended for occupancy as separate living quarters; that is, when the occupants do not live and eat with other persons in the structure and there is either direct access from the outside or through a common hall or a kitchen or cooking equipment for the exclusive use of the occupants of the unit, excluding hotels, rooming houses, tourist homes, institutional homes, residential clubs, motor courts and the like.

- (1) **SINGLE-FAMILY ATTACHED DWELLING (TOWNHOUSE)**A single-family attached dwelling, also known as a "townhouse" or "rowhouse," is a single-family attached or semidetached (in the case of end units) dwelling within a multi-dwelling building, consisting of at least three but no more than eight such dwelling units, with each unit occupying the total space from ground to roof, and joined to each other by not more than two vertical, common party walls, which also serve as the lot line dividing the properties.
- (2) **SINGLE-FAMILY DETACHED DWELLING**A dwelling unit designed and used exclusively as the residence for only one family unit, that is the only dwelling unit located on the parcel it is situated on, and that is not attached to any other structures or dwelling units, except accessory structures permitted in this chapter.
- (3) **SINGLE-FAMILY SEMIDETACHED DWELLING (TWIN)**A dwelling unit in which one side wall is a party wall in common with a neighboring dwelling unit designed so that the vertical party wall separates two dwelling units, and acts as the lot line dividing the properties, but it is otherwise surrounded by required yard areas.
- (4) **TWO-FAMILY DETACHED DWELLING (DUPLEX)**A building having two separate dwelling units, one over the other or side-by-side, so that each unit shares one and only one common partition. Both dwelling units are located on a single parcel and are under common ownership.
- (5) **MULTIFAMILY DEVELOPMENT**A residential building containing at least three permanent dwelling units in a variety of combinations, including side-by-side, over-and-under, or back-to-back with another dwelling unit.

#### DWELLING UNIT

A building or portion thereof providing complete housekeeping facilities for one family for year-round use.

## EARTH DISTURBANCE

A construction or other human activity which alters the surface of the land, including, but not limited to, clearing and grubbing; grading; excavations; embankments; road maintenance; building construction; or the moving, depositing, stockpiling, or storing of soil, rock, or earth materials, excluding agricultural activities.

## EASEMENT

A vested or acquired legal right to use land other than as a tenant, for a specific purpose, such right being held by someone other than the owner who holds title to the land.

## ELECTRIC VEHICLE (EV)

A generic term for a vehicle that gets some or all of its power from an electric motor. For the purposes of this chapter, an electric vehicle may be a Battery Electric Vehicle (BEV), Plug-In Electric Vehicle (PEV), or Plug-In Hybrid-Electric Vehicle (PHEV), as defined herein. This term also includes:

- A. **Electric Vehicle, Battery (BEV).** A plug-in EV that uses only a battery and electric motor to power the EV.
- B. **Electric Vehicle, Plug-In (PEV).** An EV that plugs into an external source to charge an on-board battery that provides the electricity for the electric motor.
- C. **Electric Vehicle (PHEV), Plug-In Hybrid.** An EV that uses both an internal combustion engine and an electric motor with a battery that recharges by plugging into an external source.

## ELECTRIC VEHICLE CHARGING STATION (EVCS).

Battery charging station equipment with an associated parking space that has as its primary purpose the transfer of electric energy (by conductive or inductive means) to a battery or other energy storage device in an EV.

## ELECTRIC VEHICLE CHARGING STATION, LEVEL 1.

An EVCS that operates through a 120-volt AC circuit, with typical power output of 1 kW

## ELECTRIC VEHICLE CHARGING STATION, LEVEL 2.

An EVCS that operates through a 208- or 240-volt AC circuit, with typical power output of 7 to 19 kW.

## ELECTRIC VEHICLE CHARGING STATION, LEVEL 3.

An EVCS that operates through a 400- to 1000-volt three-phase AC circuit, with typical power output of 50 to 350 kW. Level 3 chargers are also known as Direct Current Fast Chargers or DCFC.

## ELECTRIC VEHICLE READY OR EV-READY.

Pre-wired electrical infrastructure to facilitate future installation of an EVCS. EV-Ready includes service panels, junction boxes, conduit, wiring, and other components necessary to make a particular location able to accommodate EVCS.

## ELECTRIC VEHICLE SUPPLY/SERVICE EQUIPMENT (EVSE).

Any device that enables the safe transfer of energy between the local power supply grid and an electric vehicle. EVSE includes, but is not limited, to all the components for EV charging stations, including: the conductors; the ungrounded, grounded, and equipment grounding conductors; EV connectors; attachment plugs, software and all other fittings, devices, power outlets, induction plates or apparatus installed specifically for the purpose of delivering energy from the electric supply grid to an EV. EVSE may deliver either alternating current or direct current electricity (consistent with fast-charging equipment standard). EVSE may also include alternative charging utilities, such as solar photovoltaic systems, to generate supplemental power for the EVSE/EVCS.

## ELEVATION

A vertical distance above or below a fixed reference level; or a flat scale drawing of the front, rear, or side of a building.

## ENGINEER

A professional engineer licensed as such in the Commonwealth of Pennsylvania and competent in the profession as established under the Pennsylvania Engineer, Land Surveyor, and Geologist Registration Act.

## ESCROW

A deposit of cash with North Wales Borough or escrow agent to secure the promise to perform some future act.

## EXCAVATION

Any act by which natural materials are dug into, cut, quarried, uncovered, removed, displaced, relocated, or bulldozed, as well as the conditions resulting from such activities.

## FACADE

The exterior wall of a building that is set along a frontage line that faces a public or private street or pedestrianway.

## FAMILY

Any group of individuals living together permanently or long-term, as opposed to transiently or

short-term, as the functional equivalent of a family where the residents may share living expenses, chores, eat meals together and are a close group with social, economic and psychological commitments to each other. A family includes, for example, the residents of residential care facilities and group homes for people with disabilities. A family does not include larger institutional group living situations such as student-housing, dormitories, fraternities, sororities, monasteries or nunneries.

## FLOOD

- A. A general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties (at least one of which is the policyholder's property) from:
1. Overflow of inland or tidal waters; or
  2. Unusual and rapid accumulation or runoff of surface waters from any source; or
  3. Mudslides (i.e., mudflows) which are proximately caused by flooding and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current; or
  4. Collapse or subsidence of land along the shore of a lake or similar body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels that result in a flood as defined above.
- B. A flood inundates a floodplain. Most floods fall into three major categories: riverine flooding, coastal flooding, and shallow flooding.

## FLOOD HAZARD BOUNDARY MAP (FHBM)

Official map of a community issued by FEMA, where the boundaries of the flood, mudflow and related erosion areas having special hazards have been designated.

## FLOOD INSURANCE RATE MAP (FIRM)

Official map of a community on which FEMA has delineated the Special Flood Hazard Areas (SFHAs), the Base Flood Elevations (BFEs) and the risk premium zones applicable to the community.

## FLOODPLAIN

Any land area susceptible to being inundated by floodwaters from any source.

## FLOODPLAIN MANAGEMENT

- (1) The operation of an overall program of corrective and preventive measures for reducing flood damage, including, but not limited to, emergency preparedness plans, flood-control works and floodplain management regulations.

- (2) Floodplain management is a decision-making process that aims to achieve the wise use of the nation's floodplains. "Wise use" means both reduced flood losses and protection of the natural resources and function of floodplains.

#### FLOODPROOFING

Any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

#### FLOODWAY

The channel of a river, stream, or other watercourse and the adjacent land area required to carry and discharge a flood of the 100-year magnitude.

#### FLOOR AREA

The horizontal floor area within the inside perimeter of the outside walls of the building, including, but not limited to, hallways, stairs, closets, thickness of walls, columns and other features.

#### FOOTCANDLE

A unit of light intensity stated in lumens per square foot and measurable with an illuminance meter, a.k.a. footcandle or light meter.

#### FORESTRY

The management of forests and timberlands when practiced in accordance with accepted silvicultural principles, through developing, cultivating, harvesting, transporting and selling trees for commercial purposes which does not involve any land development.

#### FRONTAGE, REVERSE

Lotting which extends between two streets of differing classifications, with vehicular access provided from the lesser street, in order to promote traffic flow and safety on the greater street.

#### FULL CUTOFF

Attribute of a lighting fixture from which no light is emitted at or above a horizontal plane drawn through the bottom of the fixture and no more than 10% of the lamp's intensity is emitted at or above an angle  $10^\circ$  below that horizontal plane, at all lateral angles around the fixture.

#### FULLY SHIELDED

Attribute of a lighting fixture provided with internal and/or external shields and louvers to prevent brightness from lamps, reflectors, refractors and lenses from causing glare at normal viewing angles.

#### GARAGE

- a. PRIVATE GARAGE An accessory building or a part of a principal building designed primarily for the storage of not more than two passenger cars (as defined in the Pennsylvania Motor Vehicle Code) owned and used by the owner or tenant of the premises. A detached garage designed primarily for the storage of not more than two passenger cars may be constructed on a premises even though the principal building contains an attached garage as part of the structure.
- b. PUBLIC GARAGEA building, other than a private or storage garage, one or more stories in height, used solely for the commercial storage, service or repair of motor vehicles.
- c. STORAGE GARAGEA building, not a private or public garage, one story in height, used solely for the storage of motor vehicles (other than trucks) but not for the sale, service or repair thereof, nor for the sale of fuel, accessories or supplies.

## GLARE

The effect by reflections of light with intensity sufficient as determined in a commercially reasonable manner to cause annoyance, discomfort, or loss in visual performance and visibility in any material respects.

## GOVERNING BODY

The Council of the Borough of North Wales.

## GROUND COVER

Low-growing plant materials planted in a manner to provide continuous plant cover of the ground surface. Nonplant ground cover may include bark or wood chips, gravel, and stone, provided that such material is maintained as a continuous pervious cover.

## GROUND COVERAGE

The horizontal area or spread of the foliage of a plant other than tree canopy coverage, which shall be used in measuring coverage of shrubs, grasses and herbaceous perennials and annuals.

Financial security that is required from the developer by North Wales Borough to guarantee the structural integrity and functioning of improvements following final acceptance of dedication by North Wales Borough of improvements installed by the developer. Such financial security may include irrevocable letters of credit, cash escrows or a surety bond with a bonding company or commonwealth or federally chartered financial institution as further specified in this chapter.

## GUARANTEE, PERFORMANCE

Financial security that is required from the developer by North Wales Borough as a condition to final approval of a subdivision or land development plan to guarantee that the improvements shown on the plan are installed and completed in accordance with the plan and applicable provisions of this chapter. Such financial security may include irrevocable letters of credit, cash escrows or a surety bond with a bonding company or commonwealth or federally chartered financial institution as further specified in this chapter.

## HEAT ISLAND

According to the United State Environmental Protection Agency, heat islands are urbanized areas that experience higher temperatures than outlying areas. Structures such as buildings, roads, and other infrastructure absorb and re-emit the sun's heat more than natural landscapes such as forests and water bodies. Urban areas, where these structures are highly concentrated and greenery is limited, become "islands" of higher temperatures relative to outlying areas. Daytime temperatures in urban areas are about 1° to 7° F. higher than temperatures in outlying areas and nighttime temperatures are about 2° to 5° F. higher.

## HEIGHT

When referring to a tower, the vertical distance measured from the lowest finished grade at the base of the tower to the highest point on the tower, even if said highest point is an antenna.

## ILLUMINANCE

Quantity of light on an area, measured in footcandles (1 footcandle = 1 lumen per square foot).

## HYDRIC SOILS

A soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions. Hydric soil that is in areas having indicators of hydrophytic vegetation and wetland hydrology is wetland soil.

## HYDROLOGIC SOIL GROUP

Infiltration rates of soils vary widely and are affected by subsurface permeability as well as surface intake rates. Soils are classified into four HSGs (A, B, C, and D) according to their minimum infiltration rate, which is obtained for bare soil after prolonged wetting. The Natural Resources Conservation Service (NRCS) of the U.S. Department of Agriculture defines the four groups and provides a list of most of the soils in the United States and their group classification. The soils in the area of the development site may be identified from a soil survey report that can be obtained from local NRCS offices or conservation district offices. Soils become less pervious as the HGS varies from A to D.

## ILLUMINANCE

Quantity of light, measured in footcandles.

## IMPERVIOUS SURFACE

A surface that prevents the infiltration of water into the ground. Impervious surfaces (or areas) shall include, but not be limited to, roofs, additional indoor living spaces, patios, garages, storage sheds and similar structures, swimming pools, and any new streets or sidewalks. Decks, parking areas, and driveway areas are not counted as impervious areas only when they do not prevent infiltration of water into the ground directly beneath them.

## IMPOUNDMENT

A body of water, such as a pond, lake, dam, retention or detention basin designed to manage stormwater runoff by retaining it at a controlled rate.

#### IMPROVEMENT

The physical additions, installations, and/or changes necessary, desirable or proposed to render land suitable for the use or uses intended, including streets, curbs, sidewalks, landscaping, utilities, and drainage facilities.

#### INFILL DEVELOPMENT

Development that takes place within existing communities, making maximum use of the existing infrastructure instead of building on undeveloped land.

#### INVASIVE PLANT

A plant species which grows aggressively, spreads, and displaces other plants and has generally been introduced from other continents. Such species lack natural predators, disease, or natural controls, and can dominate large areas and diminish or limit biodiversity. Invasive and “watch list” species listed on any governmental list of invasive species, including the Pennsylvania Department of Conservation and Natural Resources’ publication “DCNR Invasive Plant List,” as maintained and updated, as well as any list adopted by North Wales Borough, shall be inclusive of this definition.

#### LAMP

The component of a luminaire that produces the actual light.

#### LAND DEVELOPMENT

Any of the following activities:

- A. The improvement of one or two or more contiguous lots, tracts or parcels of land for any purpose involving:
  1. A group of two or more residential or nonresidential buildings, whether proposed initially or cumulatively, or a single nonresidential 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.
- B. A subdivision of land.
- C. Developments in accordance with Section 503(1.1) of the Municipalities Planning Code, as amended.

#### 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 to 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.

#### LEVEL OF SERVICE

Level of service, as described in the Highway Capacity Manual, indicates how well traffic moves on a particular highway facility or through a specific intersection. There are six levels of servicing, ranging from A through F. Level of Service A indicates generally free movement. Level of Service F represents maximum capacity of the facility. Level F indicates congestion. Level of Service C is considered the design level of service, representing a stable traffic flow and a relatively satisfactory travel speed.

#### LIGHT, DIRECT

Light emitted directly from the lamp, off of the reflector or reflector diffuser, or through the reflector or diffuser lens, of a luminaire.

#### LIGHT FIXTURE

The assembly that houses the lamp or lamps and can include all or some of the following parts: a housing, a mounting bracket or pole socket, a lamp holder, a ballast, a reflector or mirror, and/or a refractor or lens.

#### LIGHT, FLOOD

A bright, wide-angled light source.

#### LIGHT, INDIRECT

Direct light that has been reflected or has scattered off of other surfaces.

#### LIGHT TRESPASS

Light emitted by a light source which extends beyond the boundaries of the property on which the light source is located.

#### LIGHTING, ENERGY-STAR QUALIFIED

Lighting which uses 1/3 the energy of traditional lighting, with bulbs lasting at least 10,000 hours. Energy-star qualified lighting is labeled as such by the federal government (U.S. EPA and Department of Energy).

#### LIGHTING, EXTERIOR (OUTDOOR)

The nighttime illumination of an outside area or object by any man-made device located outdoors that produces light by any means.

## LIGHTING, SECURITY

Lighting intended to enhance the security of the premises. Security lighting is permitted to remain on between the hours of 11:00 p.m. and 6:00 a.m. even if on-site activities do not occur during that period.

## LIGHTING, TEMPORARY OUTDOOR

The specific illumination of an outside area or object by any man-made device located outdoors that produces light by any means for a period of less than seven days, with at least 180 days passing before being used again.

## LOADING

An area in which goods and products are moved on and off a vehicle, including the stall or berth and the apron or maneuvering room incidental thereto.

## LODGING

Temporary residential accommodation for tourism and business purposes which typically includes a furnished room that includes temporary sleeping arrangements, sanitary facilities, and may include limited kitchen facilities.

## LOT

A designated parcel, tract or area of land held by a landowner and/or intended for use, development, lease, or transfer of ownership and for which a deed description is recorded or is intended to be recorded at the Office of the Recorder of Deeds for Montgomery County.

## LOT AREA, GROSS

The area of land contained within the property lines of a parcel, tract or lot as described in the deed or as shown on an approved subdivision plan.

## LOT AREA, NET

The gross lot area, excluding the following areas:

- A. Any area within the street ultimate right-of-way; or within any other ultimate right-of-way, whether public or private, that provides, or is intended to provide, access to more than one lot by way of vehicular and/or pedestrian circulation.
- B. Any area, easement or right-of-way to be used for emergency access, drives or fire lanes. The net lot area shall be used to determine the area, bulk, coverage, dimensional, and density requirements.

## LOT LINE

A property boundary line of any lot held in single or joint ownership, except that in the case of any

lot abutting a street, the "lot line" for such portion of the lot as abuts the street shall be deemed to be the same as the ultimate right-of-way line and shall not be the center line of the street or any other line within the street side line even though such may be the property boundary line.

#### LOT WIDTH

The lot width shall be the width of the lot from side lot line to side lot line and the minimum lot width permitted shall be maintained for the entire depth of the lot.

#### LOT, CORNER

A lot having contiguous frontage on two or more intersecting roads. The setback at each road frontage shall be the front setback for the district in which the lot is located. One of the other two sides shall have a rear yard setback and the other shall be the side yard.

#### LOT, FLAG (REAR LOT)

A lot that does not provide at least 50% of the required lot width as frontage along a public street or does not provide the required lot width at a point equal to the required front yard established for the district in which located.

- A. Such lots shall be connected to a public street by an access strip having a width of not less than 25 feet which shall be held in fee-simple ownership as a part of the flag (or rear) lot.
- B. The area of the access strip, up to a point where the minimum required lot width is achieved, shall not be included in calculating the minimum lot area required for the zoning district in which located.
- C. The minimum lot area for any flag lot shall be twice the size of the minimum lot area required for the district.

#### LOT, LANDLOCKED or INTERIOR

A designated parcel, tract, or area of land lawfully assigned a separate tax parcel identification number by the Montgomery County Board of Assessment office that does not have frontage on a street or alley.

#### LUMEN

A unit of luminous flux. One footcandle is one lumen per square foot. For the purposes of this Section, the lumen-output values shall be the initial lumen output ratings of a lamp.

#### LUMINAIRE

A complete lighting system, including a lamp or lamps and a fixture.

## LUMINAIRE, HEIGHT

The height of a luminaire shall be the vertical distance from the ground directly below the center line of the luminaire to the lowest direct-light-emitting part of the luminaire.

## MATURE TREE

Any tree of six (6) inches or more in dbh, whether standing alone, in a tree mass, or in a woodland.

## MINERALS

Any aggregate or mass of mineral matter, whether or not coherent. The term includes, but is not limited to, limestone and dolomite, sand and gravel, rock and stone, earth fill, slag, iron ore, zinc ore, vermiculite and clay, anthracite and bituminous coal, coal refuse, peat and crude oil and natural gas.

## MOBILE HOME OR MANUFACTURED HOME

A single-family detached dwelling intended for permanent occupancy, which may not meet local building codes but does meet the standards of the United States Department of Housing and Urban Development, as indicated by the Structural Engineering Bulletin(s) provided to the Borough Council by the applicant. It shall be contained in one unit (called a "single-wide") or in two or more units designed to be joined into one integral unit capable of again being separated for repeated towing (called a "double-wide"), 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 with or without a permanent foundation, including any roofed addition such as extra rooms, covered patios, porches, etc.

## MOBILE HOME LOT

A parcel of land in a mobile home park, provided with the necessary utility connections, patio and other appurtenances necessary for the erection thereon of a single mobile home and the exclusive use of its occupants.

## MOBILE HOME PARK

A parcel or contiguous parcels of land which has been so designated and improved that it contains two or more lots, improved with the necessary utility connections and other appurtenances necessary for the placement thereon of mobile homes.

## MONUMENT

A tapered, permanent survey reference point of stone or concrete having a flat top at least four inches on each side and a length of at least 24 inches, embedded vertically into the ground.

## MOTOR VEHICLE

Any vehicle, as more specifically defined in the Vehicle Code of Pennsylvania, as now in force or as hereafter amended, enacted or reenacted, except in those instances where the context clearly

indicates a different meaning, which is self-propelled, except tractors, power shovels, road rollers, agricultural machinery and vehicles which move upon or are guided by a track or travel through the air.

#### MOUNTING HEIGHT

The height of a lighting fixture, measured from mean grade to the highest point of the fixture emitting light.

#### MULTIFAMILY DEVELOPMENT

A multifamily residential development is a detached, residential building containing at least three permanent dwelling units in a variety of combinations, including side-by-side, over and under, or back-to-back with another dwelling unit.

#### MUNICIPAL ENGINEER

A professional engineer licensed as such in the Commonwealth of Pennsylvania, duly appointed as the Engineer for a municipality, planning agency or joint planning commission.

#### NATIONAL FLOOD INSURANCE PROGRAM (NFIP)

The program of flood insurance coverage and floodplain management administered under the Act and applicable federal regulations promulgated in Title 44 of the Code of Federal Regulations, Subchapter B.

#### NATIVE PLANT

For the purposes of this Chapter, a native plant species that occurred in the mid-Atlantic Piedmont Region (Pennsylvania, Maryland, Delaware and Virginia) prior to European settlement. The native status of plants may be confirmed through the [www.plants.usda.gov](http://www.plants.usda.gov) web site, using the Native Status Maps for each species. For purposes of this chapter, "native plant" shall include native shade tree, native street tree, native shrub, native groundcover, native grasses and native perennial.

#### NATURAL FEATURE

A component of a landscape existing or maintained as part of the natural environment and having ecological value in contributing beneficially to, among other things, air and water quality, erosion control, groundwater recharge, noise abatement, visual amenities, growth of wildlife, human recreation, reduction of climatic stress and energy costs.

#### NONCONFORMING LOT

A lot the area or dimension of which was lawful prior to the adoption or amendment of a zoning chapter, but which fails to conform to the requirements of the zoning district in which it is located by reasons of such adoption or amendment.

#### NUISANCE

- (1) Any use considered to be inconsistent with the public comfort, convenience, health, safety, and general welfare, including, but not limited to, the following: fire and explosion hazards; electrical and radioactive disturbances; noise and vibration; dust, dirt, and fly ash; glare; smoke and odors; and other forms of air pollution.
- (2) Any use operated or conducted in a manner which directly or indirectly endangers the public health, safety and/or welfare, including, but not limited to, having a detrimental effect on an adjoining property or use of property and/or the community.
- (3) A property in a continuing state of disrepair that is not fit for human habitation and/or occupancy with the potential to attract vermin and/or deemed to be a fire hazard to adjoining properties.
- (4) A property that contains trash, junk and/or one or more inoperable vehicles.

#### OBSTRUCTION

Any wall, dam, wharf, embankment, levee, dike, pile, abutment, projection, excavation, channel, rectification, culvert, building, fence, stockpile, refuse, fill, structure or matter in, along, across or projecting into any channel, watercourse or designated floodplain district which may impede, retard or change the direction of the flow of water, either in itself or by catching or collecting debris carried by such water, or is placed where the flow of the water might carry the same downstream to damage property or threaten lives.

#### OWNER

Any person vested with ownership, legal or equitable, sole or partial, of any property located in this Borough.

#### PARK

Any publicly owned area which is predominantly open space and is used principally for active or passive recreation.

#### PARKING DRIVE AISLE (or DRIVE AISLE)

The interior cartway used or intended for vehicular circulation within and around a parking lot, from which access to a parking space or stall is taken.

#### PARKING LOT

Any area privately owned which is used for the storage of motor vehicles or other vehicles, not in excess of 24 hours continuous storage.

#### PARKING SPACE

An open or covered area with a dust-free, all-weather surface for the storage of one automobile, accessible via a driveway. A parking space shall be constructed of macadam, asphalt, concrete, or permeable paving and has an area as specified otherwise required in this chapter.

## PATIO

An unenclosed area at ground level, with or without a roof and is used primarily for private recreational purposes.

## PAVING, PERMEABLE

An all-weather paving material which allows for significant reduction in surface water runoff due to its absorptive or porosity characteristics. The paving materials may include porous bituminous concrete mixtures, permeable interlocking concrete paving blocks, concrete grid pavers, perforated brick pavers, permeable flexible paving, and similar materials when reviewed by the Borough Engineer; gravel or cinders shall not qualify. The material and its construction details shall be reviewed and approved by the Borough Engineer prior to installation.

## PEAK DISCHARGE

The maximum rate of flow of stormwater runoff at a given point and time resulting from a particular magnitude storm.

## PENNSYLVANIA MUNICIPALITIES PLANNING CODE

The Municipalities Planning Code, originally enacted as Act 247 of 1968, which establishes the basic authority for the exercise of municipal land use controls in Pennsylvania. All subsequent amendments are included. Abbreviated as "MPC" or "Act 247."

## PERIMETER LANDSCAPE STRIP

A landscaped area of ground that separates the parking lot from other structures on the lot, adjacent properties, a public right-of-way, or any other non-parking use of a lot. Its purpose is to buffer and screen parking and can serve as a bioretention area.

## PLANNING AGENCY

The North Wales Borough Planning Commission.

## PLAN

A graphic representation of a proposal for subdivision and/or land development, including necessary written notes.

## PLANTING ISLAND

Any area of ground with improved soil between parking spaces, or at the end of parking rows, within the interior of a parking lot. The planting island is designed to help to control traffic flow and perform environmental services, including shading and infiltration and treatment of stormwater runoff.

## PLANTING SOIL

Soils amended for improved drainage and biologic function, as well as to support plants that are adapted to both wet and dry conditions. These soils are used for planting areas not to be used as bioretention areas.

#### PLANTING STRIP

A pervious, linear area of ground within the boundary of a parking lot which separates parking spaces along their shorter linear dimensions, running parallel to parking drive aisles, from which parking spaces take direct access. The parking strip is designed to screen surface parking, help control traffic flow, and perform environmental services including shading and infiltration and treatment of stormwater runoff.

#### PLAT

The map or plan of a subdivision or land development, whether preliminary or final.

#### PORCH

An extension to the main building, with or without a roof, is one story in height, and has access to the ground.

#### PRESERVATION or PROTECTION

When used in connection with natural and historic resources, shall include means to conserve and safeguard these resources from wasteful or destructive use, but shall not be interpreted to authorize the unreasonable restriction of forestry, mining or other lawful uses of natural resources.

#### PRIMARY FRONT FACADE

All aboveground exterior walls of a building oriented parallel to a street frontage. In the event there is more than one street frontage, the primary front facade shall be oriented toward the street of higher classification. Primary facades shall contain a main entrance connected to the sidewalk by a walkway, or shall front directly on a sidewalk.

#### PRIME AGRICULTURAL LAND

Land use for agricultural purposes that contains soils of the first, second or third class as defined by the United States Department of Agriculture Natural Resource and Conservation Services County Soil Survey.

#### PROPERTY LINE

A demarcation of property ownership. Also referred to as a "lot line."

#### PUBLIC HEARING

A formal meeting held pursuant to public notice by the governing body or planning agency, intended to inform and obtain public comment, prior to taking action in accordance with this chapter.

## PUBLIC NOTICE

Notice published once each week for two successive weeks in a newspaper of general circulation in the municipality. Such notice shall state the time and place of the hearing and the particular nature of the matter to be considered at the hearing. The first publication shall not be more than 30 days and the second publication shall not be less than seven days from the date of the hearing.

## QUEUE ANALYSIS

This procedure includes the average queue and maximum queue of vehicles which will be observed in each traffic stream and intersection approach, measured in both feet and vehicles. Various statistical and/or computer models may be applied.

## RAIN GARDEN

An area of ground which is a shallow depression designed to clean, detain, and infiltrate stormwater runoff primarily with adapted native plants set within bioretention soils, usually have a simple inflow where rainwater enters the garden, and an aboveground overflow where excess water exits. It is a stormwater management BMP which is typically a smaller system than other bioretention facilities. However, operation and maintenance is critical to proper performance. The size, capacity and location of rain gardens should be based on runoff source (parking lot, roofs, downspout, lawns, etc.) and the ability to capture rainwater.

## RESERVE STRIP

A parcel of land whose primary function is to separate a street from adjacent properties, while not being used or capable of being used as a building lot, open space, or recreation area.

## RIGHT-OF-WAY

A strip of land occupied or intended to be occupied at some future date by roads, railroads, transmission lines, pathways, oil and gas pipelines, water lines, sewer lines, and other similar facilities.

## RIPARIAN CORRIDOR

Forested or vegetated lands along both sides of a stream, wetland or water body.

## SEDIMENT

Soils or other materials transported by surface water as a product of erosion.

## SETBACK

The distance from a lot line or, in the case of front setbacks, a curblineline to the point on a lot where a building or structure may be constructed. A setback area must be maintained clear of buildings and structures, with the exception of encroachments as may be permitted by this chapter.

## SETBACK, FRONT

A setback extending along the full width of the lot along the street line and which extends from the curbline towards the interior of a lot. The required depth of a front setback shall be established by the applicable zoning district. See also "build-to line."

#### SETBACK, REAR (or REAR YARD SETBACK)

A setback extending along the full width of the lot along the rear lot line that extends towards the interior of the lot. The required depth of a rear setback shall be established by the applicable zoning district.

#### SETBACK, SIDE (or SIDE YARD SETBACK)

A setback extending along a side lot line, those being the lot lines connecting the front lot line to the rear lot line, measured from a side lot line towards the interior of the lot. The required depth of a side setback shall be established by the applicable zoning district.

#### SEWAGE ENFORCEMENT OFFICER

A licensed employee of the Montgomery County Health Department who issues permits, reviews permit applications and sewage facilities planning modules, and conducts inspections and investigations necessary to implement the Pennsylvania Sewage Facilities Act and regulations promulgated under it.

#### SEWAGE FACILITIES PLAN

A comprehensive plan for the provision of adequate sewage facilities as adopted by North Wales Borough and approved by the Pennsylvania Department of Environmental Protection under the Pennsylvania Sewage Facilities Act (Act 537).

#### SIGHT DISTANCE, STOPPING

The distance of unobstructed view along the center line of a street from the driver's eye-height of 3 1/2 feet above the pavement surface to the furthest visible point, or as otherwise defined in the most current edition of PennDOT Publication No. 13M: Design Manual, Part 2: Highway Design.

#### SIGHT TRIANGLE

A triangular-shaped portion of land established at street intersections in which nothing is erected, placed, planted, or allowed to grow in such a manner as to limit or obstruct the sight distance of motorists entering or leaving the intersection.

#### SOIL SURVEY

The Montgomery County Soil Survey, latest edition, prepared by the Nature Resources Conservation Service of the United States Department of Agriculture.

#### SOIL VOLUME

The quantity of soil needed to support the health and vigor of shade trees or other woody plants, such

as flowering trees and shrubs, required in the planting plan.

#### SOLAR ENERGY EQUIPMENT

Electrical material, hardware, inverters, conduit, energy storage devices, or other electrical and photovoltaic equipment associated with the production and storage of electricity.

#### SOLAR ENERGY SYSTEM, GROUND-MOUNTED

A solar energy system which is secured to the ground via a pole, ballast system, or other mounting system; is detached from any other structure; and which generates electricity for on-site or off-site consumption.

#### SOLAR ENERGY SYSTEM, ROOF-MOUNTED

A solar energy system located on the roof of any legally permitted building or structure that produces electricity for on-site or off-site consumption.

#### SOLAR PANEL

A photovoltaic device capable of collecting and converting solar energy into electricity.

#### SPECIAL EXCEPTION

A use which may be granted or denied pursuant to express standards or criteria by the Zoning Hearing Board in accordance with Article XXI hereof where provisions therefore are made by the terms of this chapter. In granting a special exception, the Zoning Hearing Board may attach such reasonable conditions and safeguards as it may deem necessary to implement the purposes of this chapter.

#### SPECIAL FLOOD HAZARD AREA (SFHA)

An area having special flood, mudflow or flood-related erosion hazards and shown on a Flood Hazard Boundary Map (FHBM) or a Flood Insurance Rate Map (FIRM) Zone A, AO, A1-A30, AE, A99, AH, AR, AR/A, AR/AE, AR/AH, AR/AO, AR/A1-A30, V1-V30, VE or V. The SFHA is the area where the National Flood Insurance Program's (NFIP's) floodplain management regulations must be enforced and the area where the mandatory purchase of flood insurance applies. For the purpose of determining Community Rating System (CRS) premium discounts, all AR and A99 zones are treated as non-SFHAs.

#### SPOTLIGHT

Any light fixture or lamp that incorporates a reflector or a refractor to concentrate light output into a directed beam in a particular direction.

#### STORMWATER

The surface runoff generated by precipitation, snow or ice melt, reaching the ground surface.

## STORMWATER BASIN

A structure which provides for the storage and controlled release of stormwater runoff during and after a storm. Also referred to as a "sediment basin," "retention basin" or "detention basin."

- A. WET BASIN An impoundment basin designed to retain stormwater runoff within a permanent pool of water or existing pond.
- B. DRY BASIN A naturalized impoundment basin designed to retard stormwater runoff by temporarily storing the runoff and releasing it at a predetermined rate.

## STORMWATER MANAGEMENT FACILITY

Any structure, natural or human-made, that, due to its condition, design, or construction, conveys, stores, or otherwise, affects stormwater runoff. Typical stormwater management facilities include, but are not limited to, detention and retention basins, open channels, storm sewers, pipes, and infiltration structures.

## STORMWATER MANAGEMENT SITE PLAN

The plan prepared by the developer or their representative indicating how stormwater runoff will be managed at the development site in accordance with this chapter.

## STORMWATER RUNOFF

Water from rainfall or melting snow in a watershed in excess of the natural absorbency of that watershed, which flows over the ground surface to collect in streams and channels.

## STORY

That part of any building comprised between any floor and the floor or roof next above. The "first story" of a wall is the lowest story which is 75% or more above the average level of the ground adjacent to said wall.

## STREET

Includes streets, avenues, boulevards, roads, highways, freeways, parkways, lanes, alleys, viaducts and any other ways used or intended to be used by vehicular traffic or pedestrians, whether public or private.

## STREET FRONTAGE

The linear edge of a lot adjacent to the lot line abutting a street or public right-of-way. (Also known as "lot frontage.")

## STREET LINE

The dividing line between a lot and the outside boundary or legal right-of-way, road or highway legally opened or officially approved, or between a lot and a privately owned street, road or way

over which the owners or tenants of two or more lots each held in single and separate ownership have the right-of-way.

#### STREET RIGHT-OF-WAY

Land opened for use as a street, municipally or privately owned, serving as a means of vehicular and pedestrian travel, with space for sewers, public utilities and sidewalks. As a minimum, the legal right-of-way on each side of a street or highway shall be a parallel line not less than 25 feet from the center of a street or highway.

#### STREET ULTIMATE RIGHT-OF-WAY

The expected future street right-of-way width computed from the center line of an established street right-of-way, as identified in the Borough Land Development and Subdivision Regulations, but in no event less than the minimum width established by the street right-of-way.

#### STREETLIGHT

A lighting fixture, mounted on a pole, which provides light along a street. It shall consist of a pole, head, arm, lamp, photocell, mounting bracket and fixture.

#### STREETSCAPE or STREETSCAPING

The area that is between the buildings on either side of a street, including the public or private street right-of-way, which defines its character. The elements of a streetscape include building frontage/façade, landscaping, sidewalks, street paving, street furniture, signage, architectural elements such as awnings, and street lighting.

