TOWNSHIP OF NEW BRITAIN BUCKS COUNTY, PENNSYLVANIA

ORDINANCE NO. 2025-04

AN ORDINANCE OF THE TOWNSHIP OF NEW BRITAIN, BUCKS COUNTY, PENNSYLVANIA, PROVIDING FOR COMPREHENSIVE AMENDMENTS TO THE NEW BRITAIN TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE, AS AMENDED, REPEALING INCONSISTENT ORDINANCES OR PARTS OF ORDINANCES; CONTAINING A SAVINGS CLAUSE AND PROVIDING FOR AN EFFECTIVE DATE

WHEREAS, the Board of Supervisors of New Britain Township, Bucks County, Pennsylvania, has enacted the New Britain Township Subdivision and Land Development Ordinance, which is codified in Chapter 22 of the Code of Ordinances of New Britain Township; and

WHEREAS, the Board of Supervisors has determined that it is in the best interests of New Britain Township to revise the Subdivision and Land Development Ordinance in order to revise definitions of terms used in the Subdivision and Land Development Ordinance; to revise the requirements and procedures for submission of subdivision and land development plans and applications; to revise the requirements for natural resources and features that must be included on the plan; to add requirements for Environmental Site Assessments and Traffic Impact Studies; and to make editorial and clarifying amendments throughout the Subdivision and Land Development Ordinance;

NOW, THEREFORE, BE IT ORDAINED AND ENACTED, Chapter 22-Subdivision and Land Development of the Township of New Britain is amended to read as follows:

Section 1. The following Sections of Chapter 22 Subdivision and Land Development is amended to read as provided for in Exhibit "A" which is attached hereto and incorporated herein by reference:

- a. Section 202 Definitions of Terms.
 - i. Bioretention
 - ii. Bioswale
 - iii. Bypass Lane/ Escape Lane
 - iv. Green (Stormwater) Infrastructure
 - v. Impervious Surface
 - vi. Infiltration
 - vii. Invasive Plants
 - viii. Land Development
 - ix. Lot Area
 - x. Mobile Home
 - xi. Porous Pavement/ Pavers
 - xii. Rain Garden
 - xiii. Right-of-Way, Ultimate

- xiv. Soils on Floodplain
- xv. Specimen Tree
- xvi. Street Line
- xvii. Tree Protection Zone (TPZ)
- xviii. Water Supply
- xix. Wetlands
- b. Section 401 General Procedures
- c. Section 402 Sketch Plan and ERSAP Submission Review and Procedure
- d. Section 405 Minor Plan Submission and Review Procedure
- e. Section 406 Recording of Plans
- f. Section 502 Preliminary Plan Requirements
- g. Section 504 Minor Plan Requirements
- h. Section 505 Community Impact Assessment Report
- i. Section 703 Blocks and Lots
- j. Section 704 Easements
- k. Section 705 Streets
- 1. Section 707 Pedestrian Walkways, Recreational Trails, and Bicycle Lanes
- m. Section 708 Parking Areas
- n. Section 709 Off-Street Loading Facilities
- o. Section 711 Grading, and Erosion and Sedimentation Control
- p. Section 712 Stormwater Management
- q. Section 713 Landscape Planting
- r. Section 714 Lighting
- s. Section 715 Park and Recreation Land
- t. Section 719 Private On-Lot Water Supply
- u. Section 721 Private On-Lot Sewage Disposal System
- v. Section 722 Butler Avenue Corridor Overlay District

Section 2. New Section 506 Traffic Impact Study shall be added to the Ordinance as provided in Exhibit "A".

Section 3. New Part 6 Natural Resources shall be added to the Ordinance as provided in Exhibit "A".

Section 4. Appendix A to the Subdivision and Land Development Ordinance is amended as set forth in Exhibit "B".

Section 5. Appendix B to the Subdivision and Land Development Ordinance is amended as set forth in Exhibit "C".

Section 6. Appendix D to the Subdivision and Land Development Ordinance is amended as set forth in Exhibit "D".

Section 7. Appendix E to the Subdivision and Land Development Ordinance is amended as set forth in Exhibit "E".

Section 8. Severability.

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

Section 9. Effective Date.

This Ordinance shall become effective five (5) days after the date of enactment, listed below.

Attest:

Township Manager

Cynthia Jones Chair

Mary Beth McCabe, Vice Chair

Stephanie Shortall, Member

William B. Jones, III, Member

Bridget Kunakorn, Member

EXHIBIT "A"

Subdivision and Land Development Ordinance Amendment

October 28, 2024

Add or amend the following Definitions of §22-202 as follows:

<u>BIORETENTION</u> – A stormwater retention area that utilizes woody and herbaceous plants and soils to remove pollutants before infiltration occurs.

BIOSWALE – a swale that uses bioretention and often includes native plants to absorb runoff and pollutants.

BYPASS LANE/ESCAPE LANE Vehicular lane allowing traffic to pass the drive-through lane and/or allowing vehicles, because of emergencies or mistakenly entering the drive-through lane, to exit the drive-through lane.

<u>GREEN STORMWATER INFRASTRUCTURE</u> – Systems and practices that use or mimic natural processes to infiltrate, evapotranspire, or reuse stormwater on the site where it is generated.

IMPERVIOUS SURFACE

Exterior surfaces which do not absorb water including all buildings, parking areas, driveways, roads, sidewalks, swimming pools and any area in concrete, asphalt, compacted stone and similar materials. Also includes other areas determined to be impervious by the Township Engineer.

INFILTRATION

Movement of surface water into the soil, where it is absorbed by plant roots, evaporated into the atmosphere, or percolated downward to recharge groundwater.

<u>INVASIVE PLANTS</u> – Those species that are not native to the state, grow aggressively, and spread and displace native vegetation as noted on the DCNR Invasive Plant List that may be updated from time to time.

LAND DEVELOPMENT – Any of the following activities:

- a. The improvement of one lot or two or more contiguous lots, <u>tracts</u>, <u>or parcels</u> 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. <u>Development in accordance with § 503(1.1) of the Pennsylvania Municipalities</u> Planning Code as may be amended.
- d. The condominium of land or buildings.
- e. The addition of an accessory building, including farm buildings subordinate to the existing principal building, are excluded from the definition of land development.

LAND DEVELOPMENT, MINOR

The expansion of an existing building or parking area.

LOT AREA

The area contained within the property lines of the individual parcels of land shown on a subdivision plan as required by this chapter, excluding any area within an existing or designated future street right-of-way and any area required as open space under the Township Zoning Ordinance [Chapter 27] and the area of any existing or proposed easement.

MOBILE HOME

A transportable single-family dwelling intended for permanent occupancy contained in one unit or in two or more units designed to be joined into one integral unit, capable of again being separated for repeated towing, which arrives at a site complete and ready for occupancy except for minor and incidental unpacking and assembly operations, constructed so that it may be used without a permanent foundation and built under U.S. HUD standards and not BOCA Uniform Commercial Code standards. A mobile home need not meet local building codes but shall meet the standards of the U.S. Department of Housing and Urban Development, as indicated in the Structural Engineering Bulletin(s) which shall be provided to the township by the applicant.

<u>POROUS PAVEMENT/PAVERS – Stormwater controls that allow stormwater to infiltrate through the surface of the pavement/pavers to the ground below.</u>

RAIN GARDEN

A stormwater facility planted with specially selected native vegetation to treat and capture runoff and by pooling water on the surface and settling out suspended solids and allowing for infiltration and pollutant removal in the plant/soil/microbe media.

SOILS, FLOODPLAIN (ALLUVIAL)Areas subject to periodic flooding and listed in the Soil Survey of Bucks and Philadelphia Counties. SOILS ON FLOODPLAIN Areas subject to periodic flooding or listed in the Official Soil Survey provided by the United States Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey (http://websoilsurvey.nrcs.usda.gov/), as soils having a flood frequency other than none. Such soils shall include, but may not be limited to, the following soil types: Bowmansville-Knauers silt loam (Bo), Buckingham silt loam (BwB), and Rowland silt loam (Ro). A landowner may submit detailed soil profiles and a report to the Township for the purpose of determining an alluvial soil classification, which the Township may or may not accept as the correct boundary of soils on floodplain.

SPECIMEN TREE Any tree with a caliper that is 75% or more of the record tree of the same species of the commonwealth. A unique, rare, or otherwise specifically selected tree considered worthy of conservation by New Britain Township because of its species, size, age, shape, form, historical importance, or any other significant characteristic, including listing as a species of special concern by the Commonwealth of Pennsylvania.

STREET LINE

The dividing line between a lot and a street. Also called Ultimate Right-of-Way Line, Legal or Required Right-of-Way line. Where no right-of-way line exists or is proposed, the street line shall be the edge of sidewalk farthest from the street.

RIGHT-OF-WAY, ULTIMATE

The street right-of-way projected as necessary for adequate handling of anticipated maximum traffic volumes, according to the Township Street Classification Map. The ultimate right-of-way is the legal right-of-way where it has been offered for dedication and accepted by the Township or other authority. It shall be measured from the centerline of the street or as determined by the Township Engineer.

TREE PROTECTION ZONE (TPZ)

An area that is radial to the trunk of a tree in which no construction activity shall occur. The tree protection zone shall be 15 feet from the trunk of the tree to be retained, or the distance from the trunk to the dripline, whichever is greater. Where there is a group of trees or woodlands, the tree protection zone shall be the aggregate of the protection zones for the individual trees.

WATER SUPPLY

A. PRIVATE WATER SUPPLY SYSTEM

A system for supplying and distributing water to a single lot or dwelling unit or building from a source located on the same lot.

B. PUBLIC WATER SUPPLY SYSTEM

Any water supply and distribution system that is owned and managed by the Township, the Bucks County Water and Sewer Authority, North Wales Water Authority, North Penn Water Authority, Aqua of Philadelphia, or Philadelphia Suburban Water Company or other approved water purveyor, which services more than a single community or subdivision and may be interconnected with other water supply systems.

C.COMMUNITY WATER SYSTEM

A privately-owned system for supplying and distributing water from a common source(s) to two or more dwellings and/or other buildings in a single neighborhood and/or land development.

WETLANDS

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, including swamps, marshes, bogs and similar areas. The term includes but is not limited to wetland areas listed in the Pennsylvania State Water Plan, the United States Forest U.S. Fish & Wildlife Service Wetlands Inventory of Pennsylvania, the Pennsylvania Coastal Zone Management Plan and/or a wetland area designated by a river basin commission. Wetlands shall be determined by current standards established by the United States Army Corps of Engineers and the Pennsylvania Department of Environmental Protection Agency.

§22-401.6. Subdivision applications creating a single new building lot are not considered minor subdivisions and such applications are required to submit a completed plan submission as required by §§ 22-403 and 22-404 of this chapter. Subdivision proposals creating a single new building lot must establish a plan for all required improvements under this chapter in those cases where there is additional vacant land for future subdivision of additional lots.

<u>§22-401.7.</u> All plan submissions shall include two compact discs (CDs)a flashdrive or electronic submission that includes PDF copies of all the plan sheets, supporting documentation and any other application material included in this submission.

§22-401.8. Notification Requirements. The applicant for a subdivision or land development shall, with the submission of a sketch plan if submitted, and preliminary plan, notify all surrounding property owners (minor subdivision-adjacent property owners and major subdivisions and land developments within 500 1,000 feet of the proposed development perimeter). The notice shall state that a subdivision or land development plan has been filed for the property (indicate tax map parcel number) and shall state that the Township office will schedule the meetings at which the plans will be reviewed. The developer shall include in the notice the date the plan is scheduled for the initial Township Planning Commission meeting. The notice shall include a copy of the proposed development plan showing the proposed lots and streets and perimeter roads. The plan shall be either 8 1/2 inches by 11 inches or 11 inches by 17 inches. The notification shall be sent within five days of the time the plans are submitted to the Township. The applicant shall submit an affidavit to the Township setting forth the list of the names and addresses to which notices have been sent and include the content of the notice. The affidavit shall be supplied by the applicant to the Township at least five days prior to the first meeting of the Planning Commission at which the plans are to be discussed. The applicant shall post the property at the time of preliminary plan submission. The sign must be readable, maximum size of two feet by three feet and state that the property is the subject of a subdivision or land development with New Britain Township, (215) 822-1391, for any questions.

§22-402.4. Sketch Plan Processing Procedures:

- A. The applicant shall make a request to the Township Zoning Office to be scheduled on a Planning Commission or Board of Supervisors' meeting agenda for an informal discussion of the sketch plan.
- B. The applicant shall appear at the scheduled meeting to explain the plan and to discuss issues identified by the Planning Commission or Board of Supervisors. The applicant should be prepared to discuss significant issues including, but not limited to, land use proposed (residential, commercial, industrial, etc.), density or intensity of proposal; access to the subject site, including intersection locations and road realignments; site plan design, including subdividing, roads, buildings, common areas, curbs, sidewalks and pedestrian walkways and open space.
- C. The Township Planning Commission or Board of Supervisors may make suggestions and recommendations to the applicant during the meeting at which the plan is discussed. Suggestions and/or recommendations shall be summarized in the minutes of the Township Planning Commission or Board of Supervisors for reference by the applicant.

. . .

§22-402.5.B.(4) Once the aerial photograph and sketch plan have been received, the zoning office shall—may coordinate a site visit with the applicant, Township staff and elected officials. The purpose of the visit is to familiarize officials with the property's existing conditions and special features, to identify potential site design issues, and to provide an informal opportunity to discuss site design concepts, including the general layout of a designated required open space (if applicable), potential locations for proposed buildings and street alignments, stormwater management concepts, and protection of resources (natural and historic). Comments made by the Township representatives, or their staff and consultants shall be as only be advisory and are not binding on either the Township or the applicant. It shall be understood by all parties that no formal recommendations can be offered, and no official decisions can be made, at the site visit or during the sketch plan process.

<u>§22-405.1</u>. Minor plans may be submitted and processed for only lot line adjustments and minor land developments subdivisions, as defined in this chapter.

§22-406.1.H. If the final plan is approved with public streetlights to be formally accepted for dedication by the Township, the applicant shall submit a streetlight petition to the Township in accordance with the requirements of the MPC.

§22-406.2. Submission Record Plans.

- A. <u>Six-Three</u> paper copies of the final plan to be recorded shall be submitted directly to the Township Engineer for review and execution, prior to approval by the Board <u>with the following information:</u>
 - (1) Five signature lines shall be provided for the Board of Supervisors,
 - (2) The final plan shall bear the signature of the landowner(s) of record,
 - (3) Notary public with sufficient white space to avoid any text conflicts with the required notary stamp.
 - (4) The signature and seal of the registered professional engineer and or surveyor responsible for the plans.
 - (5) <u>signature of an official of the Bucks County Planning Commission file number, and</u>
 - (6) The signature of the certified wetlands scientist certifying any delineated wetlands.

§22-406.2.B. At the time of record plan submission, the applicant shall also submit to the Township Engineer:

- (1) Five Three (3) complete paper sets (rolled) of the final plans for construction; and
- (2) One electronic copy of all drawings on CD ROM media in PC language in either DWG or DEF Vector format. The information on the electronic plan shall be the same in exact detail as the final plans to be recorded. In the event that electronic submission is not possible, the applicant may request preparation of an electronic plan by the Township Engineer. All expenses associated with preparation of the electronic plan by the Township Engineer shall be considered review expenses incurred by the Township on behalf of the applicant. Any

proposed Conservation Easement linework within the electronic copy of the Final Plan(s) in DWG or DEF Vector format shall be provided to the Township with georeferencing in order for the Township to plot the easement on a Township mapping system.

§22-502.1.B(7) The overall tract boundary from a field survey with bearings and distances and, total tract acreage, the survey benchmark, north arrow orientation, datum, and any relevant survey control elements.

§22-502.1.B.(21) The following recording notes and certifications shall be provided for recording of the final plans: Professional land surveyor's certification, professional engineer's certification, professional wetlands/soils scientist's certification, Bucks County Recorder of Deeds Certification, ownership acknowledgment; notary public statement; Bucks County Planning Commission Certification; Township Engineer's Certification; Planning Commission Chairman Approval with one signature line and Board Approval with five signature lines.

Add §22-502.1.B.(23) The total amount of impervious area accounted for in the stormwater design within each sub drainage and bypass area shall be noted on the Record Plan.