#### STRUCTURAL SOILS

A soil medium that can be compacted to support pavement and installation requirements while accommodating tree root growth. It is a mixture of gap-graded gravels made of crushed stone, clay loam, and a hydrogel stabilizing agent to keep the mixture from separating.

#### STRUCTURE

Any form or arrangement of building materials, excluding fences, involving the necessity of providing proper support, bracing, tying, anchoring or other protection against the forces of the elements, whether or not affixed to the land.

#### SUBDIVISION

The division or redivision of a single lot, tract, or parcel of lands by any means into two or more lots, tracts, or parcels of land, including changes in street lines or lot lines for any purpose, whether immediate or future, including, but not limited to, the transfer of ownership or building or lot development; provided, however, that divisions by lease of land for agricultural parcels of more than 10 acres, not involving any new streets or easements of access or any residential dwelling, shall be

exempted.

#### SUBSTANTIALLY COMPLETED

In the judgment of the municipal engineer, at least 90% (based on the cost of the required improvements for which financial security was posted pursuant to section 509) of those improvements required as a condition for final approval have been completed in accordance with the approved plan.

#### SUBSTANTIALLY IMPROVED BUILDING

Any repair reconstruction, or improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure either before the improvement or repair is started or, if the structure has been damaged and is being restored, before the damage occurred. For the purposes of this definition, substantial improvement is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include either: Any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to ensure safe living conditions; or any alteration of a structure listed on the National Register of Historic Places or the Pennsylvania Inventory of Historic Places.

#### SURVEYOR

A licensed land surveyor, registered as such in the Commonwealth of Pennsylvania, and competent in profession as established under the Pennsylvania Engineer, Land Surveyor, and Geologist Registration Act.

#### SWIMMING POOL

Any permanent or temporary structure used for swimming or bathing which has a depth in any part of 18 inches or more. A residential swimming pool is any swimming pool which is constructed on the same lot with and used in conjunction with a dwelling and which is available only to the occupants of the dwelling and their private guests.

#### TENURE

The form of occupancy of a unit, i.e., fee simple sale, rental, condominium, cooperative, etc.

#### TOPSOIL

The original upper layer of soil material which is usually darker and more fertile than subsoil, which is screened of stones, roots, construction debris, and contains a substantial percentage of organic material.

#### TOTAL FLOOR AREA

The maximum horizontal floor area of all floors within a building using outside dimensions of each floor, excepting therefrom cornices, chimneys, bay windows not extending more than five feet, one-

story open porches, steps, balconies and floor openings above the first floor to the roof such as an atrium or open court.

#### TRACT

A large property consisting of one legal parcel usually to be subdivided into several smaller parcels.

#### TRAIL

A designated land corridor containing an improved route designed for nonmotorized travel that provides recreational, aesthetic, alternate transportation, or educational opportunities. Sidewalks are not considered trails though they can serve as trail connections.

#### TRAVEL TRAILER

A recreational vehicle requiring a separate power source for pulling it, which may include living, sleeping and sanitary facilities, but which is designed for vacation travel and not for long-term permanent occupancy.

#### TREE, CANOPY

Any tree that, when mature, typically forms the overstory, or uppermost layer of branches and foliage, in a woodland or forest, and/or any large, deciduous shade tree generally reaching at least 40 feet in height at maturity.

#### TREE MASS

A grouping of three (3) or more trees, each with a caliper of at least 1.5 inches, within a 100 square foot area.

#### TREE, STREET

Any tree located within the ultimate right-of-way of any street or highway in North Wales.

#### TREE, UNDERSTORY

Any tree or trees that, when mature, attain a height lesser than canopy trees. In an existing wooded setting, this may include seedlings, saplings and other small trees.

#### TRIP

A single or one-way vehicle movement to or from a property or study area. Trips can be added together to calculate the total number of vehicles expected to enter or leave a specific land use or site over a designated period of time.

#### TRIP GENERATION RATES

The total count of trips to and from the subject development per unit of land use as measured by parameters such as dwelling units, acres, or square footage.

## TRUCK

Any motor vehicle designed or used for commercial purposes, including, but not limited to, freight, goods or merchandise.

## UNIFORMITY RATIO

The variation of illuminance over an area. For the purposes of this Section, the "uniformity ratio" will be calculated by comparing the average illuminance to the minimum illuminance (unless otherwise noted).

## USE

The use of land or a building or structure on a lot. Uses are classified, defined, and regulated by Article IV, Use Regulations, of Chapter 208, Zoning.

## USE, ACCESSORY

A use subordinate to the principal use of land or a building or other structure on a lot and customarily incidental thereto.

## USE, PRINCIPAL

The primary use of a building or structure permitted and intended for a given lot, parcel, or premises.

## USE LAST PRINCIPLE

A concept that permits the use of an accessible EVCS by any user, provided that all non-accessible EVCS are in use. The concept generally promotes the preservation of an accessible EVCS, but would permit for greater EVCS use in times of high charging demand. The "use last" principle contrasts to providing an accessible EVCS that may only be utilized by those with a disability placard, potentially limiting use.

## UTILITY POLE

An existing or replacement pole or similar structure that is used in whole or in part to carry or to provide lateral support to electric distribution lines or cables or wires for telecommunications, cable or electric service, or for lighting or support for traffic control devices. Such term shall not include structures supporting only wireless facilities.

## VARIANCE

Relief which may be granted or denied by the Zoning Hearing Board in accordance with Article XXI hereof constituting a modification of, or deviation from, the exact provisions of this chapter as applied to a specific piece of property where it is alleged that the provisions of this Zoning Chapter inflict unnecessary hardship upon the applicant. In granting a variance, the Zoning Hearing Board may attach such reasonable conditions and safeguards as it may deem necessary to implement the purposes of this Zoning Chapter.

## VEHICULAR USE AREAS (VUAs)

Any areas of a lot not located within any enclosed or partially enclosed structure which are used by or intended for motor vehicles, including but not limited to the following: accessory or non-accessory parking spaces for the storage of automobiles, trucks or other motor vehicles; parking drive aisles; loading zones and service areas; emergency or fire zones or lanes; access drives and driveways; and paved areas painted or striped in such a manner as to indicate that they are not intended for parking or standing but are otherwise at grade with other areas designed for or used by motor vehicles.

## VERGE

A strip separating the passable area of a sidewalk from the curb, and consisting of grass, landscaping, street furniture, or decorative paving.

## VISUAL SCREEN

A barrier for the purpose of limiting or obscuring a view; generally comprised of vegetation, structures, or earthworks suitable for the purpose.

## VOLUME/CAPACITY ANALYSIS

This procedure compares the volume of a roadway or intersection approach to its capacity (maximum number of vehicles that can pass a given point during a given time period.) The procedures described in the Highway Capacity Manual, latest edition, Highway Research Board Special Report 209, shall be followed.

## WARRANTS FOR TRAFFIC SIGNAL INSTALLATION

This is a series of warrants which detail the minimum traffic or pedestrian volumes or other criteria necessary for the installation of a traffic signal. These warrants are contained in PennDOT Publication 46, Traffic Engineering Manual.

## WATERCOURSE

A channel or conveyance of surface water, such as a stream or creek, having defined bed and banks, whether natural or artificial, with perennial or intermittent flow.

## 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 conditions; includes swamps, marshes, bogs and similar areas. Development in wetlands is regulated by the U.S. Army Corps of Engineers and the Pennsylvania Department of Environmental Protection. Identification of wetlands should be based upon the "1987 Corps of Engineers Wetlands Delineation Manual."

## WOODLANDS

One-fourth acre or more of wooded land where the largest trees measure at least six inches diameter at breast height (dbh). The woodland shall be measured from the dripline of the outer trees. Woodlands are also a grove of trees forming one canopy where 10 or more trees measure at least 10 inches dbh.

## YARD

The required open, unoccupied space on the same lot with a building, open and unobstructed from the ground to the sky except for cornices, eaves, gutters or chimneys projecting not more than two feet, uncovered steps and ramps, fences and walls, and accessory buildings or structures as may be otherwise permitted.

## § 184-9 Abbreviations.

This chapter contains regulations which include, but are not limited to, the following:

- A. AASHTO — American Association of State Highway and Transportation Officials
- B. ADA — Americans with Disabilities Act
- C. ASNS — AmericanHort's American Standard for Nursery Stock
- D. ASTM — American Society for Testing Materials
- E. IESNA — Illuminating Engineering Society of North America
- F. ITE — Institute of Transportation Engineers
- G. PA DEP — Pennsylvania Department of Environmental Protection
- H. PennDOT — Pennsylvania Department of Transportation
- I. NRCS — Natural Resources Conservation Service
- J. MCCD — Montgomery County Conservation District
- K. MCPC — Montgomery County Planning Commission
- L. OPH — Montgomery County Office of Public Health
- M. UMJA — Upper Montgomery Joint Authority
- N. USGS — United States Geological Survey

## **Article III. Plan Processing and Review**

### **§ 184-10 Applicability.**

The standards, requirements, and procedures contained in this Article shall govern the filing and processing of all applications for subdivision and/or land development in the Borough of North Wales.

### **§ 184-11 Types of Plans.**

All applications for subdivision and/or land development shall be classified as sketch plans, preliminary plans, final plans, or minor plans, as further regulated herein.

- A. Sketch plans. The Borough of North Wales strongly recommends that applicants submit a pre-application sketch plan in accordance with the requirements of **§ 184-12, Sketch Plan Submission Requirements**, and **§ 184-13, Sketch Plan Filing and Review Procedure**.
- B. Preliminary plans. A preliminary plan is required to be submitted for all proposals for subdivision and/or land development, except for those which qualify as minor plans (See **§ 184-18, Final Plan Recording**), in accordance with the requirements of **§ 184-14 Preliminary Plan Submission Requirements**, and **§ 184-15, Preliminary Plan Filing and Review Procedure**.
- C. Final plans. A final plan is required to be submitted for all proposals for subdivision and/or land development, except for those which qualify as minor plans (See **§ 184-18, Final Plan Recording**), in accordance with the requirements of **§ 184-16, Final Plan Submission Requirements**, and **§ 184-17, Final Plan Filing and Review Procedure**.
- D. Minor plans. Applications which qualify as minor plans may be submitted for concurrent Preliminary and Final Plan processing and approval, in accordance with the standards and requirements of **§ 184-18, Minor Plan Submission Requirements** and **§ 184-19, Minor Plan Filing and Review Procedure**.
- E. Each plan, whether Sketch, Preliminary, Final, or Minor, shall be reviewed one at a time. No subsequent plans shall be reviewed until a decision on the preceding plan has been reached. If Preliminary and Final plans are filed simultaneously by the applicant, the borough reserves the right to separate Preliminary and Final Plan approval such that Preliminary Plan approval is a separate action of Borough Council from Final Plan approval.

### **§ 184-12 Sketch Plan Submission Requirements.**

- A. A sketch plan is not required of any subdivision or land development applicant and its submission is entirely voluntary. Sketch plans have no legal standing with regard to the formal plan approval process mandated by the Pennsylvania Municipalities Planning Code.
- B. The purposes of the submission of a sketch plan may include:
  - 1. to inform the borough of an applicant's plans for subdivision and/or land development,
  - 2. for the borough to provide informal advice and guidance which shall not be binding,
  - 3. for the applicant to better understand some of the issues that may arise prior to engaging in the full plan review process, and
  - 4. to help the preliminary and final plan review process proceed more efficiently.
- C. An applicant can submit any information for review as a sketch plan under this article. It need not be a surveyed or engineered plan. While there are no formal requirements for information that must be included, it is recommended that a plan be submitted that shows some or all of the following information:
  - 1. The entire tract boundary, total acreage, and acreage of each lot.
  - 2. Existing and proposed streets, lots, buildings, approximate building envelopes and other improvements.
  - 3. Significant physical features such as floodplain, steep slopes, woodlands, and existing structures.
  - 4. Approximate locations for stormwater control facilities, if necessary.
  - 5. Location plan showing the relationship of the subject tract to the surrounding road network and major physical features (e.g., streams, rail lines, etc.).
  - 6. North point and scale.
  - 7. Name and address of the owner.
  - 8. Name and address of the engineer, surveyor, architect, or plan preparer.
  - 9. Any additional information which the applicant believes will help explain the proposal.

### **§ 184-13 Sketch Plan Filing and Review Procedure.**

- A. The applicant shall make a request for review of a sketch plan to the Borough of North Wales at least ten (10) calendar days prior to the next Planning Commission meeting. If an applicant de-

sires their sketch plan to be reviewed by the Borough Engineer, a professional services agreement and escrow shall be established by the applicant.

1. The request for review shall be accompanied by one digital copy and seven (7) paper copies of the sketch plan.
  2. The applicant or a representative of the applicant shall appear at the Planning Commission meeting.
- B. Borough staff shall review sketch plans in accordance with all applicable codes, ordinances, plans, and legal requirements. The Planning Commission shall provide informal advice only and shall not vote on any approval or denial of the sketch plan. If they so choose, the Planning Commission may make a recommendation to have the sketch plan reviewed by Borough Council.
- C. An applicant may submit revised sketch prior to initiating the Preliminary or Minor Plan review process. An applicant may submit multiple alternative sketch plans at one time.

#### **§ 184-14 Preliminary Plan Submission Requirements.**

This Section contains the requirements for Preliminary Plans for subdivisions and/or land developments in terms of Drafting Standards, Basic Information, Existing Features, and Proposed Features.

- A. Drafting Standards. Plans must be professionally prepared in compliance with the following:
1. The plans shall be produced in a manner so that when printed on sheet media in compliance with the following standards the resulting plans will be at a standard engineering scale not exceeding 50 feet to the inch.
  2. A reduced scale plan of the entire site at a scale greater than 50 feet to the inch should be included in cases where it would facilitate understanding of the entire site.
  3. Plan sheets shall be appropriately scaled to the size of the drawing.
  4. All printed sheets shall be numbered relative to the total number of sheets (e.g., 1 of 5).
  5. Where two or more printed sheets are needed to show the entire tract, a reduced scale key plan shall be provided to show how the sheets fit together. Match lines shall be shown.
  6. Property lines shall be drawn and labeled in conformance with accepted surveying and civil engineering practices, including dimensions shown in feet and decimal fractions thereof, and bearings shown in degrees, minutes, and seconds.
    - a. Any property line which abuts a street or other public way shall be measured from the legal or ultimate right-of-way.

b. Property lines to be eliminated where two (2) or more lots are proposed to be joined in common deed should be properly noted and depicted on the boundary to be removed.

B. Basic Information. All Preliminary Plans shall include the following basic information:

1. Name of subdivision or land development.
2. Name, address, email, and phone number of the Applicant, and the owner of record, if different from the applicant.
3. Name, address, email, and phone number of the firm which prepared the plan and professional seal of the individual certifying its accuracy and compliance with applicable standards.
4. Date of preparation of the plan and a descriptive list of revisions to the plan, and the revision dates.
5. North arrow and scale displayed in graphic and written form.
6. Location plan showing the relationship of the subject tract to the surrounding road network, adjacent properties, and major physical features.
7. The entire tract boundary with bearings and distances and total tract acreage, including:
  - a. lot numbers
  - b. acreage or square-foot area of each lot
  - c. locations of existing survey monuments
8. Table showing the basic dimensional and density requirements of the applicable zoning district, compared to the Applicant's proposal.
9. Zoning classification(s) of the impacted lots and all lands abutting the proposal.
10. Names of all current owners of immediately adjacent lands.
11. List or table showing:
  - a. Number of acres under proposal (net and gross acreage should be calculated in accordance with **Chapter 208, Zoning**).
  - b. Number of lots and/or dwelling units

- c. Total building area (if existing buildings are to be reused, the building area should be expressed as existing building area and additional building area).
    - d. Total acreage of open space.
    - e. Total acreage of commonly held lots and land areas.
  - 12. Description of the variances or special exception approvals, conditions of their approval, and the dates they were granted, if any.
  - 13. Description of all deed restrictions, including conservation and environmental, easements, or other covenants affecting the property or development of the tract. The following information shall be included:
    - a. Parties to the agreement
    - b. Beneficiaries of the restrictions
    - c. Easements and/or covenants
    - d. Deed and page book recording location
  - 14. Requirements of any other local ordinance which may affect the proposal
  - 15. A legend that clearly indicates which features are existing and which are proposed, and including a description of all symbols used.
  - 16. Tax parcel numbers of all parcels being subdivided or developed.
  - 17. Deed book and page numbers for all parcels being subdivided or developed.
  - 18. Note which states "Preliminary Plan – Not to Be Recorded."
  - 19. Owner's statement of intent block, which indicates the owner's intent for the application by summarizing the proposal.
  - 20. Reserved space for the seal and signature of the Borough of North Wales.
  - 21. Dimensions shall be displayed in feet and decimal parts thereof, and bearing in degrees, minutes, and seconds.
- C. Existing Features Plan. An aerial photograph taken within one year of the date of submission shall be provided showing an area of at least 200 feet beyond the tract boundary, with the subject tract marked on the aerial. Within the tract proposed for subdivision and/or land development and within 50 feet of the tract boundaries, the following information shall be shown in the Preliminary Plan:

1. Tract boundary lines, easements, deed restrictions, current owners of the subject and neighboring properties, and current uses of each.
2. Streets, including alleys and unopened streets bordering or crossing the tract.
  - a. Locations and distances to nearest intersection off the drawing.
  - b. Names
  - c. Legal and ultimate rights-of-way
  - d. Centerline courses, distances, and curve data
  - e. Cartway and paving widths
  - f. Curb lines
  - g. Radii at intersections
  - h. Street location tie-ins to nearest intersection by courses and distances
  - i. Sight distance at existing intersections
  - j. Location and type of all existing traffic control signs, line striping, signals, and devices.
  - k. Surface conditions
  - l. Location of driveways, curbs and their radii, sidewalks, trails, traffic signals, line striping, street lighting, and any signs, whether public or private.
3. Water resources, including:
  - a. Watershed designation
  - b. Lakes and ponds
  - c. Vernal pools and seeps
  - d. Wetlands, swamps, marshes, and riparian buffers
  - e. Watercourses and their sizes in addition to any springs
  - f. Existing well locations and whether they are in use, capped, or abandoned

g. Flood prone areas using and data from the Federal Emergency Management Agency, including:

- i. Floodway,
- ii. Base Flood Elevation, and
- iii. 0.2 percent annual chance flood areas

h. Citations or references to data sources utilized to identify water resources

4. Sanitary Sewers, including:

- a. Pipe locations
- b. Pipe sizes, lengths, and materials
- c. Direction of flow
- d. Gradient of flow
- e. Access points (e.g., Manholes)
- f. Invert elevations
- g. Septic systems and drain fields

5. Storm sewers, including:

- a. Pipe locations
- b. Pipe sizes, lengths, and materials
- c. Direction of flow
- d. Gradient of flow
- e. Inlets, catch basins, manholes, outfalls/headwalls, and channels
- f. Invert elevations
- g. All stormwater management controls

6. Other existing stormwater and/or erosion control facilities, including:

- a. Basins and underground detention facilities

- b. Swales, rain gardens, infiltration areas, and level spreaders
  - c. Diffusion devices
  - d. Velocity controls
  - e. Other flood or erosion protection facilities
  - f. Related technical data for those facilities
7. Existing vegetation. The following information shall be required, the preparation of which shall be carried out by and attested to by an ISA Certified Arborist, Registered Landscape Architect, or other qualified professional.
- a. Location, size, species, and condition/health of all trees that are at least three (3) inches dbh or greater.
  - b. Woodlands, including outer limits of woodland edge and a general description of tree types, sizes, and conditions.
  - c. Any other existing trees or vegetation proposed to be used to comply with any landscaping requirements of the Code of Ordinances of the Borough of North Wales
  - d. Location, size, species, and condition of all specimen trees of significant size (greater than 24 inches dbh), type, or historical/community significance shall be labeled on the plan as "Specimen Tree."
  - e. All individual trees and woodland areas shall be labeled as "To Remain" or "To Be Removed."
8. Geologic features. The location and limits of geologic features which may affect the locations of proposed streets or buildings, including:
- a. Rock outcroppings.
  - b. Quarries
  - c. Sink holes and karst formations.
  - d. Ravines.
9. Soil types, including:
- a. Mapped limits

b. Names. Including the source of the names

c. Significant limitations such as high water table, ponding or flooding, or shallow bedrock.

10. Contour information, including:

a. Existing contour lines for the entire site at a vertical interval of not more than one (1) foot for land with natural slopes averaging two (2) percent or less, and at a vertical interval of not more than two (2) feet for land with natural slopes averaging greater than two (2) percent.

b. Areas with slopes of 15% or greater, as determined from the contours shown on the plan, should be adequately depicted.

11. Other features including:

a. Location, size, character, and configuration of existing buildings, structures, paved impervious surfaces, driveways, all labeled as "To Remain" or "To Be Removed."

b. Location, type, and ownership of any utilities, both above and below ground, on both sides of the street rights-of-way and within 50 feet of the tract or project boundary. Utilities shall include, but not be limited to, electrical, cable television, fire hydrants, gas lines, water lines, and internet. Notes for each utility shown should describe

i. Easement or right-of-way dimensions

ii. Additional setback or development restrictions imposed by the utility company or other regulations

iii. Specific type of product transportation with pipelines.

c. Other features that may affect the potential layout of lots and buildings.

12. Other information as recommended by the Planning Commission or deemed necessary by Borough Council.

D. Proposed Features and Lotting Plan. Within the tract proposed for subdivision and/or land development, the following information shall be shown on the Preliminary Plan:

1. Tract boundary lines, existing and proposed easements, existing and proposed deed restrictions, and current owners of the subject tract.

2. Any features from the Existing Features Plan which may affect the potential layout of lots, buildings, and other improvements.
3. The quantity and layout of the areas conserved as Recreation Land or Open Space according to the requirements of this Chapter.
4. A conceptual site utilization layout defining the general location of all proposed uses and activities, and the area of the total tract devoted to each use or group of uses, if applicable.
5. Proposed streets, alleys, driveways, and parking areas, including:
  - a. Names or other identification
  - b. Right-of-way widths and lines
  - c. Cartway and pavement widths
  - d. Centerline courses, distances, and curve data
  - e. Curb lines
  - f. Radii at intersections
  - g. Street location tie-ins to nearest intersection by courses and distances
  - h. Tentative grades to an existing street at a point of two hundred (200) feet beyond the boundaries of the subject tract
  - i. Capacity of vehicle, bicycle, and electric vehicle parking areas showing individual parking spaces, loading spaces, charging stations, accessible parking and reserved aisles, dumpster locations, and any reserved areas for electric vehicles or compact cars.
  - j. Sight distance at proposed intersections with existing streets.
  - k. Location and type of all traffic control signs, line striping, signals, and devices proposed to be installed.
  - l. Rights-of-way or access easements proposed for stormwater drainage facilities/areas.
  - m. Plan of street lighting indicating location and type of fixtures to be installed.
6. Water resources and other natural features identified in the Existing Features Plan.

7. Depth of water table, along with the location of test borings, where applicable.
8. Setback lines for proposed and existing (to remain) buildings.
9. All parking setback lines where applicable.
10. Proposed sidewalk, trail, or other walkway locations.
11. Proposed buildings, including:
  - a. Locations of existing (to remain) and proposed buildings, including control points and monuments.
  - b. Configurations
  - c. Sizes, including ground level floor area, total floor area, number of stories, and height.
  - d. Total building coverage (square feet and percentage of site).
  - e. Locations, configuration, and types of accessory structures.
  - f. Ground floor elevations
  - g. All points of ingress and egress.
12. Soil types with their limitations based on the latest USGS soil data.
13. Common use areas, including:
  - a. Open space areas:
    - i. Locations
    - ii. Configurations
    - iii. Size
    - iv. Use, maintenance, and management
    - v. Proposed ownership
  - b. Recreation facilities
    - i. Locations

- ii. Configurations
  - iii. Size
  - iv. Types of facilities
  - v. Use, maintenance, and management
  - vi. Proposed ownership
- c. Parking, driveway, or road areas when privately owned for common use
  - d. Walkways or pathways
  - e. Notes regarding offers of dedication or retention in private ownership, as applicable.

14. Areas to be dedicated for proposed uses or reserved for future uses, including:

- a. Road widening, ultimate rights-of-way, and road extensions
- b. Stormwater management facilities
- c. Open space and recreation land
- d. Additional subdivision or land development that may occur in the future in Sketch Plan form. (See § 184-12, **Sketch Plan Submission Requirements**)
- e. Explanatory notes for any future uses.

15. Impervious coverage area calculations.

E. Proposed landscaping plan, which shall be prepared, signed and sealed by a Landscape Architect licensed in the Commonwealth of Pennsylvania, including:

- 1. Existing vegetation to be removed
- 2. Existing vegetation to be preserved, including documentation of tree protection area measures
- 3. A plan of proposed plantings showing the locations of natural feature preservation, street trees, parking lot landscaping, stormwater facilities landscaping, and any required buffer areas and site landscaping.
- 4. Proposed planting schedule, including the quantities, location, species, and installation sizes of all plant material.

5. Existing and proposed contours including related landscape features such as earth berms and water features.
6. Documentation of existing and proposed stormwater management features
7. Existing and proposed utilities.

F. Proposed outdoor lighting plan, including:

1. Proposed fixtures in roadways, parking lots, and other public areas, including fixtures intended to enhance building security.
2. A detailed ten-foot grid showing the horizontal maintained foot candle levels at grade, to the boundary of the site or past the boundary until the illumination values reach 0.0 foot candles.
3. The minimum, average, and maximum maintained illumination levels for the areas being illuminated to demonstrate compliance with lighting requirements from the Borough Code of Ordinances.
4. Description of existing and proposed equipment including
  - a. The mounted height from the lowest point of the fixture to the finished grade.
  - b. Fixture mounting equipment.
  - c. Light shielding angle and device for shielding.
  - d. Light standard or pole height and specifications.
5. Manufacturer's cut sheets and specifications.

G. Grading and Drainage Plan. Within the tract proposed for subdivision and/or land development, the following information shall be shown on the Preliminary Plan:

1. Proposed contours for the entire site at one- or two-foot intervals with any changes in grade clearly identified.
2. Approximate limits of site disturbance, including a clear delineation of existing vegetation including trees, hedge rows, wooded areas, scrub growth, and meadow, with all areas indicated:
  - a. To be removed
  - b. To be preserved, including method of preservation

c. Topsoil storage and protection areas.

3. Stormwater management and erosion control and sedimentation facilities, including:

a. Basins and underground detention facilities

b. Swales, rain gardens, and infiltration areas

c. Diffusion devices

d. Velocity controls

e. Pipe locations

f. Pipe sizes, lengths, and materials

g. Direction of flow

h. Gradient of flow

i. Inlets, catch basins, outfalls/headwalls, channels, and manholes, including rim and invert elevations

j. Design calculations for these facilities shall be submitted in report form with a note on the plan referencing the report.

4. Proposed tree protection measures

H. Infrastructure and Utilities Plan. Within the tract proposed for subdivision and/or land development, the following information shall be shown on the Preliminary Plan:

1. Sanitary sewer line locations, clearly identifying the following

a. Pipe sizes, lengths, and materials

b. Direction of flow

c. Gradient of flow

d. Manholes

e. Invert and rim elevations

2. Sanitary sewer pumping stations

a. Dimensions and material of pumping station

- b. Pump type
      - c. Float and alarm elevations
      - d. Electrical equipment
      - e. Force main material, location, size, and tie-in
- 3. Water supply facilities, including:
  - a. Central water supply lines
  - b. Pipe sizes and materials
  - c. Fire hydrant locations
- 4. Finished floor elevations of proposed buildings
- 5. Waste storage and disposal facilities
- 6. Location, type, and ownership of the elements and facilities of utilities, both above and below ground, with notes to describe:
  - a. Easement or right-of way dimensions
  - b. Additional setback or development restrictions imposed by the utility company or other regulations
  - c. Specific type of product transported with existing or proposed pipelines
- I. Cross sections, profiles, and preliminary structural designs. When a proposal will impact existing or create new roads, utilities, bridges, culverts, stormwater management features, or parking areas, the following must be provided:
  - 1. Cross section and centerline profile for each proposed or widened cartway, driveway, or parking area, including:
    - a. Road centerline grades and vertical curvature, including road centerline elevations shown at horizontal intervals of 25 feet along vertical curves and 50 feet for straight grades
    - b. Profiles for sanitary sewers, water mains, and storm drains including
      - i. Location, size, length, and type of line with stations
      - ii. Slope between manholes and/or inlets

- iii. Location of laterals or water service including fire hydrants, valves, tees, and fittings
    - iv. Existing ground surface with elevation of rim/grate and invert elevations
    - v. Location, size, depth, and type of material of all other utilities in the vicinity of the pipe
    - vi. Vertical curve data including length, elevations, and stations at the beginning and ending of the vertical curve, including high points and low points, elevations at 50 foot intervals, and minimum site distance
  2. Preliminary design of any bridges, culverts, or other such structures.
  3. Preliminary design and structural details of stormwater management improvements.
  4. Cross section (streets)
    - a. Right-of-way and cartway width
    - b. Type, thickness, and crown of paving
    - c. Type and size of curb
    - d. Grading of sidewalk area
    - e. Location, width, type, and thickness of sidewalks
    - f. Grading of stormwater swale adjacent to cartway
    - g. Typical location of sewers and utilities, street trees, street lights, and other improvements along roads.
  5. The stormwater best management practices operations and maintenance plan. A statement shall be included to the effect that stormwater features cannot be altered or removed without approval of the borough.

J. Supporting information

1. A new development schedule including the approximate date when the construction is expected to begin and be completed.
2. A copy of all restrictions, easement or covenants under which the lots are to be sold
3. Other studies as may be required by Article VIII, Special Studies and Reports.

4. A plan for the ownership, maintenance, and management of open space areas and storm-water features.
5. Reports or letters regarding the availability of sewer and water facilities.
6. Copies of letters and permit applications to all reviewing agencies
7. Stormwater calculations and reports
8. Wetlands delineation study, if applicable

K. Floodplain Areas

1. Any lot proposed for development which lies in whole or in part within the Floodplain Conservation District, as defined by **Chapter 122, Flood Damage Prevention**, shall comply with all regulations contained in that Article, and preliminary plan submissions shall demonstrate the following:
  - a. Proposals are consistent with the need to minimize flood damage
  - b. Public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage
  - c. Adequate drainage is provided so as to reduce exposure to flood hazards.
2. Where flood proofing measures are required for a structure within the floodplain, the applicant shall provide certification from a registered professional engineer or architect indicating that flood proofing measures meet the requirements of all Borough Ordinances and any other applicable requirements.
3. The applicant shall provide proof that adequate precautions against flood damage have been taken with respect to the design of any buildings or structures located wholly or partially within a floodplain area.
4. A copy of all plans for new construction in floodplain areas shall be submitted to the Montgomery County Conservation District and Pennsylvania Department of Environmental Protection for review and approval.

- L. Additional plans or other information as required to comply with the Borough of North Wales Code of Ordinances or as recommended by the Planning Commission or Borough Council shall also be submitted.

**§ 184-15 Preliminary Plan Filing and Review Procedure.**

The procedure contained in this section shall regulate the submission and review of preliminary plans for subdivision and land development.

- A. Seven (7) full-sized paper copies (24 inches by 36 inches) and ten (10) reduced size paper copies (11 inches by 17 inches) of the preliminary plan shall be submitted to the Code Enforcement Officer, in person, by the applicant or applicant's agent at Borough Hall during normal business hours. The paper copies of the plans shall be accompanied by a digital plan set in Portable Document Format (PDF) which shall be submitted on a physical digital storage device such as a flash drive or, if acceptable to the Code Enforcement Officer, by electronic mail or digital download link.
- B. Notice of all submissions of a subdivision or land development shall be posted by the applicant at the affected tract of land at least seven (7) calendar days prior to the first Planning Commission meeting at which the plan will be discussed. The notice shall adhere to the following:
  1. The notice shall remain in place until ten (10) calendar days after Final Plan approval is granted by Borough Council.
  2. The notice shall be on a sign with the minimum dimension of 24 inches by 36 inches.
  3. At a minimum, the sign shall state the following: "This property is subject to a subdivision and land development application in the Borough of North Wales."
  4. The writing shall be in black letters that are large enough that the statement covers the entire area of the sign.
  5. The sign shall be posted in a location that is clearly visible from the street.
  6. Proof of posting by way of a photograph shall be provided to the borough staff seven (7) calendar days prior to the first Planning Commission meeting at which the plan submission will be discussed. If this proof is not provided, the application shall not be considered complete, and the statutory 90-day review period shall not begin until the notice is posted and such proof is submitted by the applicant.
- C. Plans shall be accompanied by:
  1. The applicable filing fee, in accordance with a fee schedule adopted by resolution of Borough Council.
  2. Completed borough application and administrative forms, including a signed consultant professional services agreement.
  3. Completed Waiver Request Form, if any waivers are being requested.
- D. The applicant shall pay the Montgomery County Planning Commission Review fee upon receipt of an invoice from the Commission.

- E. Borough staff will conduct a cursory review of the Preliminary Plan and supporting materials to determine if the plan shows basic compliance with the requirements of this article. If the submission appears complete, the plan submission date will be stamped on the plan.
- F. Borough staff shall provide digital copies of the plan to the following for review and recommendations. Hard copies will be provided as requested. If additional copies are needed beyond what was provided per § 184-15.A, these shall be provided by the applicant at their expense.
  - 1. Borough Planning Commission
  - 2. Borough Council
  - 3. Borough Engineer
  - 4. Montgomery County Planning Commission, along with the request for review
  - 5. Borough Solicitor
  - 6. Borough Code Enforcement Officer
  - 7. Other technical consultants as needed
- G. The Preliminary Plan shall be placed on the agenda of the next regularly scheduled Planning Commission meeting that is at least 25 calendar days, but not more than 60 calendar days after the Preliminary Plan is submitted.
- H. Upon completion of its review of the preliminary plan, which should include due consideration of the timely recommendations of the Borough Engineer, Montgomery County Planning Commission, and other technical advisers as requested, the Planning Commission shall communicate its recommendations to Borough Council.
- I. A 90-day review period shall commence from the first Planning Commission meeting that is at least 25 calendar days after the official submission date stamped on the plan.
  - 1. Should the next regular meeting of the Planning Commission occur more than 30 days following the official submission date stamped on the plan, the said 90-day period shall be measured from the 30th day following the submission date stamped on the plan.
  - 2. Borough Council shall act within that 90-day period unless an extension has been signed.
  - 3. If the Applicant and the borough agree, the 90-day review period may be extended by an agreement in writing signed by both parties.

4. If an extension of the 90-day time period is applied, it shall be measured from the expiration of the original 90-day period. A time extension shall postpone the deadline and effects of the 90-day time period for the additional number of days agreed to in writing.
- J. Borough Council shall consider the preliminary plan application at one or more of its public meetings during the 90-day review period and/or extension thereof, if applicable, and shall render a decision on the plan following receipt of the recommendations of the Planning Commission, Borough Engineer, Montgomery County Planning Commission, and/or other technical advisers as requested.
1. In accordance with the Pennsylvania Municipalities Planning Code, Borough Council shall not approve an application until the Montgomery County Planning Commission report of its recommendations is received or until the expiration of 30 days from the date the application was forwarded to the county.
- K. Procedure following Borough Council decision.
1. When the Borough Council makes a decision on a Preliminary Plan, one of the following procedures will be followed, depending on the type of decision:
    - a. Denial. If Borough Council denies approval of a Preliminary Plan, then written notification shall be given to the applicant which specifies the defects found in the application and describe the requirements which have not been met and shall cite the provisions of the statute or ordinance relied upon.
    - b. Approval. If Borough Council approves a Preliminary Plan in terms as filed by the applicant, then the Borough Manager will so certify thereon, and a copy of the approved plan will be forwarded to the applicant. The applicant shall then submit two paper copies of the approved plan for Borough seal and signature.
    - c. Approval subject to conditions. If Borough Council approves a Preliminary Plan subject to specific conditions, then those conditions shall be accepted in writing by the applicant; otherwise the plan shall be denied approval. Therefore, the written notification to the applicant shall:
      - i. Specify the conditions of approval and request the applicant's written agreement to the conditions.
      - ii. State that the application will be denied if the applicant does not agree to the conditions.