§22-502.1.D.(8) Other natural features including:

- (a) Location, size and species, of individual trees six inches in diameter or greater, when standing alone or in small stands. The plan shall also identify any <u>dead</u>, <u>dying</u>, <u>invasive</u>, or <u>diseased tree(s)</u> <u>within existing or proposed conservation easements or trees that may pose a threat to safety as determined by the Township or Township Engineer.</u>
- (b) Outer limits of woodlands to remain. Approximate—Llimits of site disturbance, including a clear delineation of existing vegetation, including trees, hedge rows, wooded areas, and scrub growth, meadow and actively farmed land. Indicate items to be removed and items to be preserved, including method of preservation. Healthy Ttrees need not be individually identified in areas proposed to be permanently preserved, set aside as open space or in areas proposed not to be disturbed.
- (c) Locations and limits of geologic features that may affect the locations of proposed streets or buildings, including rock outcroppings, quarries and sink holes.
- (d) Natural resources that are protected by the provisions of the Township Zoning Ordinance [Chapter 27], such as <u>watercourses</u>, floodplains, wetlands, <u>natural</u> steep slopes, riparian areas, <u>forestswoodlands</u>, agricultural soils and other features.

§22-502.1.D.(10)(a) Contour lines measured at vertical intervals of two feet, as determined by an on-site field survey, not interpretation of United States Geologic Service (USGS) Maps. The plans shall indicate the benchmark elevation and the location and shall be based on the Chalfont New Britain Township Joint Sewage Authority vertical datum.

§22-502.1.D.(12) All information shown on the plans shall be from an onsite field survey conducted within five two-years of the date of the application.

Add §22-502.1.D.(13) Locations and type of existing underground and overhead utilities.

§ 22-502.1.H. Lighting Plan.

- (1)Location of all proposed streetlights, lighting fixtures and standards, including wall mounted lights.
- (2)Location of buildings, building setback lines, proposed streets, rights-of-way, parking areas, sidewalks and walkways.
- (3)Location of all proposed landscape plantings.
- (4)All individual trees, vegetated areas and woodlands designated to remain and other related landscape features such as berms, water features, etc.
- (5)Isofootcandle data and plots for each proposed lighting fixture.
- (6) Lighting manufacturer's details for all proposed fixtures, including lamps, photo control devices, shields, poles and foundation supports.
- (7)Lighting intensities in footcandles plotted for the entire site.

(1) Existing and proposed site features including:

- a. Existing and proposed streetlights, lighting fixtures and standards, including architectural wall mounted lights.
- b.Existing and proposed buildings, retaining walls, parking areas, driveways and walkways
- c.Required setback and right-of-way lines
- d. Existing and proposed above and below ground utilities
- e. Location of all existing and proposed vegetation
- f. Site Grading

(2) Lighting information and calculations including:

- a.A ten-foot by ten-foot (10' x 10') point by point illuminance grid extending 10 feet beyond the property lines.
- b.Luminaire Schedule including:
 - i. Luminaire catalog number
 - ii. Luminaire IES file
 - iii.Quantity of luminaires
 - iv. Mounting height of luminaires
 - v.Light loss factor used in lighting calculations
- c. Site Lighting Statistics for illuminated areas including:
 - i. Building entrances

- ii. Pedestrian ways
- iii. Parking Areas

iv. Fueling and/or charging canopies

v.Other areas as deemed necessary by the Township Engineer

- d. Site lighting statistics for each area shall include:
 - i. Maximum illumination level
 - ii. Minimum illumination level
 - iii. Average illumination level
 - iv. Maximum to minimum ratio
 - <u>v.</u> <u>Additional information as required to determine compliance with IES</u> guidelines
- e.Limits of each statistical area.
- <u>f. Lighting manufacturer's details for all proposed fixtures, including lamps, photo control devices, shields, poles and foundation supports.</u>
- g.Seal and signature of the design professional responsible for the preparation of the plan
- h.Chart to demonstrate compliance with IES recommended practices
- §22-502.1.J.(3) Street, widening, right-of-way, access drive and driveway paving cross-section details.
- §22-504.2. Minor Plan, Lot Line Adjustment or Subdivision. The following plan information shall be shown:

- E.Subdivision proposals creating one single new building lot must develop a plan for all required improvements under this chapter in those cases where there is additional vacant land for future subdivision of additional lots unless otherwise approved by the Board of Supervisors.
- F.For a lot line change where no new lots are created and where no physical improvements are proposed, public improvements such as road widening, curb, sidewalk, street trees, etc. are not required.
- G.Any additional information as reasonably required by the Township Engineer.

<u>**§22-504.3.**</u> Minor Plan, Land Development. The plan requirements shall be the same as those required for preliminary and final plans, except for the following:

- A. An aerial photograph plan shall not be required.
- B. Horizontal plan and profile shall not be required.
- C. Existing features and natural resource plan shall be submitted for the property only.
- D. The applicant may submit one minor plan that combines all other plan requirements.
- §22-505.4.D.(3) Surface water resources and their drainage characteristics, including creeks, streams, ponds, lakes, springs, wetlands, watersheds, floodplains and manmade structures and impoundments. The existing and proposed surface runoff from the

tract shall be calculated, including the potential development of the remainder of the watershed. The flow, depth, capacity and quality of the receiving waters shall be investigated and need for any onsite streambank stabilization evaluated.

Add §22-505.4.D.(5) Any Phase I and Phase II Environmental Site Assessments completed for the site in question shall be submitted to the Township for review.

Add §22-506 Traffic Impact Study

- 1. Purpose and Applicability.
 - A.Purpose. A traffic impact study shall be required as a prerequisite to a zoning permit for the following uses:
 - (1)Residential land development or subdivision of 50 or more dwelling units.
 - (2) Shopping Center.
 - (3)Commercial: A commercial building or buildings consisting of 25,000 square feet or more or total floor area.
 - (4)Office: A development consisting of 25,000 square feet or more of total floor area.
 - (5)Industrial: A development consisting of 50,000 square feet or more of total floor area or any truck terminal as a principal use.
 - (6)Institutional Hospital, Nursing Home or Institutional: A development of 50,000 square feet or more total floor area.
 - (7)Any other use expected to generate greater than 100 new trips inbound to the site or out bound from the site in site peak hour traffic, or 1,000 trips per day.
 - (8) The Township may request a Traffic Impact or Trip Generation Analysis for any proposed use at the Township's discretion.
 - B.The traffic study shall be submitted with the preliminary plans. This study will enable the Township to assess the impact of a proposed development on highways and public transportation. Its purpose is to identify any traffic problems and to delineate solutions.
- 2.Conduct of the Traffic Impact Study. The traffic impact study (TIS) or traffic impact analysis (TIA) shall be prepared by a qualified traffic engineer and/or transportation planner with previous traffic study experience. The procedures and standards for the traffic impact study are set forth in Subsection A of this section and the Highway Occupancy Permit Operations Manual Appendix A PennDOT Transportation Impact Study Guidelines dated September 2022 or as amended. If there is any discrepancy between the Township's and PennDOT Traffic Study Guidelines, the stricter standard shall apply.
 - A. 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 development. A brief description of other major existing and proposed land developments for which preliminary plans have been

- submitted within the proposed study area shall be included. The Township reserves the right to determine the study area at a preapplication conference.
- (2) Transportation Facilities Description. The description shall contain documentation of the proposed internal and existing external transportation system. This description shall include proposed internal vehicular, bicycle and pedestrian circulation, all proposed ingress and egress locations, all internal roadway widths, and any traffic signals or other intersection control devices at all intersections within the site.
- (3) Existing Traffic Conditions. Existing traffic conditions shall be documented for all major roadways and intersections in the study area and any other intersections or roadways the Township deems will be affected by the proposed development. Existing traffic volumes for average daily traffic, peak highway hour(s) traffic and peak development-generated hour(s) traffic shall be recorded. Traffic counts at major intersections in the study area and others which the Township deems will be affected by the proposed development shall be conducted, encompassing the peak highway hour(s), and documentation shall be included in the report. A volume/capacity analysis based upon existing volumes shall be performed during the peak highway hour(s) and the peak development-generated hour(s) for all roadways and major intersections in the study area where those intersections which the Township deems will be impacted by the proposed development. Based upon the Highway Capacity Manual, or as amended, this analysis will determine the adequacy of the existing roadway system to serve the current traffic demand. Roadways and/or intersections experiencing levels of service D, E or F shall be noted as congested locations. A development generated peak hour analysis may be required per the Township Engineer's request.
- (4) Traffic Impact of Development. Estimation of vehicular trips to result from the proposed development shall be completed for the average daily peak highway hour(s) and peak development-generated hour(s). These development-generated traffic volumes shall be provided for the inbound and outbound traffic movements as estimated, and the I.T.E. Trip Generation Manual, 11th edition or as revised. All turning movements shall be calculated. These generated volumes shall be distributed and assigned to the existing roadways and intersections throughout the study area for which existing conditions were identified in Subsection A.(3) above. Documentation of all assumptions used in the distribution and assignment phase shall be provided. Traffic volumes shall be assigned to individual access points. Pedestrian volumes shall also be calculated, if applicable. If school crossings are to be used, pedestrian volumes shall be assigned to each crossing. Any characteristics of the site that will cause particular trip generation problems shall be noted.
- (5) Analysis of Traffic Impact. The total future traffic demand shall be calculated. This demand shall consist of the combination of the existing traffic expanded to the completion year (using an annual traffic growth rate available from the Delaware Valley Regional Planning Commission), the development-generated traffic, and the traffic generated by other proposed developments in the study area. Traffic generation data shall be developed by the applicant from trip generation rates or from other traffic impact studies if they are available. A volume/capacity analysis shall be conducted using future

demand. A 'without development' and 'with development' future roadway capacity shall be conducted. If staging of the proposed development is anticipated, calculations for each stage of completion shall be made. This analysis shall be performed during the peak highway hour(s) for all roadways and major intersections in the study area which are deemed to be impacted by the proposed development. Volume/capacity calculations shall be completed for all major intersections. All access points and pedestrian crossings shall be examined as to the feasibility of installing traffic signals. This evaluation shall compare the projected traffic and pedestrian volumes to the minimum standards as per PennDOT standards for installation of a traffic signal. Turn lane analysis and queuing analysis shall be provided as requested by the Township Engineer.

- (6) Conclusions and Recommended Improvements. The level of services shall be listed for all intersections including all individual movements and the overall intersection. All roadways, individual intersection movements, and/or intersections showing a level of service below C shall be considered deficient. Specific recommendations for the elimination of these problems shall be listed for critical movements and overall level of service drops and delays which increase by more than 10 seconds. This listing of recommended improvements shall include, but not be limited to, the following elements: internal circulation design, site access location and design, external roadway and intersection design and improvements and widenings, traffic signal installation and operation including signal timing, transit design improvements, and reduced intensities of use. The Township may request all physical roadway improvements to be shown in sketches. The recommended improvements for both roadways and transit shall include, for each improvement, the party responsible for the improvement, the cost and funding of the improvement and the completion date for the improvement.
- (7) Implementation. The Township Board of Supervisors shall review the traffic impact study to analyze the impact of the proposed development. If major problems are identified by the traffic impact study, or if any intersection, critical movement, or segment of road would fall below level C as the result of the proposed development, then the Board of Supervisors may:
 - (a) Reject the application for zoning permits.
 - (b)Require specific onsite or offsite improvements as a condition of plan approval.
 - (c)Reduce the intensity of use permitted.
 - (d) A combination of (b) and (c) above.

Add Part 6 Natural Resources

§ 22-600 Natural Resources.

All uses and activities, including subdivisions and land developments, established after the effective date of this chapter, shall comply with the following standards. Site alterations, regrading, filling or clearing of any natural resources prior to the submission of applications for zoning or building permits or the submission of plans for subdivision or land development shall be a violation of this chapter. Where alterations occur, restoration of the lot to its original condition shall be required. In the event that two or more resources overlap, the resource with the greatest protection shall apply to the area of overlap.

- 1.Watercourses. The entire extent of such areas shall not be altered, regraded, filled, piped, diverted or built upon, except roads and trails may cross watercourses where design approval is obtained from the Township and, if required, the Pennsylvania Department of Environmental Protection.
- 2. Floodplains. See Part 19 of the Zoning Ordinance, Chapter 27.
- 3. Floodplain (Alluvial) Soils. See Part 19 of the Zoning Ordinance, Chapter 27.
- 4.Wetlands. The entire extent of such areas shall not be altered, regraded, filled, piped, diverted or built upon. Where the property owner demonstrates to the Township's satisfaction that there is no reasonable alternative, minor road crossings, utility line crossings, streambank rehabilitation, and endwalls may be permitted, so long as state and federal permits have been obtained for such work. Wetland boundaries shall be delineated through an on-site assessment conducted by a professional soil scientist. Such person shall certify that the methods used correctly reflect currently accepted technical concepts, including the presence of wetlands vegetation, floodplain soils and/or hydrologic indicators. The study shall be submitted with sufficient detail to allow a thorough review by the Township prior to approval by the Board of Supervisors. The Township shall have the right to inspect the site as a part of its review of the study, and the Township reserves the right to verify the presence and/or extent of wetlands through the retention of its own professional soil scientist.
- 5.Lakes and Ponds. The entire extent of such areas shall not be altered, regraded, filled, piped, diverted or built upon.
- 6. Woodlands. In areas of woodlands, the following standards shall apply:
 - A.No more than 20% of woodlands located upon a lot or site shall be altered, regraded, cleared, or built upon in the CR, WS, SR-1, SR-2, and RR Districts.
 - B.In all other zoning districts, no more than 50% of woodlands located upon a lot or site may be altered, regraded, cleared, or built upon, provided the following requirements are met:
 - (1)Where more than 20% of the woodlands are being disturbed, all disturbed woodlands exceeding this 20% limit shall be replaced on an acre-for-acre

- basis through the planting of replacement trees. The actual number of replacement trees shall be calculated by multiplying the acreage of disturbance exceeding 20% by 200 trees per acre. All replacement trees shall have a minimum tree caliper of 3 1/2 inches' DBH.
- (2)The planting of replacement trees or woodlands restoration shall be done in accordance with a woodlands management plan prepared by a licensed forester as may be required by the Board of Supervisors based on the nature of the trees removed and nature of proposed trees.
- (3)The planting of replacement trees shall occur on site, or on a property within New Britain Township designated and approved by the Board of Supervisors.
- (4)Any trees that are dead, dying, or diseased, and may be a safety hazard or may result in damage to any structure, may be removed or dropped in place with approval from the Township.
- 7. Steep Slopes. In areas of steep slopes, the following standards shall apply:
 - A.Eight percent to 15% grade. No more than 40% of such areas shall be altered, regraded, cleared or built upon.
 - B.Fifteen percent to 25% grade. No more than 30% of such areas shall be altered, regraded, cleared or built upon.
 - C.Twenty-five percent or steeper. No more than 15% of such areas shall be altered, regraded, cleared or built upon.
- 8.Wetlands Margin. No impervious surface area shall be located within 25 feet of a wetland boundary, and no more than 20% of such areas shall be disturbed. Any Department of Environmental Protection regulations concerning activities in wetlands margins shall also be met.
- 9.Riparian Buffer. The riparian buffer shall include only the portion of land sloping towards the surface water bodies being protected and shall extend no more than 75 feet from each side of the watercourse, lake or pond, at bankfull flow edge, or shall extend the extent of the 100-year floodplain, whichever is greater. No land disturbance shall be permitted within any riparian buffer except as permitted below. The buffer area will consist of two distinct protection zones.
 - A.Zone 1. This buffer area will begin at the edge of the lake, pond or watercourse and occupy a margin of land with a minimum width of 25 feet measured horizontally on a line perpendicular to the edge of water at bankfull flow or level.

 Open space uses that are primarily passive in nature may be permitted in Zone 1, including:
 - (1)Open space uses such as wildlife sanctuaries, nature preserves, forest preserves, fishing areas, passive areas for public or private parklands and reforestation.

- (2)Customary agricultural practices in accordance with a soil conservation plan approved by the Bucks County Conservation District and a nutrient management plan in accordance with state requirements, if applicable.
- (3) Regulated activities permitted by the commonwealth and Township for stream or wetland crossing or other encroachment (i.e., farm vehicle and livestock, recreational trails for non-motorized use only, roads, sewer or water utility transmission lines) provided that any disturbance is offset by riparian corridor improvements as approved by the Township and all regulated activities designed to have the least impact on native plant species and other sensitive environmental features.
- (4) Vegetation management in accordance with an approved landscape or open space management plan.
- (5)Runoff to be buffered or filtered by Zone 1 will be limited to sheet flow or subsurface flow only. Concentrated flows must be converted to sheet flow or subsurface flows prior to entering Zone 1 for proposed stormwater management facilities.
- (6)The riparian buffer easement shall be planted with native trees, shrubs and other vegetation to create a diverse native plant community appropriate to the intended ecological context of the site. Invasive species shall be removed, whenever practicable.
- B.Zone 2. This buffer zone will begin at the outer edge of Zone 1 and occupy a minimum width of 50 feet in addition to Zone 1. However, where the width of the 100-year floodplain extends greater than 75 feet from the edge of water at bankfull flow or level, Zone 1 shall remain a minimum of 25 feet and Zone 2 shall extend from the outer edge of Zone 1 to the outer edge of the 100-year floodplain. Uses permitted in this buffer area include open space uses that are primarily passive in nature, including:
 - (1)Open space uses such as wildlife sanctuaries, nature preserves, forest preserves and passive areas for public or private parklands, recreational trails for non-motorized use only and reforestation.
 - (2)Customary agricultural practices in accordance with a soil conservation plan approved by the Bucks Conservation District.
 - (3)Regulated activities permitted by the commonwealth and Township for stream or wetland crossing or other encroachment (i.e., farm vehicle and livestock, recreational trails for non-motorized use only, roads, sewer or water utility transmission lines) provided that any disturbance is offset by riparian corridor improvements as approved by the Township and all regulated activities designed to have the least impact on native plant species and other sensitive environmental features.
 - (4)Recreational activities or uses not involving impervious surfaces such as playing fields or golf courses.

- (5)The riparian buffer easement shall be planted with native trees, shrubs and other vegetation to create a diverse native plant community appropriate to the intended ecological context of the site. Invasive species shall be removed, whenever practicable.
- C.Prohibited Uses. Any use or activity not authorized in Subsection i.1 or i.2 above shall be prohibited within the riparian buffer. The following activities and facilities are specifically prohibited:
 - (1)Clear cutting of trees and other vegetation.
 - (2)Selective cutting of trees and/or the clearing of other vegetation, except where such clearing is necessary to prepare land for a use permitted under Subsection i.1 or i.2 above, or where removal is necessary as a means to eliminate dead, diseased or hazardous trees. Removal is subject to revegetation by native plants that are most suited to the riparian corridor.
 - (3)Storage of any hazardous or noxious materials.
 - (4)Roads, access drives or driveways, except as permitted by the Pennsylvania Department of Environmental Protection and Township.
 - (5) Parking lots.
 - (6)Subsurface and elevated sewage disposal areas and other wastewater disposal systems.
- D.Revegetation of Riparian Area. In cases where a major subdivision or land development is proposed, replanting of the riparian corridor shall be required where there is little or no existing streamside vegetation. Native vegetation approved by the Township must be used in replanting. Three layers of vegetation are required when replanting the riparian corridor. These layers include herbaceous plants that serve as ground cover, understory shrubs and trees that form an overhead canopy. The revegetation plan shall be prepared by a qualified professional, who has specific experience in the delineation of riparian buffer areas, and shall comply with the following minimum requirements, unless modified by the Board of Supervisors upon recommendation of the Planning Commission.
 - (1)Ground Cover. Ground cover consisting of a native seed mix extending a minimum of 25 feet in width from the edge of the stream bank must be provided along the portion(s) of the stream corridor where little or no riparian vegetation exists. Appropriate ground cover includes native material, exclusive of noxious weeds, as defined by the Pennsylvania State Department of Agriculture. This 25-foot wide planted area shall be designated on the plan as a "no mow zone" and shall be left as natural cover, except in accordance with the maintenance instructions stated on the plan.
 - (2)Trees and Shrubs. These planting layers include trees that form an overhead canopy and understory shrubs. Species shall be taken from Appendix D of this Chapter Required Plant Material List. These plants shall be planted in an informal manner clustered within Zone 1 of the riparian buffer as indicated in Subsection 9.D.(1) above. These plants shall be provided at a rate of at least one overstory tree and three shrubs for every 20 linear feet of waterway.
 - (3) Exceptions. These planting requirements shall not apply to existing farm

fields located within the riparian buffer or the farmland tract areas if farming operations are to be continued and the required state nutrient management plan is met.

§22.601. Land With Resource Restrictions and Resource Protection Land. Calculate the land with resource restrictions and the resource protection land through the use of the following chart. In the event that two or more resources overlap, only the resource with the highest protection ratio shall be used in the calculations.

Natural Resources	Protection Ratio	Acres of Land in Resources		x Acres of Land to be Disturbed
<u>Watercourses</u>	<u>1.00</u>			
Riparian Buffer	<u>1.00</u>			
<u>Floodplain</u>	<u>1.00</u>			
Floodplain (Alluvial) Soils	<u>1.00</u>			
<u>Wetlands</u>	<u>1.00</u>			
Lakes or Ponds	<u>1.00</u>			
Wetlands Margins	0.80			
Woodlands	<u>0.80</u>			
Steep Slopes 8-15%	0.60			
Steep Slopes 15-25%	<u>0.70</u>			
Steep Slopes 25% or more	0.85			
Total Land With Resource Restrictions		<u>acres</u>		
Total Land With 1.00 Protection Ratio Resource Restrictions		acres		
Total Resource Protection Land Required			acres	
Total Resource Protection Land Provided			acres	
Total Disturbed Resources				acres

1.) Minimum Open Space. Calculate the minimum open space using the following:

Base Site AreaacresMultiply by Minimum Open Space RatioxacresStandard Minimum Open Space =acres

§22-703.4.A(1) Each lot shall meet or exceed the minimum lot area and width requirements of the Township Zoning Ordinance. The area within any existing or proposed easement shall not be counted towards the minimum lot area.

§22-703.4.C. Lot Lines. Lot lines shall be drawn parallel, concentric, at right angles or radial to from the street right-of-way line to the front yard setback unless not feasible or undesirable due to existing, permanent, natural or man-made features or to minimize multiple changes in horizontal direction. In general, lot lines shall follow Township boundary lines rather than cross them.

<u>§22-703.6.A.</u> A lane lot <u>may be used for only a single family detached dwelling and shall not be <u>permitted created</u> in a subdivision with proposed streets or extensions of existing streets.</u>

<u>§22-703.6.D.</u> Points of access for lane lots shall be separated <u>from another lane lot</u> by at least 300 feet along the street right-of-way line.

§22-704.2.B. Easements for pedestrian or vehicular access shall be a minimum of 20 feet, unless a wider easement is required by the Board, upon recommendation of the Township Engineer. Easements for pedestrian or vehicular access shall not be combined with utility easements.

§22-704.3. Proposed <u>utility</u> easements shall be centered on or adjacent to front, side, or rear property lines.

<u>§22-704.4.</u> Nothing shall be placed, planted or set within the area of an easement and the area shall be kept as lawn or in a natural state, <u>unless otherwise approved by the Township Engineer</u>.

§22-705.3.D. The primary street through a residential subdivision of 50 or more dwelling units shall at a minimum be designed to the specifications of a minor collector local street. Additional width may be required at the discretion of the Board of Supervisors.

§22-705.3.E. Private streets within a subdivision shall be designed to the specifications of a local street. Private streets shall be recorded with a minimum 50-foot access easement to benefit New Britain Township. Additional width may be required at the discretion of the Board of Supervisors.

§22-705.3.G. Where a subdivision and/or land development abuts or contains an existing street, the applicant shall be required to mill and overlay the entire width of the roadway a depth of 1 1/2 inches or install a leveling course and a wearing course where requested by the Public Works Superintendent.

§22-705.4.C. Intersection spacing, and curb radii listed below shall be considered minimum requirements.

Functional Classification	Intersection Spacing		Curb Radius
Arterial	1000 feet	100 feet	35 feet
Major and Minor Collector	800 feet	75 feet	25 feet
Local Street	500 feet	50 feet	25 feet

Intersection spacing, clear sight triangles and curb radii listed below shall be considered minimum requirements.

§22-705.5.A. Clear sight triangles for street intersections and driveway intersections with street right of way lines shall be shown on the Record Plan and Landscape Plan and measured from the point of intersection of the street right of way lines in accordance with Section §2111 of the Township Zoning Ordinance.

§22-705.6. Sight Distances. Minimum sight distances for stopping, passing and intersections shall comply with PennDOT standards shall be noted on the Land Development and Landscaping Plans.—in accordance with Pennsylvania Code, Title 67 Transportation, Chapter 441, Access and Occupancy of Highways by Driveways and Local Roads, as amended.

§22-705.7.C.(3) At all approaches to intersections, grades for arterial and major collector streets shall not exceed 3% for a minimum distance of 100 feet from the intersection of curblines or edges of cartways. Street grades for all other streets shall not exceed 34% for a minimum distance of 50 feet from the intersection of curblines or edges of cartways.

§22-705.8.B. Cul-de-sac streets shall have a minimum length of 400 feet, but shall not exceed 800-1,200 feet in length nor serve more than 25 dwellings or units. Cul-de-sac streets may be extended to 1,200 feet upon approval by the Board. Measurement of the length shall be from the edge of cartway of the abutting through street to the center of the cul-de-sac turnaround, measured along the cul-de-sac street center line.

§22-705.8.C. Cul-de-sac streets shall be provided with a left side turnaround configuration at the closed end with a minimum right-of-way radius of 60 feet and a minimum paving radius of 50 feet. Alternatively, for private cul-de-sac streets, a landscaped island is permitted to reduce impervious areas and for stormwater collection and treatment. The cartway width shall be a minimum paved width of twenty (20) feet unless a greater width is needed to accommodate emergency vehicles and as approved by the Fire Marshall. "No Parking" signs shall be installed as directed by the Fire Marshall. The island shall have mountable curb unless otherwise approved for drainage. If no curb is proposed, there shall be a minimum 2% salt-tolerant vegetated slope for 5 feet for pavement support.

§22-705.8.D. Cul-de-sac streets shall <u>not</u> be permitted <u>enly as side streets extending</u> from a through street off of another cul-de-sac street. Such <u>Cul-de-sac</u> streets may not create a four-way intersection unless two permanent cul-de-sac streets intersect directly opposite one another along a local access street.

<u>\$22-705.8.F</u> A fifteen-foot by twenty-foot snow storage easement shall be required along the right-of-way of the cul-de-sac bulb at a location approved by the Board.

§22-705.12.A All proposed street names shall be recommended by staffpresented to and reviewed by the Township Fire Marshal's office for duplication. Street names shall be subject to approval by the Board. All street names shall be shown on the final plans to be recorded.

Remove §22-705.12.H.(6)(a) through (d) and replace with §22-705.12.H.(6) All street name sign posts, standards, and nameplates shall be in accordance with the Street Sign Detail provided in Appendix E Construction Detail and Specifications.

§22-705.13.C. All access drives and driveways shall be provided with a stopping area of 20 feet, at a maximum grade of 4%, measured from the edge of cartway.

§22-705.13.D. All access drive and driveway construction shall be designed in accordance with the details listed in the Appendix and the following criteria. Alternatively, profiles and/or truck turning plans can be provided to demonstrate that emergency access vehicles can adequately maneuver the site to the satisfaction of the Fire Marshall:

Type of Access	Minimum Driveway Width	Minimum Radius	Maximum Grade	Maximum Change of Grade
Residential or Agricultural	12 feet	10 feet	<u>10%</u>	<u>8%</u>
Residential (Shared)	16 feet	10 feet	8%	6 8%
Non-Residential (One-				
Way)	10 - <u>12</u> feet	25 feet	6%	7 <u>8</u> %
Non-Residential (Two-				
Way)	25 feet	25 feet	6%	7 <u>8</u> %

<u>S22-705.13.H.</u> Sight distances shall be noted on the Land Development and Plans in accordance with Pennsylvania Code, Title 67 Transportation, Chapter 441, Access and Occupancy of Highways by Driveways and Local Roads, as amended. Clear sight triangle for access drives and driveways intersecting a street shall be <u>10 feet</u>, measured from the point of intersection of the street right of way line and edge of the access drive or driveway. For access drives and driveways, the dimensions used shall be determined by the classification of street being intersected. The site plan shall contain a notation that states that the applicant is required to maintain the area of the clear sight triangle and the Township has the right to enter and perform required maintenance in the area if deemed critical to public welfare pursuant to a Declaration of Covenants, Restrictions and Conditions approved by the Board. The applicant shall be required to obtain easements from adjoining property owners if deemed critical to public welfare.

<u>\$22-705.13.J</u>- Driveways shall have a minimum turnaround area of 10 feet by 20 feet, or as recommended by the Township Fire Marshal's Office and approved by the Board.

§22-705.14.C. Pavement underdrains shall be placed along both sides of all proposed streets and in areas of cartway widening of existing streets as directed by the Township Engineer's representative in the field and in accordance with the details listed in the Appendix. A note shall be added to the plan to this effect.

<u>§22-705.15.B.</u> Crosswalks shall be a minimum of <u>five</u> <u>six</u> feet in width and shall be constructed in accordance with PennDOT standards.

Add §22-705.18. Centralized mail delivery and cluster box units (CBU's). A freestanding, concrete pad pedestal-mounted mailbox containing more than one individually locked mailboxes and parcel compartments.

A. Where cluster box units (CBUs) are proposed, the following requirements shall apply:

- (1)CBU shall be designed such that they are centrally located to serve the residents of the development, while providing safe and efficient access for pedestrians and motor vehicles in the vicinity of the CBU.
- (2)Provisions for off-street and/or on-street parking, and compliance with accessibility, shall be provided to each CBU.
- (3)CBU and location shall be subject to the United States Postal Service's approved specifications which are incorporated herein by reference.
- (5) At least two parking spaces shall be provided near the CBU with one space signed as 15-minute parking only.
- <u>§22-705.15.D.</u> Crosswalks shall consist of <u>brick redwhite</u> thermoplastic <u>striping in astreet imprint with herringbone continental</u> pattern <u>and six inch white stripes</u>, unless otherwise approved by the <u>Board of Supervisors</u> Public Works Superintendent.
- §22-707.1.B.(8) Curb ramps shall be required at all intersecting streets. Curb ramps shall have a maximum slope of six horizontal to one vertical, with maximum side of two horizontal to one vertical. in accordance with accessibility guidelines.
- §22-707.1.C. Construction Standards. As approved by the Board, pedestrian walkways or recreational trails shall be constructed of concrete or asphalt, unless more suitable materials are required in environmentally sensitive areas. Asphalt pedestrian walkways or recreational trails shall be constructed with 2 1/2 inches of wearing course and six inches of 2A stone subbase. Concrete pedestrian walkways or recreational trails shall be constructed with four-inch class 'AA'air-entrained (3,5004,000 PSI) cement concrete and four inches 2B (Clean) stone subbase. Pervious asphalt, concrete, or pavers may be installed for facilities to be privately owned and maintained.

§22-708.1. General Standards

- A. Parking areas shall be provided for all subdivisions and/or land developments in accordance with the Zoning Ordinance [Chapter 27] and retrofitted for projects where the building is proposed to be expanded by 50% or more of the existing building square footage to improve the performance of the existing parking lots in an equitable manner.
- . . .
- G.All parking areas should include clearly defined and marked traffic patterns. Major vehicular routes shall be separated from major pedestrian routes within the lot.
- H. Parking lots shall integrate green stormwater infrastructure by the use of plants and soils to naturally detain, treat, and infiltrate runoff from impervious surfaces. Bioretention, infiltration, amended soils, or other alternative design(s) as approved by the Township Engineer, shall be incorporated into all new parking areas, all parking lot expansions of 20 spaces or more, or redevelopment projects where existing parking areas have sufficient parking and can eliminate paved areas to add pervious areas.

- I. Grid/grass structures are encouraged in perimeter parking areas that are seldom used or used seasonably. Permeable pavement systems, including interlocking concrete pavers and grid systems, are encouraged in low-traffic areas such as parking bays, residential parking pads, driveways, and reserve areas or overflow parking areas.
- J. Redevelopment of Existing Parking Lot For projects where an existing principal building is being expanded by 50% or more of the existing footprint, a minimum of 50% of the existing parking lot area shall be brought into compliance with these requirements.

§22-708.2.B. All parking stall striping shall be double-lined in accordance with the detail listed in the Appendix.

§22-708.2.

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- C. All proposed planting islands and strips shall be provided with curb. <u>Depressed curb</u> or curb cuts are permitted where planting islands and strips are adjacent to a stormwater facility upon approval of the Township Engineer.
- D. No more than 15 parking spaces shall be permitted in a continuous row without being separated by a minimum 10' by 18' planting island.
- E. No parking areas shall exceed 30 spaces in capacity, without being separated into smaller parking areas by a <u>minimum</u> ten-foot plantings-strips.

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<u>§22-708.3.C.</u> The minimum parking aisle width shall be determined by the angle of parking and direction of traffic as follows.

Angle of Parking	Minimum Aisle Width
Parallel/one-way	12 feet
30°/one-way	<u>12 feet</u>
45°/one-way	18 feet
60°/one-way	18 feet
90°/one-way	20 feet
90°/two-way	24 feet

§22-708.4.B. The minimum width shall be 25 feet and parking along access drives is prohibited. Each access drive shall have a minimum width of 12 feet and maximum width of 15 feet at the street line for one-way use only and a minimum width of 25 feet and maximum width of 30 feet at the street line for two-way use. Parking along access driveways is prohibited.