- iii. Specify the defects found in the application, describing the requirements which have not been met and citing the provisions of the statute or ordinance relied upon for denial of the plan.
    - iv. State that the plan approval shall be rescinded automatically upon the applicant's failure to accept or reject the conditions within 30 days following the decision by Borough Council to grant conditional approval.
2. Effective Period of Approval. Approval shall be effective for a period of five (5) years from the date of Preliminary Plan approval in accordance with the Pennsylvania Municipalities Planning Code. In the case where Preliminary and Final Plan approval are concurrent, the five-year period shall be measured from the date of that concurrent approval.
3. No subsequent change or amendment in the zoning, subdivision or other governing ordinance or plan shall be applied to affect adversely the right of the applicant to commence and to complete any aspect of the approved development in accordance with the terms of approval within that five-year period.
4. In a case of a Preliminary Plan calling for the installation of improvements beyond the five-year period, a schedule shall be filed by the applicant with the Preliminary Plan delineating all proposed sections as well as deadlines within which applications for Final Plan approval of each section are intended to be filed.
  - a. Such schedule shall be updated annually by the applicant on or before the anniversary of the Preliminary Plan approval, until final plan approval has been granted to the final section.
  - b. Any modification in the aforesaid schedule shall be subject to approval of Borough Council in its discretion.
  - c. Each section in any residential subdivision or land development, except for the last section, shall contain a minimum of 25% of the total number of dwelling units as shown on the preliminary plan, unless a lesser percentage is approved by the Borough Council in its discretion.

#### **§ 184-16 Final Plan Submission Requirements.**

All Final Plans for subdivisions and/or land developments shall consist of two basic parts: the Improvements Construction Plan and the Record Plan. The Final Plans shall conform in all details and to the terms of approval of the Preliminary Plans.

##### **A. Improvements Construction Plan.**

1. Drafting standards. The same standards shall be required for an improvements construction plan as for a Preliminary Plan.
2. Information to be shown. The plan shall contain sufficient information to provide working plans for the construction of the proposed streets or any portion thereof, including all appurtenances, sewers and utilities, as shown on the approved Preliminary Plan from one existing or approved street to another or, in the case of a cul-de-sac, to its turnaround. This information shall include:
  - a. Horizontal plan. The horizontal plan shall show details of the horizontal layout as follows:
    - i. Information shown on the approved Preliminary Plan.
    - ii. The beginning and end of proposed immediate construction.
    - iii. Stations corresponding to those shown on the profiles.
    - iv. The curb elevation at tangent points of horizontal curves, at road or alley intersections and at the projected intersections of the curb lines.
    - v. The location and size of sanitary sewers and lateral connections and water mains, with distances between manholes, gas, electric and other utility pipes or conduits and of storm drains, inlets and manholes.
    - vi. The location, type and size of curbs and all paving widths.
    - vii. The location and type of fire hydrants and streetlights.
  - b. Profiles. The profiles shall show details as follows:
    - i. Profiles and elevations of the ground along the center lines of proposed streets.
    - ii. Profiles of sanitary sewers with a profile over the sewer of the existing and finished ground surface showing manhole locations beginning at the lowest manhole.
    - iii. Profiles of storm drains showing catch basins, inlet and manhole locations, swales, ditches, etc.
    - iv. Profiles of water mains.
  - c. Cross sections. The cross section for each classification of street shall comply with the borough's standards and specifications as minimum requirements. It

shall show a typical cross section across the road with details of grading and construction as follows:

- i. The ultimate right-of-way width and the location and width of the cart-way.
- ii. The type, depth and crown of paving.
- iii. The type and size of curb.
- iv. When sidewalks are required, grading of the sidewalk area should be carried to the full width of the ultimate right-of-way.
- v. The location, width, type and depth of sidewalks, when required.
- vi. The typical locations, size and depths of sewers and utilities.
- vii. Proposed grading to the ultimate right-of-way line.

3. Construction Detail Drawings. Drawings in sufficient detail shall be provided with the Final Plan.

B. Additional information. The following additional information shall be submitted with the Final Plan:

1. All required local, county, state and federal permits shall be submitted. These permits may include: Montgomery County Conservation District, PennDOT, borough permits, PA DEP permits for drainage, stream alteration, dams, erosion and sedimentation control, air pollution or sanitary sewage facilities.
2. The following statements shall be required on the final plan:
  - a. "The Approved Improvement Construction Plan, a copy of which may be inspected at North Wales Borough Hall, has been made a part of the Approved Final Plan."
  - b. "For access to a highway under the jurisdiction of PennDOT, 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. Access to the State highway shall only be authorized by the highway occupancy permit."
3. All engineering calculations which support the proposed improvements such as drainage calculations, sanitary facility design calculations, or structural calculations.

4. Evidence satisfactory to Borough Council that public water and sewer facilities have adequate capacity and that those services will be provided to the subdivision or land development
5. Sewage facilities plan approval from PA DEP in compliance with the borough's Act 537 Sewage Plan.
6. Approval of the erosion and sediment control plan from the Conservation District.
7. Stormwater management permits from PA DEP, including but not limited to NPDES permits.
8. For any development in a floodplain, required permits from the Montgomery County Conservation District and PA DEP must be provided prior to Final Plan approval.

C. Record plan.

1. Drafting standards. The same standards shall be required for a Record Plan as for a Preliminary Plan, and in addition, for recording purposes, the plans shall be placed on a sheet size of 24 inches by 36 inches. All lettering and lines should be drawn to be legible if the plan is reduced to half size. A two-inch border on the left side of the plan should be free of information.
2. Information to be shown. The plan, which shall include all portions of an approved Preliminary Plan, shall also show:
  - a. Basic Information, as required for a preliminary plan, outlined in **§ 184-15, Preliminary Plan Filing and Review Procedure**.
  - b. Courses and distances sufficient for the legal description of all the lines shown on the plan. The error of closure shall not be greater than one part in 10,000.
  - c. Name or identification of the following:
    - i. Abutting owners.
    - ii. All dimensional and technical descriptions of roads.
    - iii. Easements.
    - iv. Rights-of-way.
    - v. Floodplains and steep slopes (over 15%).
    - vi. Open space, recreation and/or other common use areas.

- vii. Other public improvements.
  - viii. For land development plans, all additional information pertinent to the location and construction of site improvements, including buildings, walks, parking, drive-ways, etc.
  - ix. Parcel numbers
  - x. Montgomery County Planning Commission plan review number
  - xi. Delineation of phases of construction if the development is proposed to be built in more than one phase.
- d. All lots deeded to the ultimate right-of-way, so that a single deed may be drawn to the appropriate body having jurisdiction for the dedication of streets by the applicant.
  - e. Evidence that the plans are in conformance with **Chapter 208, Zoning**, and other applicable Borough Ordinances and regulations. In any instance where such plans do not conform, evidence shall be presented that an exception, waiver or variance has been officially authorized.
  - f. The location, material and size of all monuments or pins with reference to them.
  - g. Building setback lines with distances from the ultimate right-of-way line and property lines.
  - h. Appropriate notes and conditions governing the use or development of the proposed property.

D. Certifications. When approved, the Record Plan must show:

1. The signature and seal of the registered engineer or surveyor certifying that the plan represents their work, that the monuments shown thereon exist as located, that the dimensional and geodetic details are correct, and that the survey has been prepared in accordance with state standards and laws.
2. The signature of the applicant and/or the record owner, if different, certifying ownership of the property, adoption of the plan, and the intent to record the plan.
3. The signature of the Borough Manager, certifying that the Borough Council approved the final plan on the date shown:
  - a. Space shall be provided for the signature of Borough Council Chair.
  - b. Space shall be provided for the signature of the Planning Commission Chair.

- c. Space shall be provided for the signature and seal of the Borough Manager.
  - d. Space shall be provided for the signature of the Borough Engineer.
  - e. A blank space or appropriate certification language shall be provided for the stamp and seal of the Montgomery County Planning Commission, located along the right-hand edge of the plan, measuring three and one-half (3 ½ ) inches wide and two and one-half (2 ½ ) inches tall.
4. When applicable, certification by the Zoning Hearing Board that any required special exceptions and variances have been granted.
5. Identification of any waivers granted by Borough Council, including:
- a. The code section number being waived,
  - b. The date the waiver was granted by Borough Council, and
  - c. Any alternative compliance that will be fulfilled in place of the waived code requirement.

#### **§ 184-17 Final Plan Filing and Review Procedure.**

The procedure contained in this section shall regulate the submission and review of Final Plans for subdivision and land development.

- A. Two (2) full-sized paper copies (24 inches by 36 inches) and five (5) reduced size paper copies (11 inches by 17 inches) of the Final Plan shall be submitted to the Code Enforcement Officer, in person, by the applicant or applicant's agent at Borough Hall during normal business hours. The paper copies of the plans shall be accompanied by a digital plan set in Portable Document Format (PDF) which shall be submitted on a physical digital storage device such as a flash drive or, if acceptable to the Code Enforcement Officer, by electronic mail or digital download link.
- B. Borough staff will conduct a cursory review of the Final Plan and supporting materials to determine if the plan shows basic compliance with the requirements of this article. If the submission appears complete, the plan submission date will be stamped on the plan.
- C. Borough staff shall provide digital copies of the plan to the following for review and recommendations. Paper copies will be provided as requested. If additional copies are needed beyond what was provided per § 184-21.A, these shall be provided by the applicant at their expense.
  - 1. Borough Planning Commission
  - 2. Borough Council

3. Borough Engineer
  4. Montgomery County Planning Commission, along with the request for review
  5. Borough Solicitor
  6. Borough Code Enforcement Officer
  7. Other technical consultants as needed
- D. The Final Plan shall be placed on the agenda of the next regularly scheduled Planning Commission meeting that is at least 25 calendar days, but not more than 60 calendar days after the Final Plan is submitted. At the discretion of Borough Staff, the Plan may be reviewed sooner than 21 calendar days after submission if comments have been received from necessary consultants.
- E. Upon completion of its review of the Final Plan, which should include due consideration of the timely recommendations of any technical advisers, the Planning Commission shall communicate its recommendations to Borough Council.
- F. A 90-day review period shall commence from the first Planning Commission meeting that is at least 25 calendar days after the official submission date stamped on the plan.
1. Should the next regular meeting of the Planning Commission occur more than 30 days following the official submission date stamped on the plan, the said 90-day period shall be measured from the 30th day following the submission date stamped on the plan.
  2. Borough Council shall act within that 90-day period unless an extension has been signed.
  3. If the Applicant and the borough agree, the 90-day review period may be extended by an agreement in writing signed by both parties.
  4. If an extension of the 90-day time period is applied, it shall be measured from the expiration of the original 90-day period. A time extension shall postpone the deadline and effects of the 90-day time period for the additional number of days agreed to in writing.
- G. Borough Council shall consider the Final Plan at one or more of its public meetings during the 90-day review period and/or extension thereof, if applicable, and shall render a decision on the plan.
- H. A Final Plan for an application that has been previously granted Preliminary Plan approval shall be approved by the Borough Council when it is assured that:
1. The Final Plan conforms to the approved Preliminary Plan.

2. All engineering and other technical details have been resolved to the satisfaction of the Borough Engineer, as evidenced by a letter from the Borough Engineer, and to the satisfaction of other technical advisers as required by Borough Council.
  3. All financial security and legal agreements have been found satisfactory by the Borough Council, under the review and advice of the Borough Solicitor. All security has been posted and all agreements have been executed.
    - a. When requested by the developer, in order to facilitate financing, the Borough Council shall furnish the applicant with a signed copy of a resolution indicating approval of the Final Plan contingent upon the applicant obtaining a satisfactory financial security.
    - b. The Final Plan shall not be signed nor recorded until the financial improvements agreement is executed.
    - c. The resolution of contingent approval shall expire and be deemed to be revoked if the financial security agreement is not executed within 90 days unless a written extension is granted by the Borough Council.
  4. The plan complies in all respects with applicable borough ordinances or that appropriate variances or waivers have been granted for features that do not comply.
  5. All necessary permits have been obtained from the applicable regulatory agencies, authorities or departments.
  6. All required escrows, fees, and costs have been paid by the applicant.
- I. Approval Subject to Conditions. If Borough Council finds a Final Plan to be deficient or defective, but would approve the plan with certain revisions, conditioned upon the performance of any act or the obtaining of any other approval or permit by the applicant, the applicant shall be given the opportunity to accept or reject the conditions within a 30 day period. Conditional approval of the plan shall be rescinded automatically, without action of Borough Council, upon the applicant's written rejection of such conditions, or upon the applicant's failure to accept such conditions within 30 days of the written notice being issued by Borough Council. Written notice of the Approval Subject to Conditions shall contain:
1. Specific information on the defects found in the application, including reference to the statute or ordinance
  2. Requirements that must be met in order to satisfy the conditions of approval

3. A statement that the application has been conditional approved and specifically requesting a response from the applicant as to the acceptance of or rejection of the conditions within a 30-day period.
- J. When the final plan is approved, the applicant shall present three (3) paper copies of the plan to be signed by Borough Council and the Borough Manager. The date of the approval and Official Borough Seal shall be affixed to the plans.
- K. Prior to recording, the applicant shall also provide the legal descriptions of the properties, easements, utilities, and rights-of-way involved in the plan.

#### **§ 184-18 Final Plan Recording.**

- A. Within 90 days following Final Plan approval or 90 days following the date of delivery of the signed plans to the Applicant by the borough, or following completion of conditions imposed for such approval, whichever is later, the Applicant shall record the Final Plan, including the Record Plan and all plan sheets required of the Final Plan as well as the stormwater management operation and maintenance agreement, in the Office of the Recorder of Deeds of Montgomery County.
- B. In accordance with the Pennsylvania Municipalities Planning Code, whenever Final Plan approval is required by a municipality, the Recorder of Deeds shall not accept any plan for recording unless it contains the official approval of the municipal governing body and certification of review by the Montgomery County Planning Commission.
- C. Prior to recording, the applicant should present the municipally approved plan to the Montgomery County Planning Commission for its stamp and seal, with one (1) paper copy made available to the Montgomery County Planning Commission for its files.

#### **§ 184-19 Minor Plan Submission Requirements.**

- A. All Minor Plans shall be considered to be Preliminary Plans for the purposes of submission for review and approval and shall comply with the requirements of **§ 184-15, Preliminary Plan Filing and Review Procedure**.
- B. When a Minor Plan qualifies for approval or for approval subject to conditions, the Minor Plan may be granted concurrent Preliminary and Final approvals, provided that the plan includes the Final Plan Certificate required by **§ 184-16.D.** and meets the requirements of **§ 184-17.H.**

#### **§ 184-20 Minor Plan Filing and Review Procedure.**

Minor Plans may be submitted and processed only for Lot Line Adjustments and Minor Subdivisions, as defined herein, in accordance with the standards and requirements in this Section. Notwithstanding the foregoing, Borough Council reserve the right to require the submission of a standard Preliminary Plan in place of a Minor Plan upon recommendation of the Borough of North Wales Planning Commission, the Borough Engineer, or the Borough Solicitor.

A. Standards and Requirements for Qualification as a Minor Plan Submission.

1. Lot Line Adjustment or Consolidation. To qualify as a Lot line Adjustment Minor Plan, a proposal shall meet all of the following criteria:
  - a. A proposal involving two abutting, existing, legally approved and recorded lots.
  - b. A common lot line is proposed to be adjusted in terms of its location or configuration, or eliminated entirely.
  - c. The land area of each lot may be different after adjustment, but the total lot area of the two (2) lots will be unchanged, with the exception of land within the ultimate right of way, of which the borough may require public dedication.
  - d. No alteration will occur to any perimeter boundary line of the two (2) lots.
2. Minor Subdivision. To qualify as a Minor Subdivision Minor Plan, a proposal shall meet all of the following criteria:
  - a. A subdivision proposal which would divide one (1) existing lot into not greater than two (2) lots, each of which will comply with the applicable dimensional and setback requirements of the zoning district in which the existing lot is located.
  - b. The existing lot has sufficient frontage on an existing, improved public street to satisfy the applicable borough requirements for lot frontage and access to a public street for all proposed lots.
  - c. The existing lot has not been the subject, in whole or in part, of a prior subdivision proposal during the ten (10) years previous to the current application. Further subdivision of the subject property may be considered as or may be required to comply with the standards of a Preliminary and Final Plan.
  - d. The subdivision will not require new road construction, road improvements, or the extension of existing public utility lines, or any other improvements intended to be dedicated to the borough other than additional right-of-way area.
  - e. The proposal will not involve any site improvements other than installation of property pins/monuments.

B. Minor Plan Submission Requirements

Plans for Lot Line Adjustment, and Minor Subdivisions shall comply with the following submission requirements:

1. Drafting Standards.
  - a. The plan shall be drawn to a standard engineering scale not exceeding 100 feet to the inch.

- b. Sheet size shall be 15" X 18", 18" X 30", or 24" X 36", appropriately related to the scale of the drawing; only one sheet shall be permitted.
- c. Property lines shall be drawn and labeled in conformance with accepted surveying and civil engineering practices, including dimensions shown in feet and decimals, and bearings shown in degrees, minutes and seconds.

2. Basic Information to be shown on the Plan.

- a. Name, address and phone number of the applicant.
- b. Name, address and phone number of any other property owner involved in the proposal.
- c. Name, address, phone number and professional seal of the individual that prepared the plan.
- d. Date of preparation of the plan and a descriptive list of revisions to the plan, and the revision dates.
- e. North point and graphic and written scale.
- f. Location plan showing the relationship of the subject tract to the surrounding road network and major physical features.
- g. The entire boundary lines of all lots involved in the proposal, with bearings and distances and lot areas.
- h. A list of the basic dimensional requirements of the applicable zoning district.
- i. Legend sufficient to indicate clearly between existing and proposed conditions.
- j. Notes sufficient to describe what is being proposed and which land areas are to be transferred as a result of the proposal.

3. Existing and Proposed Features to be shown on the Plan.

- a. For Lot Line Adjustments:
  - i. The lot line proposed to be adjusted, as it currently exists, shown as a dashed line, labeled "Lot Line to be Removed."
  - ii. The lot line as it is proposed to be after adjustment, drawn using the standard lot line delineation at a heavier line weight than the other lot lines, and labeled "Proposed New Lot Line."
  - iii. Any existing physical features of the site which are involved in the decision to adjust the line.

- iv. Any existing and/or proposed features which will be directly affected by the lot line adjustment.

b. For Minor Subdivisions:

i. Existing Features:

- (a) Streets bordering or crossing the tract, showing names, right-of-way and cartway widths, and surface conditions.
- (b) Locations of sanitary and/or storm sewer lines, and water supply lines.
- (c) Location of all watercourses and limits of any flood prone areas, based on FEMA studies or engineering determination.
- (d) Contours obtained from U.S.G.S. 7.5 min. quad maps, or more accurate methods.
- (e) Location and description of existing buildings and other structures, labeled "To Remain" or "To be Removed" as applicable, and location and description of existing buildings and other structures less than 50 feet beyond the tract boundaries.
- (f) Outer limits of tree masses.
- (g) Locations of any natural or man-made features which may affect the developability of the land, such as quarries, wetlands, etc., within the property and up to 100 feet beyond the tract boundaries.
- (h) Location, type, and ownership of major utilities, such as pipelines and electric transmission lines, both above and below ground, with notes describing:
  - (i) Easement or right-of-way dimensions.
  - (ii) Additional setback or development restrictions imposed by the utility company.
  - (iii) Specific type of product using pipelines.
  - (iv) Areas subject to deed restrictions or easements.

ii. Proposed Features:

- (a) Layout and dimensions of both lots, including net lot areas and ultimate rights-of-way.

- (b) All building setback lines.
- (c) Locations of on-site water supply and sewage disposal, if applicable.
- (d) Driveway locations and grades.

**§ 184-21 Resubmission.**

- A. Each Plan resubmitted for review shall be accompanied by a letter in both print and electronic format from the applicant that includes:
  - 1. responses to comments from all reviewing agencies and consultants who reviewed the previous submission
  - 2. a description of all changes made to the plan since the previous submission, identifying the sheet or page number for each revision
- B. Any revised plan sheets shall be resubmitted in both print and electronic format. Each change made to a Plan sheet as well as the revision date of each change made, shall be noted on the plan sheet itself.
  - 1. If one or more revisions are made to any previously submitted Plan sheet and not disclosed or identified in writing by the applicant, said undisclosed or unidentified revisions shall be excluded from any resulting plan approval.
  - 2. Any Plan approval by Borough Council where the plan contains undisclosed or unidentified revisions that are noncompliant with the requirements of this Chapter or any other applicable laws, statutes, ordinances, rules or regulations, shall in no way relieve the applicant of its obligation to fully comply therewith.
  - 3. The applicant shall be required to pay all costs and expenses, including but not limited to engineering and legal fees, incurred by the borough associated with identifying and appropriately addressing undisclosed revisions to the Plan submission.
- C. An applicant must provide Plan resubmissions and accompanying materials to the Borough Hall at least ten (10) days prior to the next Planning Commission meeting in order to get onto the agenda for that meeting.

**§ 184-22 Other Approvals.**

The applicant is responsible for making the appropriate applications for various federal, state, county, and municipality permits or other approvals from governments or private utilities or service providers. These should be sought in a timely manner that fits into the overall plan review and approval process described in this Article. To the extent that the applicant is required to modify the plan as a result of permits or other approvals, the applicant is still required to comply fully with Borough of North Wales Subdivision and Land Development and Zoning Codes.

**§ 184-23 Waiver Requests.**

All requests for modifications shall be submitted on an application form provided by the borough, or, if acceptable to the borough staff, take the form of a letter containing the following information. All subsequent submissions of subdivision and/or land development applications shall include information on all requested waivers.

- A. State the grounds and facts of unreasonableness or hardship on which the request is based or the public benefit of an alternative design standard;
- B. List the provision(s) of the ordinance involved; and
- C. State the minimum modification necessary.

## Article IV. Design Standards

### § 184-24 General Standards.

- A. The proposed subdivision and land development shall be coordinated with the existing nearby neighborhoods as well as with abutting tracts where future development is possible so that the community as a whole may develop harmoniously.
- B. Each subdivision and land development plan, whether sketch, preliminary or final, must comply with the requirements of **Chapter 208, Zoning**, unless variances or special exceptions have been granted by the Zoning Hearing Board or by final court order.
- C. All portions of a tract being subdivided or developed shall be designated as to their use, such as lots, streets, parking areas, open space, public lands, or other proposed uses so that remnants and landlocked areas shall not be created.
- D. Plans shall be designed to avoid excessive disturbance of vegetation and movement of earth, and to preserve natural site features such as trees and watercourses, scenic areas, historic sites, and other community assets and landmarks to the fullest extent practicable.
- E. Development and disturbance of floodplain land areas shall be governed by additional standards contained in this chapter, **Chapter 208, Zoning**, **Chapter 122, Flood Damage Prevention**, and other sections of Borough Code, the Uniform Construction Code, and adopted plans for the Wissahickon Creek Watershed, as approved by the Borough, and other applicable regulations.
- F. The applicant shall offer for dedication to the appropriate jurisdiction any and all rights-of-way, easements, open space, recreational land, or other such improvements designed for public use or utilities. North Wales Borough Council reserves the right to accept or refuse offers of dedication.
- G. The applicant shall construct, install and guarantee, at no expense to North Wales Borough or its authorities, all improvements required as part of plan approval, including, but not limited to, streets, curbs, sidewalks, water and sewage facilities, stormwater management facilities, street lights, fire hydrants, street signs, canopy trees, monuments, lot pins, and other facilities and utilities specified in this chapter. Construction and installation of such facilities and utilities shall be subject to inspection by North Wales Borough and/or the North Wales Water Authority during the progress of the work and upon completion of the work. The applicant shall pay for all permits and inspections.
- H. The applicant shall observe the ultimate rights-of-way for contiguous existing streets as set forth herein. Additional portions of the corridors for such streets shall be offered to the government agency having jurisdiction at the time the subdivision or land development is dedicated. Applicable building setback lines, as defined by Chapter 208, Zoning, shall be delineated as measured from the curbline.

- I. Improvement construction requirements shall be completed in accordance with specifications of the Pennsylvania Department of Transportation, the Pennsylvania Department of Environmental Protection, the Montgomery County Conservation District and all other regulatory government agencies having jurisdiction thereof, and the specifications provided herein. Whichever specifications are most stringent shall take precedence over any less restrictive law, ordinance or regulation.
- J. Stormwater management systems shall be constructed and installed in accordance with the requirements set forth in **Chapter 180, Stormwater Management**.

**§ 184-25 Conformance with Adopted Plans.**

- A. Borough comprehensive plan. Proposals for land development or subdivision shall be generally consistent with North Wales Borough's most recently adopted comprehensive plan. All proposals shall specifically comply with the future land use plan.
- B. State, regional, county and borough plans. Proposals shall be generally consistent with Montgomery County's Comprehensive Plan and other appropriate state, regional, and county plans. In addition, all proposals shall be consistent with other municipally adopted plans, including, but not limited to, parks and open space plans, economic development plans, sustainability plans, and active transportation plans. Where regional facilities are proposed in a plan, including but not limited to highways, rail lines, rail stations, and transportation centers, effort shall be made to preserve needed right-of-way in the proposed land development or subdivision for future infrastructure projects.

**§ 184-26 Site Organization.**

Proposed land developments and subdivisions shall address the opportunities and limitations present on a site and its adjacent surroundings. Site opportunities shall be maximized to enhance the overall quality of the development and steps shall be taken to mitigate potential negative impacts upon a site and the surrounding properties. The impacts of the proposed development on the natural environment and surrounding land uses shall be given a high priority and made an integral part of the overall design for the land development and subdivision. The following site organization guidelines shall be used:

- A. Site improvement layout. Building placement shall be functionally compatible with the site's topography, existing vegetation, and surrounding land uses, taking into account energy conservation, solar access, and existing natural features.
- B. Existing natural features. Existing natural features shall be recognized and integrated into the site layout. Existing natural features, including but not limited to, streams, steep slopes, floodplains and floodways, wetlands, unique habitat, woods and similar natural resources shall be incorporated into the overall site plan to design in harmony with the unique qualities of the land.

- C. Open space. The placement of open space and preservation of scenic views shall be a fundamental part of the development design. Open space lands shall provide for a variety of benefits including recreation, natural resource protection, stormwater management, water quality improvement and protection, air purification, carbon sequestration, scenic views and vistas, and effective buffers between different land uses.
- D. Circulation. Movement within a site and access to the site shall consider the safety and convenience of various types of users. Cross access by various types of users, including but not limited to pedestrians, bicyclists, those with limited or alternative mobility such as wheelchair users, and motor vehicles between properties and joint access shall be considered, in order to improve circulation.
- E. Relationship to surrounding uses. The proposed design shall complement the surrounding uses through building setbacks, buffers, and separation of uses. Various potential negative impacts upon surrounding land uses, including but not limited to noise, light, and loss of privacy, shall be mitigated.
- F. Sustainable development. The development of a site shall use construction methods and building materials that reduce energy, water, and fuel consumption needs of the property, while also considering opportunities to utilize renewable energy sources, and conserve and reuse water resources.
- G. Health hazards. The configuration of a subdivision or land development shall reduce potential health and safety hazards to the future users of the subdivision or land development and to the community as a whole.

#### § 184-27 Lots.

- A. Lot size. All lots shall be no smaller than the minimum lot area requirements of the applicable zoning classification set forth in **Chapter 208, Zoning**, and be generally sufficient in size and shape to adequately accommodate the development or use proposed for it. Lots that contain natural restrictions, including but not limited to, wetlands, water bodies, steep slopes, or other similar features shall be large enough to provide suitable area for the intended use of the lot without requiring encroachment upon natural amenities. Lots with existing or planned public improvements, such as fuel pipelines, underground utilities, stormwater detention facilities, high voltage power lines, or other similar facilities, shall be of adequate size to allow sufficient room for the intended use of the lot without requiring encroachment on the public facilities or easements for the installation, maintenance, repair and replacement of such facilities and improvements.
- B. Lot shape. Every lot shall contain a building envelope that complies with the requirements of the applicable zoning classification and is suitable for the type(s) of development proposed.
- C. Corner lots. Corner lots shall meet lot frontage requirements on two (2) streets.

- D. Rear or flag lots. Rear or flag lots, as defined in this chapter, shall not be permitted.
- E. Reverse frontage lots. Reverse frontage lots, as defined in this chapter, shall not be permitted.
- F. Lot lines. Lot lines shall be drawn parallel, at right angles, or radial to the street right-of-way, unless not feasible or undesirable due to existing permanent, natural, or human-made features. Where possible, lot lines shall coincide with abutting lot lines, lot lines across streets, and municipal boundaries.
- G. Building lines. Building lines for all lots shall be in conformance with the minimum front, side, and rear yard setback line requirements of the applicable zoning district in accordance with **Chapter 208, Zoning**.
- H. Building numbers. House or building numbers shall be assigned by the Borough based on an overall street plan. Numbers will be assigned in such a way as to allow for vacant parcels and future development.

**§ 184-28 Community Facilities.**

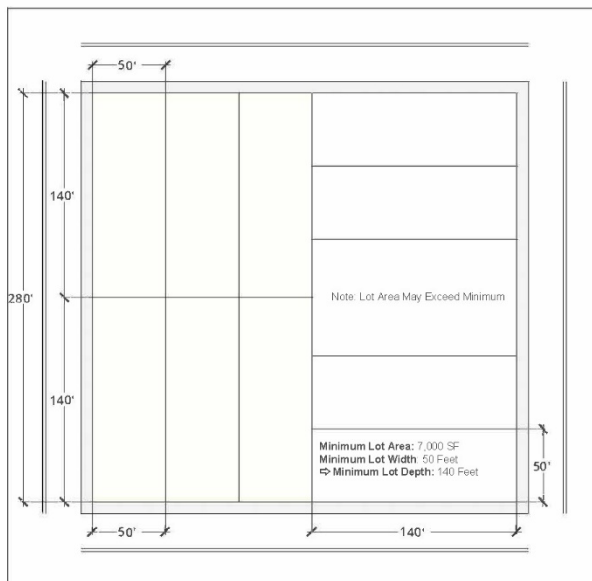
- A. Community facilities such as, but not limited to, illuminated crosswalks, playgrounds or tot-lots, pavilions or gazebos, trails, pedestrian pathways to a recreation facility, or a utility facility (or access thereto), shall be provided as deemed necessary by Borough Council or as indicated by Borough, regional, county, or state plans.
- B. Where identified in a duly adopted comprehensive plan, revitalization plan, or Official Map, or as otherwise deemed necessary or desirable by Borough Council, the dedication or reservation of areas or sites for schools, parks, roads, emergency services, and other facilities to serve the community may be required.
- C. Areas dedicated or reserved for such open space or community facilities shall be adequate to provide for all building sites, outdoor activity areas, landscaping and off-street parking for the use proposed.

**§ 184-29 Blocks.**

- A. A block shall be two lots in depth when the lots are laid out back to back. The minimum block length shall be determined by the following process:
  - 1. First, divide the minimum lot area by the minimum lot width for the applicable zoning district as set forth in **Chapter 208, Zoning**, in order to determine the mathematical minimum lot depth required to conform to the minimum lot width and minimum lot area requirements of **Chapter 208, Zoning**.
  - 2. Second, multiply the minimum lot depth calculated under subsection 1, above, by two. This figure shall constitute the minimum block length required to accommodate two lots

conforming to **Chapter 208, Zoning**, when laid back to back.

3. A longer block length than required to accommodate two lots back to back, as calculated under subsection 2 above, may be provided for when proposed lots exceed the minimum set forth in **Chapter 208, Zoning**. All blocks shall be a minimum of 250 feet in length and a maximum of 600 feet in length when measured along the lot frontages.
- B. Blocks shall be designed to continue the existing street pattern and provide efficient, convenient, and safe pedestrian and vehicular circulation, including the reduction of intersections with arterial streets.
- C. For commercial or industrial use, the block size shall be sufficient in the judgment of Borough Council to meet all area and yard requirements for such use. Adequate provision shall be made for off-street parking and loading area as well as for the flow of pedestrian and vehicular traffic so as not to inhibit the flow of such traffic on public rights-of-way.



**Figure 184-29. Blocks**

**§ 184-30 Curbing.**

- A. Concrete curbing meeting the standards of [Chapter 181, Street and Sidewalks, Article I, Curb and Sidewalk Construction](#), shall be installed along all existing and proposed public and private streets, common driveways, and common parking areas.
- B. When utilizing an approved stormwater management technique, Borough Council may waive curbing requirements in full or partially. Grass swales and infiltration trenches along streets are encouraged in appropriate locations in the Borough, provided that pedestrian safety and traffic circulation is addressed.

**§ 184-31 New and Existing Street Design Standards.**

- A. All new streets or street segments shall be offered for dedication to North Wales Borough or the entity having jurisdiction of any existing street. The Borough may accept or refuse dedication of any street or right-of-way.
- B. All streets shall conform to the transportation element of the most recently adopted Borough Comprehensive Plan, Montgomery County Comprehensive Plan, and to the recommendations of any borough, county or state highway, bicycle, or pedestrian plans.
- C. All streets shall be designed to conform with the existing street system, in accordance with **§ 184-29.B**.
- D. A road hierarchy among interior subdivision and land development streets and exterior streets shall be provided for to ensure proper traffic flow, local access, and internal traffic distribution/flow.
- E. All streets shall be designed with existing topography to assure reasonable grades, alignment and drainage, appropriate access to lots, and to minimize regrading and removal of vegetation.
- F. Access shall be given to all lots and portions of the tract in a subdivision and to adjacent undeveloped territory. Streets giving such access shall be improved to the limits of the subdivision. Remnants, reserve strips and landlocked lots or areas shall not be created.
- G. Continuations of existing streets shall be known by the same name. Names for new streets shall not duplicate or closely resemble names of existing streets. All street names are subject to approval of Borough Council.

**§ 184-32 Private Streets.**

- A. Applicability. Any vehicular accessway that provides primary access to the following shall be considered a private street and shall be subject to the requirements of this section:
  - 1. Three (3) or more lots;
  - 2. Three (3) or more single-family or two-family dwelling units; or
  - 3. 25 or more dwelling units within a multifamily development or within a mixed use development.
- B. General standards.
  - 1. Whenever an applicant proposes to establish a street which is not offered for dedication of public use or when dedication is not accepted, North Wales Borough shall require the applicant to submit, and also to record with the plan, a copy of the agreement made

with the Borough addressing the ownership, access rights, and maintenance responsibilities for that street.