§22-708.5. Service Drives -, Drive-Through Lanes, and Bypass/Escape Lanes Around

Buildings.

- A. The primary function of service drives is to provide emergency service access to the building, and to provide access to employee parking areas, loading facilities, trash collection areas and service areas.
- B. The minimum width shall be 20 feet <u>for service driveways</u> and parking along service drives shall be prohibited.
- C. <u>Drive-through lanes shall be a minimum of 12 feet wide, or 10 feet wide if multiple drive-through lanes are proposed. Drive-through lanes shall be separated from the bypass lanes by painted lines or other delineation.</u>
- D.A minimum 10-foot-wide bypass lane/escape lane shall be provided for all drive-through facilities.
- E.A drive-through lane shall not be the sole ingress and egress to the site.
- F.The design of a drive-through lane and bypass lane/escape lane shall minimize the blocking, crossing, or passing through of off-street parking areas and minimize crossing of, or the need to be crossed by, pedestrian accessways for patrons.
- G. <u>Drive-through lanes shall be marked by signs which indicate the entrance and exit for the drive-through lane. The direction of traffic flow for the drive-through lane and bypass lane/escape lane shall be clearly marked.</u>
- H.Delayed service parking areas shall be provided.
- I. The minimum stacking length provided for vehicles waiting for service shall be 132 feet.

§22-708.6. Parking Lot Design Standards

- A. All off-street parking shall be set back a minimum of 10 feet from any street ultimate right-of-way line, property line, sewage disposal system or private well.-All off-street parking spaces shall be set back a minimum of three-twenty (20) feet from any side of any non-residential building. This setback shall not apply to driveways entering garages, service bays or carports and is-intended to allow sufficient area for firefighting, sidewalks, and foundation landscaping.
- G. Parking areas serving nonresidential uses that allow shopping carts in the parking areas shall be designed with cart return areas of suitable sizes and in suitable locations. Such cart return areas shall not be counted as parking spaces. The number and location of such cart return areas shall be approved by the Board Township Engineer.

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- <u>J.Walkways shall be located where motorists can anticipate pedestrians and react accordingly. Walkways should be designed to give the pedestrian full view of oncoming vehicles with minimum interference from trees, shrubs, and parking cars.</u>
- K.Where pedestrian circulation crosses vehicular routes, a crosswalk with different material, pavement striping, speed tables, and/or signage shall be provided.
- L.At least one pedestrian route shall be provided and aligned within the parking lot with the main entry of a building to facilitate pedestrian movement where the building is open to the public. Clear separation/division from vehicular areas with landscaping, grade change, or surface material change shall be provided.

§22-709.1.

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- C. Each required loading space shall be no less than 14 feet by 60 feet for a tractor-trailer and 12 feet by 35 feet for smaller trucks.
- <u>PC</u>. Each loading space and the area needed for maneuvering shall be located entirely on the lot being served and shall not conflict with parking aisles, stalls, access drives or service drives.
- ED. Loading facilities shall be paved in accordance with the details listed in the Appendix, unless higher strength paving is required due to the type of anticipated vehicles.
- F. The loading area shall be designed and used in such a manner so that at no time will it constitute a nuisance, a public safety hazard or an unreasonable impediment to traffic.
- <u>§22-711.3.A.</u> All disturbed land within a development <u>to be vegetated</u> shall be graded at a minimum slope of 2% to provide proper drainage and dispose of stormwater runoff without ponding, except stormwater facilities designed to promote infiltration.
- Add §22-711.5.E. Any areas of erosion along any onsite embankment, existing watercourse, etc. shall be identified and details provided for means and method of stabilization. A permit shall be obtained from the County Conservation District and/or PADEP as required.
- §22-711.7. A. The Board in its consideration of all preliminary plans for subdivision and/or land development shall condition its approval upon the execution of erosion and sedimentation control measures as contained in this section. The Township Engineer shall ensure compliance with the appropriate policies and standards of PADEP and the Bucks County Conservation District.
- §22-711.7.D. An erosion and sedimentation control plan approved by the Bucks County Conservation District for projects disturbing 5,000 sf or more is required prior to the recording of final plans and any earthmoving activities.—and shall be maintained onsite at all times. Implementation and maintenance of erosion and sediment controls is required for any earthmoving activity. Projects having less than 5,000 square feet of earth disturbance are required to implement and maintain erosion and sedimentation controls. however are exempt from developing a written plan (unless in a Special Protection watershed).
- Add §22-711.7.E. The Sequence of Construction shall note that the Township shall be notified at least three (3) days prior to start of construction in order to coordinate construction observation.

§22-712 Stormwater Management

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2. General Requirements...

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B. Stormwater Management Facilities. The applicant shall install stormwater management facilities, on- and off-site, as necessary, to meet the following minimum requirements:

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3) To convey stormwater runoff along or through the property to a natural outfall, such as a watercourse, drainage swale, storm sewer or other drainage facilities. If an applicant concentrates or redirects stormwater runoff to discharge at another location on the property, the applicant is responsible for constructingshall pursue offsite easements to install an adequate channel or storm sewer system on downstream properties and rights-of-way until a natural outfall is reached. A natural outfall shall have sufficient capacity to receive stormwater without deterioration of the facility and without adversely affecting property in the watershed.

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F. Where stormwater runoff will be collected within the subdivision and/or land development and discharged over lands within or beyond the boundaries of the subdivision and/or land development, the applicant shall reserve or obtain easements over all lands affected. The stormwater easement width shall be of adequate width to collect the stormwater runoff and for access to the stormwater facility(ies) for maintenance and repairs. If requested by the Board, the applicant shall convey, at no cost, the easement(s) to the Township. Otherwise, all such easements shall be owned and maintained by individual lot owner(s) or another approved entity. Ownership and maintenance responsibilities shall be noted on the site plan and stormwater agreement for such shall be asin a form approved by the Township Solicitor.

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K. Roof drains and sump pumps for proposed residential and nonresidential buildings shall discharge to infiltration or vegetative BMPs to satisfy the criteria for disconnected impervious areas. However, Ssump pump and roof drains may be connected to an existing or proposed storm sewer system or discharged directly to a stormwater detention facility as approved by the Township Engineer. Sump pump and roof drains may also be discharged to a watercourse or drainage swale provided a minimum twenty-foot drainage easement is provided over all affected properties. Sump pumps and roof drains shall not be discharged over a driveway or sidewalk on an adjunct property, or through a curb onto a public street or directly connected to a roadway underdrain system.

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N. Stormwater management best management practices (BMPs) must be incorporated into the design of the stormwater management system as determined by the Township Engineer. All proposed best management practices for stormwater and erosion control shall be designed in accordance with the latest DEP BMP Manual and the Township's Stormwater Management Ordinances, as amended [Chapter 26].

- 3. Stormwater Runoff Methodology.
 - A.Any stormwater detention facilities required by this chapter shall meet the applicable water quality requirement for the one-year return period, and peak rate requirements for the two-, five-, ten-, twenty-five-, fifty- and one-hundred-year return periods, consistent with the calculation methodology specified herein and in accordance with the regulations of the Township's Stormwater Management Ordinances, as amended [Chapter 26].
 - B.To calculate the increase in total stormwater runoff and peak flow resulting from a proposed subdivision and/or land development, the "cover complex" method will be used, as outlined in Urban Hydrology for Small Watersheds, U.S. Department of Agriculture, Soil Conservation Service, Technical Release 55 (NTIS PB87-101580) and following mathematical analyses described in Computer Program for Project Formulation Hydrology (SCS Technical Release 20, 1983), as amended. The design of any stormwater management facility intended to meet the requirements of this chapter shall be verified by routing the design storm hydrographs through the proposed stormwater detention facility.
 - C.All stormwater detention facilities shall be designed to meet the Release Rate Districts requirements in accordance with the Township's Stormwater Management Ordinances, as amended [Chapter 26].
 - D.All stormwater detention facilities shall be designed to meet the water quality requirements in accordance with the Township's Stormwater Management Ordinances, as amended [Chapter 26].
 - E.Farm field or disturbed earth (existing conditions) within a watershed, or portion thereof, used for modeling purposes shall be considered as "meadow" when developing the necessary "cover complex" calculations.
 - A.Runoff calculation methodology, release rate districts requirements, water quality requirements, stormwater management plan requirements, operations and maintenance requirements, etc., shall be in accordance with the Township's Stormwater Management Ordinances, as amended [Chapter 26].
 - <u>B.</u>The Soil Conservation Service Type II twenty-four-hour rainfall distribution shall be used in the soil cover complex calculations. The twenty-four-hour rainfall depths for the return periods used in the calculations shall be in accordance with the Township's Stormwater Management Ordinances, as amended [Chapter <u>26</u>].
 - <u>C.</u>In calculating the time of concentration for a watershed, the maximum length of sheet flow over paved or unpaved surfaces shall not exceed 150 feet. All time of concentration paths used for calculation purposes shall be shown on the Watershed Area Plan.
- 4. Detention Basin Facilities and Bioretention Facilities with a drainage area of one acre or larger, or with an aboveground ponding depth of greater than 2.5 feet as measured from the finished grade of the facility to the 100-year water surface elevation, shall be designed in accordance with the following minimum requirements:

. . .

- B.The use of regional detention basins to combine and eliminate numerous smaller basins is encouraged. Within subdivisions, detention basins shall be located in open space, on an individual lot, or common area, but shall not cross individual lot boundaries, unless a homeowners association will own and maintain the detention basin. If a homeowners association is not created for a subdivision, any detention basin located on an individual lot shall be owned and maintained by the lot owner.
- C.B. All detention basin berms, including emergency spillways, shall have a maximum interior and exterior side slope of three horizontal to one vertical. The toe of any slope shall be located a minimum of five feet from any property line or street right-of-way line.
- <u>DC</u>. The maximum difference between the top of berm elevation and the lowest invert elevation of the outlet structure shall be seven feet.
- E. Post-development runoff volume generated from the one-year, twenty-four-hour design storm shall be controlled so that it is released over a minimum of 24 hours. Except with the one-year design storm, basins shall be designed so that they return to normal conditions within 12 hours after the termination of the storm.
- D. Storage facilities shall completely drain both the volume control and rate control capacities over a period of time not less than 24 and not more than 72 hours from the end of the design storm, unless approved by the Township Engineer. All open-air facilities shall be designed to completely infiltrate runoff volume within 3 days from the start of the design storm.
- F.E. The grading and utility plan shall contain a note that all detention basin embankments shall be placed in lifts not to exceed one foot in thickness. Each lift shall be compacted to a minimum of 95% of Modified Proctor Density as established by A.S.T.M. D-1557
- G.F. Outlet pipes from detention facilities shall be designed to control the peak rate for the one-hundred-year design storm. All basin outlet pipes shall be watertight reinforced concrete pipe having watertight"—Ring" joints, with a minimum size of 18-15 inches.
- H.G. An emergency spillway shall be provided for a detention basin in order to convey basin inflow in excess of design flows, or in the event the outlet structure becomes blocked and is unable to convey the design flow. The minimum capacity of the emergency spillway shall be equivalent to the one-hundred-year peak inflow rate for the post-development design storm. Emergency spillways shall be constructed with a suitable liner, as determined by the Township Engineer, designed in accordance with the manufacturers' specifications, backfilled with topsoil, and seeded to protect the berm against erosion. The emergency spillway lining shall extend to the toe of the embankment on the exterior of the berm and shall extend to an elevation of three feet below the spillway crest on the interior of the berm.
- LH. The minimum freeboard through the emergency spillway for basins shall be one foot and the maximum spillway length shall not exceed 75 feet.

- J.I. All portions of the detention basin shall be sloped towards the outlet structure at a minimum slope of 2%. A slope less than 2% is permitted for facilities relying on infiltration for drainage if an underdrain system is provided with cleanouts for maintenance. The underdrain shall have a valve at the outlet structure to allow the system to be drained should the infiltrative capabilities of the soils become compromised.
- K.J. The minimum basin berm width at the design elevation for basins shall be 10 feet. A cutoff trench (keyway) of impervious material shall be provided under all embankments that require fill material. The cut-off trench shall be a minimum of eight feet wide, three feet deep and have side slopes of one horizontal to one vertical.
- L.K. For all detention basins, the permanent outlet control structure shall be a Type "M" inlet grate and box. The inlet grate shall only be used as an emergency outflow and the grate elevation shall be equal to or higher than the one-hundred-year water surface elevation, but at least six inches below the emergency spillway elevation.
- M.L. Two anti-seep collars shall be installed around the basin outlet pipe and shall be centered within the normal saturation zone of the berm. The anti-seep collars and their connections to the pipe barrel shall be watertight.
- N.M. Detention basins shall be installed before the construction of any buildings or site improvements, unless otherwise approved by the Board and the Bucks County Conservation District. A preliminary basin as built plan must be submitted and approved by the Township Engineer prior to beginning any building construction to confirm that the constructed volumes are in accordance with the design plans. A note confirming this shall be included on the record plan and in the sequence of construction.
- O.N. If a detention basin will serve as a temporary sedimentation basin, the temporary control measures shall be shown for the basin as required by PennDOTPennsylvania Code, Chapter 102 Regulations, as amended. Temporary sediment basins shall be in place prior to any earth moving activities within their tributary drainage areas.
- P.O. Energy dissipating devices (cable concrete/, rip rap, or equivalent) shall be provided at all discharge points. Bethlehem Precast Cable Concrete CC-20, or approved equal, shall be required where a basin outlet pipe is discharged along or within a public road right-of-way.
- <u>P.</u>Basins shall be screened and landscaped in accordance with the Landscape Planting requirements of this chapter <u>and the following minimum</u> requirements:
 - 1.) Bioretention and infiltration facilities shall be planted with vegetation and/or seed mix other than turf grass to encourage evapotranspiration. Planting soil depth shall be at least 18" where only herbaceous plant species will be utilized. If trees and woody shrubs will be used, soil media depth shall be increased depending on plant species.
 - 2.) Planting soil shall be amended with a composted organic material. A typical organic amended soil is combined with 20-30% organic material (compost), and 70-80% soil base (preferably topsoil).

- Q.Retention basins or wet ponds are recommended for areas of natural high ground water with a recommended minimum drainage area to the facility of 5 acres. To protect the public health, safety and welfare, At a minimum, the any retention basin design-shall include be designed in accordance with the following:
 - 1)a-A ten-foot wide safety ledge, a clay liner, a maximum four- foot permanent pool depth, wet-tolerant plantings, cutoff trench, two fountain aerators with locked controls, the location of power source, and specifications for embankment construction and soil testing. The above criteria shall be specified in a retention basing-cross section detail.
 - 2)a forebay for sediment collection and removal,
 - 3) a dewatering mechanism,
- Q.R. Underground detention basins may be utilized for stormwater management, when approved by the Board. When approved, tThe underground detention basins shall be designed in accordance with the following criteria:
 - 1) Underground detention basins shall be located outside all public rights-of-way.
 - 2) Underground detention basins shall be constructed of high-density corrugated polyethylene pipe, or approved equal. The required volume shall be provided utilizing only underground pipe capacity. Each pipe shall have a minimum slope of 0.5%, except pipe slopes may be flat for infiltration facilities or Managed Release Facilities.-

4) A minimum of one footsix inches of freeboard shall be provided between the one-hundred-year water surface elevation and the top of all inlet grates or manhole rims.

. . .

- 7) As-built plans shall be provided for any underground detention basin to verify it was constructed in accordance with the approved plan prior to backfilling of the basin. A note to this effect shall be included on the record plan and in the sequence of construction.
- S. Managed Release Basins. If it has been determined that it is not feasible to manage the required volume through infiltration and evapotranspiration alone due to soil or other environmental constraints on the site, all Managed Release Concept stormwater facilities shall be in accordance with the most recent Managed Release Concept design guidance provided by PADEP.
- 5. Storm Sewer.

. . .

E. Storm sewer within the Township ultimate right-of-way shall be reinforced concrete pipe with a minimum diameter of 15 inches or equivalent. Storm sewer located outside a public ultimate right-of-way or easement shall be high density corrugated polyethylene.

6. Inlets.

. . .

C. Inlet spacing in paved areas shall be arranged so that a minimum of 80% of the gutter flow tributary to the inlet will be captured. The designer shall be required to verify that bypass surface runoff from the one-hundred-year design storm will enter the storm sewer piping system at some point, prior to discharge into a detention basinstormwater facility or other approved outlet point. Inlets shall be spaced so that the accumulation of surface bypass runoff and surface runoff tributary to an individual inlet will not exceed other design requirements specified in this chapter. Inlet capacity shall be based on inlet efficiency curves provided in PennDOT Design Manual, Part 2, as amended.

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7. Manholes.

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C. Storm sewer manholes located within public rights-of-way, the manhole covers shall have the word "STORM" cast in two-inch high letters.

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8. Headwalls and Endwalls.

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B. A Type "DW" endwall shall be provided at the termination of all storm sewer systems, unless conditions warranted an alternate type approved by PennDOT and/or the Boardthe Township Engineer.

. . .

9. Overflow System. An overflow system shall be provided to carry all bypass flow and/or flow in excess of storm sewer design capacity, to the detention basing stormwater facility (or other approved outlet point) when the capacity of the storm sewer system is exceeded. Stormwater runoff will not be permitted to discharge from any storm sewer structures.

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11. Bridges and Road Culverts.

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- D. Bethlehem Precast Cable Concrete CC-20, or approved equal, shall be required at the upstream and downstream ends of all bridges and culverts.
- 12. Access Drive and Driveway Culverts.

- - -

B. The minimum culvert size shall be 15 inches, or equivalent and constructed of reinforced concrete pipe with flared end sections or HDPE with flared end sections.

The Township may approve a smaller culvert if it is demonstrated that the pipe is adequate for the 100-year design storm.

. . .

- D. Where an existing roadside drainage swale is too shallow to permit installation of a driveway pipe, the Board-Township Engineer may approve the use of a concrete trench box with grate.
- 13. Drainage Easements, Ownership and Maintenance. Drainage easements, ownership and maintenance responsibilities for all stormwater management facilities shall be as follows:
 - A. Detention Basin Stormwater Easements.
 - (1) When any detention basinstormwater facility is proposed within a subdivision and/or land development, a blanket or definedneasement shall be provided. The description of the facility defined easement, access to facility, and the terms of the ownership and required maintenance, shall be provided on the recorded Post Construction Stormwater Management Plan incorporated on the site plan.
 - (2) An easement and stabilized access to a detention basinstormwater facility shall be provided for maintenance and operation. This access easement shall be cleared and shall be a minimum of 20 feet in width. Access to detention basins and similar facilities shall be constructed of interlocking grass paving system and backfilled with topsoil and seeded if required by the Township Engineer. The access shall be a minimum of 12 feet in width and be no steeper in slope than 12 horizontal to one vertical. In addition, depressed curb and concrete driveway apron shall be provided where the access enters a road or access drive. Access easement shall be owned and maintained by the individual lot owner or homeowners association.
 - (3)A homeowners association, or other entity as approved by the Township Solicitor, shall be required for any facility managing stormwater flows from more than one lot. Within residential subdivisions, stormwater facilities shall be located in open space, on an individual lot, or common area, but shall not cross individual lot boundaries unless a homeowners association will own and maintain the facility(ies).
 - B. Storm Sewer and Drainage Swale Easements and Agreements.
 - (1) Easements shall be a minimum of 20 feet in width and shall be provided to accommodate required storm sewer facilities and drainage swales. No other utilities shall be located within a storm sewer easement, unless approved by the Township Engineer and Utility provider.
 - (2) On private property, the individual owner or homeowners association shall maintain the easement area, including ground cover, fencing and/or landscaping.
 - (3)Stormwater Management Facility Maintenance Fees. The Township shall require payment of a fee for the timely installation, proper construction and continued maintenance by the owner of the subject property. The fee shall be calculated as set by Township resolution.
 - C.Stormwater Maintenance Agreement.
 - (1)When an applicant retains ownership of any stormwater management facility, such entity shall be responsible for repair and maintenance of the facility. The site plan shall contain a notation permitting access to such facilities deemed

- critical to public welfare, for inspection at any reasonable time by the Township or its designee.
- (2) The site plan shall also contain a notation that states the approval of the final plans is conditioned upon the applicant agreeing to be responsible for all repairs and maintenance of the stormwater management facility and permitting access to such facilities deemed critical to public welfare, for inspection at any reasonable time by the Township or its designee. This Stormwater Maintenance Agreement shall be in writing, as prepared by the Township Solicitor, for recording. The failure of the applicant to properly maintain any stormwater management facility shall be construed to be a violation of this chapter and shall be declared to be a public nuisance, subjecting the violator to any and all penalties provided by law.
- D.Stormwater Management Facility Maintenance Fees. The Township shall require payment of a fee in order to maintain the stormwater management facilities. The fee shall apply to all storm sewers located in public rights of way or any easement owned by the Township. The amount of the fee shall be set by Township resolution.
- <u>§22-713.1.E</u> Provide planted buffers of native species for subdivisions and/or land developments, which act to visually integrate a development into the existing landscape and protect the surrounding areas.
- <u>Add §22-713.1.G.</u> To manage existing vegetation through the removal or management of dead, diseased, dying trees and invasive species that could create a hazard to the health, safety, and welfare of the community.
- §22-713.2.B.(5) The site plan shall contain plan notations stating that, in the opinion of the Township Engineer's representative or certified arborist, any trees intended to remain and are disturbed, damaged or killed during or as a result of construction shall be replaced at a rate of one caliper inch for one caliper inch.
- Add §22-713.2.E. Any specimen tree having a diameter of thirty (30) inches or more, measured at twelve (12) inches above natural grade line, shall not be removed, whether located within a woodland area or standalone.

§22-713.3. Parking Area Greening and Landscaping

Parking lots should be effectively landscaped with trees and shrubs to reduce the visual impact of glare from headlights, and parking lot lights; to delineate driving lanes; and define rows of parking. Furthermore, parking lots should be adequately landscaped to provide shade in order to reduce the amount of reflected heat, to allow surface infiltration of stormwater runoff, and to approve the aesthetics of parking lots.

- A. Planting islands. All 10-foot by 36-foot planting islands shall contain 2 shade trees and all 10-foot by 18-foot plantings islands shall contain one shade tree. Planting islands require a minimum of 85% ground coverage of low-growing shrubs, grasses, and/or ground cover plants, as determined by the design ground coverage of the plant species proposed, including any parking islands that are designed as a stormwater facility which shall have wet tolerant species.
- B. Plantings Strips. Planting strips shall be provided for all rows of parking spaces

- not separated by a drive aisle a minimum of 10 feet wide and shall run the length of the parking row. Planting strips shall contain one shade tree at intervals of every 25 feet on average. including any parking strips that are designed as a stormwater facility which shall have wet tolerant species.
- C. § 22-713.4.B(1) Any lot with 30 parking spaces or more shall have landscaped areas within the paved area equal to a minimum of 5% of the total paved area. The total paved area shall exclude landscape strips around the perimeter.
- D.C. All planting islands and strips shall be underlain by soil improved to a minimum depth of 30 inches, not stone or bituminous material, and shall be graded not to exceed a slope of 5 horizontal to 1 vertical. A soil improvement detail and notes on the Landscape Plan shall include the removal of all construction debris and existing compacted soils and the specifications for the soil improvement mix.
- ED. The placement of light standards shall be coordinated with the landscape plan to avoid a conflict with the effectiveness of light fixtures.
- FE. Shade treesAll required plantings shall be native plants and shall be selected from the List of Required Plant Material contained in the Appendix.
- G. A substantial proportion of the trees required by this section should be planted within the parking lot within protected islands well-distributed throughout the paved surface. These protected islands should be used to direct the flow of traffic through the parking lot in a smooth and safe manner to prevent "cross-taxing."
- **§22-713.4.A**. Street Trees. Street trees shall be planted every 30 feet along all proposed streets and existing streets when they abut or lie within the proposed subdivision and/or land development. If existing trees meet the intent of this section, they may be utilized to meet the street tree requirements subject to approval by the Township Engineer.
- §22-713.4.B. Street trees shall be planted between three and five and ten feet outside the ultimate right-of-way line unless otherwise specified in this Chapter, and as an alternative, the same quantity of trees may be planted in an informal arrangement along the perimeter of the street, when approved by the Board.
- §22-713.5.A. All subdivisions and/or land developments shall comply with the buffer yard requirements of the Township Zoning Ordinance [Chapter 27]. The spacing and composition of the buffer yard plantings strips required by the Zoning Ordinance shall comply with the following provisions:
 - (1) Each strip shall contain a combination of native evergreen and deciduous trees and shrubs listed below in naturalistic groupings rather than linear strips.
 - (2)The mixture of plants shall be chosen and planted in such a fashion and density as to provide the required screening of the neighboring properties. The table below indicates the minimum amount of plant material that is required per linear foot of buffer length. Unless required elsewhere in this chapter, plantings are not required to run parallel or be aligned on property or right-of-way boundaries. At the discretion of the Township, plant material may be sited on any portion of the property for buffer purposes and may be staggered or grouped, if a satisfactory buffer can be achieved in this fashion.

Buffer Width	Pla	nting Options
25-foot buffer width	<u>(a)</u>	1 canopy tree per 40 feet and 1 flowering tree per 60 feet and 1 evergreen per 60 feet
35 and 45-foot buffer widths	<u>(b)</u>	1 canopy tree per 40 feet and 1 flowering tree per 60 feet and 1 evergreen tree per 30 feet and 1 shrub per 20 feet
	<u>(c)</u>	A Vegetated Filter Strip in accordance with the PA Stormwater BMP Manual including 1 canopy tree per 60 feet and 1 flowering tree every 60 feet and 1 evergreen per 60 feet and planted with native grasses or flowering meadow mix with a wide variety of species, not standard turf grass.
	<u>(d)</u>	1 canopy tree per 40 feet and 1 evergreen per 30 feet and 1 shrub per 5 feet
45 feet buffer width or greater	<u>(e)</u>	1 canopy tree per 40 feet and 1 flowering tree per 50 feet and 1 evergreen per 50 feet and 1 shrub per 15 feet
	<u>(f)</u>	1 canopy tree per 100 feet and 1 evergreen per 30 feet and 1 shrub per 15 feet
	(g)	1 evergreen per 25 feet and 1 shrub per 10 feet
	<u>(h)</u>	A berm varying in height with maximum side slopes of all to be 4 horizontal to 1 vertical and 1 flowering or evergreen tree per 20 feet and 1 shrub per 10 feet Stormwater infiltration berms are permitted in accordance with the PA Stormwater BMP Manual, as amended, with species chosen to suit the proposed soil conditions.

§22-713.5.A(3). Plant materials shall be native and selected from Appendix D of this Chapter Required Plant Material List.

<u>§22-713.5.B.(1)</u> Off-Street Parking Areas. One deciduous or evergreen shrub Densely planted with a mixture of evergreen and deciduous shrubs and grasses every five feet to create a screen along the perimeter of the parking area.

- (a)In addition to the above, for every parking lot buffer that abuts a sidewalk or a street for a parking area of 5 spaces or more, one of the options below shall be installed to block headlights:
 - (1)Option A: One (1) shade tree and 10 evergreen shrubs shall be planted for each 30 feet of buffer length and 1 square foot of perennial plantings for every linear foot of total buffer.
 - (2)Option B: A low-wall fence or berm not to exceed 4 feet in height or 3:1 slope as measured from the adjoining sidewalk, along with 1 tree per 30 feet of buffer length and three shrubs for every 20 feet of buffer length. An increased height may be permitted up to 8 feet high where there is unusual topography, larger vehicles, or other similar circumstances.

§22-713.5.B.(2) Trash Collection Areas and Mechanical Units. A minimum six-foot wooden shadow box opaque fence or wall, or approved equal, on at least three sides, with a staggered row of evergreen trees planted every 10 feet along the fence perimeter.

§22-713.5.B.(8) Easements. The boundary of a pedestrian or vehicular access easement, when located on, or adjacent to, a lot-private property, shall have a method of physical delineation on both sides consisting of six-foot arborvitae trees, planted nine feet on center, with four-foot-high split-rail fence, or other type of delineation as approved by the Board of Supervisors.

Add §22-713.5.B.(9) The boundary of a vehicular access easement, such as emergency access easements, when located on, or adjacent to a private property, shall have a method of physical delineation on both sides consisting of six-foot arborvitae trees, planted nine feet on center, with four-foot-high split-rail fence, or other type of delineation as approved by the Board of Supervisors and Fire Marshall.

Add §22-713.5.B.(10) Proposed and existing conservation easements shall be physically delineated in the field by a concrete monument at the intersection of the easement with the property line. A two or three-rail split-rail tapered fence or stone-shaped concrete monument corner may be substituted at the discretion of the Board of Supervisors.

§22-713.6.A. – General Requirements. 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, such as wind, soil, moisture and sunlight. Plantings should be selected and located where they will not contribute to conditions hazardous to public safety and trees shall be a minimum of 10 feet from all existing and proposed underground and overhead utilities.

§22-713.6.B. – Plant Specifications. All plant material shall meet the minimum standards for health, form, and root condition as outlined in the American National Standards Institute (ANSI) Z60.1 — 19962014, as amended. All plant material shall be hardy and within the United States Department of Agricultural (USDA) Hardiness Zone 6, applicable to Bucks County, Pennsylvania.

§22-713.6.C. – Installation. All shade and evergreen trees shall be supported with stakes and guy wiring in accordance with The American Nursery and Landscape Association (ANLA) Standards. The backfill for excavated planting areas shall be composed of native topsoil and shall be mulched six inches beyond the dripline. Mulch shall not be applied against the trunk. The trunk flare shall remain visible.

Add §22-713.6.E. To ensure plant diversity and the sustainability of the installation in parking lots, the following plant diversity is required, where 60% of trees in parking lots must be large shade tree species and 25% of all trees evergreen:

Plant Diversity Requirements				
Minimum Number of Required Trees	Minimum Number of Tree Species	Maximum % of any 1 species		
1-5	1	100		
6-15	2	50		
16-30	3	40		
31-50	4	30		
51+	5	20		

§ 22-714. Lighting

- 1. Purpose. It is the purpose of these requirements to regulate the design, placement, orientation and distribution of lighting in order to:
 - A. Provide lighting of facilities to protect public health, safety and welfare.
 - B. Control glare from parking areas and protect the privacy of adjacent properties. Minimize adverse offsite impacts of lighting such as light trespass and glare.
 - C. Provide lighting for safe vehicular and pedestrian movements.

 - E. Promote efficient design and construction with regard to energy conservation.energy conservation.

2. Definitions

- A. Backlight For an exterior luminaire, lumens emitted in the quarter sphere below horizontal and in the opposite direction of the intended orientation of the luminaire. For luminaires with symmetric distribution, backlight will be the same as front light.
- B. <u>BUG A luminaire classification system that classifies Backlight (B), Uplight</u> (U) and Glare (G).
- C. Footcandle -The unit of measure expressing the quantity of light received on a surface. One footcandle is the illuminance produced by a candle on a surface one-foot square from a distance of one foot.
- D. Glare Lighting entering the eye directly from luminaires or indirectly from reflective surfaces that causes visual discomfort or reduced visibility.
- E. <u>IES An acronym for the Illuminating Engineering Society, a professional guidance body for lighting engineers.</u>
- F. **LED** Light Emitting Diode
- G. <u>Light Trespass Light that falls beyond the property boundary it is intended to illuminate</u>
- H. Mounting Height The height of the photometric center of a luminaire above grade level
- I. <u>Uplight</u> For an exterior luminaire, flux radiated in the hemisphere at or above the horizontal plane.
- 2.3. Applicability. Lighting shall be required for facilities as deemed necessary by the Board, including but not limited to for all public streets, parking areas, sidewalkspedestrian ways, entrances, loading facilities, access drives, nonresidential-buildings, multifamily subdivisions, recreational facilities and, other public facilities. and at any other locations deemed necessary by the Board.

4. Public Streetlights.

A. Residential Streets. Public sStreetlights shall be required for all residential subdivisions at the following locations: ...

. . .

- C. Prior to the submission of Final Plans, the applicant shall submit a petition to create a streetlight district to the Township. All streetlights shall be the responsibility of the property owner.
- D. The site plan shall contain a plan notation stating, "All streetlights shall be installed and energized prior to the issuance of the first occupancy permit for any subdivision and/or land development or first phase or section thereof and the lighting and maintenance costs shall be assessed to affected property owners on a per lot basis or by an owners' association."
- E. The applicant shall be responsible for all costs involved in lighting the streets until such time that the Township accepts the streets for dedication or accepts the improvements at the end of the 18-month maintenance period. Thereafter the property owner(s) shall be responsible.
- F. Streetlight Specifications

. . .

(2) Where streetlights are installed at intersections, the applicant shallmay-install combination street name signs and streetlights.