2. Private streets shall be designed and constructed in conformance with all design and engineering regulations of Borough Code that apply to public local streets.
3. When a private street has access to only one public street, an additional emergency accessway may be required.
4. An irrevocable right-of-access shall be guaranteed to all properties whose access depends upon the private street, by means of legal agreement or covenants, subject to approval by Borough Council as advised by the Borough Solicitor. The legal access agreements and/or covenants shall be:
  - a. Clearly noted on the subdivision or land development plans for all properties using private streets for access.
  - b. Included in the deeds for all properties having these access rights.
  - c. Recorded in the Montgomery County Office of the Recorder of Deeds.
  - d. Clear and specific regarding property owner's rights to further subdivision or land development, especially regarding the need to receive approval from the private street owner and/or waiver from the requirement of this chapter.
5. A private street may be owned by one or more of the property owners who have right-of-access or may be jointly owned by an association of property owners.

#### C. Maintenance.

1. When several properties use a private street, maintenance shall be guaranteed by the formation and administration of an association or other legally binding organization of all landowners with access rights.
  - a. Documents governing such associations shall be subject to approval of Borough Council upon the advice of the Borough Solicitor, shall be filed with the Borough, and shall be recorded with the deed for each property with access rights.
  - b. All property owners in such an association or other type of organization shall have a share in the rights and bear a share of the costs and other burdens of maintenance, as specified in the access agreements and/or covenants. This share shall also apply to the assessed costs for upgrading to public street standards, in accordance with the construction and engineering standards in this chapter.
  - c. If one or more property owners in the association or other type of organization believe that the street is not being properly maintained, and cannot

succeed in having the association or other type of organization authorize or conduct proper remedies, then that/those property owner(s) may request the Borough authorize an inspection of the street by the Borough Engineer. The cost of the inspection shall be paid by those property owners requesting the inspection. If the Borough Engineer determines that the street is not being properly maintained, the Borough may take corrective actions against the entity maintaining the road.

2. The Borough reserves the right to order the private street to be repaired or upgraded to meet Borough maintenance standards for public streets, if, at any time, they deem the road to be a health or safety hazard for reasons of improper or inadequate maintenance.
  - a. The full costs of upgrading the street, including engineering, legal and related costs, shall be assessed against the owner(s) of the road. The share of the assessment to each property owner will be determined by the association's legal access agreements and/or covenants recorded for the private street.
  - b. Prior to such action by Borough Council, the landowners with access rights shall be notified, in writing, by certified mail, of the pending action. The landowners will have 30 days from the date of such notice to propose an alternative solution acceptable to Borough Council.
  - c. When, in the determination of Borough Council, it becomes necessary for North Wales Borough to assume responsibility for a private street in order to maintain the health, safety, and welfare of the residents of the Borough, the Borough may do so and assess the property owner(s) or abutting owners who use the street for any improvements necessary to restore the street to conformance with Borough specifications
- D. Residential private streets. A maximum of ten (10) single-family or two-family dwelling units may be served by a private street which has access to a public street if the street is not owned and managed by a homeowners association or owner of the entire property.
- E. Nonresidential private streets. Private streets may be permitted by Borough Council to provide access to various nonresidential developments or lots.
- F. Conversion of a private driveway to a private street.
  1. An individual private driveway may be legally reclassified and physically upgraded and improved to become a private street upon approval of Borough Council.
  2. A right-of-way shall be established to contain the private street in compliance with the requirements herein.
  3. The private driveway shall be physically improved to comply with private street construction and paving width standards, as well as applicable dimensional standards.
  4. Maintenance shall be guaranteed as established for private streets in this chapter.

5. Upgrading of existing individual driveways to private street status is encouraged where it would take the place of several individually owned and maintained access strips.
- G. Further subdivision or land development of any lot depending upon a private road for vehicular access where properties and streets are under multiple ownership or not subject to a homeowners association is prohibited if it would exceed the number of lots permitted, maximum length of a cul-de-sac, or any other applicable requirements contained in this chapter.
1. If an applicant requests such further subdivision, the following shall be required:
    - a. The street must be upgraded to meet all the standards and requirements for public street construction and must be offered for dedication to the Borough.
    - b. Application to Borough Council shall include written approval from the association or organization which controls the street.
    - c. When conditions are considered favorable for limited additional subdivision under the private street access, Borough Council may request deed restrictions against further subdivision as a condition of final approval of the subdivision.
  2. Borough Council shall consider the following when deciding whether further subdivision or land development is appropriate on a private street:
    - a. The ability of a private street to be served by emergency services.
    - b. Topography, including vegetation and other environmental characteristics.

### **§ 184-33 Single-Access Streets.**

Cul-de-sacs, stub streets, and loop streets as defined in Article II of this Chapter, shall be prohibited within North Wales Borough. Single-access streets are by their definition disconnected from the established street grid on one end, which is counter to the intent of the borough to establish an interconnected street and sidewalk network.

### **§ 184-34 Street Classifications.**

- A. Every street, road, or highway within North Wales Borough shall be classified by its function and shall be subject to the requirements for its classification as contained in this article. Street classifications are intended to provide appropriate standards for each road, as well as to coordinate street functions and improvements among neighboring municipalities, the region, and the state. The classifications are as follows:
1. Major Arterials. Major Arterial streets are high volume roadways for travel between major destination points. Main Street is classified as a Major Arterial.

2. **Minor Arterials.** Minor Arterial streets are high volume roadways for travel between major destination points. Walnut Street (North Wales Road) is classified as a Minor Arterial.
3. **Collectors.** Collector streets link local streets with arterial streets. Beaver Street is classified as a collector.
4. **Local.** Local streets provide direct access to residences and businesses. All streets not named in Subsections 1, 2, or 3 of this section are local streets, with the exception of alleys.
5. **Alleys.** Alleys are small service roads which provide an alternative access to lots and buildings. Alleys may be developed to the standards in this chapter when the following factors are satisfied:
  - i. A paper alleys exist in borough records or where the alley would be a continuation of an existing alley;
  - ii. The allowance of alley access will eliminate the need for one or more curbcuts on abutting roadways of higher functional classifications; and
  - iii. On-site parking and/or loading will be accessible via the alley, thereby reducing or eliminating the need for curbcuts on abutting roadways of higher functional classifications.
6. **Street design standards:**

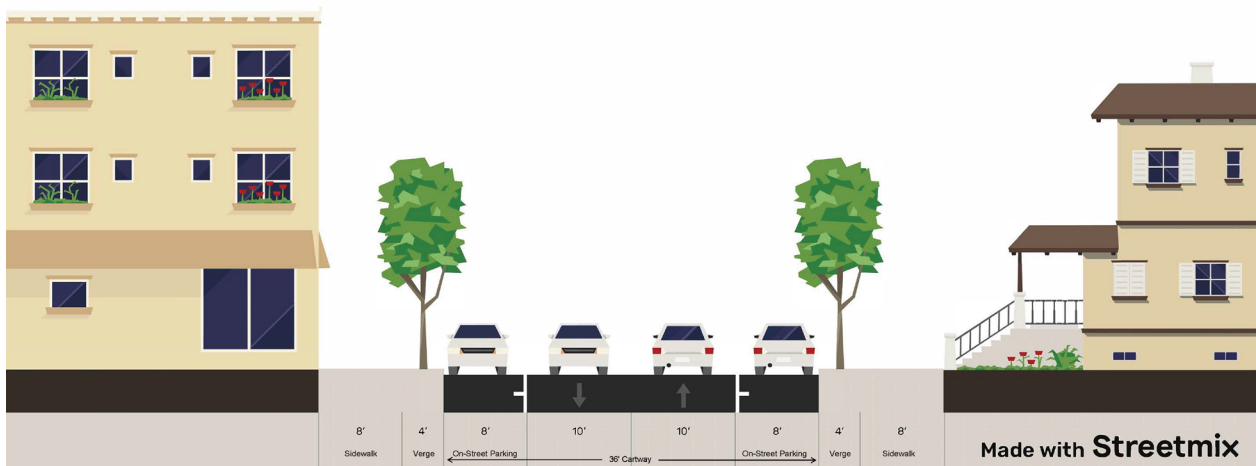
| <b>Table 184-34.A. Street Design Standards</b> |                            |                                     |                     |                              |                           |
|--|----------------------------|-------------------------------------|---------------------|------------------------------|---------------------------|
| <b>Functional Classification</b>               | <b>Right-of-Way (feet)</b> | <b>Minimum Paved Cartway (feet)</b> | <b>Bicycle Lane</b> | <b>Sidewalk Width (feet)</b> | <b>Verge Width (feet)</b> |
| <b>Major Arterial (Main Street)</b>            | 60                         | 36                                  | Optional            | 8                            | 4                         |
| <b>Minor Arterial (Walnut Street)</b>          | 50                         | 26                                  | Optional            | 8                            | 4                         |
| <b>Collector (Beaver Street)</b>               | 42                         | 26                                  | Optional            | 5                            | 3                         |

**Table 184-34.A. Street Design Standards**

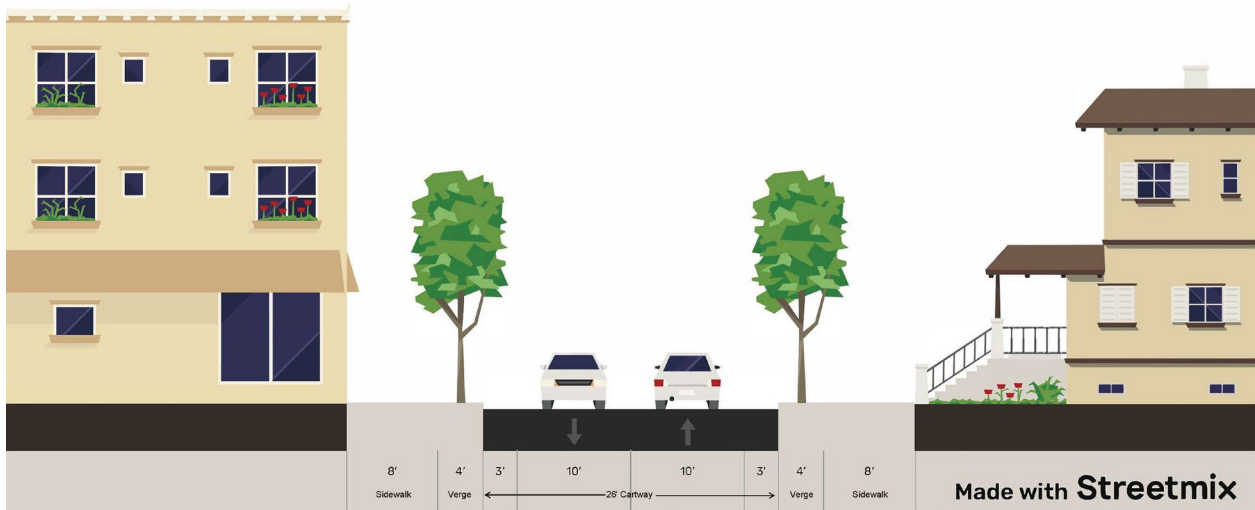
| Functional Classification | Right-of-Way (feet) | Minimum Paved Cartway (feet) | Bicycle Lane | Sidewalk Width (feet) | Verge Width (feet) |
|---------------------------|---------------------|------------------------------|--------------|-----------------------|--------------------|
| Local                     | 42                  | 26                           | Optional     | 5                     | 3                  |
| Alley                     | 25                  | 12                           | n/a          | n/a                   | n/a                |

B. Roadway design. The area within road rights-of-way may contain various elements depending upon the functional classification of the road and the surrounding land use. Sufficient space may be needed for sidewalks, curbs, parking, bike lanes, travel lanes, and turning lanes. While the road design should provide for the dual objectives of safety and mobility, it is important to ensure that the overall road layout fits other community needs. Reducing paved areas can mitigate traffic speeds and lessen the amount of stormwater generated. Providing sufficient area between the road and sidewalk provides a suitable area for street trees and can also shield pedestrians along the sidewalk from motorists in the road. Right-of-way should be sufficient to accommodate all of these potential uses. Proposed roadway design shall generally align with the following cross-sections.

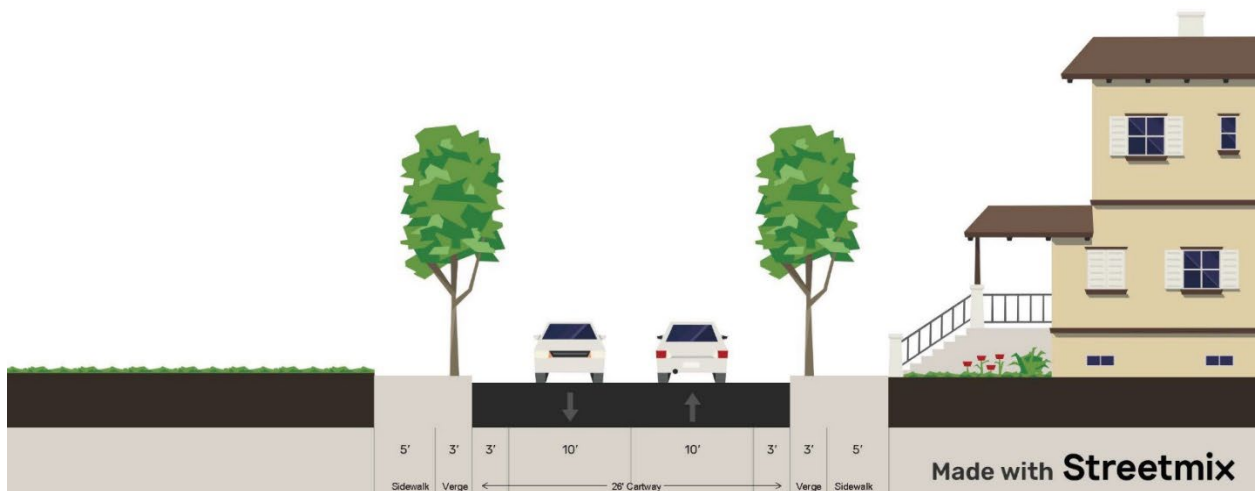
1. Major Arterial Street (Main Street), typical cross-section.



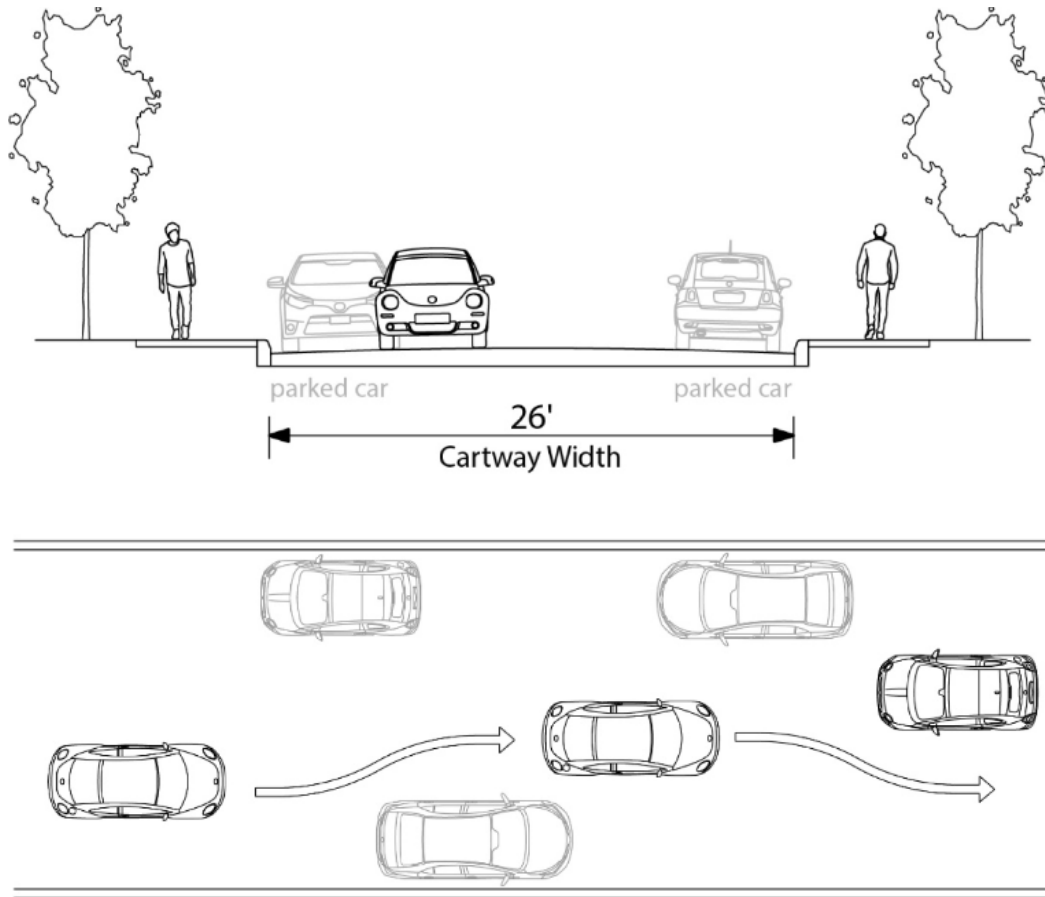
2. Minor Arterial Street (Walnut Street), typical cross-section.



3. Local or Collector Street, typical cross-section.



4. Local streets, yield street option. On local streets, allowing parking on both sides may limit the travel lanes so that a vehicle might have to yield to another oncoming vehicle (see graphics below). When high traffic volumes are anticipated on a local road, parking restrictions may be necessary.



**§ 184-35 Street Alignment.**

A. Sight distance, horizontal, and vertical curvature, super-elevation, and maximum and minimum street grades shall be determined by the Borough Engineer in compliance with the standards contained in *A Policy on Geometric Design of Highways and Streets, 7<sup>th</sup> Edition* (2018 or latest edition) published by the American Association of State Highway Transportation Officials (AASHTO), or PennDOT's *Publication 13, Design Manual Part 2 Contextual Roadway Design* (April 2025 or latest edition), whichever is more suitable to site conditions. In addition, the following standards and guidelines shall apply:

1. Street grades shall be measured along the center line in accordance with the following:
  - a. Minimum grade for all streets shall be 0.5%.
  - b. Maximum grades for all streets should be in accordance with all standard publications listed above.
  - c. Curve-grade combinations shall follow accepted engineering guidelines for safety and efficiency. For example, minimum-radius horizontal curves will not be permitted in combination with maximum grades.

d. At all approaches to intersections, street grades shall be compliant to the U.S. Access Board publication *Public Rights-of-Way Accessibility Guidelines* (2023) and designed to promote roadway drainage.

2. Intersection dimensions:

| <b>Table 184-35. Intersection Dimensions.</b> |  |                                    |                                      |
|---|--|------------------------------------|--------------------------------------|
| <b>Functional Classification</b>              | <b>Intersection Minimum Spacing (feet)</b> | <b>Clear Sight Triangle (feet)</b> | <b>Corner Curb Radius (1) (feet)</b> |
| <b>Arterial</b>                               | 400  | 125                                | 25                                   |
| <b>Collector</b>                              | 300  | 100                                | 20                                   |
| <b>Local</b>                                  | 125  | 75                                 | 15                                   |

(1) The corner curb radii should be adjusted to accommodate the anticipated design vehicle.

**§ 184-36 Street Intersection Alignment.**

- A. Number of streets. Not more than two streets shall intersect at the same point.
- B. Angle of intersections.
  - 1. All intersection approaches shall be designed at 90 angles for a minimum of 50 feet from the edge of the cartway.
  - 2. If site conditions require an angled intersection, it should be no less than 65° and designed so that the heavier traffic flow will make the obliquely angled turn rather than the acutely angled turn.
- C. Improvements to existing intersections. When existing streets intersect at skewed or acute angles or have more than four approaches, the applicant shall improve the intersection, to bring it into compliance with this chapter. For state and county highways, improvements shall comply with the requirements of the appropriate agency having jurisdiction over the road.
- D. Radii of pavement and right-of-way at intersections. Street intersections shall be rounded with

tangential arcs at pavement edge (curbline) and right-of-way lines as indicated in **Table 184-35**.

- E. All radii specified herein must be increased if large vehicles such as trucks, fire trucks, or other emergency vehicles would have difficulty with ingress or egress as determined by the Borough Engineer.
- F. All intersections shall provide clear safe sight distance in compliance with AASHTO's *A Policy on Geometric Design of Highways and Streets, 7<sup>th</sup> Edition (2018)* and PennDOT *Publication 13, Design Manual Part 2 Contextual Roadway Design* (April 2025 or latest edition).
- G. Street intersection spacing shall be in compliance with the regulations contained in this section, measured from center line to center line.
  - 1. The applicant shall prepare a vehicular access analysis, for all street intersections proposed along arterial and collector streets.
  - 2. The spacings listed **Table 184-35** shall be considered minimum spacing.
  - 3. Offset intersections. In any case where the center lines of street intersections are, or would be, within 150 feet of each other, they shall be made to coincide by relocating the street within the applicant's land, unless additional problems of sight distance or other safety-related problems would be created. As an alternative, relocation further away from the offset intersection may be done in compliance with the intersection spacing requirements contained herein, when approved by North Wales Borough Council.

#### **§ 184-37 Driveway Intersection with Streets.**

- A. Any new driveways proposed to be installed and any driveways proposed to be widened or enlarged must comply with the requirements of this section.
- B. Driveway intersections with streets:
  - 1. Shall be designed and constructed in compliance with compliance with AASHTO's *A Policy on Geometric Design of Highways and Streets, 7<sup>th</sup> Edition (2018)* and [Chapter 441, Access to and Occupancy of Highways by Driveways and Local Roads, of Title 67 of the Pennsylvania Code](#).
  - 2. Shall not cause or contribute to:
    - a. Hazards to the free movement of normal street traffic.
    - b. Traffic congestion on the street.
    - c. Interference with the design, maintenance, and/or drainage of the street.

- C. To facilitate safe and efficient access between streets and driveways, the number of driveways permitted to serve individual parcels of land shall be kept to the minimum needed to adequately serve the parcel in question. Shared access between adjoining lots should be considered prior to constructing any new driveways.
1. Properties shall only be allowed one driveway curb cut per each street frontage, unless an entrance-only or an exit-only driveway is proposed along the same street frontage as a full-movement driveway for properties greater than 50 feet in width.
  2. Lots having street frontage on two different roadways shall be permitted up to two full-movement driveways, provided each street frontage is limited to one full-movement curb cut
  3. Notwithstanding the above, new or expanded access driveways onto Main Street shall not be permitted except where the lot width is greater than 100 feet. If the lot width is greater than 100 feet, a maximum of one full-movement driveway from Main Street shall be permitted.
- D. Driveway intersections serving individual parcels of land may be prohibited by Borough Council where such intersections would create congestion, interference, and/or hazards to traffic flow and safety by reason of street grades, vegetation, frequency of driveway intersections, limited sight distances, and/or high speed traffic flow. In such cases, Borough Council may permit reasonable alternative forms of vehicular access to the parcel of land by means of:
1. Marginal access streets or driveways;
  2. Shared driveways; or
  3. Other means which are legally and technically suitable in the opinions of the Borough Solicitor and Engineer.
- E. Distance from street intersections. Driveways shall be located as far from street intersections as is reasonably possible but not less than the following distance from the point of intersection between two street center lines:
1. Driveways serving one residential unit: 75 feet.
  2. Driveways serving multiple residential units or any nonresidential use: 100 feet.
- F. Sight distance determinations. Determination of sight distances at intersections of new driveways and streets with existing Borough roads shall be in accordance with the following provisions.
1. Access driveways shall be located at a point within the property frontage limits which provides at least the minimum safe stopping sight distance (SSSD), as determined by [Chapter 441, Access to and Occupancy of Highways by Driveways and Local Roads,](#)

**of Title 67 of the Pennsylvania Code.**

2. The calculated minimum SSSD shall be measured from a point 10 feet back of the pavement edge and 3.5 feet above the road surface.
3. If the minimum required SSSD cannot be achieved, the Borough may exercise one or more of the following options:
  - a. Prohibit left turns by exiting vehicles.
  - b. Restrict turning movements to right turns in and out of a driveway.
  - c. Require installation of a right turn acceleration lane or deceleration lane.
  - d. Require installation of a separate left turn standby lane.
  - e. Alter the horizontal or vertical geometry of the roadway.
  - f. Deny access to the road.

**§ 184-38 Off-Street Parking and Internal Drive Aisle Standards.**

- A. Off-street parking facilities shall be provided in compliance with the minimum parking requirements of **§ 208-62, Minimum Parking Requirements by Land Use**, and in compliance with **§ 208-61, General Standards for Parking Areas**.
- B. Parking space dimensions:
  1. For parking spaces that are at a 90° angle to the plane of travel: 18 feet by 9 feet.
  2. For parking spaces that are at a 60° angle to the plane of travel: 22 feet by 9 feet.
  3. For parking spaces that are at a 45° angle to the plane of travel: 24 feet by 9 feet.
  4. Accessible parking spaces shall be provided in compliance with the Americans with Disabilities Act of 1990 (42 U.S.C. § 12101 et seq. (1990)).
- C. Parking lot drive aisle widths:
  1. For 90° angle of parking, one-way or two-way aisle: 24 feet.
  2. For 60° angle of parking, one-way or two-way aisle: 18 feet.
  3. For 45° angle of parking, one-way or two-way aisle: 16 feet.

D. Pedestrian circulation and facilities. The following requirements shall apply to all parking areas with 25 or more spaces:

1. Pedestrian circulation to each building from public sidewalks, the street, and cars parked on site shall take precedence over vehicular circulation.
  - a. Pedestrian access to each building from public sidewalks and the street shall be physically delineated and provided by sidewalks and defined crosswalks.
  - b. Pedestrian pathways shall be exclusive of and separate from vehicular use areas and drive aisles
  - c. Pedestrian sidewalks in parking areas shall be barrier-free, and a minimum of five feet wide.
2. Where pedestrian circulation crosses vehicular routes, a crosswalk with a different paving material, highly visible striping, or a speed table shall be provided.
3. At least one pedestrian route shall be provided and shall provide access from the far end of the parking lot to the main entry of a building to facilitate pedestrian movement. Clear separation or division from vehicular use areas with sidewalks, landscaping, a change in grade, or a change in surface material shall be provided.

#### **§ 184-39 Bicycle Infrastructure.**

- A. When a subdivision or land development includes improvements to streets which have been specified on the most recently adopted county or borough bicycle plan or other plan that specifies the location of bicycle facilities, the applicant shall include the installation of specified facilities as part of the subdivision or land development.
- B. Bicycle amenities such as on-road bicycle lanes, trails, signage, or other bicycle features shall be constructed as specified in the plan, taking into account other characteristics of the roadway and the applicant's frontage.
- C. All improvements made to streets as part of subdivisions and land developments should be consistent with Montgomery County's [Complete Streets Policy \(2019\)](#) and [Bike Montco \(2018\)](#).
- D. All bicycle facilities shall comply with AASHTO's *Guide for the Development of Bicycle Facilities, Fifth Edition (2024)*, *American Association of State Highway and Transportation Officials (AASHTO)*, and *Bikeway Selection Guide, 2019 Edition, Federal Highway Administration (FHWA)*.

#### **§ 184-40 Trails and Pathways.**

- A. All trails shall be designed to meet the standards set forth in *Guide for the Development of*

*Bicycle Facilities, Fifth Edition* (2024), American Association of State Highway and Transportation Officials (AASHTO), *Bikeway Selection Guide*, 2019 Edition, Federal Highway Administration (FHWA), and *Guide for the Planning, Design and Operation of Pedestrian Facilities, Second Edition* (2021), American Association of State Highway and Transportation Officials (AASHTO).

- B. Existing trails. When a subdivision or land development includes an existing trail, sidewalk, or pathway with public access customarily used by pedestrians and/or bicyclists, the applicant shall make provision for the continued use of the trail, sidewalk, or pathway subject to alterations of the course of the trail within the boundaries of the development under the following conditions:
  - 1. The points at which the trail enters and exits the tract shall remain unchanged.
  - 2. The proposed alteration shall not diminish trail design and function.
  - 3. Where an existing trail runs coincidentally with the paved road intended for use by motorized vehicles, landscaping and other physical structures shall be used to increase the separation between the trail and the road.
  
- C. New trails. When a subdivision or land development is proposed, the Borough's adopted Comprehensive, Open Space, and other plans, and Montgomery County's adopted plans shall be reviewed to determine if a proposed trail comes into contact with the parcel(s) impacted by the subdivision or land development. When the site is traversed by or abuts a trail proposed in an adopted plan of Montgomery County, North Wales Borough, or other governmental entity, the applicant shall include the construction of the trail and the enactment of a permanent public easement as part of the subdivision or land development. As a condition of final plan approval, the guarantee of public access and improvement of the trails shall be required.
  
- D. When a trail is intended for public use, a permanent trail easement shall be provided allowing public access to the trail on all properties on which the trail is or will be located. The width of the easement area on which the trail is located shall be a minimum of 20 feet. The language of the easement shall be to the satisfaction of Borough Council, upon recommendation of the Borough Solicitor.
  
- E. When a subdivision or land development lies adjacent to a park, school, or other pedestrian destination, pedestrian connections via pathways, sidewalks or trails, shall be made to that destination.
  
- F. Any of the methods cited under **§ 184-50, Open Space Dedication**, concerning open space dedication may be used either individually or in combination, to own and perpetually preserve trail easements provided in fulfillment of this article.
  
- G. Landscaping shall be used to help delineate the route of the trail and screen surrounding properties from trail users.

- H. The land area permanently designated for trails for public use may be credited toward any open space requirement of the Borough Code.
- I. No trail shall be designed with the intent to accommodate motorized vehicles except for emergency or maintenance access.

**§ 184-41 Sidewalks and Verges.**

- A. All pedestrian facilities within the public right-of-way shall meet the standards set forth in the U.S. Access Board publication *Public Rights-of-Way Accessibility Guidelines* (2023).
- B. Sidewalks and verges shall be installed along all existing and proposed public and private streets, common driveways, and common parking areas.
- C. Sidewalks and verges shall be required on both sides of the street within the ultimate right-of-way.
- D. Additional sidewalks shall be required where deemed necessary by Borough Council to provide access to schools, religious institutions, parks, community facilities, trails, and commercial or employment centers, and to provide necessary pedestrian circulation within land developments and/or subdivisions where otherwise required sidewalks would not be sufficient for public safety and convenience.
- E. The grade and paving of the sidewalk shall be continuous across driveways. The grade and alignment of all sidewalks shall be approved by the Borough Engineer.
- F. If the provision of sidewalks requires the destruction or removal of mature trees, the Borough Shade Tree Commission and/or Planning Commission shall make a recommendation on the impact of removal of said trees.
- G. Conflicts arising from the placement of street trees, sidewalks and utilities should be discussed with the Shade Tree Commission, Planning Commission, and Borough Engineer to determine appropriate placement and alignment.
- H. Sidewalk and verge widths shall satisfy the standards set forth in Table 184-41, below.

| <b>Table 184-41. Minimum Sidewalk and Verge Width</b> |                           |                              |
|---|---------------------------|------------------------------|
| <b>Functional Classification</b>                      | <b>Verge Width (feet)</b> | <b>Sidewalk Width (feet)</b> |
| <b>Major Arterial</b>                                 | 4                         | 8                            |

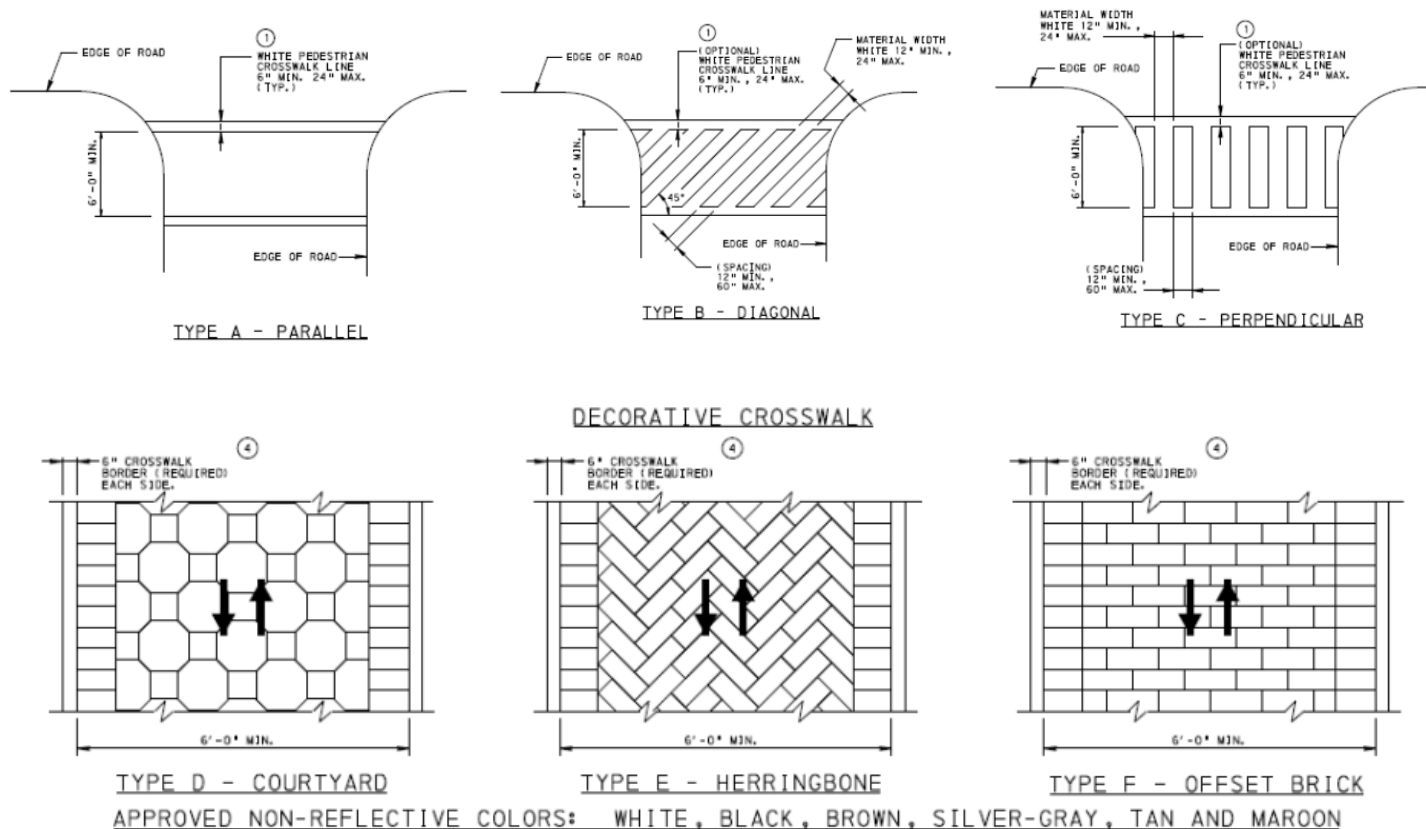
| <b>Table 184-41. Minimum Sidewalk and Verge Width</b> |                           |                              |
|---|---------------------------|------------------------------|
| <b>Functional Classification</b>                      | <b>Verge Width (feet)</b> | <b>Sidewalk Width (feet)</b> |
| <b>Minor Arterial</b>                                 | 4                         | 8                            |
| <b>Collector</b>                                      | 3                         | 5                            |
| <b>Local</b>  | 3                         | 5                            |
| <b>Alley</b>  | n/a                       | n/a                          |

- I. All sidewalk widths shall be measured exclusive of any obstacles. Sidewalk areas containing streetlights, trees, benches, trash cans, mailboxes, newspaper boxes, or similar feature may not be counted towards meeting the minimum width.
- J. Proposed sidewalks shall maintain the width, pattern, material, and style of the Borough's sidewalk network. Where proposed sidewalks meet existing sidewalks which have a different width, a tapered transition shall be constructed.
- K. A vegetated or masonry verge shall be provided between the curblines and the sidewalk.
  - 1. Notwithstanding subsection G, above, the width of the verge and its surfacing (turf grass or masonry pavers) shall be determined by conditions of the adjacent property, where applicable.
  - 2. Verges between sidewalks and the curb may contain street lights, traffic signs, trees, benches, trash cans, mailboxes, or newspaper boxes.