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(1) (4) All lighting fixtures shall be controlled by automatic photocells to regulate lighting between dawn and dusk. For all commercial, industrial, public recreational, and institutional applications, a note shall be added to the record plan that all lighting fixtures shall be controlled by programmable timers that accommodate seasonal and annual variations and battery or mechanical (e.g. spring wound) backup to extinguish light sources between 11 pm and dawn or within 1 hour of the close of business, whichever is earlier, to conserve energy and mitigate nuisance glare and sky lighting consequences. Security lighting may be permitted up to 25% of the total number of fixtures onsite.

. . .

- 4. Parking Areas and Loading Facilities.
 - A. Lighting of parking areas, including access drives and loading facilities, shall meet the minimum illumination levels and uniformity ratio specified in this chapter.
 - B. Light standards shall be a maximum of 20 feet in height, and have a concrete base raised 30 inches above finished grade.

- C. Light standards shall be located in planting islands or planting strips within parking areas. Light standards shall not be installed directly on the parking area surface.
- D. All lighting fixtures shall be controlled by automatic photocells to regulate lighting between dawn and dusk.
- E. All electrical power lines to lighting fixtures shall be underground.

F. Glare Control.

- (1) The maximum light intensity measured at any point along the property line shall be 0.2 footcandles.
- (2) All lighting fixtures shall meet all applicable IESNA cutoff criteria.
- (3) All lighting shall be effectively shielded and directed towards the interior of the parking area away from adjacent properties.
- (4) Illuminated signs shall have a shielded lighting source and shall be directed away from all street rights-of-way.
- 5.All other lighting required by this chapter for recreational facilities, sidewalks, pedestrian walkways, trails, crosswalks, bicycle lanes, etc., may be approved by the Board in accordance with the recommended practices and standards of the IESNA.
- 6. The applicant shall submit three copies of an as-built lighting plan to the Township to verify existing light intensities and uniformity are in accordance with the approved final plans.
- 7.Where required by this chapter, illumination levels shall have intensities and uniformity ratios in accordance with recommended practices of the IESNA handbook RP-20-98 and IESNA Handbook RP-8-00, as amended, and in accordance with the minimum standards listed below:

Description of Use/Area	Maintained Footcandles	Uniformity Avg.: Min.
High Activity Nonresidential Parking, Loading Facilities and Drives (e.g., Retail, Office)	0.9 Minimum	4:1
Medium Activity Nonresidential Parking, Loading Facilities and Drives (e.g., Industrial, Institutional)	0.4 Minimum	4:1
Multifamily Residential Parking	0.2 Minimum	4:1
All Nonresidential Subdivision Streets	0.9 Average	6:1

Description of Use/Area	Maintained Footcandles	Uniformity Avg.: Min.
Pedestrian Walkways, Bike Lanes, Trails	0.2 Average	5:1
Building Entrances	2.0 Average	_

5. Parking Areas and Loading Facilities.

A. Illumination Levels

Lighting of parking areas, including access drive, loading facilities, pedestrian walkways and building entrances, shall have intensities and uniformity ratios in accordance with the recommended practices of the Illuminating Engineering Society (IES) as contained in the most current editions of the following publications:

- (1) IES RP-43-22 Lighting Exterior Applications
- (2)IES RP-8-22 Lighting Roadway and Parking Facilities
- (3)<u>IES G-1-22 Guide for Security Lighting for People, Property and Critical</u> Infrastructure

Description of Use/Area	Light Level (footcandles)	<u>Uniformity</u>
General Uncovered Parking Area Drive Aisles & Parking Spaces	0.2 Minimum	20:1 max:min
Parking Area General Pedestrian & Vehicle Transaction Areas	0.9 Minimum	15:1 max:min
Mixed Use Trails (when required)	0.8 Minimum	<u>5:1 ave:min</u>
Building Entrances	1.0 Average	5:1 ave:min

B.Luminaire Design

- (1) Mounting height. Light standards shall be a maximum of 20 feet in height.
- (2) Location. Light standards shall be located in planting islands or planting strips within parking areas. Light standards shall not be installed directly on the parking area surface. Poles shall be a minimum of five feet (5') from the edge of pavement or protected by a raised concrete base thirty inches (30") in height.
- (3) Color Temperature. Luminaires shall have a maximum color temperature of 3,000K.
- (4) <u>Uplight (U) value for all luminaires shall be zero (0)</u>.
- (5) All electrical power lines to lighting fixtures shall be underground.

C. Control of Light

- (1) For all commercial, industrial, public recreational, and institutional applications, a note shall be added to the record plan that all lighting fixtures shall be controlled by programmable timers that accommodate seasonal and annual variations and battery or mechanical (e.g. spring-wound) backup to extinguish light sources between 11 pm and dawn or within 1 hour of the close of business, whichever is earlier, to conserve energy and mitigate nuisance glare and sky lighting consequences. Security lighting may be permitted up to 25% of the total number of fixtures onsite.
- (2) The maximum light intensity measured at any point along the property line shall be 0.1 footcandles at any point along off-street areas and 0.30 footcandles along public roadways.
- (3) The maximum uplight (U) value as defined by IES TM 15-20 shall be 0 and the maximum glare (G) value shall be 2 adjacent to properties with a residential use.
- (4)<u>All lighting shall be effectively shielded and directed towards the interior of</u> the parking area away from adjacent properties.
- (5)<u>Illuminated signs shall have a shielded lighting source and shall be directed</u> away from all street rights-of-way.
- (6) All other lighting required by this chapter for recreational facilities, sidewalks, pedestrian walkways, trails, crosswalks, bicycle lanes, etc., may be approved by the Township Engineer in accordance with the recommended practices and standards of the IESNA.

D.Compliance Monitoring

- (1) The applicant shall submit an as-built lighting plan to the Township to verify existing light intensities and uniformity are in accordance with the approved final plans.
- (2) The Township reserves the right to conduct post-installation inspections to verify compliance with the requirements of this Ordinance and approved lighting plan commitments, and to require remedial action at no expense to the Township.
- §22-715.2.G.(3) Recreation Fees Districts. The fees shall be recorded to one of the recreation fee districts Township Planning Areas in Appendix C to ensure that the lands and facilities are accessible to the residents of the development(s) that paid fees towards their cost. The Recreation Fee District Map in this Appendix designates "Recreation Fee Districts." Any fees collected under this chapter shall be expended only within the same Recreation Fee District Planning Area as the subdivision and/or land development that contributed the fees, except that fees from any district may be used for public Township wide amenities such as trails, community parks and recreation areas.
- §22-715.3.A.(5)(b) Stormwater DeRetention Facilities. Stormwater retention basins may be approved by the Board if the resulting body of water is integrated into the landscape

and the area can be used by the residents for active recreational activities.

§22-717.3 All underground utilities shall be located as much as possible between the curb or edge of cartway and the edge of the sidewalk or right-of-way line.

<u>§22-719.6</u>. The site plan shall contain a plan notation stating that any <u>existing or</u> proposed well is subject to the provisions of the well construction standards, which includes requirements for well permitting, water quality testing and well production certification.

§22-719.7.A. Four Two copies of a Water Resource Impact Study shall be submitted to the Township with the preliminary plan application. An application for subdivision and/or land development shall be considered incomplete without the required water resource impact study.

§22-719.8.A. Purpose. These regulations are to ensure that existing wells and new wells constructed in New Britain Township can provide a reliable, safe and adequate supply of water to support the intended use within the capacity of available groundwater resources and to estimate any impacts of the additional water withdrawals on existing nearby wells, underlying aquifers and watercourses.

§27-721.6. If the property being subdivided or developed contains an existing on-site sewage disposal system, the applicant shall submit to the Township acknowledgment from the Bucks County Department of Health a reputable septic system inspection company indicating that the existing system has been inspected and is functioning properly.

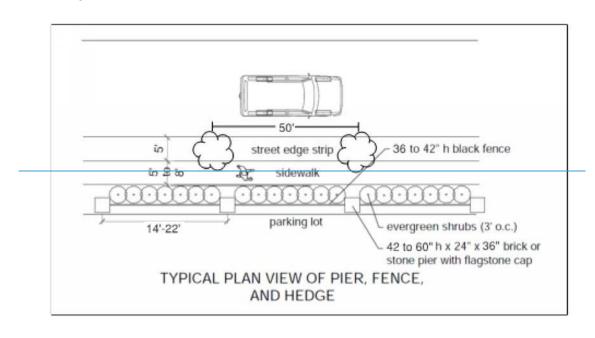
§27-721.9. The property owner shall execute an operation and maintenance agreement with the Township and post the required financial security for any non-conventional, alternate or experimental sewage system, such as an Individual Residential Spray Irrigation System, Small Flow Treatment Facility or Community Sewage System. The design, plans and specifications for the proposed system shall be approved by the Township and Bucks County Health Department prior to final plan approval. The agreement shall provide for a non-refundable fee to the Township for administration and future compliance monitoring and shall furthermore provide for sufficient financial security to guarantee the proper operation and maintenance of the proposed facility in accordance with the Act, which may include cash, a letter of credit or other Township approved financial security.

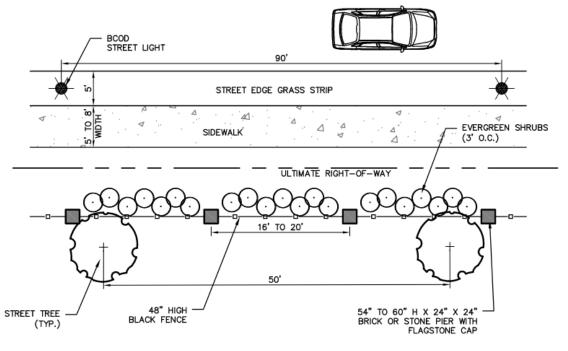
§§22-722.4.C.(7)(b) All street trees shall be planted in the planting strip located between the curbline and the sidewalk 5 to 10 feet behind the ultimate right-of-way. See the "Typical Plan View" illustration in Subsection 4D(7).

22-722.4.D.(7)(a) Where parking areas are located or are proposed to be located between a street and a principal building, a buffer fence shall be installed withinbetween five and ten feet outside of the ultimate right-of-way line of the street between this parking area and the street. This buffer fence shall be constructed and installed in accordance with the following standards, figures, and illustrations:

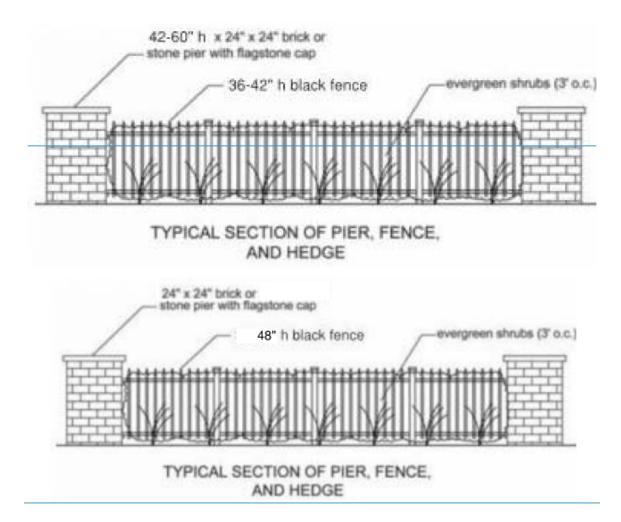
1) The fencing shall be black steel or aluminum, <u>36 inches to 42 48</u> inches in height, and installed and maintained between the masonry piers. The masonry piers shall be constructed out of stone or brick, six to 18 inches taller than the fencing between them, 24 to <u>36</u> inches or greater in width and depth, and with a concrete or stone

- cap. The piers shall be evenly installed <u>14 to 2216 to 20</u> feet on center <u>or at a spacing</u> to be approved by the Township Engineer.
- 2) Evergreen hedge plants, initially at least 18 to 24 inches in height and maintained at a height of no less than 30 inches, shall be installed and maintained between the fencing and the street.





TYPICAL PLAN VIEW OF PIER, FENCE AND HEDGE



§22-722.4.e. All parking areas, walkways, and passages shall be adequately illuminated with a lighting system designed to complement the general areas and the site of the proposed development and to prevent any off-site glare and spillover light onto adjacent properties.

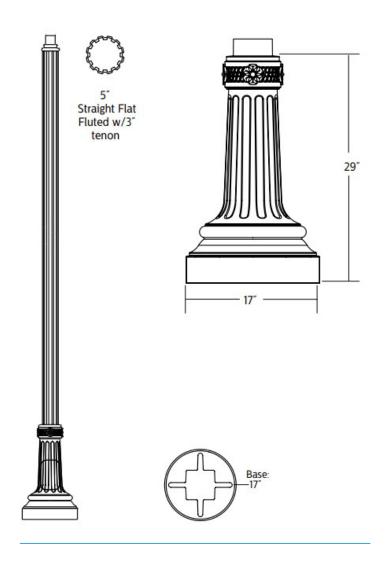
- (1) All light fixtures shall be shielded to reduce light spillage beyond the extent of the property line. At no point shall any light trespass onto adjacent residential properties exceed 0.1 footcandle at the residential property line, and at no point shall any light trespass onto adjacent nonresidential properties exceed 0.5–0.3 footcandle at the nonresidential property line.
- (2) Pedestrian scaled lighting shall be positioned along on-site pedestrian walks and trails such that lighting levels along them maintain a consistent 0.2 footcandle are consistent with IES recommended guidelines.

. . .

(4) Freestanding fixtures shall utilize appropriate shape cutoff luminaires with shielding of the light source at angles above 72° from the vertical. having an Uplight (U) rating of (0).

(a) in order to establish a consistent design scheme along the corridor overlay district, all freestanding fixture types shall be constructed of metal, with a black finish. The luminaire shall be in the style illustrated below from philips [citypost led post top (tx1)] Signify [Hagerstown LED Post Top Comfort (tx03c)-Gen 2], Type III Distribution, 3000K Color Temperature and shall be placed upon a P3165 pole from Signifyphilips, or the Board of Supervisors may approve an appropriate alternative. The detail shall be in accordance with the Township's Standard Butler Avenue Corridor Overlay District Street Light Detail unless otherwise approved.



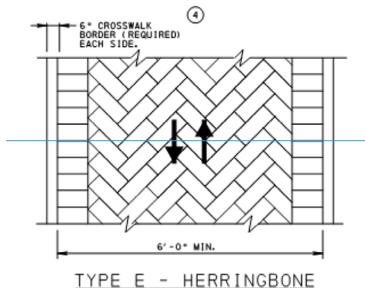


..

- (c) The maximum height of freestanding fixtures shall may vary to provide scale and dimension to the project. All lighting fixtures shall not exceed 15 feet in height, except up to 25% of the fixtures may be up to 25 feet in height. Fixture heights shall be measured from the top of the fixture to ground level. Streetlights directly along West Butler Avenue shall be 14 feet in height.
- (5) Building-mounted lighting shall be shown on all plans. All building-mounted lighting shall be designed so that all light from the source is shielded at angles above 72° from the vertical so as not to create any glare or visible source of light have an Uplight (U) rating of zero (0). Building-mounted lighting shall not be installed higher than the building upon which it is mounted and shall not exceed 30 feet in height in all cases, as measured from the top of the fixture to ground level. Lights are not permitted to outline buildings or rooflines.

§22-722.4.F.(3) Pedestrian crosswalks in public streets, internal streets, drives, and parking areas shall be distinguished from asphalt driving surfaces through the use of maroon colored StreetPrint asphalt imprinted textured crosswalks. Crosswalks shall consist of white thermoplastic in a continental pattern, or an appropriate alternative approved by the Board of Supervisors. The use of this distinguishing material is to enhance pedestrian safety and comfort, as well as the attractiveness of the crosswalks. These crosswalks shall be at least as wide as the sidewalks/walkways to which they connect and shall match the following illustration.

DECORATIVE CROSSWALK



MATERIAL WIDTH
WHITE 12" MIN.,
24" MAX.

EDGE OF ROAD

(SPACINGS 12" MIN.,
GO" MAX.

TYPE C - PERPENDICULAR



NEW BRITAIN TOWNSHIP

207 Park Avenue • Chalfont, PA 18914 • Telephone: (215) 822-1391

SUBDIVISION & LAND DEVELOPMENT APPLICATION

FÈ	Date of Application:				TOWNSHIP USE ONLY
Œ	Date of Plan or Revision:	-			Date Recieved:
ΗÈ	Application for (check all that apply):				Payment:
	Sketch Plan Prelimin	nary	Final	Prelim/Final	Receipt #:
ΙÈ	Name of Subdivision or Land De	velopment: _			Escrow Amt:
ĺÈ	Location:				PSA #:
ÎÈ	Tax Map Parcel #: 26	Tota	al Acreage:	Gross	Base Site Area
ΪÈ	Net Buildable Site Area (from Se	ection 2401): _			
ÌÈ	Zoning Requirements:				
	Zoning District	_ Minim	um Lot Size		Maximum Density
	Front Yard	_ Side Y	⁄ard		Rear Yard
9.	Number of Lots or Dwelling Units	s:			
10.	Equitable Owner of Record of La	and:		<u>-</u>	
	Address:				
	Phone:	E-ma	ail:		
11.	Applicant:		_		
	Address:				
	Phone:	E-ma	ail:		
12.	OEct[} ^^: '''''				
	Address:				
	Phone: E	-mail:			
13.	Registered Engineer or Surveyo	r:		_	
	Address:				
	Phone: E	-mail:			
14.	3 1	Public Water Public Sewer		vate Water vate Sewer	
15.	Proposed Use:				·····
	to certify that I have read Article V accompanying plan meets the re				Land Development Ordinance and wledge.
	Signature of Applicant			Signature of Regis	tered Engineer or Surveyor

	ND DEVELOPMENT
PLAN SUBMISSION	ON CHECKLIST
Date of Application:	
Subdivision/Land Development Name:	
Address of Property:	
Owner(s) Name:	
Applicant(s) Name:	
Tax Map Parcel Number:	
Tax Map 1 discritation.	
Plan Sets for New Britain Township - Folded to 8 1/2 x	11: (9 Full Size, 5 11x17)
NBT Board of Supervisors (Full Size) - 5 Copies	NBT Planning Commission (11x17) - 2 Copies
Township Engineer (Full Size) - 1 Copy	NBT File (Full Size) - 2 Copies
Fire Marshal (Full Size) - 1 Copy	Digital Submission - Email or File Sharing Service
Application Forms & Fees to be Submitted to the Town	
application will be considered administratively incomplete and re	eturned to the applicant. Please also submit
digital copies of all applicable forms/reports.	
New Britain Township Subdivision and Land Development App	plication (1 Signed Original)
Filing Fee according to the most current Fee Schedule adopte	ed by Resolution
Escrow Fee according to the most current Fee Schedule adop	oted by Resolution
Contract for Professional Services Agreement (3 Signed Origin	nals)
Proof of Submission to Bucks County Planning Commission	
Proof of Submission to Bucks County Conservation District	
Proof of Submission to Water Authority (North Penn/North Wa	ales/Aqua), if applicable
Proof of Submission to Chalfont New Britain Joint Sewer Author	ority OR Buck County Department of Health
Stomwater Management Report (2 Copies) (Digital Acceptable	e)
PADEP Sewage Facilities Planning Module Application/Mailer	approved by Sewer Authority or SEO (Original & 2 Copies)
Traffic Impact Study, if applicable (2 Copies) (Digital Acceptab	ole)
PADOT Highway Occupancy Permit Plan/Application, if applic	cable (2 Copies)
Community Impact Assessment Report, if applicable (4 Copies	s)
Affidavit of Mailing Notification, Mailing Content & Post Proper	ty of SLD Application (§ 22-401.8 General Procedures)
Township Road Opening Permit, if applicable	
Water Resource Impact Study, if applicable (2 Copies) (Digital	I Acceptable)
Waiver Request Letter with Justification	
Reviewed By:	Date:

*All fees or contributions in lieu of shall be payable to New Britain Township. All plan sets, applications and forms shall be submitted directly to New Britain Township.

The attached checklist is provided for the applicant as a guideline to assist in the submission process. All applicants must include these items or the application will be considered administratively incomplete and returned to the applicant.



NEW BRITAIN TOWNSHIP SUBDIVISION & LAND DEVELOPMENT PROCEDURES INFORMATION FOR APPLICANTS

Applications:

All formal applications must be submitted to the Township Zoning Officer during regular office hours.

All required plans, fees and accompanying documentation must be submitted to the Township in accordance with the New Britain Township Plan Submission Checklist (attached). No application shall be considered complete without this information.

If the application is found to be incomplete, the Zoning Officer will advise the applicant, in writing, of the deficiencies within five (5) business days.

If the application is found to be complete, the application will be date-stamped and a letter will be forwarded to the applicant with the anticipated application processing dates and scheduled Planning Commission and Board of Supervisor's meeting dates. The application will then be distributed for review to the Township professional staff, boards, commissions and professional consultants.

If for any reason the Planning Commission does not meet within 30 days of the initial application filing approval date of the Township Zoning Officer, the Municipalities Planning Code (MPC) timetable for plan review processing will then automatically begin, unless waived by the applicant.

Review Process:

Upon receipt of the Township Engineer's review letter, it is recommended that the applicant conference with Township staff and/or the Township Engineer prior to the scheduled Planning Commission meeting when the Planning Commission would consider the application for a recommendation. During the conference, if it is determined that the application will require substantial revisions for compliance with Township ordinances, the Township staff and/or engineer will advise the applicant of an appropriate course of action for revising the application. An extension/waiver to the 90-day limit (attached to SALDO Application), as set forth by the MPC, may be necessary to allow sufficient time for the applicant to make necessary plan revisions and for Township staff and its engineer to review the revised application.

All revised applications must be resubmitted directly to the Township Zoning Officer. It shall be the responsibility of the applicant to submit the same number of revised plans to the Township as with the original application.

Recommendations and Plan Decisions:

The applicant is responsible for posting the property, notifying property owners within 1000ft (or adjoining owners for minor plans), and submitting an affidavit of mailing & the mailings content to the Township five days prior to the plans appearing before the Township Planning Commission (§ 22-401.8 General Procedures).

The Planning Commission in its review shall consider the comments, if submitted, of the Bucks County Planning Commission, Fire Marshal, Bucks County Conservation District and Township professional staff and consultants. At their anticipated monthly meeting, the Planning Commission may do any of the following:

- Recommend that the applicant address plan deficiencies or unresolved planning issues with Township staff.
- Recommend to the Board of Supervisors that the plan be approved with conditions and specifically list such conditions.
- Recommend to the Board of Supervisors that the plan be denied and specifically list the reasons for such a recommendation.

The Board of Supervisors shall take official action on all applications, after receiving the Township engineer's report and the recommendation by the Planning Commission and within the 90-day time limit, unless the applicant grants a time extension/waiver. The action of the Board of Supervisors shall be in writing and communicated to the applicant by mail within five (5) days following the date of the official action.



Record Plans:

Final record plans to be recorded must be submitted *directly to the Township Engineer* for review and execution prior to approval by the Board of Supervisors. The plans must include four (4) paper copies of the record plan(s). All record plans must bear the original seal and signature and title of the professional engineer or land surveyor responsible for preparation of the plans and bear the notarized signature of the land owner(s). At the time of record plan submission, five (5) complete paper sets of construction drawings should be submitted to the Township Engineer to be stamped approved for construction.

No final record plans shall be recorded for any project unless all of the following have been satisfied:

- All conditions of final approval have been met (including water and sewer approvals/agreement) and approved by Township Solicitor and Engineer.
- All required outside agency approvals/permits have been obtained.
- All Township legal, engineering, planning and administrative costs relative to the plan submission have been paid in full.
- The required financial security and developer's agreements have been executed and the construction escrow has been posted with the Township.

The Township Solicitor will record all final record plans at the Bucks County Courthouse. The Township will notify the applicant when the copies of the recorded plans are available to be picked up at the Township Zoning Office.

Contract for Professional Services Agreement and Professional Escrows:

The applicant shall be responsible for maintaining the original escrow balance relative to the escrow account established with the Township for the payment of Township incurred costs and fees on behalf of the applicant per the Contract for Professional Services Agreement. The Township shall forward an invoice to the applicant setting forth the amount deducted from said escrow account for payment of costs and fees. Within fourteen (14) days of the date of the invoice, the applicant shall remit the amount of the invoice to the Township, thereby bringing the balance of the escrow back to the original amount. In the event the applicant's escrow account balance falls below the original amount, the Township may direct its professionals and consultants to cease work on the applicant's submission until such time as the escrow account balance is restored to its original amount.

Any applicant who desires to meet with the Township's professionals or consultants prior to submitting a plan application shall execute a Contract for Professional Services Agreement with the Township and post an escrow amount to be determined therein to cover any costs incurred by the Township associated with the aforementioned consultations.

The applicant should also be advised that the Township has enacted a "Disclosure Ordinance No. 2001-09-01" which mandates that the seller of any lot divulge certain information to the purchaser of the lot prior to settlement.

*These guidelines may be amended from time to time, as needed.



NEW BRITAIN TOWNSHIP 90-DAY REVIEW PERIOD WAIVER

I/We, the applicant, understand that the time necessary for adequate review of this application and plans for compliance with current Zoning and Subdivision & Land Development Ordinances, including reviews of any revised plans, may exceed the 90-day review period stipulated under the Municipalities Planning Code.

In recognition of the above, I/we hereby waive the 90-day review period, with the understanding that I/we may revoke this waiver at any time in the future, upon 30-day written notice to the New Britain Township Zoning Officer.

Name of Subdivision/Land Development:	
Tax Map Parcel Number(s):	
Signature of Applicant:	Date:
Signature of Applicant:	Date:



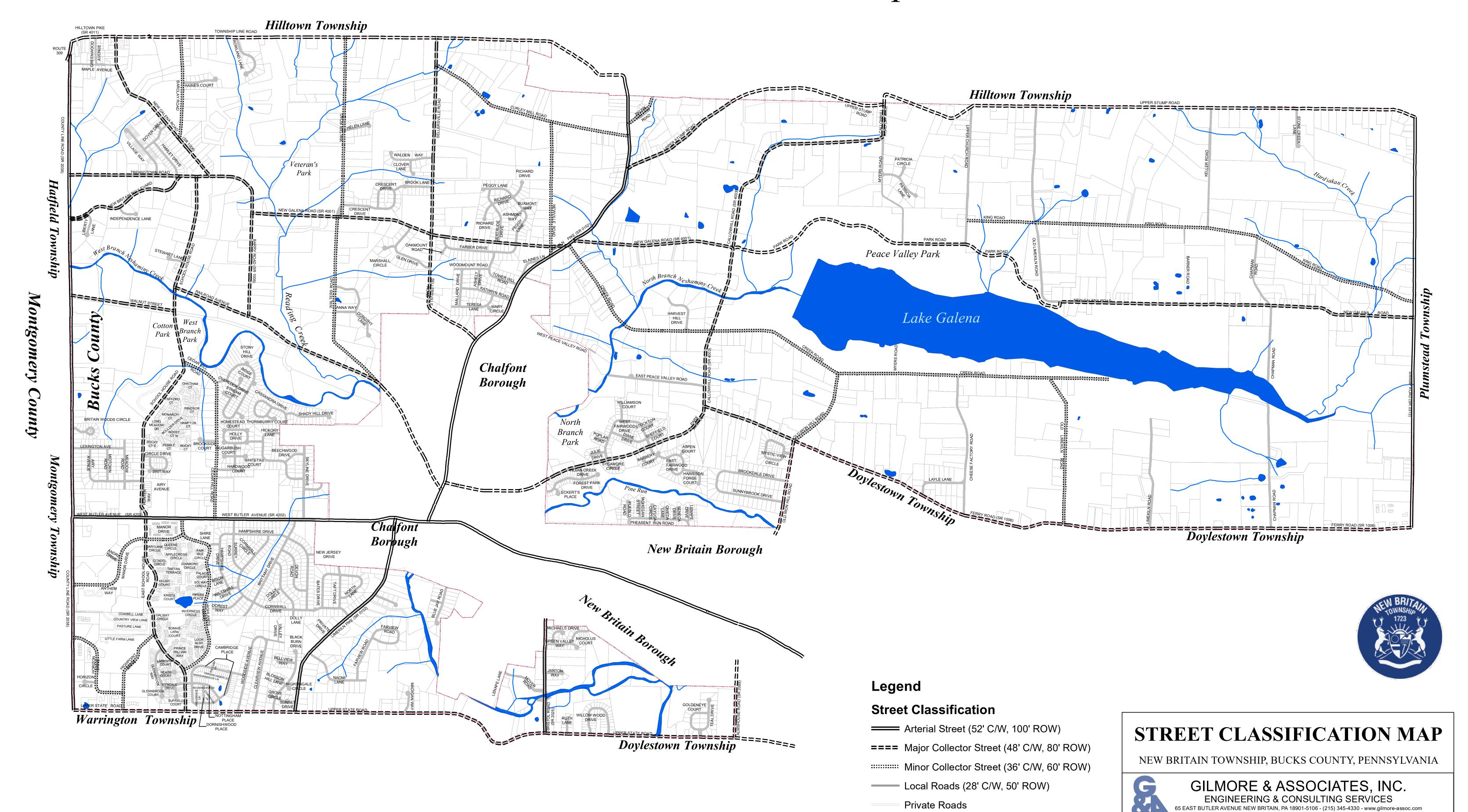


JOB NO: 22-01002

DATE: February 2022

SCALE: 1" = 1100'

Street Classification Map New Britain Township



SUBDIVISION AND LAND DEVELOPMENT

22 Attachment 4

Township of New Britain

Appendix D

Required Plant Material List

Tall (Canopy) Trees – Trees suitable for street trees, parking areas, buffer yards, replacement trees, revegetation of riparian buffers, and site element buffers and screens. Only marked trees may be used as street trees or riparian buffer trees. Unless otherwise specified in the Ordinance, the minimum caliper size shall be 2-1/2 inches. Minimum height shall be 8 ft.

Tall (Canopy) Trees					
Scientific name	Common name	Location Usage & Soil Conditions			
		Street	Riparian Buffer	Soil Moisture Preference	
Acer rubrum	red maple	X	X	dry to wet	
Acer saccharinum	silver maple	Х	X	moist	
Aesculus flava	yellow (sweet) buckeye		X	moist	
Carya cordiformis	bitternut hickory	Х	Х		
Carya glabra	pignut hickory		Х	dry to moist	
Carya laciniosa	shellbark hickory		X	medium to wet	
Carya ovata	shagbark hickory			dry to moist	
Carya tomentosa	mockernut hickory			dry to moist	
Gleditsia triacanthos forma inermis	thornless honeylocust	X		moist	
Gleditsia triacanthos wild type	honeylocust		X	moist	
Gymnocladus dioicus	Kentucky coffee-tree			moist	
Juglans cinerea	butternut			moist	
Juglans nigra	black walnut			moist	
Liquidambar styraciflua (seedless variety)	sweet gum	Х	Х	moist to wet	
Liriodendron tulipifera	tulip tree (tulip polar, yellow-poplar)			moist	
Magnolia acuminata	cucumbertree	Х		moist	
Nyssa sylvatica	blackgum	Х	X	medium to wet	
Platanus occidentalis	American sycamore	X	Х	wet	
Prunus serotina	black cherry	Х	Х	moist	
Quercus alba	white oak	Х		dry to moist	
Quercus bicolor	swamp white oak	Χ	X	moist to wet	

Tall (Canopy) Trees				
Scientific name	Common name	Location Usage & Soil Conditions		
		Street	Riparian	Soil Moisture
			Buffer	Preference
Quercus borealis ¹	northern red oak	X		dry to moist
Quercus coccinea	scarlet oak			dry to moist
Quercus falcata ¹	southern red oak	X		dry to moist
Quercus imbricaria	shingle oak	X		moist
Quercus laurifolia	laurel oak	X		moist
Quercus	burr oak	X	X	dry to wet
macrocarpa				
Quercus palustris ²	pin oak		X	moist to wet
Quercus phellos	willow oak	X	X	moist to wet
Quercus prinus	chestnut oak	X		dry
Quercus rubra ^{1,3}	northern red oak	X		dry to moist
Quercus stellata	post oak	X		dry
Quercus velutina	black oak	X		dry to moist
Robinia	black locust	X		dry to moist
pseudoacacia				
Taxodium distichum	baldcypress		X	wet
Tilia americana	basswood (American linden)	X	X	moist
Ulmus americana cv.	American elm cultivars	Х	Х	moist to wet
'Jefferson' or 'Valley	(Dutch elm disease-			
Forge"	resistant)			

 $^{^{1}}$ All red oak varieties should be spaced no closer than 60 feet on center to prevent spread of disease through root grafting.

² Quercus palustris is limited 10% of the total street tree and/or shade tree requirement (Ord. 2010-03-01)

³ Quercus rubra is limited 10% of the total street tree and/or shade tree requirements (Ord. 2010-03-01)

Short to Medium Height Deciduous Trees – Trees suitable for parking areas, buffer yards, replacement trees, revegetation of riparian buffers, and site element buffers and screens. Unless otherwise specified in the Ordinance, the minimum caliper size shall be 1-1/2 inches. Minimum height shall be 8 ft.

Note: Some trees in this list may be appropriate for street use. Only marked trees may be used as noted.