**§ 184-42 Crosswalks.**

- A. Crosswalks shall be clearly delineated at all street intersections.
- B. Mid-block crosswalks shall be provided within the Commercial Business District (CBD) and Transit-Oriented Development District (TOD) when the nearest intersection or crosswalk is greater than 300 feet from the front entrance of the proposed building or lot. The provision of traffic calming measures, pursuant to **§ 184-43, Traffic Calming**, may be required at midblock crosswalks when deemed necessary for safety by the Borough Engineer.

- C. Driveway crossings shall either have the sidewalk materials, width, and grade continue across them or have a crosswalk that meets all the standards of this section.
- D. Crosswalks shall, at minimum, match the width of the largest contributing sidewalk or trail. In no case shall a crosswalk be narrower than six feet in width.
- E. Crosswalks and their transition to adjacent sidewalks or trails shall be designed to facilitate access and use by persons that are physically disabled, in compliance with the U.S. Access Board publication *Public Rights-of-Way Accessibility Guidelines* (2023).
- F. Pedestrian signalization shall be provided at intersections where traffic signals exist.
- G. All crosswalks marking shall conform to the [Manual on Uniform Traffic Control Devices \(MUTCD\), 11<sup>th</sup> Edition \(2023\)](#). Furthermore:
  - a. Any intersection that includes an arterial or collector street shall provide a crosswalk that is either highly visible or decorative, including Types B, C, D, E, or F, as depicted in **Figure 184-42**.
  - b. Any intersection other than those including an arterial or collector street may make use of any crosswalk style depicted in Figure 184-42.



*Figure 184-42. Approved Crosswalk Designs (Credit: PennDOT)*

**§ 184-43 Traffic Calming.**

- A. If determined to be necessary for safety, Borough Council may require one or more of the following measures as described in the PennDOT *Publication 13, Design Manual Part 2 Contextual Roadway Design (April 2025 or latest edition)* based upon the recommendation of the Borough Planning Commission and/or Borough Engineer:
1. Horizontal deflection measures: curb extension (or bulb-out), chicane, gateway treatment, on-street parking, raised median island, pedestrian refuge island, or traffic circle.
  2. Vertical deflection measures: speed hump, speed cushion, raised crosswalk, or raised intersection.
  3. Physical obstructions: semi-diverter, diagonal diverter, right-in/right-out island, raised median through intersection, or street closure.

**§ 184-44 Transit Stops.**

- A. Bus Stops.
1. Improved bus stop facilities shall be provided when an existing SEPTA bus stop abuts a parcel of land undergoing subdivision or land development.
  2. All bus stops shall be provided with, at minimum, a seating area no less than 48” in length.
  3. Bus stops shall be designed in accordance with one of the following standards from [DVRPC’s SEPTA Bus Stop Design Guidelines \(2019\)](#):
    - a. Type 4: Urban Stop with Seating.
    - b. Type 5: Stop with Narrow Shelter.
    - c. Type 6: Stop with Standard Shelter.
    - d. Type 7: Enhanced Stop
- B. North Wales Train Station. Additional supportive infrastructure or amenities for pedestrians, bicyclists, and transit users may be required for properties undergoing subdivision or land development that are located within the Transit-Oriented Development Zoning District. The need for such infrastructure or amenities shall be reviewed by the Planning Commission and Borough Engineer during the course of application review.

## § 184-45 Streetscape Standards.

- A. Applicability. Streetscape that is consistent with the decorative pavement treatments for sidewalks, street/driveway intersections, street tree plantings, and period lighting existing on Main Street shall be provide when a subdivision or land development is proposed in the following locations:
1. Any lot abutting Main Street;
  2. Any lot within the Transit-Oriented Development District; and
  3. Any lot within the Commercial Business District.
- B. General standards.
1. Street furniture shall be maintained by the property owner in perpetuity (and replaced, as needed) and shall be constructed of durable materials, such as cast iron, aluminum, stainless steel, or similar materials.
  2. Street furniture shall be located adjacent to the building façade, unless on-street parking is present, in which case street furniture may be located 1.5feet from the curb at minimum.
  3. Furniture intended for seating shall be set back from the curb by a minimum of five feet from the curbline, and shall not disrupt the pedestrian clear path.
  4. Sidewalk mounted trash receptacles shall have at least three feet clear on all sides from any standing object including, but not limited to, lights and sign posts.
  5. Freestanding planters and/or protective devices, such as bollards, shall be installed between sidewalks and adjacent vehicular traffic to help shape the pedestrian environment.
  6. Street furnishings required.
- C. Pedestrian-scaled lampposts matching the design of existing lampposts on Main Street shall be provided.
1. Lampposts shall be centered on a line 20 inches from the face of curb.
  2. Lampposts shall be spaced every 40 feet to 60 feet on center, and shall be designed to meet the sidewalk and street lighting standards pursuant to [PennDOT Publication 13M, Design Manual Part 2 \(April 2025 or latest edition\)](#).
- D. At minimum, two (2) benches, one (1) bicycle rack (see § 184-39, **Bicycle Infrastructure**) one

(1) trash receptacle, and one (1) recycling receptacle shall be provided for every 300 feet of public street frontage.

E. In addition to the requirements of the immediately preceding subsection (§ 184-45.C.), the following streetscaping shall be provided based upon the scale of development described herein:

1. The following streetscape and green area standards are required for all new nonresidential and multifamily developments and additions/alterations. **Table 184-45.1** indicates the categories and minimum requirements for streetscape and green area standards. **Table 184-45.2** presents the streetscape and green area items within each category. Category A contains planting and greening elements. Category B includes street furniture and other streetscape elements.
2. Any of these elements installed along Main Street must not conflict with aspects of the existing streetscape design. All proposals shall be reviewed by the Planning Commission to ensure that they are compatible with the established streetscape, where applicable.

**Table 184-45.1 Minimum Requirements for Streetscape and Green Area Standards**

| <b>Building additions and alterations</b>                                 | <b>New Developments of 2,500 to 4,999 Gross Square Feet in Size</b>       | <b>New Developments of 5,000 to 14,999 Gross Square Feet in Size</b>                                   | <b>New Developments of 15,000 Gross Square Feet and Over in Size and/ or New Buildings Greater Than Four Stories</b> |
|---|---|--|--|
| 4 points from any category (no more than three of one item in Category B) | 4 points from any category (no more than three of one item in Category B) | 8 points including at least one item from each category (no more than three of one item in Category B) | 12 points including at least one item from each category   |

**Table 184-45.2 List of Streetscape and Green Area Items and Categories**

| Category | Item  | Points |
|----------|---|--------|
| A        | Hanging basket                                | 1      |
| A        | Window box                                    | 2      |
| A        | Additional in-ground planting area            | 2      |
| A        | Street planter                                | 2      |
| A        | Roof garden/green roof                        | 3      |
| A        | Green wall                                    | 3      |
| B        | Bench   | 2      |
| B        | Bicycle rack                                  | 2      |
| B        | Trash and recycling receptacles (one of each) | 2      |
| B        | Public art (mural, sculpture, etc.)           | 3      |
| B        | Public drinking fountain                      | 3      |
| B        | Display fountain                              | 3      |
| B        | Clock tower                                   | 3      |
| B        | Decorative paving                             | 1      |

## § 184-46 Residential Building Design Standards.

### A. Orientation.

1. All residential buildings shall be oriented with their front facades facing and taking direct pedestrian access from a public street. Notwithstanding, any residential building located on a private street developed in accordance with **§184-32, Private Streets**, shall be oriented with their front facades facing and taking direct pedestrian access from the private street.

### B. Massing.

1. Buildings shall be similar in height, volume, and massing that is more or less proportional to adjacent structures that maintains the existing architectural rhythm.
2. The massing of any facade should not exceed 50 feet maximum (horizontal dimension). An architectural feature such as a porch, bay window, recessed doorway, or building extension shall break up long facades.

### C. Architectural rhythm.

1. Single-family attached dwelling units shall have a change in building plane of at least two feet. Such change can be met through the use of bay windows, building extensions, building recesses, and other architectural treatments.
2. Infill development shall retain the architectural rhythm of building openings, including windows and entries, of buildings of the same use on the same block.

### D. Walls and windows.

1. Blank walls shall not be permitted along any exterior wall facing a street, parking area, sidewalk, or pathway.
2. Windows are required on the front facade.
3. Other walls facing streets, sidewalks, parking areas, or pedestrian pathways shall have windows or other architectural treatments that break up a blank wall.

### E. Roofs.

1. Roofs shall be in keeping with the character of adjacent buildings. If there are no flat roofs on the side of the block where the dwelling is proposed, flat roofs shall not be permitted unless a false pitched roof is provided for.

### F. Garages.

1. Side or rear facing garages are preferred to front-facing garages wherever feasible.

2. The width of any garage door facing the street may not exceed 50% of the width of the street-facing building facade of each dwelling unit unless it is set back more than 20 feet from the front facade.
3. Any applicable design standards contained in **Chapter 208, Zoning**, including but not limited to § 208-22, § 208-26, and § 208-30, shall be met.

**§ 184-47 Multifamily, Nonresidential, and Mixed Use Building Design Standards.**

- A. Applicability. Nonresidential buildings, mixed-use buildings, and multifamily buildings shall meet the requirements of this section.
- B. Building orientation and entrances.
  1. The front facade of buildings shall be oriented towards streets and sidewalks, with an everyday public entrance in this front facade.
  2. When a building is located on a corner a lot, the entrance shall be located on the corner with an appropriate building articulation, such as a chamfered corner, turret, canopy, portico, overhang, or other similar building feature.
  3. All primary building entrances shall be accentuated. Entrance accentuations permitted include recessed, protruding, canopy, portico or overhang.
- C. Massing and architectural rhythm.
  1. No uninterrupted length of any facade shall exceed 50 horizontal feet.
  2. Blank walls shall not be permitted along any exterior wall facing or visible from a street, walkway, parking lot or public gathering space.
  3. New infill development shall attempt to maintain the horizontal rhythm of existing nonresidential building facades within the borough by using a similar alignment of architectural elements. This rhythm shall be achieved by aligning the top, middle, and base floors with adjacent buildings.
  4. Walls shall have architectural treatments to add interest to the building. At least four of the following architectural treatments shall be provided on a nonresidential building:
    - a. Masonry (but not flat concrete block).
    - b. Concrete or masonry plinth at the base of the wall.
    - c. Belt courses of a different texture or color.
    - d. Projecting cornice.
    - e. Projecting metal canopy.

- f. Decorative tile work.
- g. Trellis containing planting.
- h. Medallions.
- i. Opaque or translucent glass.
- j. Quoin.
- k. Bay window.
- l. Oriel window.
- m. Stylized lighting fixtures.
- n. Porticos.
- o. Balcony.
- p. An architectural element not listed above, as approved by Borough Council, that provides vertical or horizontal articulation.

5. Front facade articulation.

- a. For the purposes of this subsection, each building shall have one front facade that must meet the following criteria.
- b. Front facades shall have some type of articulation at least once every 20 feet of continuous horizontal facade. Articulation shall be provided at a maximum distance of every 20 feet of continuous facade by a change in building materials, or the addition of architectural features included under § 184-47 D(4), above.
- c. A distinct base of at least one foot in height shall be provided at ground level, using materials that differ from the main facade, such as stone, masonry or decorative concrete.

6. Side and rear facades. Vertical articulation of side or rear facades shall be provided at least every 50 linear feet of continuous facade by a change in building materials, or the addition of architectural features included under § 184-47 D(4), above.

7. Windows.

- a. Primary ground floor facades of nonresidential or mixed uses that serve the public (e.g., retail, restaurant, office etc.) shall be comprised of a minimum of 50% clear window area, with windows providing views of display areas or the inside of the building. Window areas shall be measured between 12 inches and eight feet off the ground.

- b. All other nonresidential uses shall have a minimum of 30% clear window area on the front facade.
- c. Smoked, reflective, or black glass in ground floor facade windows is prohibited.
- d. Upper-story windows of front facades shall not be boarded or covered and facades shall include a minimum of 20% window area in the facade above the ground floor.

8. Roofs.

a. Flat roofs.

- a. Flat roofs are permitted so long as an architectural element is provided at least once every 50 horizontal feet along any facade that is visible from a street, sidewalk, parking lot, park, plaza, trail, or other area generally accessible to the public. Acceptable elements to add to each facade shall be:

- 1) An articulated cornice that projects horizontally from the vertical building wall plane.
- 2) Dormer.
- 3) False pitched roof.
- 4) Cupola.
- 5) Tower.
- 6) Turret.
- 7) Parapet wall.

- b. Pitched roofs. Pitched roofs shall have a minimum slope of 4:12 and a maximum slope of 12:12. The roof shall be articulated above the building entrance. An architectural element shall be provided at least once every 50 horizontal feet along any facade that is visible from a street, sidewalk, parking lot, park, plaza, trail, or other area generally accessible to the public. Acceptable elements to add to each facade shall be:

- 1) Dormer.
- 2) Cupola.
- 3) Tower.
- 4) Turret.

- 5) Roof line variation of five or more feet.
- 6) An architectural element not listed above, as approved by Borough Council, that provides vertical or horizontal articulation.

#### **§ 184-48 Exterior Lighting Standards.**

- A. All exterior lighting shall be designed to prevent glare onto adjacent properties.
  1. Lighting shall be sufficient for security and identification without allowing light to trespass onto adjacent sites, in accordance with **§ 184-87, Outdoor Lighting** of this Chapter.
  2. All lighting fixtures must have the fixture seal of approval from the International Dark-Sky Association.
- B. Location and design.
  1. Pedestrian pathways shall be well-lit between dusk and dawn if they are intended or anticipated to be utilized during those overnight hours.
  2. Pedestrian-oriented lighting shall be provided between the curb and the sidewalk at a maximum spacing of 60 feet. Lighting shall be installed on both sides of the street.
  3. The height of light fixtures shall be a minimum of 15 feet and a maximum of 25 feet for parking lots and a minimum of 10 feet and a maximum of 12 feet for pedestrian walkways.
  4. Public areas where pedestrians are encouraged such as plazas, walkways, seating areas, and other such places shall be lit for safety and ease of visibility.

#### **§ 184-49 Recreation Land.**

- A. Intent. In order to continue to provide adequate recreational opportunities for current and future residents of the borough, all new development shall be required to offset the anticipated impact on existing facilities by providing open space and recreation areas. The provisions of this section aim to maintain and expand recreational facilities within the community.
- B. Applicability. Suitable recreation land shall be provided for each subdivision or land development, which shall be offered for dedication to the Borough in accordance with the following:
  1. Residential uses and mixed land uses containing three (3) or more residential dwelling units: 5% of the gross tract area undergoing subdivision or land development.
  2. Nonresidential land uses: 2.5% of the gross tract area undergoing subdivision or land development.

3. Nothing herein shall be construed as limiting the ability of Borough Council to waive all or a portion of the recreation land set-aside requirements.
- C. Conformance to existing plans. The land to be used for park and recreational facilities shall be in accordance with the principles and standards contained in the duly adopted North Wales Borough Comprehensive Plan. Furthermore, any applicable principles or standards from other borough-sponsored studies or plans shall be met.
- D. Park and recreational land or facilities standards.
1. The land shall be well-drained and suitable for physically active recreational purposes.
  2. The average slope of the land shall be less than 6%. Notwithstanding, natural topography can remain undisturbed provided that the recreation land is suitable for active recreational purposes by a wide range of users.
  3. The area set aside cannot have displaced a wetland or other natural feature required to be preserved by **§ 184-51, Natural Features**.
  4. If an existing park or trail is contiguous, the land dedicated shall connect to the existing park or trail.
  5. Open space shall be connected by sidewalk, crosswalk, and/or trails to all buildings on-site and to the public sidewalk along the street.
  6. The land shall not be used as stormwater management facilities or stormwater basins, unless the stormwater management facility is designed in a naturalized manner that provides recreational or aesthetic value, such as a rain garden or vegetated swale.
  7. Open space may include land within utility corridors only if the utility companies having legal rights to these corridors do not prohibit their use for such purposes.
- E. Alternatives to the development of recreational land. Upon agreement of both Borough Council and the applicant, the applicant may pursue the following alternatives:
1. Pedestrian plaza, square, or pocket park.
    - a. The plaza, square, or pocket park shall be an integral focal point of the development.
    - b. The plaza, square, or pocket park shall be located at street level, and shall be located adjacent to the public sidewalk.
    - c. The plaza, square, or pocket park shall be convenient and accessible by public sidewalk and/or sidewalks or paths internal to the lot.
    - d. No fence or wall shall be erected between the sidewalk and a plaza, square, or pocket park

- e. At minimum, two (2) benches, one (1) bicycle rack, one (1) trash receptacle, and one (1) recycling receptacle shall be provided for every 2,500 square feet of the plaza, square, or pocket park.
- f. A minimum of 30%, but no more than 70%, of the plaza, square, or pocket park shall be permeable planting beds landscaped with a combination of trees, shrubs, perennials, grasses, and groundcovers that provide year-round visual interest and color.
- g. The plaza, square, or pocket park shall provide shade by using one or more of the following elements: canopies, trellises, umbrellas, or similar elements.
- h. Up to 25% of the plaza, square, or pocket park area may be used for natural features preservation or stormwater management, provided the stormwater management facilities are designed as a vegetated amenity, such as rain gardens.
- i. Any paved surface within a plaza, square, or pocket park shall be composed of high-quality, durable paving materials, such as unit pavers, paving stones, or concrete. The use of permeable paving is encouraged. A minimum of one (1) canopy tree shall be provided per 250 square feet of paved surface within a plaza, square, or pocket park.
- j. A plaza, square, or pocket park shall be entirely open to the air and no portion of a building, other than a balcony, shall project over it.
- k. No parking, loading, or vehicular access shall occur within a plaza, square, or pocket park. Notwithstanding, emergency vehicular access may be provided where necessary.
- l. Any other landscaping feature specifically required by this chapter shall not be included in the calculation of this requirement.
- m. An operations and maintenance plan, ensuring that all landscaping and manmade items are maintained in perpetuity and are replaced if they can no longer be feasibly maintained, shall be submitted to the borough for review and approval.

## 2. Fee in lieu.

- a. Where Borough Council and the applicant agree that a fee is to be contributed in lieu of the provision of land for recreation on the development site as required by this section, the amount of the fee shall be equal to the fair market value of the undeveloped land on the date of plan submission that otherwise would have been required to be reserved for recreation (see **§184-49.B.1** and **§184-49.B.2**).
- b. Fair market value of the land in lieu of which the fee is paid shall be determined by agreement of Borough Council and the applicant. In the event that Borough Council and applicant cannot agree upon the fair market value of the land, then an appraisal shall be supplied and paid for by the applicant and reviewed by

Borough Council. The appraisal required by this subsection shall be prepared by a recognized, licensed, competent real estate appraiser with no interest, financial or otherwise, in the affected property or application. Borough Council shall reserve the right to obtain its own appraisal if it disagrees with the appraisal supplied by the applicant. In the event that the applicant disagrees with a Borough appraisal, the applicant may pay for a third appraisal by a third appraiser to settle the issue.

3. Improvements to other recreation sites. The applicant may, through an agreement with the Borough, purchase additional land for existing or proposed Borough parks, or construct recreational facilities on existing Borough parkland that is readily accessible to residents of the proposed development. The value of such improvements shall be comparable to the fee in lieu of recreation land that would have otherwise been required, as determined by the Borough, based upon the applicant's estimates, which shall be reviewed and approved by the Borough Engineer.
4. Private preservation of land. The applicant may reserve land in the amount required under this chapter. The land shall meet all the standards in this section, be available for use by the general public, and managed and maintained in conformance with any adopted park and recreation plan, and any ordinances covering maintenance requirements for private ownership of common elements.
5. A combination of land dedication, fee-in-lieu payment and/or alternative approaches as listed herein may be pursued, as reflected in a written agreement between the applicant and Borough Council.

#### **§ 184-50 Open Space Dedication.**

##### **A. Recreation land and open space ownership and perpetuation.**

1. Borough may, but is not required to, accept fee simple dedication of recreation land and open space. If accepted by the Borough, the following shall apply:
  - a. There shall be no cost of acquisition.
  - b. The Borough shall agree to maintain the open space.
  - c. The open space shall be in an acceptable condition to Borough at the time of dedication regarding size, shape, location, and that any improvements are certified as satisfactory by the Borough Engineer.
  - d. The applicant shall prepare, at no expense to the Borough, the legal description, with metes and bounds, of the land being offered for dedication.
  - e. The Borough shall accept the dedication by means of a signed Municipal resolution to which a property description, deed, and plan of dedication area or areas shall be attached.
  - f. All dedications in fee simple shall be free and clear of any liens or

encumbrances.

g. An agreement citing all applicant obligations serving as a condition to plan approval shall be approved Borough Council and recorded with the plan at the same time as the plan is approved

2. A public agency acceptable to Borough Council, including county, state, or federal government or another municipality may, but shall not be required to, accept the fee simple dedication of open space, provided that a maintenance plan is in place that allows for access to the open space, and that has been approved by Borough Council and the grantee.
3. A private, nonprofit conservation organization, among whose purposes is to conserve open space land and/or natural features, may, but shall not be required to accept the conveyance of fee simple or less-than-fee simple interests in any portion of the open space, provided that:
  - a. Any private, non-profit conservation organization intended to be the grantee of a conveyance shall be acceptable to the Borough as a bona fide conservation organization with perpetual existence.
  - b. Any conveyance shall contain appropriate provisions for proper reverter or retransfer if the grantee becomes unwilling or unable to continue carrying out its function.
  - c. A maintenance agreement acceptable to the Borough shall be established between the owner and the conservation organization.
4. Open space may be controlled with condominium agreements that shall be approved by Borough Council and be in conformance with the Pennsylvania Uniform Condominium Act or Uniform Planned Community Act. All open space land and facilities shall be held as a common element.
5. Open space may remain or be placed in the ownership of the individual property owners and shall be restricted from further subdivision and/or land development by deed restriction, provided that:
  - a. The Borough shall agree to the boundaries of the open space that shall be held in private ownership.
  - b. Restrictions providing for the protection and continuance of the open space which meet the Borough's specifications shall be placed in the deed for each property that has the open space area within its boundaries.
  - c. A maintenance agreement suitable to Borough Council shall be established, and the deeds to the properties that are located within the deed restricted open space areas shall clearly state that the maintenance responsibility for the open space lies with the individual property owner.

6. Open space may be held in common ownership by a homeowners' association. In addition, the homeowners' association shall be governed according to the following:
  - a. The owner or applicant shall provide to Borough Council a description of the organization, including its by-laws, and all documents governing maintenance requirements and use restrictions for open space. The homeowners' association agreement shall be recorded.
  - b. The organization shall be established (with financial support by the applicant if necessary) before any lot in the subdivision or building in the development is sold.
  - c. Membership in the organization and fees shall be mandatory for all purchasers of property therein and their successors.
  - d. The organization shall be responsible for the maintenance of suitable insurance on the open space.
  - e. The members of the organization shall share equitably in the costs of maintaining, insuring, and operating the open space.
  - f. The applicant proposing any plan containing recreation land or open space shall arrange with the County Board of Assessment Appeals a method of assessment of the common facilities which will allocate to each tax parcel in the development a share of the total assessment for such open space. Where this alternative is not utilized, the organization shall be responsible for applicable real estate taxes on common facilities.
  - g. The organization shall have or hire adequate staff, as necessary, to administer, maintain, and operate the open space.
  - h. The organization shall have the power to compel fees from property owners therein to cover their proportionate shares of the initial cost and costs associated with the maintenance and upkeep of the open space.

B. Open space restrictions.

1. Every property proposed for open space shall be restricted in the following manner. The property deed shall contain the following deed restriction:
  - a. "This property was established as permanent open space through the approval of the [subdivision or land development name] and recorded in Deed Book and Page , and shall be maintained as open space in accordance with the approved plan. No change of use, transfer of ownership, or sale of this property shall occur without the written consent of North Wales Borough. This restriction shall have the effect of a covenant running with the land, and shall otherwise be binding upon the Grantee, and shall be enforceable only by North Wales Borough, its residents, or former owners of the property."

2. North Wales Borough is authorized to make random inspections of any open space property created by this ordinance to ensure that the owner and any successors duly perform, abide by, and complete any duties, obligations, or requirements as set forth in the final plan and/or deed restrictions.
3. North Wales Borough may require financial security to ensure appropriate long-term maintenance of the open space depending upon the ultimate owner of the open space.
4. The amount of financial security shall be established as necessary to reimburse the Borough for its expense of performing remedial measures if not performed by the owner.
5. In the event that the entity charged with maintenance responsibilities, or any successor thereto, fails to maintain all or any portion of the open space in reasonable order and condition in accordance with the development plan and all applicable laws, rules, and regulations, North Wales Borough may serve written notice upon such entity, upon the residents and owners of the uses relating thereto, setting forth the manner in which the entity has failed to maintain the open space in reasonable condition.
6. Such notice shall set forth the nature of corrections required and the time within which the corrections shall be made. Upon failure to comply within the time specified, the organization, or any successor organization, shall be considered in violation of their responsibilities, in which case the Borough may enter the premises and take corrective action.
7. The financial security funds in the applicant's escrow account, if any, may be forfeited, and any permits may be revoked or suspended. If the funds of the escrow account are insufficient to pay the costs of remedial maintenance, the costs of corrective action by North Wales Borough shall be assessed ratably, in accordance with tax assessments, against the properties that have the right of enjoyment of the common facilities and shall become a lien on said properties. The Borough, at the time of entering upon such common facilities for the purpose of maintenance, shall file a notice of such lien in the Office of the Prothonotary of Montgomery County, upon the properties affected by such lien.

**§ 184-51 Natural Features.**

- A. Natural resource preservation. The following environmentally sensitive features shall be preserved at minimum the percentage shown. If development can proceed while preserving more than the minimum required, the feature shall be preserved to the maximum extent possible.

| <b>Table 184-51. Natural Features Preservation Requirements</b> |  |
|---|--|
| <b>Natural Feature</b>  | <b>Minimum Percent to Be Preserved</b> |
|   |  |

|  |      |
|--|------|
| Floodplains*, watercourses, and waterbodies  | 100% |
| Wetlands   | 100% |
| Slopes of 15% to 25%   | 80%  |
| Slopes of over 25%   | 90%  |
| Woodlands  | 50%  |
| Riparian corridor - within 50 feet of a waterway   | 50%  |
| *For the purposes of this section, a floodplain shall be defined as any area with at least a 0.2% annual chance flood hazard as defined by the most recent maps available from FEMA. |      |

- B. The percentage of each feature is the extent that it shall not be altered, regraded, filled or built upon. Where features overlap, the greater percentage shall be conserved. Any preserved natural features may serve as the required open space or recreation land, provided that it is able to meet the standards of **§ 184-49, Recreation Land**.
- C. The land required to be preserved by this subsection shall be permanently restricted by an easement prohibiting development. The deed restrictions shall be included in the deed to the property and shall be in a form acceptable to the Borough Solicitor.

**§ 184-52 Wetlands.**

- A. The presence of hydric soils may indicate wetlands. When hydric soils are indicated on the site, a wetlands study should be conducted by qualified environmental professionals in accordance with the US Army Corps of Engineers Wetlands Delineation Manual. In the event no wetland study is undertaken, the location of soils with soils rated as all hydric, per the USDA NRCS Soil Survey, on site will be assumed to be wetlands for the purpose of this chapter and shall be noted on the plan as such.
- B. Wetlands shall be preserved in their entirety in subdivisions and land developments in accordance with **§ 184-51, Natural Features**. Jurisdictional determination of wetlands shall be obtained at an early stage to determine the extent and location in the proposed subdivision and/or land development. Any required permits for wetlands disturbance shall be acquired from the Army Corps of Engineers prior to final plan approval.
- C. A twenty-five-foot (25) setback known as the "wetland buffer" shall be maintained around the

perimeter of all wetlands. No removal of vegetation, except the selective removal of dead trees and/or other noxious or invasive vegetation in the wetland area or buffer shall take place without the specific permission of the Borough in consultation with a consultant professional of the Borough's choosing.

### **§ 184-53 Riparian Corridor Protection.**

Wherever a perennial or intermittent stream passes through the site, the applicant shall create a riparian buffer extending a minimum of 50 feet to either side of the top-of-bank of the channel pursuant to **§ 180-407, Stream Bank Erosion Requirements**. Any other applicable standards from **Chapter 180, Stormwater management** and any other applicable Borough Ordinance shall apply.

### **§ 184-54 Preservation of Existing Vegetation.**

- A. Preserved landscaping. In order to promote the highest environmental quality possible, the degree to which the applicant for a subdivision or land development plan has preserved existing salient natural features, including existing mature trees, tree masses, and woodlands, and land forms intrinsic to the site shall be assessed. Terms of approval of a plan may be subject to the manner in which the layout or design of the plan has preserved existing natural features.
- B. Tree preservation and replacement.
  1. All trees six (6) inches or more in DBH shall be preserved except in the following situations:
    - a. The tree is located within the proposed right-of-way line of a street.
    - b. The tree is diseased and should be removed for safety or for the protection of other healthy trees, as certified by a trained arborist.
    - c. Tree removal is necessary to accommodate public utilities or public facilities to be constructed or installed by the Borough or the Borough Authority.
    - d. The tree(s) interfere with traffic safety or are located within sight triangles.
  2. Mature trees in floodplains and on steep slopes. Ninety percent of the mature trees in floodplains and on slopes over 25% shall be preserved. This preservation requirement is based upon area covered by woodlands, not on the number of individual trees within these areas; the requirement is to preserve 90% of the land area covered by woodlands. This requirement shall be distinct and separate from other requirements which apply to all parts of the site not affected by floodplains, wetlands, steep slopes of greater than 25% or the area within the ultimate right-of-way.
  3. Overall, any subdivision or land development which will result in the destruction of 25% or more of the existing trees on a lot that are six (6) inches DBH or greater shall be subject to the following tree replacement requirements:
    - a. Calculation and estimation of existing trees shall be performed before any site clearing or tree removal commences and shall be documented on the

plan.

- b. Each tree six (6) inches DBH or greater that is removed shall be replaced with a sufficient number of trees whose total caliper inches measurement equals 100% of the total DBH measurement of the trees with a DBH of six (6) inches or greater which are destroyed or removed.
- c. Replacement trees shall comply with the general landscape design criteria set forth in § 184-55, **General Landscaping Standards**, of this chapter.
- d. Replacement trees shall be planted on-site to mitigate for the existing trees removed, in addition to all other landscaping requirements of this chapter. Proposed replacement trees shall be identified and listed on the plan.
- e. If the site does not contain enough room for the required replacement trees, Borough Council may allow the applicant to locate some or all of the replacement trees on Borough-owned lands or publicly-accessible conservation lands located within the borough, or accept an equivalent fee-in-lieu of plantings in compliance with § 184-55.F.

C. Credit for preserved trees. Tree plantings required by this Chapter are permitted to be satisfied, whenever possible, by utilizing or preserving existing non-invasive, healthy trees. To receive credit, an applicant must demonstrate that the trees intended to be preserved are located in areas of the site suitable to otherwise satisfy the respective landscape requirement; and applicant must stipulate exactly what respective landscape requirement is proposed to be credited. Credit for existing trees which are indicated "To Remain" according to §184-14, Preliminary plan submission requirements, to offset the respective tree requirement shall be calculated as shown in **Figure 184-54** below:

| <b>Figure 184-54. Credit for Preserved Trees</b> |                                  |
|--|----------------------------------|
| <b>Preserved Tree DBH (inches)</b>               | <b>Number of Trees Credited*</b> |
| 8 to 11 inches                                   | 1 tree                           |
| 12 to 17 inches                                  | 2 trees                          |
| >17 inches                                       | 4 trees                          |

D. Tree protection during construction. Existing vegetation designated "To Remain" in accordance with §184-14 shall be identified in the field prior to any clearing and shall be physically protected throughout the construction process in compliance with the following standards:

1. A temporary, sturdy physical barrier, such as a snow fence, shall be erected a minimum of one (1) foot outside the drip line, or a minimum of 20 feet from the tree's trunk, whichever is greater, on all sides of freestanding trees, tree masses, or woodlands designated "To Remain" prior to major clearing or construction. A detail of said tree protection fence shall be provided as part of the landscape plan.
2. The barrier shall be placed to prevent disturbance to or compaction of soil inside the barrier and shall remain until construction is complete. No grading shall occur within the protection area. In addition, no storage or parking of construction materials, machinery, or vehicles shall be allowed within the protection area during construction.
3. The barrier shall be shown on the erosion and sedimentation control plan, grading plan, and the landscape plan. Reference to the installation of tree protection fencing should be included in the sequence of construction notes to ensure incorporation of tree protection before the earliest stages of site disturbance.

## § 184-55 General Landscaping Standards.

### A. General provisions.

1. Plantings shall be placed in arrangements and locations to best mitigate the adverse impacts of the proposed site development.
2. Plantings shall be spaced with consideration given to the provision for the future growth habits and mature sizes of selected plant species.
3. Invasive and "watch-list" species listed on any governmental list of invasive species, including the PA Department of Conservation and Natural Resource's "DCNR Invasive Plant List" and any other list as maintained and updated by DCNR for use on state lands, any state or US Department of Agriculture lists, as well as any list adopted by the Borough, shall be prohibited in any subdivision or land development in the Borough. Furthermore, such plants shall be required to be removed when present on a site under development.

### B. Plant species.

1. Any planting materials proposed, including but not limited to trees, shrubs, herbaceous and woody perennials, groundcovers, and grasses shall only be chosen from the applicable category (according to the proposed use of the plantings) from list of approved plants in **Appendix 1** contained herein.
  - a. Any species or cultivar listed in the list of approved plants may be used for another purpose other than the category under which it is listed, provided such use receives the recommendation of the Borough Shade Tree Commission.
2. Any plant materials proposed that is not included in the list of approved plants shall only be permitted when approved by Borough Council, provided the applicant demonstrates the alternative plant material satisfies at least one of the following conditions:

- a. The plant more effectively implements the intent and goals of this chapter than all other applicable plant species in the list;
  - b. The plant materials have received a recommendation for approval from the Borough Shade Tree Commission; or
  - c. The plant materials are native plants to the region.
3. Minimum native species. A minimum of 75% of all planting material proposed shall be composed of native plants. Such requirement shall be based on the total number of individual plants proposed.
  4. Minimum species diversity. A minimum variety of species per plant type (small canopy tree, medium canopy tree, large canopy tree, evergreen tree, shrub, perennial, etc.) is required as follows:

| <b>Figure 184-55.B. Diversity of Plant Material Required</b> |  |   |
|--|--|---|
| <b>Number of Plants Per Plant Type</b>                       | <b>Minimum Number of Species Per Plant Type Required</b> | <b>Maximum Number of Any One Species Per Plant Type</b> |
| 0 to 5   | 1  | 100%  |
| 6 to 15  | 2  | 50%   |
| 16 to 30   | 3  | 40%   |
| 31 or more   | 4  | 30%   |

C. Plant specifications.

1. All plants shall meet the minimum standards for health, form, and root condition as outlined in the AmericanHort's American Standards for Nursery Stock (ASNS), 2014.
2. All plant material shall be hardy within the USDA hardiness zone applicable to Montgomery County, Pennsylvania.
3. The location, dimensions, and spacing of required plantings should be adequate for their proper growth and maintenance taking into account the sizes of such plantings at maturity and their present and future environmental requirements and tolerances including wind,

moisture, and sunlight.

4. Minimum plant size and spacing at the time of planting shall be as shown in Figure 184-55.C. below for each plant type.

| <b>Figure Figure 184-55.C.</b> |  |   |  |
|--------------------------------|--|---|--|
| <b>Plant Type</b>              | <b>Minimum Caliper at Time of Planting</b> | <b>Minimum Height at Time of Planting</b> | <b>Minimum Spacing at Time of Planting</b> |
| Small canopy tree              | 2-2.5 inches                               | --  | 15-20 feet                                 |
| Medium canopy tree             | 2-2.5 inches                               | --  | 20-25 feet                                 |
| Large canopy tree              | 2-2.5 inches                               | 6 feet                                    | 35-40 feet                                 |
| Evergreen tree                 | --   | 6 feet                                    | --   |
| Shrub                          | --   | 18 inches                                 | --   |

D. Planting soil depth, composition, and volume. A registered landscape architect shall provide details on the landscaping plan that shows a longitudinal section and depth of planting areas 1,000 square feet and under in area demonstrating compliance with minimum available soil volume standards herein. The following minimum soil volume per shrub/ tree shall apply when such tree/ shrub is proposed within any planting area that is 1,000 square feet and under in area:

1. Planting soil depth. The minimum depth of the planting soil in any planting area shall be at least 18 inches for shrubs and small canopy trees, and a minimum of 30 inches for medium or large canopy trees.
2. Planting soil composition. Planting soils shall be a loam soil capable of supporting a healthy vegetative cover, which is amended with composted organic material, such as mushroom compost or leaf mulch, resulting in an organic amended soil containing 20% to 30% organic material (compost), and 70% to 80% topsoil screened of rocks, sod, and debris.
3. Minimum soil volume by size of tree.

- a. Small canopy or evergreen tree: 600 cubic feet
- b. Medium canopy tree: 900 cubic feet; 700 cubic feet when clustered in groups of three (3) or more.
- c. Large canopy tree: 1,200 cubic feet; 900 cubic feet when clustered in groups of three (3) or more.

4. Alternative options for constrained planting areas.

a. Structural Soil. Structural soil, composed of 80% AASHTO No. 57 stone and 20% loam soils, may be used to supplement planting soil volume provided that the following conditions are met:

- 1. Structural soils shall be used under impervious paving where the tree planting area is surrounded by paving for the purpose of expanding the soil volume to meet minimum soil volumes specified above.
- 2. Structural soils shall be entirely below pavement areas and shall not be exposed at the surface.
- 3. Structural soils shall be located adjacent to planting soils.

b. Suspended Pavement System. A suspended pavement system may be utilized that supports the weight of the pavement and improves tree health when located in constrained spaces. The support structure creates void spaces under an impervious surface that allows increased soil volume and space for tree roots to grow. The void space shall be filled with a combination of structural soils and native excavated soil, provided that it is quality material.

c. Alternative designs that achieve greater soil volume may be permitted with the approval of the Borough Engineer.

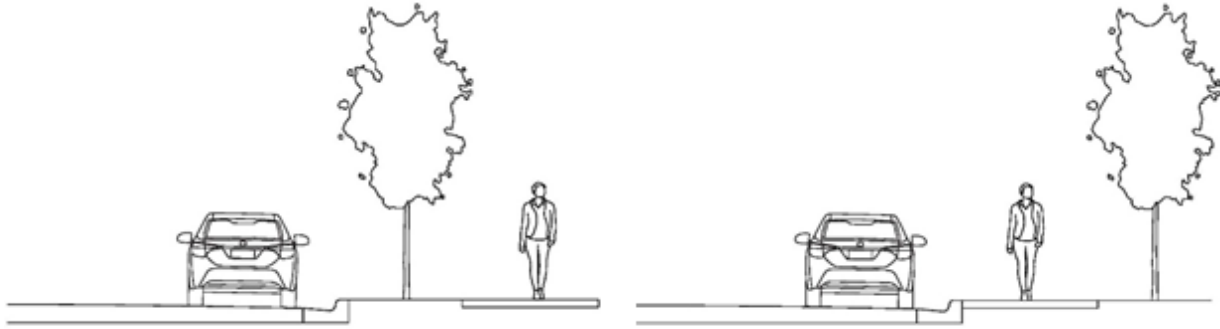
E. Guarantee and maintenance.

- 1. Prior to final approval of the site's landscape plan, the applicant shall provide a financial guarantee for 18 months from the time of installation to provide for proper maintenance of all landscaping on site. The financial guarantee shall be subject to review and approval by the Borough Solicitor.
- 2. The quantity, location, species and size of the trees and shrubs specified on the landscape plan and approved by Borough Council shall be maintained in good condition by the property owner to ensure a safe environment.
- 3. Plantings shall be selected, located, and maintained so that they do not contribute to conditions hazardous to public safety. Such conditions include, but are not limited to: public street rights-of-way, underground and above ground utilities, and sight triangle areas required for unobstructed views at street intersections.

4. Any plant materials that could endanger safety, such as unstable limbs, shall be removed and the plant materials shall be replaced, if necessary.
  5. Maintenance guidelines for the planting should be developed by the planting plan designer to be used by grounds maintenance personnel.
- F. Fee in lieu. In the event that a developer requests a waiver from the landscaping requirements of this Article, any such waiver shall be conditioned upon the payment to the Borough of a fee in lieu of planting such required landscaping in accordance with the following:
1. The applicant shall provide sufficient plans and documentation to establish what landscaping is to be waived and the rationale for requesting such a waiver.
  2. The fee shall be based upon the value of the required landscaping that is to be waived. The calculation of which value shall be performed by the developer and shall be based on the costs of materials, installation and guaranty of the landscaping that is not to be installed. The borough shall reserve the right to verify the estimated fee by consulting the Borough Engineer.
  3. The fee in lieu of the provision of the required landscaping shall be used only for the purpose of providing for the planting of trees and other landscaping in borough parks, Borough Hall or other Borough facilities, or along the streets of the Borough.

**§ 184-56 Canopy and Street Trees.**

- A. Canopy trees shall be required at a rate of one street tree for every 40 linear feet along:
1. Both sides of all existing streets when they abut or lie within the proposed subdivision or land development.
  2. Both sides of all proposed streets, whether public or private.
  3. Both sides of access driveways that serve five or more residential dwelling units.
  4. Both sides of access driveways that serve two or more nonresidential properties or uses.
  5. Walkways through parking lots and between nonresidential buildings.
- B. Street trees shall be planted either between the curb and the sidewalk, or within five feet of the edge of the sidewalk (within a front yard area) if no planting strip is provided.



**Figure 184-56. Street tree between the curb and sidewalk (left) | Street tree within a front yard area (right)**

- C. Tree species shall be selected based on the site conditions at each location, as indicated in **Appendix 1: List of Approved Plants**. Large canopy trees are preferred; however, trees that will be placed under or adjacent to overhead utility lines must be species that are appropriate for such locations.
- D. Planting area specifications.
  - 1. Trees located within the sidewalk shall be planted in tree pits or planting beds with a minimum opening of five feet by five feet (for a total of 25 square feet).
  - 2. Tree pits or planting beds shall either be surfaced with an ADA-compliant surface, or shall be clearly delineated through the use of color, texture, material, or physical separation. Tree grates, pervious paving or interlocking pavers, and/or groundcover plantings shall be provided over any exposed soil/mulch.

**§ 184-57 Landscape Screening Buffers.**

- A. Landscape screening buffers shall be installed in subdivisions and land developments to separate incompatible site elements, facilities, and/or land uses by providing screening to minimize or eliminate views of certain site elements. Landscaping and screening buffers shall be provided when required by this section or by **Chapter 208, Zoning**, and shall meet the following standards:
  - 1. General design standards.
    - a. The minimum width of the required buffer shall be that which is specified in **Chapter 208, Zoning**.
    - b. Required buffer areas may be included within a required setback.
    - c. Stormwater basins are permitted in the buffer area provided that the visual screening requirements of the buffer are met.
    - d. Arrangement of plant materials required below shall have a naturalistic appearance, with

larger trees arranged closer to the boundary line, as space is available.

- e. No structure other than a fence, vehicle parking or storage of materials shall be permitted within required buffer areas. No paving shall be permitted within required buffer areas except for driveways and/or pedestrian pathway crossings.

2. Landscape buffer specifications.

- a. A landscape buffer shall include an adequate number of plants that, at minimum, provide 85% ground coverage within five years and 80% canopy coverage within 10 years.

b. Buffer design options:

- i. Option 1. Two (2) large canopy trees; two (2) medium canopy trees or small canopy trees; 10 evergreen trees; and 10 shrubs shall be provided for every 100 linear feet, or portion thereof.
- ii. Option 2. 20 evergreen trees and 10 additional evergreen trees, small canopy trees, or medium canopy trees shall be provided for every 100 linear feet, or portion thereof.
- iii. Option 3. 15 evergreen trees and 15 small and/or medium canopy shall be provided for every 100 linear feet, or portion thereof.
- iv. Option 4. An alternative planting design that results in an equivalent or greater degree of screening than the options outlined above.

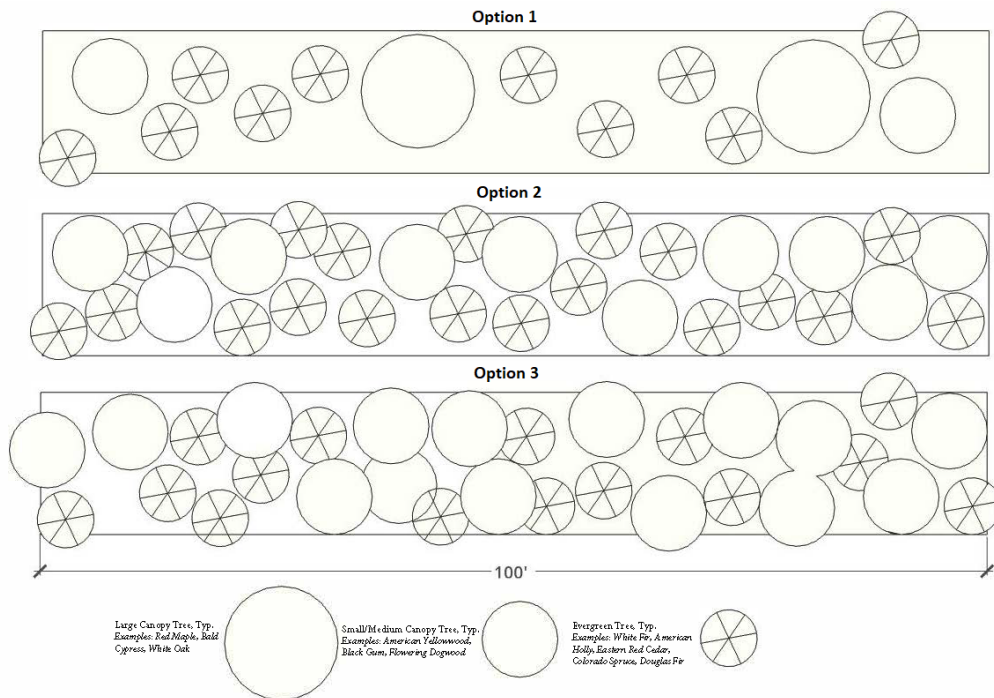


Figure 184-57. Landscape Buffer Options

- c. In addition to the provisions of § 184-54.C, **Credit for Preserved Trees**, other preserved healthy vegetation may be substituted for part or all of the required plant material of this section at the sole discretion of Borough Council, provided such existing vegetation, in its existing location on the site, fulfills the minimum quantities and/or visual effect that is equal to or exceeds that of the required buffer. In order for existing vegetation to qualify, the applicant must demonstrate that adequate protection measures will be taken during construction, particularly in the plant's root zone (see also: § 184-54.D. **Tree protection during construction**).
- d. Architectural elements, such as walls or fencing, may be permitted to augment (but not substitute) part of the landscape buffering requirements. Where a wall or fence is proposed in conjunction with a buffer, the required plantings shall be placed between the wall or fence and the property line or right-of-way.

### **§ 184-58 Landscape Requirements for Stormwater Management Facilities.**

Landscaping shall be required in and around stormwater management facilities in accordance with the following standards:

- A. Trees and shrubs shall be planted in and around stormwater basins, provided that they do not have a negative effect on the hydrological function of the basin and no trees are planted within 30 feet of an outlet/drain structure, emergency spillway, or dam. A minimum of two (2) trees and 10 shrubs per 100 linear feet of basin perimeter shall be planted in and around the basin.
- B. Naturalized ground cover, grasses, sedges, rushes, ferns, or perennials specifically suited for the permanently wet, intermittently wet, and usually dry areas of stormwater basins, shall be planted or seeded in the floors and slopes of the basin and meet the following requirements:
  - 1. The plantings provide a satisfactory continuous cover for all areas of the basin.
  - 2. The plantings do not interfere with the safe and efficient function of the basin as determined by the Borough Engineer.
- C. Landscaping for stormwater management facilities shall also comply with the Pennsylvania Stormwater Best Management Practices Manual (PA DEP).

### **§ 184-59 Landscape Requirements for Areas of Preserved Natural Features.**

Additional vegetation shall be planted in areas of preserved natural features (see § 184-51 **Natural features**) wherever existing trees do not meet the minimum tree planting requirements.

- A. Existing trees within areas of preserved natural features shall be preserved and retained. Existing tree cover should be surveyed and inventoried to assess the need for any new plantings.
- B. Existing tree species that are known to be invasive or noxious shall be removed where conditions warrant.

- C. New trees of varying sizes and species shall be planted at a minimum rate of one tree per 225 square feet when existing conditions are less than the within areas of preserved natural features (see also, § 184-54.C, **Credit for Preserved Trees**). New trees shall be planted in staggered rows or an informal arrangement that mimics a naturalized area.

#### **§ 184-60 Landscape Requirements for Off-Street Parking Facilities.**

Parking lot landscaping shall be provided in accordance with § 208-61, **General standards for parking areas**.

#### **§ 184-61 Additional Planting Requirements.**

Additional landscaping shall be required based upon the proposed land use and the corresponding requirements set forth in this section. The plantings required by this section shall be in addition to plantings required by any other section of this Chapter or **Chapter 208, Zoning**.

- A. All nonresidential and multifamily development shall incorporate the following minimum plant materials in planting areas adjacent to the proposed structure: one (1) large canopy tree, two (2) small or medium canopy trees, and five (5) deciduous or evergreen shrubs shall be planted for every 50 feet of proposed building façade facing a public street, or portion thereof. Required plantings are preferred within view from the public right-of-way, but may be dispersed throughout the site.
- B. Any single-family or two-family dwelling (single-family attached, single-family detached, single-family semi-detached, and two-family detached) shall provide canopy trees on-site as follows:
  - 1. Lots under 5,000 square feet: one (1) canopy trees.
  - 2. Lots 5,000 to 9,999 square feet: two (2) canopy trees.
  - 3. Lots 10,000 square feet or greater: three (3) canopy trees.
  - 4. Preserved trees, pursuant to § 184-54.C, **Credit for Preserved Trees**, may be credited towards meeting the above requirements.

#### **§ 184-62 Topsoil Protection and Site Grading.**

- A. General provision. Grading shall be limited to the minimum amount of disturbance of soil or natural topography.
- B. Topsoil protection. The topsoil that existed naturally on-site prior to subdivision or land development shall be managed in the following way:
  - 1. In areas to be graded, the topsoil shall be stripped off and stockpiled on-site and only in accordance with the erosion and sediment (E&S) control plan.
  - 2. Following construction, the stockpiled soil shall be screened and redistributed uniformly on-site to a minimum depth of eight inches, and suitably stabilized by native vegeta-

tion.

3. Any topsoil in excess of soil needed for the reestablishment of eight inches depth in areas of the site that will not be paved may only be removed from the site provided that written authorization has been obtained from Borough Council. Said soil to be removed shall not be resold, and all attempts shall be made to relocate to a location within the Borough, as specified by Borough Council.
- C. Grading. All permanent and temporary cutting, filling, grading, regrading, and/or other forms of earth-moving activities shall be known as "grading" and shall be conducted only in compliance with the standards as described below.
1. All grading shall be set back from property lines at least three feet, or greater if necessary to prevent any adverse effects on adjacent properties.
  2. No permanent excavation shall be made with a cut face steeper in slope than three horizontal to one vertical. For steeper slopes, a soils report prepared by a qualified engineer or geologist experienced in performing such studies and registered in the Commonwealth of Pennsylvania shall be prepared to document the soil stability.
  3. Wherever grading will increase the volume or velocity of stormwater flow toward a property line, the applicant shall install and maintain drainage facilities sufficient to prevent adverse effects on the adjoining property. The construction and operation of these drainage facilities shall not cause any adverse effects on abutting properties.
  4. Within the property proposed for development or along property lines, where grading creates an abrupt drop-off in contrast to a previously existing gradual change or where a wall is being installed, the applicant shall be required to install a fence or other suitable protective barrier.
  5. A permit shall be required for grading operations. Permits shall be issued by the Zoning Officer upon recommendation of the Borough Engineer for each tract, lot, parcel, or site which comprises a separate operation, unrelated to or not contiguous with nearby grading proposed or performed by the applicant. A permit shall not be required in the following situations, however:
    - a. For an excavation that does not exceed 10 cubic yards total material removed.
    - b. For a fill that does not exceed 10 cubic yards of material deposited.
    - c. For an excavation below finished grade for basements and footings for a single-family detached or two-family dwelling, swimming pool, or underground-structure authorized by building permits, excavation for a driveway for a detached single-family or two-family dwelling, or the regrading of such excavated materials into the site from which they were excavated.

#### **§ 184-63 Erosion and Sediment Control.**

- A. General. Erosion and sediment control must be addressed in the following manner:

1. An erosion and sediment control plan, which meets the requirements of the PADEP's Erosion/Sediment Pollution Control Program (PA Code Chapter 102: Erosion and Sediment Control) must be approved by the Montgomery County Conservation District (MCCD) and available on site for all earth disturbance activities great than or equal to one acre.
2. All construction activities involving earth disturbance greater than or equal to one acre, or an earth disturbance on any portion, part, or during any stage of a larger common plan of development involving earth disturbance greater than or equal to one acre must be authorized by a National Pollutant Discharge Elimination System (NPDES) permit.
3. No subdivision or land development plan shall be approved unless:
  - a. There has been a plan approved by the MCCD and/or Borough Engineer that provides for minimizing erosion and sedimentation consistent with this section, and an improvement bond or other acceptable securities are deposited with the Borough in the form of an escrow guarantee which will insure installation and completion of the required improvements; or
  - b. There has been a determination by the MCCD and/or Borough Engineer that a plan for minimizing erosion and sedimentation is not necessary.
4. Borough Council, in its consideration of any preliminary plan of subdivision and land development, shall condition its approval upon the execution of measures designed to prevent accelerated soil erosion and resulting sedimentation, as required by PADEP. All applicable regulations and permit requirements of PADEP as stipulated in its Soil Erosion and Sedimentation Pollution Control Manual shall be followed for all earth-moving activities.

B. Performance principles.

1. Any appropriate action which minimizes erosion and sedimentation as described in the Pennsylvania Erosion and Sediment Pollution Control Program Manual can be included in the plan. Alternative methods should be discussed with the Borough Engineer prior to the preparation of an erosion and sediment control plan.
2. No unfiltered stormwater coming from an area which has been disturbed shall be permitted onto an adjacent tract or allowed to be discharged into any water body.

C. Responsibility.

1. Whenever sedimentation is caused by stripping vegetation, regrading or other development activity, it shall be the responsibility of the applicant to remove it from all adjoining surfaces, drainage systems and watercourses and to repair any damage at their expense as quickly as possible.
2. It is the responsibility of applicant performing any work or disturbance on or across a stream, watercourse, or swale, or upon the floodplain, to maintain, as nearly as possi-

ble, in its present state the stream, watercourse, swale, floodplain or right-of-way during the activity and to return it to its original or equal condition after such activity is completed. Adjacent to the watercourse, dominant vegetation shall be composed of a variety of native riparian tree and shrub species and appropriate plantings necessary for streambank stabilization. No work shall be performed on or across any stream, watercourse or swale or upon the floodplain without a permit from PADEP.

3. Disturbed areas shall be revegetated and restored using best management practices accepted by PADEP.

#### **§ 184-64 Water Supply.**

- A. Applicants shall provide a safe, reliable, and adequate water supply from public water service to support the intended uses approved as part of a development plan. Applicants shall present evidence to Borough Council that the subdivision or land development is to be supplied by North Wales Water Authority (NWWA).
- B. The design for public water supply facilities shall be in accordance with PADEP Water Supply Manual, the specifications of the utility providing water service, or Article VI-Engineering and Construction Standards.

#### **§ 184-65 Wastewater Disposal.**

- A. All lots created through subdivision or all proposed land developments must have a suitable method for the management of wastewater.
- B. Sanitary sewers must be installed and connected to the NWWA per their specifications and regulations and the regulations of **Chapter 171, Sewers and Sewage Disposal**. New on-site septic disposal systems are not permitted.
- C. When consistent with the Borough's and NWWA's Act 537 Sewage Facilities plan, sanitary sewers, with connection to each building in a subdivision or land development, shall be installed at the expense of the applicant and connected to the sanitary sewer system after the applicant complies fully with any permit or fee requirements established by the NWWA.
- D. Where suitable collection system infrastructure and treatment facilities are not reasonable available with adequate capacity to allow the applicant to connect the proposed lots or land development, the applicant shall petition the owner of the collection system and treatment facility to extend the system or rectify the inadequacies of the treatment facility to enable future connection.
- E. Sewage facilities design. The design and installation of domestic sewage facilities shall be done in accordance with the Pennsylvania Domestic Wastewater Facilities Manual prepared by PADEP and according to the NWWA regulations.

#### **§ 184-66 Solid Waste Management.**

- A. All lots and land developments must contain proper facilities for the management of solid waste, including recycling.

- B. Residential developments with single family homes may manage solid waste through curbside collection service consistent with **Chapter 178, Solid Waste**.
- C. Nonresidential, mixed use, multifamily developments shall have solid waste disposal and storage areas located within a fully enclosed opaque structure. If the area is not enclosed within the principal building, a trash enclosure shall be provided on site.

## Article V. Mobile Home Park Standards

### § 184-67 Applicability.

- A. The provisions of this Article shall be followed in the construction or alteration of all mobile home parks, as defined in §184-7. These provisions are in addition to other applicable regulations of this Ordinance. All applicable regulations contained in **Chapter 208, Zoning**, including but not limited to the use regulations applicable to Mobile Home Parks contained in § 208-16.B(5) shall be met.
- B. Individual mobile homes or manufactured homes, as defined in **Article II, Definitions**, developed as single-family detached homes may be erected anywhere such use is permitted in accordance with **Chapter 208, Zoning**.

### § 184-68 Design Standards.

- A. Pad and anchoring required.
  - 1. Pad required.
    - a. Each mobile home shall be placed upon a concrete pad that is at least equal in length and width to the dimensions of the mobile home to be placed thereon. A concrete mobile home pad shall be properly graded, placed, and compacted so as to be durable and adequate for the support of the maximum anticipated loads during all seasons.
    - b. All mobile homes placed within a mobile home park shall, prior to occupancy or other use, be anchored to their mobile home stands via an anchoring system designed to resist a minimum wind velocity of 90 miles per hour.
  - 2. Skirting required.
    - a. All mobile homes placed within a mobile home park shall, prior to occupancy or other use, have skirts installed for protection of the utility connections.
    - b. Skirts shall be designed to complement the appearance of the home. Skirts shall consist of panels specifically designed for the purpose of screening the underside of the mobile home by forming an extension of the vertical exterior walls of the mobile home and covering the entire distance between the bottom of the exterior walls and the ground elevation below.
  - 3. Removal of hitch and/or wheels.
    - a. The hitch or tow bar attached to a mobile home for transport purposes shall be removed and remain removed from the mobile home when it is placed on its mobile home stand.

b.No mobile home shall permanently rest on the wheels used to transport the unit.

4. Underground utilities required.

a.All electric, natural gas, telephone, cable television, Wi-Fi and any other utility lines shall be placed underground in all mobile home parks and each shall have the necessary shut-off valves and other safety requirements normally associated with safe operations.

b.All utility connections shall be appropriately capped for safety purposes whenever a mobile home stand is not occupied.

B. Arrangement of structures and facilities.

1. The tract, including mobile home stands, patios, other dwellings and structures, and all tract improvements, shall be organized in relation to topography, the shape of the property, and common facilities. Special attention shall be given to new mobile home designs and to common appurtenances that are available.
2. Groups or cluster of units, so placed as to create interior spaces and courtyards, are encouraged to be incorporated whenever feasible.
3. Mobile homes shall be arranged in a variety of orientations so that many units face the street with their long sides rather than their ends, in order to provide variety and interest.

C. Pedestrian circulation.

1. In addition to meeting requirements of **§ 184-41, Sidewalks and Verges**, for sidewalks alongside public and private streets, common driveways, and common parking areas, all mobile home parks shall provide safe, convenient, all-season pedestrian walkways of adequate width for intended use, durable, and convenient by connecting individual mobile homes, common open space areas, recreation areas, all community facilities provided for the residents, and other pedestrian destinations within the mobile home park. These pedestrian walkways may parallel vehicular roadways, where they shall be required on one side, or they may form a separate but coordinated system away from streets.

D. Streets.

1. Construction Standards. Streets within a mobile home park shall be designed in accordance with the standards for a local street, in accordance with applicable standards of this Chapter.
2. Access Limitations. Mobile home lots may have direct access only onto streets internal to the development. Direct access from a mobile home lot shall not be permitted onto public streets surrounding the mobile home park.

- E. Buffers required. A landscape screening buffer with a minimum width of 15 feet shall be provided along all exterior property boundary lines in accordance with **§ 184-57, Landscape Screening Buffers.**
- F. Common open space and recreational land required.
  - a. No less than 25% of this area shall be maintained as open space usable for recreation and leisure activities of residents of the development. One contiguous area is preferred; however, an applicant may propose multiple areas provided that the overall requirement is met.
  - b. Recreation land required by this section shall meet the standards of **§ 184-49.D.**
  - c. Recreation areas should be of a size, shape, and topography that is conducive to active and passive recreation that meet the needs of residents of the mobile home park.
  - d. No more than 25% of a required common open space and recreation area may contain required buffer area(s).

#### **§ 184-69 Ownership and Maintenance of Common Elements.**

- A. Ownership. Common open space and roadways shall be offered for dedication to the Borough or open for public use through easements or other appropriate means in any mobile home park where all lots will be sold individually. In all other cases, these and other common elements may be retained by a Homeowners' Association or similar entity.
- B. Maintenance. Prior to development plan approval, provisions acceptable to Borough Council and the Borough Solicitor for the maintenance of all common elements which will not be owned and maintained by a governmental agency shall be established.

#### **§ 184-70 Permits, Fees, and Inspections.**

- A. Permits required.
  - 1. Lots for sale. In those mobile home parks wherein some or all of the mobile home lots will be sold individually (whether totally fee simple, fee simple with a homeowners association, condominium, or cooperative), no lot to be conveyed shall be developed or a mobile home or other structure placed or constructed thereon until the subdivision and/or land development plan has been properly approved and the proper building and construction permits have been issued to the lot in accordance with standard procedures for any building activity in the Borough. No mobile home or other structure shall be occupied until a valid occupancy permit has been issued by the Borough.
  - 2. Lots for lease. In those mobile home parks wherein some or all of the mobile home lots will be leased, the following regulations shall apply to the entire development exclusive of the lots being sold individually: a. Initial Permits. It shall be unlawful for any person or group to construct, alter, extend, or operate a mobile home park unless and until that person or group obtains:

- i. Valid permit(s) authorizing construction or initial occupancy issued by the Borough in the name of the operator.
  - ii. All permits for water supply and sewage systems.
  - iii. Compliance with all other requirements contained herein.
  - iv. Final approval of the application by Borough Council
3. Annual licensure. In addition to the initial permits, the operator of a mobile home park with lots for lease shall apply to the Borough for an annual license to continue operation of the mobile home park. The Borough shall issue the annual license upon satisfactory proof that the mobile home park continues to meet the standards prescribed by the state agencies having jurisdiction and the standards of this Article and other applicable ordinances. The license so issued shall be valid for one year from the date of issuance.

B. Fees.

1. Fees for the initial application and preliminary and final approvals of any mobile home park shall be set by Borough Council.
2. The fee for the annual license required for mobile home parks having lots for lease shall be prescribed by regulations of Borough Council and shall be submitted to the Borough with the application for an annual license.

C. Inspection.

1. The applicant or developer shall inform the Borough when mobile homes are connected to water supply, sewer, and electrical service to schedule inspection of these connections and to determine that the mobile home is anchored and located in accordance with this Article. The Borough will not inspect the mobile home unit but shall determine if it bears a label indicating that it complies with the appropriate federal safety standards stipulated by the US Department of Housing and Urban Development and Pennsylvania regulations issued under the "Manufactured Housing Construction and Safety Act."
2. Upon receipt of the application for an annual license, and before issuing such annual license, the Borough shall make an inspection of the mobile home park to determine compliance with this Article and other applicable regulations or ordinances. The Borough shall thereafter notify the licensee of any instances of non-compliance and shall not issue the annual license until the licensee has corrected all such violations.

## Article VI. Engineering Standards

### § 184-71 Purpose and Contents.

This article contains the construction and engineering standards for required improvements, survey detail, utilities, grading and erosion control, utility location, easements and right-of-ways, curbing, roadways, emergency accessways, driveways, sidewalks, crosswalks, pathways and trails, bicycle facilities, bridges and culverts, stormwater management controls, plant materials, water supply, wastewater disposal, solid waste storage, and outdoor lighting.

### § 184-72 Survey Monuments.

- A. Permanent monuments shall be indicated on the record plan. All monuments shall be constructed of precast concrete or durable stone with metal insert(s), and be four inches square with at least 20 inches extending below ground level, or an alternate design approved by the Borough Council. Street right-of-way reference monuments shall be located on the right-of-way lines at corners, angle points, beginning and end of curves, and as otherwise required by the Borough Engineer for all new and existing streets. They shall be placed after a new street and/or lot grading has been completed. The center line of all new streets shall be marked with spikes (P.K. nails) and referenced to permanent monuments or structures. Certified copies of this reference information shall be provided to the Borough Engineer. When final lot grading has been completed and before the issuance of occupancy permits, permanent monuments shall be set by the applicant at all lot corners and angle points, and at all street intersections and intermediate points as may be required.
- B. Lot pin requirements. All lots upon which construction is planned shall be temporarily staked or pinned, or permanently monumented and certified to such by a registered surveyor for the owner, applicant, builder, or developer, before issuance of a building permit. A signed certificate of compliance must be submitted with a building permit application. Temporary stakes or pins with a surveyor's ribbon attached may be acceptable on existing lots where construction of an accessory building or an addition to the primary structure is proposed, only if construction is begun within 30 days of the certificate of compliance date. Temporary stakes or pins shall remain in place until witnessed and accepted by the Borough Building Inspector. Prior to final approval of a new subdivision plan, all new lot corner markers shall be marked with a minimum 5/8 inch diameter metal pin extending at least 24 inches into the ground and at least one inch revealed above the ground surface, or an equivalent metal marker, approved by the Borough Engineer. Upon completion of construction and final grading, pins shall be replaced with permanent monuments as described in § 184-72.A.
- C. Original monuments. In situations where they may be of legal or historical importance, the original monuments and marks must not be destroyed, defaced, hidden, or possibly confused by creating new monuments and marks unless absolutely necessary, e.g. the originals are decayed, destroyed, or unsafe. In some cases, to be determined by the Borough Engineer, new monuments should be set as a reference or witness to the original monument to avoid disturbing the original. When in the opinion of the Borough Engineer, the angle point falls in a location that is not appropriate to set a concrete monument, a written request for a waiver shall be submitted for consideration by the Borough Council.
- D. Datum. The North Wales Borough datum is based on PA State Plane Coordinate South System (horizontal) and NAVD 1988 (vertical). All contours and elevations shown on

the plan must be based on this system or conversion provided to reference these systems.

**§ 184-73 Utility Locations, Easements, and Rights-of-Way.**

Widths and locations of easements and rights-of-way shall be determined by the Borough Engineer or the appropriate authority or utility company for all utilities, including stormwater facilities. The location and design of the utilities shall be governed by the requirements herein.

- A. General standards.
  - 1. Easements and required front, side or rear yards may occupy the same land as utilities.
  - 2. Nothing shall be permitted to be placed, planted, set or put within the areas of an easement unless it is a portable or removable object. The area shall be kept as lawn.
  - 3. The owner of any lot, upon written request by the Borough and at the owner's sole expense, shall remove anything placed, planted, set or put, (with or without knowledge of these regulations) within the area of any easement.
  - 4. To the fullest extent possible, easements shall be adjacent to rear or side lot lines, and occupying only a portion of one lot (not centered on two lots)
- B. No right-of-way or easement for any purpose whatsoever shall be recited or described in any deed unless the same has been shown on the approved plan. Any error found in a deed shall be immediately corrected and re-recorded in the Office of the Recorder of Deeds for Montgomery County at Norristown, Pennsylvania, at the sole expense of the applicant.
- C. Utility easements. A minimum width of 20 feet shall be provided for common utilities and drainage facilities when provided in undedicated land for one use. Multiple utility uses within one easement require additional easement width.
- D. Public utilities. All water, sewer, and gas mains and other underground facilities shall be installed prior to street paving at locations approved by the Borough Engineer.
- E. Underground utilities. All water, sewer, and gas mains shall be installed underground. All electric, telephone and communication services, both main and service lines, shall be provided by underground cables, installed in accordance with the prevailing standards and practices of the utility or other companies providing such services, except where it is demonstrated to the satisfaction of the Borough Council that underground installations herein required are not feasible because of physical conditions of the lands involved. All main underground cables which are within the right-of-way of a street shall be located as specified by the utility company, subject to approval by the Borough Council, upon recommendation of the Borough Engineer.
  - 1. In order to promote and facilitate the underground installation of utility distribution lines, a letter of endorsement shall be required from the suppliers of utility service (not limited to electrical, telephone, or cable television) of the developer's choice wherein the applicant acknowledges that underground utilities are feasible and shall be consummated as part of the improvement plan.
  - 2. A statement relative to the intent of the developer to provide underground utility service shall be placed on the final plan requisite to final approval of the plan.

3. The provisions in this ordinance shall not be construed as to limit or interfere with the construction, installation, operation, and maintenance of public utility structures or facilities which may hereafter be located within public easements or rights-of-way designated for such purposes.
4. Light standards are to be placed as required by ordinance. Power source for such standards shall be placed underground as required.
5. For arterial and collector roads, all new electrical service should be placed underground.

#### **§ 184-74 Curb Construction.**

- A. Curb construction. All curbing shall be constructed both as to materials and methods, generally in conformance with applicable portions of **PennDOT Specifications Publication 408** (2020 edition/latest change). Curbs shall be vertical profile with a minimum of eighteen-inch structure height, with a six-inch reveal. Expansion joints shall be placed every 30 feet, at structures and at the end of the day's work. Contraction joints shall be saw cut every 10 feet at a minimum of two inches. Concrete shall be Class A Cement Concrete (Section 704). Intersections where sidewalks are to be provided at some point in the future shall have depressions for wheel chair use at each corner and opposite each corner on "T" intersections.

#### **§ 184-75 Asphalt Roadway Improvements.**

- A. All adjacent structures and areas disturbed or damaged during construction shall be properly repaired, restored, or replaced to the satisfaction of North Wales Borough Council by the party causing the damage.
- B. All trees, roots, stumps, brush, down timber, wood, rubbish and any objectionable material shall be removed from the full legal right-of-way, or as approved by the North Wales Borough Engineer. Efforts shall be made during construction of roadways to preserve any vegetation, specifically for preservation as identified in the landscaping plan.
- C. Paving. The pavement of all streets and all commercial, industrial, and multifamily parking areas and driveways into and out of parking areas shall be installed as shown on the final plan and in accordance with the following standards:
  1. General. All paving shall be constructed both as to materials and methods, generally in conformance with applicable portions of PennDOT **Publication 408** (2020 edition/latest change) for Use Performance Grade (PG), 64S-22.
  2. Pavement design shall be in accordance with **Chapter 9 - Full Depth Flexible Pavement Design** of PennDOT **Publication 242** (2015 or latest edition). Pavement construction shall conform to the minimum standards for different types of streets and parking areas as indicated in **Table 184-75**.
  3. Paving cross section. All pavements, except where super elevated for curves, shall conform with typical roadway cross sections as indicated in **Figure 184-75**.
  4. Alternative paving. Alternative paving specifications may be approved for roads, driveways, and parking lots not intended for dedication to the Borough, in commercial, industrial, multifamily and mobile home park areas.

5. Aggregates, coarse and fine, for binder course shall be made from stone, gravel, or other recycled aggregate or glass, and shall meet the quality requirements for Type A stone and Type A gravel. Fine aggregate shall be natural sand, manufactured sand or fine recycled glass cullet composed of free hard, durable, uncoated particles and free of from lumps of clay and organic material. Fine sand shall meet the gradation requirements in **Table A, Section 703**, of PennDOT **Publication 408** (2020 edition/latest change). The coarse aggregates shall meet the grading requirements indicated above.
6. Pavement cross slopes. The typical pavement cross slope on proposed streets shall be 2% and 3% for roadway longitudinal slopes of less than 0.50%. The typical slope of the shoulder areas shall not be less than 3/4 inch per foot and not more than one inch per foot.

**Table 184-75. Asphalt Roadway Construction.**

|   | <b>Local Road</b> | <b>Arterial or Collector Road</b> |
|---|-------------------|-----------------------------------|
| Superpave 9.5 mm surface course         | 1.5 inches        | 1.5 inches                        |
| Superpave 19 mm binder course           | 2 inches          | 2.5 inches                        |
| Superpave 25 mm base course             | 4 inches          | 5 inches                          |
| PennDOT No. 2A coarse aggregate subbase | 6 inches          | 6 inches                          |

**NOTES:**

1. All thickness specifications are for compacted materials.
2. Permanent cul-de-sac street, marginal access street, service street, and off-street parking construction shall conform to standards for local roads.
3. All base courses and/or binder course shall be overlaid with a wearing course no later than one year after installation unless approved otherwise. Binder course to be installed immediately following base course installation.
4. Parking construction shall conform to standards for local roads.

**§ 184-76 Street Names and Street Signs.**

- A. Street names. Street names shall be determined in consultation with the Borough. Street names should bear a reasonable relationship to significant natural features or the history of the community. Efforts should be made to reduce the occurrence of similar names or similar sounding names within the Borough or postal delivery area.
- B. Street signs. The developer shall erect a street sign or street signs at every intersection. At intersections where streets cross, there shall be at least two such street signs and at the intersections where one street ends or joins another street, there shall be at least one sign. Street signs shall be erected when the first dwelling on the street is occupied or when streets are paved with their base course, whichever comes first. Temporary street signs may be erected with the permission of the Borough Council. Any temporary signs will be replaced prior to roadway dedication.

**§ 184-77 Emergency Access.**

- A. Minimum cartway width for the emergency access shall be 12 feet.
- B. When paved, pavement shall conform to § 184-75.C.
- C. The emergency access cartway may be constructed of an alternative material if the applicant can demonstrate to the satisfaction of the Fire Marshal and Borough Engineer that the weight of all necessary emergency response vehicles can be safely supported throughout the entire length of the cartway. Examples of acceptable materials include:
  - 1. Crushed stone;
  - 2. Fiber reinforced polyethylene; or
  - 3. Concrete grass pavers with all void areas filled with topsoil and seeded with an appropriate grass mix.

#### § 184-78 Driveways.

- A. Driveway materials. All driveway construction materials, including those parts of driveways used as parking, shall only consist of concrete, pervious concrete, concrete wheel-strips with grass, asphalt, or pavers, and not of gravel or grass.
- B. Residential driveways. Residential driveways shall adhere to the following specifications.
  - 1. Concrete: 4 inches thick over 6 inches of aggregate in accordance with *Section 676*, PennDOT *Publication 408* (2020 edition/latest change).
  - 2. Driveway apron: a minimum of six (6) inches thick over six (6) inches of aggregate.
  - 3. Driveway pavement: 1.5 inches of 9.5 mm Superpave Asphalt Mixture Design (SAMD) wearing course over 4 inches of 25 mm SAMD base course over 6 inches of subbase (# 2A) in accordance with *Section 300* and *400*, PennDOT *Publication 408* (2020 edition/latest change).
  - 4. The maximum width at the cartway: 14 feet; provided, however, that for driveways serving two or more dwelling units, the maximum width may be increased to 20 feet in width at the cartway.
  - 5. The portion of the sidewalk which crosses the driveway apron must meet with thickness requirements above and have a maximum cross slope of 2%.
  - 6. Minimum distance from a property line to the closest edge of the driveway, unless a greater distance is required by **Chapter 208, Zoning**: two feet for single-family attached units, five feet for single-family detached units, and 10 feet for all other uses.
- C. Nonresidential driveways. Nonresidential driveways shall adhere to the following specifications:
  - 1. Concrete: 4 inches thick over 6 inches of aggregate in accordance with *Section 676*, PennDOT *Publication 408* (2020 edition/latest change).
  - 2. Driveway apron: a minimum of six (6) inches thick over six (6) inches of aggregate.
  - 3. Driveway pavement: 1.5 inches of 9.5 mm Superpave Asphalt Mixture Design (SAMD) wearing course over 2.5 inches of 19 mm SAMD binder course over 6

inches of 25 mm SAMD base course over 6 inches of subbase (# 2A) in accordance with **Section 300 and 400**, PennDOT **Publication 408** (2020 edition/latest change).

4. The driveway apron shall be installed in a fashion that provides the minimum slope. Where a proposed slope exceeds 8%, the proposed slope angle (i.e., percentage) shall be listed on the permit application and must be approved by the Borough Engineer.
  5. The portion of the sidewalk which crosses the driveway apron must meet with thickness requirements above and have a maximum cross slope of 2%.
  6. Minimum distance from the closest edge of a driveway apron to a point of intersection of two street center lines: 75 feet.
  7. Minimum distance between the closest edges of two driveway aprons on a single property: 100 feet.
- D. Curb depressions. The curb reveal adjacent to a nonresidential or residential driveway apron at the gutter line shall not exceed 1 1/2 inches.
- E. Maximum grades for driveways. No driveway shall exceed 10% grade.
- F. All driveways shall be provided with a stopping area within which the grade shall not exceed 4%. The stopping area shall be measured as follows:
1. The length of stopping area shall be a minimum of 20 feet, or the length of the longest vehicles anticipated to use the driveway, whichever is greater.
  2. Stopping areas shall be measured from the cartway line for all streets.
- G. Maximum grade requirements shall not be waived unless extremely difficult circumstances exist and cannot be mitigated by alternative locations, designs, or lotting, in which case a safe, practical alternative may be permitted by the Borough Council, upon recommendation of the Borough Engineer.
- H. Markings or the appropriate form of identification shall be placed at the entrance to the emergency access way. If necessary, breakaway bollards shall be installed at each end of the emergency access way.
- I. Emergency access ways shall be maintained through properly recorded easements or deed restrictions which at a minimum prohibit the planting of any vegetation except grass within the access way and a buffer area of five feet on either side.

#### **§ 184-79 Concrete Sidewalk Improvements.**

- A. Sidewalk construction shall conform to standards developed under the Americans with Disabilities Act.
- B. Sidewalks shall consist of concrete four (4) inches thick over six (6) inches of aggregate in accordance with **Section 676**, PennDOT **Publication 408** (2020 edition/latest change).
- C. The sidewalk shall be built as to discharge drainage to the street, the grade of which shall be 1/4 inch per foot. The finished grade between the outside of the sidewalk to the curbline (edge of the cartway) shall never exceed a total vertical elevation change of one foot. Expansion joints shall be placed every 30 feet, with contraction joints every five feet at a minimum of one inch in depth. Additional expansion materials shall be placed between any curb and driveway apron and in the sidewalk at driveway limits. A contraction joint shall be

cut between the sidewalk and apron.

- D. All sidewalks shall receive a broom finish unless otherwise approved by the Borough Engineer.
- E. An access ramp for physically disabled persons shall be placed at all sidewalk intersections with roads, and such curb ramps shall be compliant to the U.S. Access Board publication *Public Rights-of-Way Accessibility Guidelines* (2023), and designed to promote roadway drainage.

#### § 184-80 Crosswalks.

- A. Marked crosswalks shall be provided in cartways where sidewalks intersect with roads.
- B. Raised speed table crosswalks shall be three inches or less in height, extend 22 feet or the width of the cartway in length, and shall have a flat surface striped for a crosswalk 10 feet in width.

#### § 184-81 Pathways and Trails.

- A. Asphalt trails shall be developed in accordance with the following standards:
  - 1. Pathways that are planned to be less than one mile shall be a minimum of six feet wide and shall consist of 1.5 inches of 9.5 mm SAMD wearing course over 3 inches of 25 mm SAMD base course over 4 inches of PennDOT 2A stone in accordance with *Section 300* and *400*, of PennDOT *Publication 408* (2020 edition/latest change). Minimum cleared shoulder width shall be two feet.
  - 2. Shared use trails that are designed for bicycle or pedestrian transportation or recreation that are intended to eventually be at least one mile in length shall be 10 feet wide and shall consist of 1.5 inches of 9.5 mm SAMD wearing course over 3 inches of 25 mm SAMD base course over 4 inches of PennDOT 2A stone in accordance with *Section 300* and *400*, of PennDOT *Publication 408* (2020 edition/latest change). Minimum cleared shoulder width shall be five feet.
  - 3. Where the edge of the trail is above the surrounding grade, bituminous pavement shall be feathered.
- B. Crushed stone trails shall be developed with the following standards:
  - 1. The base course shall be comprised of four inches of 2A stone over geotextile, Class 4, Type A in accordance with *Section 212* of PennDOT *Publication 408* (2020 edition/latest change).
  - 2. The wearing surface shall be a two-inch mixture of quarry fines and clay material laid flat and rolled.
  - 3. Generally vertical slopes shall be less than 5%.
- C. The vertical clearance above the trail shall be maintained at a minimum ten-foot height.
- D. The trail shall be laid out in such a manner that trail users are visible to other trail users and vehicles on intersecting roads. Sharp curves and excessive grade change shall also be avoided.

#### § 184-82 Bicycle Parking.

- A. Bicycle parking facilities for nonresidential structures should include a secure device to which the bicycle frame and one wheel of the bicycle can be attached with a cable or locking device. The

device should be suitable to keep bicycles erect when they are locked to it.

- B. Bicycle parking design and location shall be in conformance with the AASHTO publication *Guide for the Development of Bicycle Facilities, Fifth Edition (2024)* and the Federal Highway Administration publication *Bikeway Selection Guide* (2019 edition).

#### § 184-83 Bridges and Culverts.

- A. Bridges and culverts shall be designed to meet current Pennsylvania Department of Transportation standards to support expected loads and to pass design stormwater flows. They shall be constructed to the full width of the planned cartway. Allowance for sidewalks must also be made, if required by the Borough.
- B. Where county-owned roads or bridges are involved, the County Engineer shall review and approve all proposals.
- C. A permit from the Pennsylvania Department of Environmental Protection shall be obtained to make any change in or addition to, any existing water obstruction, or in any manner change or diminish the course, current, or cross-section of any stream or body of water.
- D. Drawings to include location plan; cross section of present bridge if one exists; profile of stream for a reasonable distance above and below bridge site, showing slopes of bed, normal water surface and floodwater surface. If the bridge is on a skew, give the angle of the center line of the bridge with the direction of the line of flow. In addition, the following information is required for new bridge construction: the total drainage area above the bridge site; description of watershed; length of stream from source to bridge site and to the mouth; character of stream bed and banks; extent and depth of overflow during floods; effect of previous floods upon bridges, their span and clearance; whether bridge will be within backwater influence of parent stream.
- E. Bridge and culvert design. Any proposed bridge or culvert within or spanning a perennial or intermittent stream shall be designed in accordance with the following principals.
  - 1. All bridges, culverts, and drainage channels shall be designed to convey a flow rate equal to a 100-year, twenty-four-hour storm as defined by the **U.S. Department of Agriculture, Natural Resource Conservation Service (previously SCS), Technical Release No. 55**. All bridges and culverts shall be designed to convey the 100-year design storm without increasing the extent and depth of the 100-year floodplain.
  - 2. Bridges and culverts shall be designed with an open bottom to maintain natural sediment transport and bed roughness, avoiding acceleration of water velocity above the natural (preexisting) condition. Rock (rip rap) lining (native material if possible) shall be installed within a culvert as needed to prevent erosion within the structure. Approximate top of rock lining must be at the level of the existing stream bottom so as to maintain normal water level and unimpeded movement of native animal species.
  - 3. All bridges and/or culverts designed to carry a public or private roadway over an existing watercourse shall be designed with a minimum of 24 inches of freeboard between the 100-year floodplain elevation and the roadway surface (center line elevation). Where existing bridges and/or culverts are being replaced every effort shall be made to achieve this design goal with the new construction. In no instance shall the new construction lessen the existing freeboard.

#### § 184-84 Drainage and Stormwater Management.

- A. Stormwater management systems shall be constructed and installed in accordance with the requirements set forth in **Chapter 180, Stormwater Management**.

B. All storm drains and drainage facilities such as gutters, catch basins, bridges, inlets, pipes and culverts shall be installed and the land graded for adequate drainage as shown on the grading plan submitted and approved with the final plan. Design of these facilities shall be in accordance with PennDOT **Publication 584, Drainage Manual** (March 2015/latest change). Construction of these facilities shall conform to all applicable sections of PennDOT **Publication 408** (2020 edition/latest change).

1. Location.

- a. Existing storm sewer accessibility. Where existing storm sewers are reasonably accessible and of adequate capacity, subdivisions and land developments may connect to the existing storm sewers.
- b. Drainage easements. Storm sewers located within roadway right-of-way shall be designed to be parallel with the roadway to the greatest extent possible. When located in undedicated land, they shall be placed within an easement not less than 20 feet wide, as approved by the Borough Engineer.
- c. Location within Borough right-of-way. Storm sewer pipes within roadway right-of-way shall be placed at locations acceptable to the Borough. They shall be protected by a cover of at least 18 inches from surface grade, and at least 18 inches from any crossing utility, as approved by the utility. Storm sewer pipes shall be six (6) inches below the pavement subbase.
- d. Location within state rights-of-way. Storm sewer systems that are to be located within state rights-of-way shall be approved by PennDOT by obtaining a highway occupancy permit prior to final plan approval.

2. Size and grade. Storm sewers shall be adequate for the anticipated runoff when the area is fully developed as permitted by zoning, and capable of carrying a ten-year design storm. They shall have a minimum internal diameter of 15 inches and a minimum grade of 1/2% unless otherwise approved by the Borough Engineer. Maximum internal pipe diameter shall be 60 inches. Special box culverts or open channels shall be used when a sixty-inch pipe is not capable of carrying the design storm.

a. Storm drainage pipe materials. All storm drainage pipes up to but not including 42 inches in equivalent diameter shall be constructed of the following materials and in accordance with **Section 601** of PennDOT **Publication 408** (2020 edition/latest change):

- 1) Round and Elliptical Reinforced Concrete Pipe.
- 2) Thermoplastic Pipes including polyethylene and high-density polyethylene (HDPE).

b. All storm drainage pipe and/or culverts 42 inches in equivalent diameter and above shall be constructed of either of the following materials and in accordance with **Section 601** of PennDOT **Publication 408** (2020 edition/latest change):

- 1) Round and Elliptical Reinforced Concrete Pipe.
- 2) Thermoplastic Pipes including polyethylene and high-density polyethylene (HDPE).
- 3) Precasted reinforced concrete box sections in accordance with AASHTO M259 and **Section 1085** of PennDOT **Publication 408** (2020 edition/latest change).

3. Manholes. Manholes shall be constructed at all changes in horizontal or vertical alignment; spaced not more than 300 feet apart on pipe of 24 inches internal diameter or less, and not more than 450 feet apart where larger sizes are installed. Inlets may be substituted for manholes where they will serve a useful purpose. Manhole frames and covers shall be good quality cast iron; covers shall be marked "STORM" and have a minimum weight of 220 pounds. Manhole structures shall be in accordance with *Section 605* of PennDOT *Publication 408* (2020 edition/latest change).
  4. Inlets. Inlet spacing shall be so arranged that 95% of the gutter flow will be captured. No inlet smaller than PennDOT Type 4 Foot Special Inlet shall be used. Double four-foot or six-foot inlets separated by 20 linear feet of pipe shall be required if adequate efficiency is not realized with the PennDOT Type four foot special inlet. Inlets at street intersections shall be placed on the tangent and not on the curved portions. The gutter adjacent to and immediately upgrade from the inlet shall be so warped as to direct the water into the inlet. Inlets shall have a metal marking with the message: "Don't dump, drains to the river." Inlet structures shall be in accordance with *Section 605* of PennDOT *Publication 408*, (2020 edition/latest change).
  5. Castings. Manhole and inlet castings, together with their covers or gratings shall conform to PennDOT or Borough standards, as may be in effect at the time the design of the sewer is submitted. Castings should indicate "storm."
  6. Unnatural drainage. Wherever construction stops or concentrates the natural flow of storm drainage in such a way to affect adjoining properties, approval of the owners shall be obtained in writing and a copy filed with the Borough. Approval of plans by the Borough does not authorize or sanction drainage affecting adjoining properties.
  7. Drainage from non-natural sources. Water originating from other than natural sources, such as air conditioning units, sump pumps, or other dry weather flow, wherever practicable, shall be discharged into natural watercourses on the property. The discharge of water under the sidewalk through the curb into the gutter, is prohibited.
  8. Design criteria.
    - a. Permissible channel velocities, slopes, and cover shall be in accordance with the PennDOT *Publication 584, Drainage Manual* (March 2015 edition/latest change) and *PA Code, Title 25, Chapter 102: Erosion and Sediment Control*.
    - b. Existing stream channels shall be maintained in their natural state. Only under unusual circumstances will a developer be permitted to line, straighten, or relocate an existing stream, with approval of the PADEP and the Montgomery County Conservation District.
    - c. Acceptable energy dissipation devices shall be installed to bring discharge velocities down to limits specified in the FHWA HEC 14, *Hydraulic Design of Energy Dissipators for Culverts and Channels* and *PA Code, Title 25, Chapter 102: Erosion and Sediment Control*. Rip rap, natural stabilization structures, and/or gabions may be required by the Borough Engineer where erosion potential is great.
- C. Landscape requirements for stormwater management facilities. Stormwater management facilities shall comply with **§ 184-58, Landscape requirements for stormwater management facilities.**

## **§ 184-85 Water Supply.**

- A. Public water service, community water system service shall be installed for each inhabitable building.

- B. Public water supply facilities design. The design for public water supply facilities shall be in accordance with **PA DEP Water Supply Manual (effective May 6, 2006)**, the specifications of the utility providing water service, or **Article VI, Engineering and Construction Standards**.
- C. Fire hydrants shall be connected to the public water system and located at accessible points within the public right-of-way. The North Wales Water Authority, the Borough Engineer, and/or the Borough Fire Marshal may compel the applicant to install fire hydrants if they deem it prudent for the health and safety of the residents. Hydrants shall be located as recommended by the North Wales Water Authority, the Borough Engineer and the Borough Fire Marshal. As a general rule, hydrants should be located at each street intersection and at intermediate points as recommended by the Fire Marshal. Generally, hydrant spacing may range from 350 to 600 feet depending upon the area being serviced. The type and methods of construction to be employed in the installation of fire hydrants shall be in accordance with current state and local regulations.

#### **§ 184-86 Domestic Wastewater Facilities.**

- A. Sewage facilities design. The design and installation of domestic sewage facilities shall be done in accordance with the **Pennsylvania Domestic Wastewater Facilities Manual (effective October 1, 1997)** prepared by the Pennsylvania Department of Environmental Protection.
- B. Sewage collection system. All elements of the sewage facilities collection system including but not limited to laterals, sewer mains, manholes, force mains, and pump stations shall be designed in accordance with the requirements of the North Wales Water Authority and the regulations in **Chapter 171, Sewers and Sewage Disposal**.

#### **§ 184-87 Solid Waste Storage Facilities.**

- A. All refuse collection equipment shall be placed within enclosures that comply with the use standards for a refuse collection facility, pursuant to **§ 208-16.A.10**.
- B. Such facilities shall be completely enclosed by either walls or opaque fencing at least six feet in height with self-closing and self-latching gates. No chain-link fences or cinder block shall be used for such enclosures. Enclosures should be made of durable material including brick, stone, cement, concrete, or PVC vinyl fencing with the exception of the entry gates, provided the gates are opaque as well.
- C. The entrance to the enclosure shall be at least 10 feet wide to accommodate front loading trucks. Gates placed on the entrance should be durable and equipped with piston type bolts to secure gates in both a closed and open position.
- D. The refuse storage areas shall be placed on a concrete pad. The dimensions of the pad are dependent on the number and size of proposed containers. The pad should extend six feet to 10 feet in front of where the proposed container is to be placed to support the front wheels of the trash truck servicing the site. The area above the container should be free of obstructions for at least fifteen-foot clearance above the storage area.

#### **§ 184-88 Outdoor Lighting.**

- A. Purpose and Intent. The purpose of this Section is to regulate the placement, orientation, distribution patterns, and fixture types of exterior lighting. Furthermore it is the intent of this Section to:

1. Provide for and control lighting in outdoor public spaces where public health, safety, and welfare are potential concerns.
2. Protect drivers and pedestrians from the glare of non-vehicular light sources that shine into their eyes and thereby impair safe traverse.
3. Protect neighbors from nuisance glare and stray light from poorly aimed, placed, applied, maintained or shielded light sources.
4. Protect and retain the intended character of North Wales Borough.
5. Minimize or eliminate wasted and excessive outdoor lighting to promote energy efficiency and protect the environment.

**B. Applicability.**

1. This Section applies to all uses where there is exterior lighting, including, but not limited to, residential, commercial, office, industrial, institutional, recreational, and institutional uses, and sign, architectural and landscape lighting.
2. Temporary seasonal decorative lighting is exempt from all but the glare-control and lighting intensity requirements of this Section.
3. Emergency lighting, as may be required by any public agency while engaged in the performance of its duties, is exempt from the requirements of this Section.
4. Exterior lighting shall be required for safety and personal security for uses that operate during hours of darkness where there is a public assembly and traverse, including but not limited to the following uses: multifamily residential, commercial, office, industrial, public-recreational, and institutional.
5. Borough Council may require that lighting be incorporated for other uses or locations, as it deems necessary.
6. The glare control requirements herein contained apply to lighting in all above-mentioned uses as well as, but not limited to, sign, architectural, landscape, and residential lighting.

**C. Criteria.**

1. **Illumination Levels.** Lighting, where required by this Section, shall have intensities and uniformity ratios that comply with **Table 184-87**.

| <b>Table 184-87</b>                 |                                      |                             |
|-------------------------------------|--------------------------------------|-----------------------------|
| <b>Area or Land Use</b>             | <b>Illuminance<br/>(footcandles)</b> | <b>Uniformity<br/>Ratio</b> |
| Commercial and Nonresidential Roads | 1.1 avg                              | 6 avg/min                   |
| Local and Residential Roads         | 0.5 avg                              | 6 avg/min                   |
| Sidewalk                            | 0.5 avg                              | 5 avg/min                   |
| Parking Lots and Drive Aisles       | 0.2 min                              | 20 max/min                  |
| ATM/Transaction Areas               | 2 min                                | 4 avg/min                   |

|   |         |           |
|---|---------|-----------|
| Gas Station Canopy - No Ambient Lighting        | 4 avg   | 4 avg/min |
| Gas Station Canopy - High Ambient Lighting      | 15 max  | 2 max/min |
| Car Dealer and Outdoor Sales - Front Row        | 15 max  | 5 max/min |
| Car Dealer and Outdoor Sales - Other sale areas | 10 max  | 5 max/min |
| Building Entrances                              | 2 avg   | 5 avg/min |
| General Walkways and Bikeways                   | 0.5 avg | 5 avg/min |
| Stairs and Ramps                                | 2 avg   | 5 avg/min |

2. Lighting Fixture Design.

- a. Fixtures shall be of a type and design appropriate to the lighting application, and aesthetically acceptable to Borough Council based on the recommendation of the Planning Commission and Borough Engineer.
- b. LED light sources shall have a correlated color temperature that does not exceed 3000K.
- c. For lighting predominantly horizontal surfaces such as, but not limited to, parking areas, roadways, vehicular and pedestrian passage areas, merchandising and storage areas, automotive-fuel dispensing facilities, automotive sales areas, loading docks, culs-de-sac, active and passive recreational areas, building entrances, sidewalks, bicycle and pedestrian paths, and site entrances, fixtures shall be aimed straight down and shall be full cutoff and fully shielded.
  - 1) Except as may be specified elsewhere in this ordinance, luminaires shall have an IES Backlight Uplight Glare (B.U.G.) uplight rating of zero (0).
  - 2) Except for those containing directional lamps, fixtures with an aggregate rated lamp output not exceeding 500 lumens, (e.g., the rated output of a standard non-directional 40-watt incandescent, 10-watt LED, or 10-watt compact fluorescent lamp) are exempt from the requirements of this subsection.
- d. For the lighting of predominantly non-horizontal surfaces such as, but not limited to, facades, landscaping, signs, fountains, displays and statuary, fixtures shall be fully shielded and shall be installed and aimed so as to not project their output into the windows of neighboring residences, adjacent uses, past the object being illuminated, skyward or onto a public roadway. Fixtures, except those containing directional lamps, with an aggregate rated lamp output not exceeding 500 lumens (e.g., the rated output of a standard non-directional 40-watt incandescent, 10-watt LED, or 10-watt compact fluorescent lamp) are exempt from the requirements of this paragraph.
- e. Fixtures shall be equipped with or be capable of being back-fitted with light-directing devices such as shields, visors or hoods when necessary to redirect offending light distribution.
- f. Streetlights in residential developments, when provided by a developer, shall conform to the specifications for luminaire, pole, connection, etc. The developer

shall also warrant all parts and associated labor for a period of 18 months.

g. Fixture height.

- 1) Any fixtures primarily designed to light pedestrian areas, such as sidewalks and pathways, shall be mounted at a maximum height of 15 feet above finished grade.
- 2) All other fixtures shall be mounted at a maximum height of 20 feet above finished grade.

h. Illuminance under outdoor canopies. All fixtures utilized beneath canopies shall be flush-mounted fixtures, recessed into the canopy itself. All lighting shall be accomplished utilizing flat-lens full cutoff style fixtures, aimed straight down. Canopies themselves shall not be illuminated. Outdoor canopies include, but are not limited to, fueling stations associated with convenience stores and service stations, financial establishments where a drive-through kiosk is proposed, and exterior canopies above store fronts in shopping centers.

3. Control of Nuisance and Disabling Glare

- a. All outdoor lighting, whether or not required by this Section, on private, residential, commercial, industrial, municipal, recreational, or institutional property, shall be aimed, located, designed, fitted, shielded, and maintained so as not to present a hazard to drivers or pedestrians by impairing their ability to safely traverse and so as not to present a nuisance glare concern to neighboring properties.
- b. New floodlights and spotlights shall be prohibited unless they meet full cutoff criteria. Existing directional fixtures such as floodlights and spotlights shall be aimed that they do not project their output into the windows of neighboring residences, adjacent uses, directly skyward or onto a roadway. Floodlights installed above grade on residential properties shall not be aimed out more than 45° from straight down. When a floodlight creates glare as viewed from an adjacent residential property or use, the floodlight shall be required to be re-aimed and/or fitted with a shielding device to block the direct view of the glare from that property.
- c. Unless otherwise permitted by Borough Council, e.g., for safety or security, lighting shall be controlled by automatic switching devices, such as time clocks or combination motion detectors and photocells, to permit extinguishing offending sources between 11:00 p.m. and dawn to mitigate nuisance glare.
- d. Where all-night safety or security lighting is to be provided, the lighting intensity levels shall not exceed 25% of the levels normally permitted by this Section for the use. All fixtures designated as non-security fixtures shall be extinguished between the hours of 11:00 p.m. and 6:00 a.m., unless on-site activities persist during those hours.
- e. Vegetation screens shall not be employed to serve as the primary means for controlling glare. Rather, glare control shall be achieved primarily through the use of such means as cutoff fixtures, shields and baffles, and appropriate application of fixture mounting height, wattage, aiming angle and fixture placement.
- f. Projection onto adjacent uses.

- 1) Intensity of illumination projected onto a neighboring residential property line shall not exceed 0.1 footcandles, measured at line-of-sight and from any point on the receiving residential property. This footcandle value shall not be used as a criterion for assessing glare control onto a neighboring property.
- 2) Intensity of illumination projected onto a neighboring non-residential property line shall not exceed 0.5 footcandles, measured at line-of-sight and from any point on the receiving residential property. This footcandle value shall not be used as a criterion for assessing glare control onto a neighboring property.

g. Illuminating flags and flagpoles

- 1) Only the United States and the state flag shall be permitted to be illuminated from dusk till dawn. All other flags shall not be illuminated past 11:00 p.m.
- 2) The light source shall have a beam spread no greater than necessary to illuminate the flag and shall be adequately shielded.
- 3) Maximum illumination for flags shall be the sum of the lumens for all light aimed at the flag. For a flagpole of ten feet or less, the maximum illumination shall be 1,400 lumens. For every additional ten feet or portion thereof, an additional 1,400 shall be permitted.
- 4) Other regulations from this ordinance shall not apply to flag illumination.

4. Installation.

- a. All electrical feed wiring and conduit shall be run below finished grade, as required by this Chapter.
- b. Lighting standards in parking areas shall be placed a minimum of five feet outside of curb, or mounted on a thirty-inch-high pedestal. Fixtures located in central areas of parking facilities shall be mounted on a thirty-inch-high concrete pedestal.

5. Maintenance. Lighting fixtures and ancillary equipment shall be maintained so as to comply with this Section.

6. Energy-Efficient Lighting. The Borough encourages energy conservation, cost savings, and environmental preservation through use of the following external lighting tools.

- a. Energy Star qualified lamps.
- b. Automatic daylight shutoff switches to extinguish or dim lighting when there is ample natural (solar) lighting.
- c. Motion activated lighting which shuts off automatically.

D. Fixture Placement. Streetlighting fixtures shall be placed at the following locations:

1. At the intersection of public roads.
2. At intersections involving proposed public streets with a private street.

3. At the apex of the curve of any public or private street having less than a three-hundred-foot minimum centerline radius.
  4. Terminal ends of center median island(s).
  5. Other locations as necessary to comply with **§ 184-48, Exterior Lighting Standards**.
- E. Post-Installation Inspection. The Borough reserves the right to conduct a post-installation nighttime inspection to verify compliance with the requirements of this Section, and if appropriate, to require remedial action at no expense to the Borough.
- F. Compliance Monitoring. The Borough Zoning Officer shall have authority to monitor nuisance or safety issues associated with exterior lighting in accordance with **§ 208-73, Lighting**.

### **§ 184-89 Electric vehicle charging stations and associated infrastructure.**

- A. Intent. The intention of the ordinance provisions herein are to:
1. Ensure the safe, efficient installation of Electric Vehicle Charging Stations;
  2. Provide reasonable standards for the installation, maintenance, and management of Electric Vehicle Charging Stations;
  3. Ensure equitable access to Electric Vehicle Charging Stations and avoid adverse impacts to any community or neighborhood;
  4. Enable the shift from internal combustion engine vehicles to EV through the expansion of supportive infrastructure; and
  5. Reduce greenhouse gas emissions from the transportation sector.
- B. Applicability. The regulations of this section shall apply to all EV charging stations (EVCS), whether located off-street on private or public property.
- C. Permitting.
1. Permit required. Any person seeking a permit for the installation, operation, and/or maintenance of an EVCS shall file a written application with the Building Inspector on a form provided for such purpose.
    - a. If the applicant is not the owner of the subject property, written authorization of the property owner shall be required as part of the application.
    - b. The following shall be provided in order for an application to be deemed complete:
      1. An electrical utility plan shall be provided.
      2. An operation and maintenance plan shall be provided when the EVSE or EVCS is proposed on a lot occupied by any use other than a single- or two-family home (Uses B-1, B-2, B-3, and B-4 as defined in Chapter 208, Zoning).
      3. A site plan may be provided, if requested.
      4. Photographs of the site may be provided, if requested.
      5. The application shall be accompanied by the permit fee, which shall be established in the Fee Schedule, as adopted and amended by Borough Council from time to time.
  2. Proof of insurance required.
    - a. A permittee shall maintain an insurance policy that covers any risk for any injury or damage resulting from the installation, operation, and/or maintenance of the EV charger, and the property owner shall agree to indemnify and hold the municipality harmless from any claims arising from the installation, operation, and/or

maintenance of the EVCS to the extent permitted by law. The insurance policy shall be submitted to the Borough Solicitor for review before the application is approved, a copy of which shall be filed with the borough.

3. Concurrent review. The applicant may concurrently file for the required building and/or electrical permit.

D. Installation standards.

1. Installation of EVSE shall meet the standards and requirements of the National Electrical Code Article 625, "Electrical Vehicle Charging and Supply Equipment Systems."
2. Equipment shall be certified to UL Standard 2202 by a nationally recognized testing laboratory (e.g., UL or ETL) and listed and approved for EV use.
3. Connectors shall comply with a charging standard accepted by the Society of Automotive Engineers International, such as the J1772 or J3400 Charging Standard. The applicant may be permitted to utilize an alternative charging standard, such as CCS or CHAdeMO, when approved by the Borough Engineer, provided that the standard is useable by a wide range of EV.
4. An EVCS shall be installed by a qualified electrician that has completed a State registered electrician apprenticeship program and is in compliance with all applicable State or municipal codes, regulations and ordinances regarding electricians.

E. Siting and design standards.

1. EVCS may be installed in standard parking spaces or accessible parking spaces.
  - a. Standard parking spaces served by an EVCS shall meet the size and surfacing requirements for a standard parking space, pursuant to **§ 184-38, Off-Street Parking and Internal Drive Aisle Standards**.
  - b. Accessible parking spaces served by an EVCS shall meet the size and surfacing requirements of the Americans with Disabilities Act (ADA) Standards for Accessible Design (2010).
2. EVCS shall be mounted on pedestals, lighting posts, bollards, walls of buildings/structures, or kiosks.
3. EVCS shall either be installed a minimum of 24 inches from the face of the curb or shall be protected by wheel stops, bollards, or the like.
4. EVCS outlets and connector devices shall be no less than 24 inches and no higher than 48 inches from the surface where mounted.
5. EVSE and EVCS shall be designed and located as to not impede a pedestrian clear pathway.
6. EVCS cords shall be retractable or shall be provided a place to be coiled and neatly stored.
7. No portion of an EVCS, including but not limited to cords, shall cross a driveway, sidewalk, pathway, or passenger unloading area.
8. Only EVSE and EVCS that are designed to be floodproof shall be permissible within a Special Flood Hazard Area. The applicant shall provide floodproofing specifications at the time of application submittal.
9. When located within a historic district created pursuant to the Historic Districts Act (Act 167 of 1961), the Historical Architectural Review Board (HARB) shall follow their regular review procedure pursuant to **Chapter 130, Historic Preservation District**. The applicant shall be notified at the time of application submittal if HARB review is required.

F. Universal design.

1. Applicability.

- a. Single- and two-family homes (Uses B-1, B-2, B-3, and B-4 as defined in **Chapter 208, Zoning**) are not subject to the requirements of this section (F, Universal Design).
  - b. When only one EVCS is provided, it shall be accessible for people with disabilities in accordance with the standards of this section.
  - c. When more than one EVCS is provided, at least one and no less than 5% of the EVCS provided shall be accessible to those with disabilities.
2. Use last principle.
- a. An accessible EVCS, being reserved for use by an EV, shall not count towards the meeting the minimum number of accessible spaces as required by the Americans with Disabilities Act (ADA) Standards for Accessible Design (2010).
  - b. An accessible EVCS shall be preferred for those with a handicap placard; however, an accessible EVCS may be used when all other EVCS are occupied. This “use last” principle shall be indicated by signage stating, “USE LAST – DESIGNED FOR ACCESSIBILITY.” Alternative language may be utilized, provided that it adequately describes this usage limitation.



*Figure 184-89.1. Use Last Signage Examples*

3. Compliance required.
- a. An accessible parking space served by an EVCS shall comply with the minimum requirements of the ADA Standards for Accessible Design (2010), the Architectural Barriers Act (ABA) Accessibility Guidelines (2005), and the Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (2023).
4. Location.
- When accessible EVCS are provided in a parking lot or parking structure, they shall be located on the shortest accessible route to the accessible entrance of the principal building served.
5. Physical design.
- a. An accessible parking space served by an EVCS shall include the provision of a 5 foot wide access aisle on three (3) sides of the parking space, which shall provide an accessible route to the EVCS.
  - b. EVCS shall provide a 30 inch by 48 inch minimum clear floor or ground space at the interactive side(s) of an EVCS that connects to an accessible route.
  - c. For on-street EVCS, interactive side(s) of the EVCS shall face the sidewalk and shall not face the curb, to allow unobstructed access.
6. Operable/interactive parts.
- a. Operable/interactive parts shall be designed for use by one hand with no tight grasping, pinching, or twisting of the wrist, and no more than 5 pounds of force to operate.
  - b. Operable/interactive parts shall be tactically discernable.

#### G. Safety.

1. The installation shall comply with construction codes, safety standards, and any federal, state, or local rule or regulation concerning EVSE and EVCS.
2. In order to promote the safety of emergency responders and promote efficient emergency response, the borough shall notify local emergency response agencies of the location and specifications of EVCS following installation thereof. Furthermore, an emergency disconnect shall be provided that allows emergency responders to terminate electrical power supply to the EVCS(s). The emergency disconnect shall be located a minimum of 25 feet from the EVCS(s) being controlled, and shall have signage stating, "Fire Department Use Only – Emergency Shutoff." The municipal Fire Code Official shall be provided an opportunity to review the specifications of the disconnect system.
3. Adequate site lighting shall be provided in the EVCS location, unless facility is limited to daytime use. Such lighting shall comply with **§ 184-88, Outdoor Lighting**.
4. EVCS pedestals shall be designed to minimize their potential damage by accidents and vandalism and to be safe for use in inclement weather.
5. EVCS located within a parking garage/structure.
  - a. Any EVCS or EV-ready parking spaces shall primarily be located on the ground floor of the parking structure/garage to allow for more efficient emergency response.
  - b. When an EVCS is proposed within a parking structure/garage, an automatic fire sprinkler system deemed acceptable by the Building Code Official and/or their designee shall be provided for. A control panel shall be accessible by the Fire Department, and the design requirements shall be approved by the Building Code Official and/or their designee.
  - c. When an EVCS is proposed underground within a parking garage or structure, an automatic smoke evacuation system shall be provided that automatically activates when smoke is detected. A control panel shall be accessible by the Fire Department, and the design requirements shall be approved by the Borough Building Code Official.

#### H. Signage and display screens.

1. An EVCS shall be identified with signage in conformance with the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), 11<sup>th</sup> Edition (2023).
2. The following information shall be provided at every public EVCS:
  - a. Contact information, such as the phone number/TTY or text message support number, for the appropriate party to be notified if the EVCS is inoperable, inaccessible, or unsafe that is available 24/7.
  - b. The address of the EVCS for emergency response purposes.
  - c. Installation date, model number, and the voltage and amperage levels of the EVCS.
  - d. The hours of operation and/or time limit restrictions.
  - e. Parking and charging payment methods/options and fees/rates.
  - f. A statement indicating that the space is only for EV parking and/or charging purposes.
  - g. Enforcement warnings (e.g., monetary fine, towing provisions).
  - h. A statement reading "In case of an emergency, dial 911."
3. Display Screens. When display screens are used to relay information or purchase, the following standards shall apply:

- a. EVCS may have electronic informational screens displaying the operational information up to 64 square inches in area. Screens larger than 64 square inches shall be considered a sign and must comply with all applicable sign regulations of **Chapter 208, Zoning**.
- b. Display screens shall be visible from a point located 40 inches above the clear floor or ground space at an EVCS.
- c. Display screens shall not flash more than 3 times per second.
- d. The user shall be provided with a text size option, which in no case shall permit a minimum character height less than 3/16 inch.
- e. There shall be an option for display screens to provide speech output that is capable of full and independent use by individuals with vision impairments.
  - 1) Braille instructions for initiating text-to-speech output shall be provided.
  - 2) Speech output must be coordinated with information displayed on the display screen.
  - 3) Speech output shall offer volume control by the user, which shall have a maximum decibel limit in compliance with **Chapter 208, Zoning**.
  - 4) If a timed response is required, audible cues warning of such time limit and the ability to request additional time shall be provided.

I. Fees.

1. A nonresidential or multifamily property owner is not restricted from collecting a reasonable service fee for the use of an EVCS made available to residents, tenants, employees, customers, and/or visitors to the private property on which it is located. Such fees shall be established in an amount to cover costs of installation, supervision, operation, maintenance, inspection, control, and use of electric charging stations and the electric energy supplied.
2. Payment Methods.
  - a. All EVCS payment systems shall provide for contactless payment methods.
  - b. All EVCS payment systems shall provide a tactically discernable location for contactless payment, such as a raised card reader or by a location indicated by braille or another tactile method.
  - c. Visual and audible feedback shall be provided at all EVCS payment systems.

J. Violations and enforcement. Any violation of this Chapter shall be subject to **§ 184-108, Violations and Penalties**.

## **Article VII. Improvement Construction Requirements**

### **§ 184-90. Applicability.**

Before the final plan is signed and made ready for recording or prior to the issuance of any permits needed for construction or occupancy of any subdivision or land development, all applicants are required to complete to the satisfaction of Borough Council or ensure the completion of all required public improvements in manner set forth in this article.

### **§ 184-91. Completion or guarantee of required improvements.**

The applicant shall comply with the public improvement construction requirements in the following ways:

- A. Complete all of the improvements required by Borough Council for final plan approval, in compliance with the requirements of this chapter; or
- B. Provide proper financial security in a manner acceptable to the Borough to ensure the completion of all improvements, as required by this article, in compliance with the Pennsylvania Municipalities Planning Code.
  1. The work completed or guaranteed shall be in strict accordance with the conditionally approved plans and the requirements of this chapter.
  2. No lot in a subdivision may be sold, and no permit to erect, alter, or repair any building upon land in a subdivision or land development will be issued unless and until a subdivision and/or land development plan has been approved, and where required, recorded, and until the required improvements in connection therewith have either been completed or guaranteed for completion as required herein.
  3. The applicant shall also guarantee that no lot will be sold or building constructed in any floodplain area except in compliance with the floodplain management requirements of this chapter, **Chapter 208, Zoning**, and the Borough Building Code.
  4. Borough Council may defer at the time of final plan approval, subject to appropriate conditions, the provision of any or all required improvements, as in its judgment, are not requisite in the interests of public health, safety and welfare, or which are inappropriate due to the inadequacy or nonexistence of connecting facilities. A separate public improvement agreement may be executed by Borough Council guaranteeing completion of any deferred improvement at some later date.

### **§ 184-92. Financial security.**

- A. In lieu of the completion of improvements required for final plan approval, financial security, in an amount required, shall be guaranteed to the Borough in compliance with the applicable requirements of the Pennsylvania Municipalities Planning Code. Such financial security shall assure the complete installation of all the required improvements to be completed on or before the date fixed in the conditional plan approval, subdivision agreement, and/or development agreement for completion of such improvements.

- B. The amount of such security to be posted for the completion of required improvements shall be equal to 110% of the cost of completion estimated as of 90 days following the date scheduled for completion by the developer. Annually, the Borough may adjust the amount of the required financial security by comparing the actual cost of improvements which have been completed and the estimated cost for the completion of the remaining improvements as of the expiration of the 90th day after the original scheduled date for completion or a rescheduled completion date.
- C. Determination of the cost of the completion of improvements used for setting the amount of financial security shall be based upon an estimate of the cost of completion of required improvements submitted by the applicant or developer, and prepared by a professional engineer and certified to be fair and reasonable. The Borough, under recommendation of the Borough Engineer, shall review the estimate and adjust the estimates as necessary.
- D. When requested by the applicant in order to facilitate financing, Borough Council shall furnish the applicant with a signed copy of a resolution indicating approval of the final plan contingent upon the applicant obtaining a satisfactory financial security. Final plans will not be signed or recorded until the financial improvements agreement is executed. The resolution of contingent approval shall expire and be deemed to be revoked if the financial security agreement is not executed within 90 days, unless a written extension is granted by Borough Council.
- E. The Borough at its option, may accept financial security in the form of cash escrow placed with the municipality, irrevocable letter of credit, escrow account, or surety bond with a bonding company or chartered lending institution chosen by the party posting financial security provided said institution or company is authorized to conduct such business in the Commonwealth of Pennsylvania.

**§ 184-93. Release of financial security.**

Borough Council may release all or parts of the posted financial security as completion of improvements proceeds, in compliance with the applicable requirements of the Pennsylvania Municipalities Planning Code and according to the following requirements:

- A. Partial release of security. As the work of the installation of the required public improvements proceeds, the party posting the financial security may request the Borough to release or authorize the release, from time to time, such portions of the financial security necessary for the payment of the contractor or contractors performing the work. Any such request shall be done in writing addressed to the municipality. Upon receipt of the request for release of a portion of the improvement security, the municipality shall within 45 days allow the Borough Engineer to certify, in writing, that such portion of the public improvements has been completed in accordance with the approved plan at which time the Borough shall authorize the release to the applicant or his designee by the bond company or lending institution of an amount of funds that the Borough Engineer feels fairly represents the value of the work completed. If the municipality fails to act upon a request for release of security within 45 days, the Borough shall be deemed to have approved the full release of security as requested.
- B. Incomplete improvements. If the required improvements are not completely installed within the period fixed or extended by Borough Council, Borough Council may take one or more of the following actions:

1. Declare the financial security in default and require that all improvements be installed regardless of the extent of the building development at the time the agreement is declared in default;
  2. Suspend final plan approval until the development improvements are completed and record a document to that effect for the purpose of public notice;
  3. Obtain funds under the security and complete improvements;
  4. Assign the right to receive funds under the security to any third party, including a subsequent owner of the property wherein improvements were not completed in exchange for that subsequent owner's promise to complete improvements;
  5. Exercise any other available rights under the Pennsylvania Municipalities Planning Code.
- C. Post-completion security. The applicant shall be responsible for maintenance of all improvements for a period of 18 months after final acceptance and certification of project completion.
- D. Security. The applicant shall be responsible for the full replacement of all dead or diseased trees or shrubs for 18 months after final acceptance and certification of project completion. Final inspection of landscaping shall be performed while trees are fully leafed out, typically May 1 through November 1.

**§ 184-94. Inspection of work materials.**

- A. Notice. The Borough Engineer shall be notified 48 hours in advance of the commencement of any construction or installation operation, to schedule an inspection by the Borough. Construction and installation operations shall also be subject to inspection by the Borough during the progress of the work. The applicant, developer, or builder shall pay the reasonable and necessary expenses for inspections in accordance with the fee schedule established by resolution of Borough Council.
- B. Improvement specifications. All required road improvements should be constructed in accordance with the applicable provisions of **PennDOT Publication 408, 2020 edition (Change number 11, Publication #408/2020-11)**, and other applicable regulations. All other required improvements shall be constructed in accordance with approved specifications found in this Chapter. If the appropriate standards are not provided in this chapter, the following procedures shall be used:
1. Specifications. The specifications will be furnished to the applicant by the Borough. If any of the specifications are unavailable at Borough Hall, the Borough Engineer shall provide the applicable specifications.
  2. Sample of materials. During or after construction of any required improvement, if the Borough requires a sample of materials, said sample shall be furnished by the appropriate contractor, in a form specified by the Borough Engineer.
- C. Delivery slips. Copies of all delivery slips for materials used in the construction of any storm sewers, sanitary sewers, roads, curbs, sidewalks, or any other facility within a Borough right-

of-way or easement or in areas proposed for future dedication to the Borough shall be supplied to the Borough.

**§ 184-95. Off-site improvements.**

Certain improvements beyond the geographical boundaries of a site to be subdivided and/or developed, including but not limited to road improvements, may be requested by the Borough where it can clearly be demonstrated that such improvements have been made necessary solely through the additional burden imposed by the subdivision and/or development of the site. All such improvements or contributions for future off-site improvements shall be considered voluntary and will not be refunded to the developer. The developer may also be requested to cover certain costs which must be incurred by the Borough or other governmental jurisdiction in order to make these improvements feasible. The legal and financial arrangements to cover costs of the off-site improvements shall be the same as those prescribed in § 184-91, above.

**§ 184-96. Conditions of acceptance.**

A. Conditions. The Borough shall have no obligation to accept dedication of any street or other improvement unless:

1. The required improvements, utility mains and laterals, and monuments, shown on the approved plan or plans have been constructed to meet all requirements, and are free of defects or deterioration, as evidenced by inspection as well as by as-built plans produced by the applicant.
2. It is established to the satisfaction of Borough Council that there is a need for the dedication of improvements.
3. A deed of right-of-way is submitted and accepted by PennDOT conforming to the required standards qualifying the street for liquid fuels funding.

B. Acceptance. The borough shall have no responsibility with respect to any street or other improvement, notwithstanding the use of the same by the public, unless the street or other improvement is accepted by the Borough through the passage of an ordinance or resolution adopted by Borough Council.

C. Offer of dedication.

1. The applicant shall submit a written offer of dedication to the Borough for the streets and other improvements including but not limited to sidewalks, streetlights, underground wiring including cable boxes, wifi, etc., and other such improvements. The written offer of dedication shall include the following:

- a. A deed of dedication covering the improvements.
- b. A copy of a title insurance policy establishing the applicant's clear title to the property.

2. The items required § 184-96.C.1., above, shall be submitted to the Borough Engineer and Solicitor for their review and recommendations.

3. Borough Council may accept dedication of the streets or other improvements by

passing an ordinance or resolution to that effect.

**§ 184-97. Guarantee of completed improvements.**

When Borough Council accepts dedication of required improvements following their completion or certifies project completion, Borough Council may require posting of financial security by the applicant to secure the structural integrity and functioning of these improvements in accordance with the design and specifications as depicted on the approved final plan.

- A. Said financial security shall be of the same type as otherwise required by § 184-92, above.
- B. The amount of financial security shall be 15% of the actual cost of installation of the improvements.
- C. The term of the guarantee shall be 18 months from the date of acceptance of dedication or certification of project completion.
- D. Prior to the issuance of the final letter to the applicant from the Borough certifying project completion and accepting dedication, said final letter shall be cosigned by the Borough Manager, Borough Secretary, and Borough Council President.

**§ 184-98. Private maintenance of improvements.**

Where the maintenance of improvements is to be the responsibility of individual lot owners, a homeowners' association or similar entity, or an organization capable of carrying out maintenance responsibilities, the Borough Council shall require that maintenance responsibilities be set forth in perpetual covenants or deed restrictions binding on the landowners' successors in interest and may further require that an initial maintenance fund be established in a reasonable manner.

**§ 184-98. Required contracts.**

Before the Borough Council shall cause its approval to be endorsed upon the final plans of any subdivision or land development (except in the case of minor subdivisions wherein Borough Council may impose no condition or conditions for the approval of the plan), and as a requirement for the approval thereof, the owners shall enter into a written agreement with the Borough in the manner and form set forth by the Borough Solicitor which shall include but not be limited to the following:

- A. To construct or cause to be constructed or installed, at the owners' expense, all streets, curbs, sidewalks, fire hydrants, streetlights, stormwater facilities, water and sewer facilities, street signs, monuments, capped sewers, parks, landscaping, line painting, and other improvements shown the final plan when required to do so by Borough Council in accordance with the standards and specifications of the Borough.
- B. To maintain at the owners' expense all streets, curbs, sidewalks, stormwater facilities, water and sewer facilities, street signs, parks, monuments, fire hydrants, streetlights, capped sewers, line painting, landscaping, and other improvements, until the same are accepted or condemned by the Borough for public use, and for a period of 18 months thereafter to repair and reconstruct the same of any part of one of them when such repair or reconstruction shall be specified by Borough Council as necessary by reason of faulty construction, workmanship, or materials, or the structural integrity or functionality of the improvements are not satisfactory as determined by the Borough or Borough Engineer.

- C. To pay all costs, charges, or rates, of the utility furnishing electric service for the lighting of the streets on or abutting said subdivision, from the lights installed by the owner, until such time as the streets shown on the subdivision plans shall be accepted as public streets of the Borough by ordinance or resolution, and to indemnify and hold harmless the Borough from and against all suit, actions, claims, and demands for electric service to the streets shown on said plans, or any part thereof, to the time that said streets shall be accepted as public streets of the Borough in the manner hereinabove set forth.
- D. Pay the inspection fees required by the Borough.
- E. To obtain the easements and releases required when any street, drainage facility or other improvement wherein a subdivision abuts or traverses land of persons other than the person holding legal title to the lands of the subdivision at his own cost, and obtain from the owner of the lands so abutted or traversed full releases from all damages which may change in grade, construction, or otherwise, of the street, drainage facility or other improvements and such releases shall insure to the benefit not only of the owner of the subdivision but to the Borough as well.
- F. To promptly remove or cause to be removed snow from the streets as may be required for safe traverse of the streets prior to dedication.
- G. To promptly reimburse to the Borough reasonable solicitor's and engineers' fees.
- H. To provide in a timely manner, all construction and shop drawings and plans including a full set of "as built" plans in paper and in appropriate electronic format as specified by the Borough Engineer.
- I. Such other provision(s) as deemed necessary or desired by Borough Council.

## Article VIII. Special Reports and Studies

### § 184-100 Purpose and Contents.

The following special studies or reports to be developed by qualified professionals may be required to support and justify subdivision and land development proposals as required by this chapter and **Chapter 208, Zoning**.

### § 184-101 Transportation Impact Study.

- A. Intent. A transportation impact study (TIS) is intended to enable North Wales Borough to assess the transportation impacts of a proposed development or redevelopment. Specifically, its purpose is to:
1. Ensure a safe and efficient transportation network for all users, including drivers, pedestrians and bicyclists.
  2. Identify any transportation problems that may be created in the existing transportation system as a result of the proposed development.
  3. Identify solutions to potential problems and to present mitigation improvements to be incorporated into the proposal or into the transportation systems within the study area.
  4. Assist in the protection of air quality and the conservation of energy and to encourage the use of alternative transportation modes where available.
  5. Ensure that TIS submissions to the Municipality are consistent with the PennDOT *Publication 282, Appendix A, "Policies and Procedures for Transportation Impact Studies and Assessments,"* (June 2025).
- B. Preparation of study. The transportation impact study shall be prepared by a qualified traffic engineer and/or transportation planner in accordance with PennDOT *Publication 46, Traffic Engineering Manual* (March 3, 2014). All costs associated with the preparation of a TIS shall be borne by the applicant. The procedures and standards for the transportation impact study are set forth below. The applicant may provide funds to the Borough to enable the Borough to hire a traffic engineer of its choice to conduct the study, if this procedure is deemed appropriate and approved by the Borough.
- C. Applicability. A transportation impact study shall be submitted as part of all subdivision, land development, and conditional use applications for all development that meets any of the following conditions:
1. Any development proposals that generate 40 or more trips during the site peak hour, or 400 or more trips per day, regardless of the proposed land use.
  2. Any proposed subdivision or land development with 25 or more lots or dwelling units.
  3. Any proposed subdivision or land development with 50,000 or more square feet of building area.

4. Any subdivision or land development application whose site, in the opinion of Borough Council, has a significant impact on traffic flow and safety.
  5. A TIS may also be required for zoning map or text amendments, special exceptions, variances, and/or any other pertinent proposal, or as requested by the Borough.
- D. Coordination. Coordination with PennDOT or county highway occupancy permit (HOP) managers shall occur as appropriate. A TIS prepared in accordance with the guidelines of PennDOT as part of an application for a state HOP should be submitted to the Borough in fulfillment of the requirement for a TIS by North Wales Borough.
- E. Trip generation. The anticipated number of peak hour trips and trips per day shall be determined using the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11<sup>th</sup> Edition*. The proposed use or development shall be identified using the appropriate ITE land use code. The appropriate ITE land use code shall be agreed upon by the applicant and the Borough.
- F. Municipal scoping meeting. A municipal scoping meeting may be required to ensure that the parameters used in the TIS accurately reflect municipal conditions and expectations. The applicant should confirm the need for a municipal scoping meeting prior to submission. The municipal scoping meeting will address the number and locations of proposed access points, project schedule and phasing, number of intersections of local streets with Main Street additional intersections to be included in the analysis, specific ITE trip generation land use codes, pass-by volumes, modal splits, any trip adjustments to be used, and other area developments and programmed roadway improvements to be included in the future conditions analysis as well as potential opportunities to implement transportation demand management (TDM) activities. Agreement on all scoping parameters shall be obtained prior to initiation of the TIS. The municipal scoping meeting may be held in conjunction with the PennDOT or county scoping meeting.
- G. General requirements and standards. A Transportation Impact Study shall contain the following information:
1. General site description. The site description shall include the size, location, proposed land uses, construction staging and completion date of the proposed subdivision or land development. If the development is residential, types of dwelling units and number of bedrooms shall also be included. A brief description of other major existing and proposed developments within the study area shall be provided. The general site description shall also include probable socioeconomic characteristics of potential site users to the extent that they may affect the transportation needs of the site (i.e., number of senior citizens).
  2. Transportation facilities description. The description shall contain a full documentation of all aspects of the proposed internal and proposed and existing external transportation system. This description shall include proposed internal vehicular, bicycle, and

pedestrian circulation; a description of all existing transit facilities; all proposed ingress and egress locations; all internal roadway widths and rights-of-way; roadway classifications; parking conditions; traffic channelization, traffic control and traffic calming devices; and any traffic signals or other intersection control devices at all intersections within or adjacent to the site. Data provided in the report should adequately document the following:

- a. Traffic volume counts.
  - b. Land use context (in study area).
  - c. Sight distance and site access.
  - d. Photographs.
  - e. Pedestrian, bike, and transit facilities.
3. Existing conditions scenario. Full documentation shall be provided to adequately describe and evaluate traffic conditions throughout the study area including, but not limited to, peak hourly volume, intersection turning movement counts, capacity and level of service analysis, and the past five years of crash analysis. Complete traffic counts encompassing and documenting the peak traffic and peak development generated hours shall be required for the three intersections of a local street with Main Street that are closest to the proposed development.
  4. Background traffic. Projections of traffic volumes at the project opening year and design horizon shall be made by applying a growth factor to existing base traffic volumes. Planned and permitted developments that will impact the study area shall be evaluated for addition to future traffic volume. Existing traffic counts to be used for traffic volume projections should not be older than three years from the current year of the study, unless approved by the Borough Engineer.
  5. Traffic characteristics of the proposed development. The following characteristics of traffic generated by a proposed development shall be estimated based upon reasonable sources as agreed upon by North Wales Borough, PennDOT, and the applicant.
    - a. Trip generation - total volume of traffic arriving at and departing from a site. This shall include projected vehicular, pedestrian, and bicycle volumes, as well as transit ridership.
    - b. Modal split - the form or type of transportation used to reach or depart from a site.
    - c. Trip distribution - the arrival and departure pattern of traffic at a site.
    - d. Traffic assignment - typical routes used to arrive at or depart from a site.
  6. Future analysis. Future traffic volumes for the study area at the project opening year and design horizon year shall be projected in at least two scenarios: with and without the proposed development.
  7. Level of service requirements. The TIS shall compare the operating LOS and delay for the design horizon year both with and without the development. An evaluation

comparing the without development and with development scenarios shall be used to determine if the overall LOS has dropped. The impact of development on the level of service at all intersections within the study area shall be evaluated. This shall include the three intersections of a local street with Main Street that are closest to the proposed development. Level of service below "C" shall be considered deficient and a mitigation analysis shall be performed.

8. Mitigation analysis. If level of service requirements are not realized, the study shall outline mitigation measures and demonstrate any changes to the level of service achieved by these measures. Any alternatives or suggested phasing of improvements shall be described. The mitigation measures may include recommendations such as roadway widening, changes in striping, turning lanes, deceleration lanes/tapers, changes to signalization, use of access management techniques, or a reduction in the proposed intensity of the use. The responsibility and timing of all recommended roadway improvements shall be described within the transportation impact study.
  9. Street improvements. The study shall include recommendations for street improvements bordering the site that will be used to accommodate the traffic generated by the proposed subdivision or land development; and cost estimates for the associated recommendations. In any location where signalization is considered, so too shall the addition of a roundabout or mini-roundabout be considered and studied.
  10. Multiple phases. If the proposed subdivision or land development will occur in multiple phases, then calculations for the completion of each phase shall be provided in the study.
- H. Time of submission. The transportation impact study shall be submitted to the Borough with the preliminary plan submission. Revisions to preliminary plans may constitute the need for re-submission of the transportation impact study for the revised conditions. The applicant shall coordinate the submission of plans and highway occupancy permit applications to PennDOT with the Borough review process. An application which requires a TIS shall not be considered complete until the TIS is submitted.
- I. Implementation. Borough Council shall review the transportation impact study to analyze its adequacy in solving any traffic problems that will occur due to the land development or subdivision. Borough Council may determine that certain improvements on and/or adjacent to the site, including those related to access or egress, are necessary requirements for land development or subdivision plan approval and may attach these as conditions to the approval. If Borough Council determines that such additional improvements are necessary, the developer shall have the opportunity to submit alternative improvement designs to obtain plan approval. When PennDOT or the Montgomery County Roads and Bridges Division maintain the road upon which access from a development is sought, the Borough and applicant shall coordinate with the appropriate entity.
- J. Emergency response organizations. The Borough shall submit all land development plans to the fire department, police department, and any other emergency response organization having jurisdiction within the area of the proposed development for review and comment. If requested by any emergency response organization, Borough Council may require the developer of a land development to provide emergency signal preemption for any traffic signals located within or immediately adjacent to the development.

## § 184-102 Stormwater Management Reports.

A stormwater management report shall be submitted alongside any application for Subdivision and/or Land Development in accordance with **Chapter 180, Stormwater Management**. All plans showing the proposed stormwater management facilities construction must be accompanied by a complete design calculations report prepared by a registered engineer currently licensed in the Commonwealth of Pennsylvania. An application shall not be considered complete until a Stormwater Management Report is submitted in compliance with **Chapter 180, Stormwater Management**.

## § 184-103 Historic Resources Reports.

- A. Historic resources report. Any subdivision and/or land development involving or adjacent to a site or structure within the North Wales Historic District or that is listed in federal or state inventory as historic resources or historic districts shall require the preparation of a historic resource report prepared by a qualified historic preservation professional knowledgeable in the historic period of the structure. The historic resources report shall be submitted with an application for Subdivision and/or Land Development and shall be submitted to the Historical Architectural Review Board in accordance with **Chapter 130, Historic Preservation District**. A Historic Resources Report shall address the following minimum considerations:
1. A site layout plan of the proposed development site that highlights any historic resources that are on-site or within 100 feet of the property boundary. The site layout plan shall include a depiction of the existing conditions and the proposed layout following development.
  2. Physical description of the site and setting of the historic buildings.
  3. Narrative describing the resource's historical significance, including citations.
  4. Photographic documentation, including general site conditions, and details of the building, both exterior and, where possible, interior.
  5. A detailed description of anticipated impact that the proposed development will have on the historic resource(s) in question.
  6. Architectural renderings of any structures proposed as part of the development. Architectural renderings shall include detail on the proposed massing and architectural treatments proposed.
  7. A description of any buffering, landscaping or other screening that will be used to protect the integrity of the existing historic resources.
- B. Application for demolition of an historic structure. If demolition of a historic resource is proposed, the applicant shall file a report prepared by a qualified historic preservation professional knowledgeable in the historic period of the structure. To support the demolition of the property the report should clearly demonstrate the following:
1. That the current use of the building is no longer feasible.
  2. That other possible uses have been denied or have been deemed infeasible due to the requirements of **Chapter 208, Zoning**, or the applicable building code.
  3. That potential adaptive reuses of the building are infeasible due to the constraints related to the building, structure or property.
  4. That the building, its permitted uses, and adaptive reuse potential does not provide a reasonable rate of return, based on a reasonable initial investment.
  5. That the applicant has not contributed to existing conditions, either through neglect or prior

renovation, conversion, alternation, or similar actions.

6. That a proposed new building or use of the property will not adversely affect the character of the neighborhood.
  7. That the building is structurally unsound. Historic and cultural resources may be studied and documented when proposed development would remove or alter them.
- C. If a demolition permit is granted for the historic building, the applicant shall prepare a historic structure report with the following information:
1. Physical description of the site and setting of the historic buildings.
  2. Narrative describing the resource's historical significance, including citations.
  3. Photographic documentation including general site conditions, and details of the building, both exterior and, where possible, interior.
  4. Chain of title.
  5. Measured drawings labeled for cross reference to the photographs.
  6. Appendices should include copies of the deeds and relevant wills, maps and other supporting materials.

**§ 184-104 Community and Fiscal Impact Analysis.**

- A. This analysis shall be submitted for land developments involving more than 25 residential units or 10,000 or more square feet of gross leasable floor area. These impact statements must be found to be satisfactory prior to approving the land development.
- B. The analysis shall include the following information:
  1. An analysis of the social and demographic characteristics of the proposed development in terms of future residents and users.
  2. An analysis of the potential cost/benefits of the development, including a profile of any possible borough, county and/or school district revenues that the proposal may generate and any respective costs which it may create.
  3. An analysis of the proposed impact of the development on the community's facilities, including schools, parks and recreational areas, libraries, hospitals, fire protection, police protection, and ambulance and rescue services. In the case of parks and recreational needs, the analysis should explain how these needs would be met on-site.
  4. Identification of utility needs of the future residents and users of the site, including water supply, sewage disposal, refuse disposal, storm drainage and electric transmissions. The analysis should discuss:
    - a. The ability of existing utility installations to meet the projected needs of the development.
    - b. The need for additional or expanded utility installations.
    - c. The ability to achieve an adequate system for storm drainage and stormwater management.

## **Article IX. Administration, Fees, and Penalties**

### **§ 184-105 General administration.**

All provisions of this chapter shall be administered by Borough Council or its officially designated representatives. All matters relating to this chapter shall be submitted to the Borough Manager who shall handle the matter in accordance with current borough policies, procedures and guidelines established by Council.

### **§ 184-106 Records.**

The Borough shall keep a public record of its correspondence, findings, recommendations and actions relating to plans filed for review, in accordance with the policies, procedures and guidelines established by Borough Council.

### **§ 184-107 Fees and costs.**

- A. No application for preliminary or final plan approval shall be considered as submitted until the fees and/or escrow deposit, as set forth below, shall have been paid.
- B. Council shall adopt and amend by resolution a schedule of fees, payable by the applicant to the borough, for the filing of preliminary and final plans.
- C. Council shall adopt and amend by resolution a schedule of escrow deposits to be paid by the applicant to the borough at the time of filing of an application, sufficient to pay all borough expenditures anticipated in the course of its review and disposition of plans.
  1. Costs incurred by the borough in excess of the escrowed amount shall be paid by the applicant prior to the granting of approvals or permits.
  2. If costs incurred by the borough are less than the escrowed amount, the difference shall be refunded to the applicant following disposition of the plans.
- D. Borough expenditures subject to escrow as in Subsection C above include but are not limited to the following:
  1. Engineering and other technical services such as plan review and construction inspections.
  2. Materials and facilities tests.
  3. Services of the Borough Solicitor in reviewing and/or preparing documents related to the plan reviews.
- E. Disputes. In the event that the applicant disputes the amount of any borough expenditure pursuant to Subsection D above, the Borough and applicant shall enter into the dispute process as outlined in The Pennsylvania Municipalities Planning Code, Act No. 247 Section 510 Subsection (g), as amended.

### **§ 184-108 Violations and penalties.**

Any person, partnership, or corporation who or which has violated the provisions of this chapter, upon being found liable therefor in a civil enforcement proceeding commenced by the Borough of North Wales, shall pay a judgment of not more than \$500 plus all court costs, including

reasonable attorney's fees, incurred by the municipality as a result thereof. Each day that a violation continues shall constitute a separate violation, unless the Magisterial District Judge determining that there has been a violation further 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 day following the date of the determination of a violation by the Magisterial District Judge and, thereafter, each day that a violation continues shall constitute a separate violation.

## **Article X. Amendments, Validity**

### **§ 184-109 Amendment procedure.**

Borough Council may, from time to time, amend, supplement, change, modify or repeal this chapter by proceeding in accordance with the regulations of this article. The Council shall, by resolution adopted at a regular or special meeting, fix the time and place of a public hearing on the proposed amendment and cause public notice thereof to be given as follows:

- A. By publishing a notice thereof once each week for two successive weeks in a newspaper of general circulation in the Borough. The first notice shall not be more than 60 days or less than seven days from the date of the hearing.
- B. The notice shall state the time and place of the hearing, the general nature of the proposed amendment and that full opportunity to be heard will be given to any citizen and all parties in interest attending such hearing.
- C. An attested copy of the proposed ordinance shall be filed in the county law library or other county office designated by the county commissioners, who may impose a fee no greater than that necessary to cover the actual costs of storing said ordinances.
- D. Whenever a proposed amendment affects a particular property, there shall be posted upon said property or premises at such place or places as Borough Council may direct, notice of said proposed amendment.

### **§ 184-110 Referral to Planning Commissions.**

All proposed amendments before adoption shall be referred to the Borough and Montgomery County Planning Commissions at least 30 days prior to the public hearing, for recommendation and report, which shall be advisory.

### **§ 184-111 Construal of provisions.**

Nothing in this chapter shall be construed to affect any suit or proceeding pending in any court or any rights acquired or existing under prior subdivision and land development regulations of the Borough of North Wales, nor shall any just or legal right or remedy of any character be lost, impaired or affected by this chapter.

### **§ 184-112 Severability.**

Should any section of this chapter be declared to be invalid by a court of competent jurisdiction, such decision shall not affect the validity of this chapter as a whole or any other part thereof.