Short to Medium Height Deciduous Trees				
Scientific name	Common name	Locatio	n Usage & Soil Co	onditions
		Riparian	Showy	Soil Moisture
		Buffer	Flowers/ Fruit	Preference
Acer	striped maple			moist
pensylvanicum				
Aesculus pavia	red buckeye	X		moist
Amelanchier	serviceberry (juneberry,	X	X	moist
canadensis	shadbush)			
Asimina trilobum	common pawpaw			moist
Benthamidia	flowering dogwood		X	moist
(Cornus) florida				
Betula	yellow birch			moist
alleghaniensis				
Betula lenta	sweet birch			dry to moist
Betula nigra	river birch	X		moist
Betula papyrifera	paper birch			moist
Betula populifolia	gray birch			dry
Carpinus	American hornbeam			moist
caroliniana				
Catalpa	northern catalpa		X	
speciosa				
Celtis	hackberry	X		dry to moist
occidentalis				
Cercis	eastern redbud	X	X	moist
canadensi				
Chionanathus	fringetree		X	moist
virginic				
Crataegus	cockspur hawthorn		X	moist
crusgalli				
Crataegus mollis	downy hawthorn		X	moist
Crataegus	Washington Hawthorn		X	moist
phaenopyrum				
Diospyros	common persimmon			dry to moist
virginiana				
Larix laricina	tamarack (American larch)			moist
Magnolia virginiana	sweetbay magnolia	Х	Х	moist to wet
virgirilaria]		

	Short to Medium Height Deciduous Trees				
Scientific name	Common name	Location Usage & Soil Conditions			
		Riparian Buffer	Showy Flowers/ Fruit	Soil Moisture Preference	
Malus angustifolia	southern crabapple		X	dry to moist	
Malus coronaria	sweet crabapple		X	dry to moist	
Ostrya virginiana	American hop-hornbeam			dry to moist	
Oxydendrum	sourwood		X	moist	
arboreum					
Prunus	pin cherry		X	dry	
pensylvanica					
Prunus virginiana	common chokeberry		Χ	dry to moist	
Ptelea trifoliata	water-ash		Х	dry to moist	
Quercus marilandica	black jack				
Quercus stellata	post oak				
Salix nigra	black willow	Х		moist to wet	
Sassafras albidum	sassafras	Х		dry to moist	
Swida (Cornus) alternifolia	pagoda dogwood		X	moist	

Evergreen Trees – Trees suitable for parking areas, buffer yards, replacement trees, revegetation of riparian buffers, and site element buffers and screens. Only marked trees may be used as noted. Minimum height shall be 6 ft.

Evergreen Trees				
Scientific name	Common name	Location Usage & Soil Conditions		
		Riparian Buffer	Soil Moisture Preference	
Chamaecyparis thyoides	Atlantic white-cedar	X	moist to wet	
llex opaca	American holly	X	moist	
Juniperus virginiana	eastern redcedar	X	rich	
Picea pungens	Colorado spruce		moist, well- drained	
Pinus echinata	shortleaf pine		dry	
Pinus resinosa	red pine		dry	
Pinus rigida	pitch pine		dry	
Pinus strobus	white pine	X	dry to wet	
Pinus virginiana	Virginia pine (scrub pine)		dry	
Thuja occidentalis	American arborvitae		moist	

Deciduous Shrubs - Shrubs suitable for parking areas, buffer yards, replacement shrubs, revegetation of riparian buffers, and site element buffers and screens. Only marked trees may be used as noted. Unless otherwise specified in the Ordinance, minimum 30 inches in height or width.

Deciduous Shrubs					
Scientific name	Common name	Location Usage & Soil Conditions			
		Riparian	Rain	Showy	Soil Moisture
		Buffer	Garden	Flowers/ Fruit	Preference
Aesculus parviflora	bottlebrush			X	moist
,	buckeye				
Aesculus pavia	red buckeye			Х	
Alnus serrulata	smooth alder	Х			wet
Aronia arbutifolia	red chokeberry	Х	Х	Х	dry to wet
Aronia melanocarpa	black chokeberry	Х	X	X X X	dry to wet
Callicarpa	American			Х	,
Americana	beautyberry				
Calycanthus florida	sweetshrub			Χ	moist
Ceanothus	New Jersey tea			Х	dry to moist
americanus	,				,
Cephalanthus	buttonbush	Х	Х	Х	wet
occidentalis					
Clethra alnifolia	coastal sweet-	Х	Х	Х	wet
	pepperbush				
Corylus americana	American hazelnut				dry to moist
Dasiphora floribunda	shrubby cinquefoil			Χ	dry to wet
Eubotrys racemosus	coastal fetterbush			X	moist
Euonymus	strawberry-bush			Х	dry to moist
americanus	(hearts-a-bursting)				
Euonymus	American wahoo			X	dry to moist
atropurpureus					
Fothergilla major	large fothergilla				moist
Hamamelis vernalis	vernal witch hazel				moist
Hamamelis	northern witch				moist
virginiana	hazel				
Hydrangea	smooth hydrangea			X	medium to
arborescens					moist
Hydrangea	oakleaf hydrangea	Х		X	moist
quercifolia					
Hypericum	shrubby St. John's	Х	Х	Х	moist
densiflorum	wort				
llex verticillata	winterberry	X	X		wet
Itea virginica	Virginia	X	X	Х	moist
	sweetspire				
Lindera benzoin	spicebush	Χ	Х		moist
Morella	northern bayberry	Х			moist
pensylvanica					

	Decid	luous Shru	ıbs		
Scientific name Common name Location Usage & Soil Conditi			ditions		
		Riparian	Rain	Showy	Soil Moisture
		Buffer	Garden	Flowers/ Fruit	Preference
Philadelphus	mock orange			X	medium
inodorus					
Physocarpus	common ninebark	Х	Х		moist
opulifolius					
Rhododendron	sweet azalea			X	moist
arborescens					
Rhododendron	pinxterbloom	X		X	dry to moist
periclymenoides	azalea				
Rhododendron	rosebay	X		X	moist
maximum	rhododendron				
Rhododendron	swamp azalea	X		X	wet
viscosum					
Rhus aromatica	fragrant sumac	X			dry
Rhus copallina	winged sumac	Х			dry
Rosa blanda	meadow rose			Χ	dry to moist
Rosa carolina	Carolina rose			Х	dry to moist
Rosa palustris	swamp rose	Х		Х	wet
Rosa setigera	prairie rose			Х	moist to wet
Rosa virginiana	Virginia rose			Х	moist
Salix discolor	pussy willow	Х	Х		moist
Sambucus	common	Х	Х	Х	moist to wet
canadensis	elderberry				
Sambucus	eastern red	Х		Х	moist
racemosa	elderberry				
Spiraea alba,	meadowsweet	Х	Х	Х	moist to wet
Spiraea latifolia					
Spiraea tomentosa	steeplebush	Х		Х	moist
Staphylea trifolia	American	X		X	moist
	bladdernut				
Swida (Cornus)	silky dogwood	Х			wet
amomum					
Swida (Cornus)	gray dogwood	Х			moist to wet
racemosa					
Swida (Cornus)	red-osier dogwood	Х	Х		moist to wet
sericea					
Symphoricarpos	snowberry			Х	dry to moist
albus					,
Vaccinium	lowbush blueberry			X	dry
angustifolium					
Vaccinium	highbush			X	dry
corymbosum	blueberry				
Viburnum	mapleleaf	Х		X	moist
acerifiolium	viburnum				
Viburnum	witherod	X		X	moist
cassinoides					

Deciduous Shrubs					
Scientific name	Common name	Location Usage & Soil Conditions			
		Riparian	Rain	Showy	Soil Moisture
		Buffer	Garden	Flowers/ Fruit	Preference
Viburnum dentatum	southern	X		X	wet
	arrowwood				
Viburnum lentago	nannyberry	Χ		X	moist
Viburnum nudum	possumhaw	X		X	moist
Viburnum	blackhaw	X	Х	X	wet
prunifolium	viburnum				
Viburnum trilobum	American	Х	Х	Х	wet
	cranberrybush				

Evergreen Shrubs - Shrubs suitable for parking areas, buffer yards, replacement shrubs, revegetation of riparian buffers, and site element buffers and screens. Only marked trees may be used as noted. Unless otherwise specified in the Ordinance, minimum 30 inches in height or width.

Evergreen Shrubs				
Scientific name	Common name	Location Usage & Soil Conditions		
		Riparian	Rain	Soil Moisture
		Buffer	Garden	Preference
llex glabra	inkberry holly	X	Χ	moist
Juniperus communis	common juniper			dry
Kalmia latifolia	mountain laurel			dry to moist
Leucothoe axillaris	coast doghobble			moist
Leucothoe fontanesiana	mountain doghobble	X		moist
Rhododendron catawbiense	Catawba rhododendron	X		moist
Rhododendron maximum	rosebay rhododendron	Х		moist to wet
Taxus canadensis	American yew			moist

Some Common Perennials Suitable for Riparian Buffers, Rain Gardens, and Basins

Scientific name	itable for Riparian Buffers, Ra Common name	Dry side ¹	Wet area ²
		-1, -1	
Amsonia tabernaemontana	eastern bluestar	X	
Andropogon virginicus	broomsedge	X	
Asclepius incarnata	swamp milkweed		Х
Baptisia australis	tall blue wild indigo	X	
Boltonia asteroides	green wild indigo	Х	
Caltha palustris	marsh-marigold		Х
Carex stricta	tussock sedge		Х
Chelone glabra	white turtlehead		Х
Coreopsis verticillata	threadleaf coreopsis	X	
Elymus hystrix	bottlebrush grass	X	
Equisetum species	horsetail		Х
Eupatorium coelestinum	blue mistflower		Х
Eupatorium perfoliatum	common boneset	X	
Helianthus angustifolius	narrowleaf sunflower	X	
Helenium autumnale	sneezeweed	X	
Hibiscus mosceutos	eastern rose-mallow		Х
Iris Versicolor	northern blue flag		Х
Juncus effusus	soft rush		Х
Lobelia cardinalis	cardinal flower		Х
Lobelia siphilitica	great blue lobelia		Х
Ludwigia alternifolia	seedbox		Х
Mimulus ringens	Allegheny monkeyflower		Х
Onoclea sensibilis	sensitive fern		Х
Osmunda cinnamomea	cinnamon fern		Х
Osmunda regalia	royal fern	X	
Panicum virgatum	switchgrass		Х
Physostegia virginiana	obedient plant	X	
Scirpus atrovirens	green bulrush		Х
Scirpus cyperinus	woolgrass		X
Senecio aureus	golden ragwort	X	
Solidago patula	rough-leaved goldenrod	X	
Solidago rougosa	wrinkle-leaved goldenrod	X	
Symphyotrichum novae-angliae	New England aster	X	
Symphyotrichum novi-belgii	New York aster	Х	
Verbena hastata	blue vervain	Х	
Veronicastrum virginicum	Culver's-root	X	

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

² Generally suitable for sustained wet areas.

APPENDIX E:

CONSTRUCTION DETAILS AND SPECIFICATIONS

TABLE OF CONTENTS

SHEET NO.	<u>TITLE</u>
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2	TYPICAL ROADWAY WIDENING SECTION DETAIL FOR ARTERIAL, COLLECTOR, AND NON-RESIDENTIAL ROADS
3	TYPICAL ROADWAY WIDENING SECTION DETAIL FOR RESIDENTIAL AND LOCAL ROADS
4	PIPE BEDDING DETAIL
5	STORM SEWER & UTILITY TRENCH RESTORATION WITHIN PAVED AREAS DETAIL
6	STORM SEWER & UTILITY TRENCH RESTORATION WITHIN PERVIOUS AREAS DETAIL
7	RESIDENTIAL DRIVEWAY PAVING SECTION DETAIL
8	NON-RESIDENTIAL AND MULTI-RESIDENTIAL DRIVEWAYS, PARKING AREAS AND LOADING AREAS PAVING SECTION DETAIL
9	PLAIN CEMENT CONCRETE CURB DETAIL
10	BELGIAN BLOCK CURB DETAIL
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17	STREET SIGN DETAIL
18	PEDESTRIAN CROSSWALK DETAIL
19	BUTLER AVENUE CORRIDOR OVERLAY DISTRICT STREET LIGHT DETAIL
20	BUTLER AVENUE CORRIDOR OVERLAY DISTRICT BENCH DETAIL
21	BUTLER AVENUE CORRIDOR OVERLAY DISTRICT TRASH RECEPTACLE DETAIL
22	BUTLER AVENUE CORRIDOR OVERLAY DISTRICT BICYCLE PARKING DETAIL

THE FOLLOWING NOTES PERTAIN TO ALL PROPOSED CONSTRUCTION METHODS, MATERIALS, STRUCTURES AND FACILITIES WITHIN NEW BRITAIN TOWNSHIP. THESE CONSTRUCTION NOTES, IN A SIMILAR FORMAT, MUST BE PROVIDED ON THE RECORD PLAN. THE APPLICANT SHOULD MODIFY THE CONSTRUCTION NOTES OR PROVIDE ADDITIONAL NOTES, AS NECESSARY, WHEN THE DESIGN METHODS AND STANDARDS ARE NOT SPECIFICALLY STATED. UNLESS A MORE RESTRICTIVE DESIGN METHOD OR STANDARD IS SPECIFIED IN NEW BRITAIN TOWNSHIP'S ZONING OR SUBDIVISION AND LAND DEVELOPMENT ORDINANCES, THE FOLLOWING SHALL APPLY TO ALL CONSTRUCTION ACTIVITIES:

- 1. ALL CONSTRUCTION METHODS AND MATERIALS MUST COMPLY WITH THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PUBLICATION 408, LATEST REVISION.
- ALL PROPOSED STRUCTURES AND FACILITIES MUST BE CONSTRUCTED IN ACCORDANCE WITH THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PUBLICATION 72, "ROAD CONSTRUCTION STANDARDS", LATEST REVISION.
- 3. ALL PROPOSED STREETS, ACCESS DRIVES, DRIVEWAYS AND UTILITIES SHALL COMPLY WITH THE PENNSYLVANIA CODE, TITLE 67, CHAPTER 441, "ACCESS TO AND OCCUPANCY OF HIGHWAYS BY DRIVEWAYS AND LOCAL ROADS", AND CHAPTER 459, "OCCUPANCY OF HIGHWAYS BY UTILITIES", LATEST REVISION.
- 4. ALL PROPOSED STRUCTURES AND FACILITIES MUST COMPLY WITH THE AMERICANS WITH DISABILITY ACT, "ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES", LATEST REVISION.
- 5. ALL PROPOSED WATER AND SEWER FACILITIES MUST COMPLY WITH THE STANDARDS AND POLICIES OF THE APPLICABLE WATER AUTHORITY, SEWER AUTHORITY, BUCKS COUNTY HEALTH DEPARTMENT, PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND NEW BRITAIN TOWNSHIP.
- ALL CONTRACTORS SHALL BE RESPONSIBLE FOR ENSURING ALL CONSTRUCTION ACTIVITIES ARE PERFORMED IN ACCORDANCE WITH THE STANDARDS AND POLICIES OF THE BUCKS COUNTY CONSERVATION DISTRICT.
- 7. ALL CONTRACTORS SHALL BE RESPONSIBLE FOR ENSURING ALL CONSTRUCTION ACTIVITIES ARE PERFORMED IN ACCORDANCE WITH THE STANDARDS AND POLICIES OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION.
- 8. ALL CONTRACTORS SHALL BE RESPONSIBLE FOR VERIFYING LOCATIONS OF ALL UTILITIES AND COMPLYING WITH THE PENNSYLVANIA ACT 38 AND ACT 187, AS AMENDED.
- 9. ALL NEW UTILITIES SHALL BE INSTALLED UNDERGROUND.
- 10. ALL CONTRACTORS WORKING ON THIS PROJECT SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, No. 287, 12/10/74, AS AMENDED 12/12/86, P.L. 1574, No. 172. CONTRACTOR MUST NOTIFY PA-1 CALL SYSTEM, INC. 3 DAYS PRIOR TO CONSTRUCTION.
- 11. CONTRACTOR SHALL NOT ENCROACH ONTO ABUTTING PROPERTIES UNLESS A TEMPORARY CONSTRUCTION EASEMENT HAS BEEN GRANTED BY ADJOINING PROPERTY OWNER. CONTRACTOR SHALL HAVE PROPERTY LINES CLEARLY MARKED IN AREAS WHERE GRADING WILL ENCROACH WITHIN 5 FEET OF THE PROPERTY LINE AND SHALL CONSTRUCT SUCH BARRIERS WHICH ARE NECESSARY TO PREVENT ENCROACHMENT ONTO ADJACENT PROPERTIES.
- 12. NO EXCAVATION OR FILL SHALL BE MADE WITH A FACE STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL.

GENERAL CONSTRUCTION NOTES

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



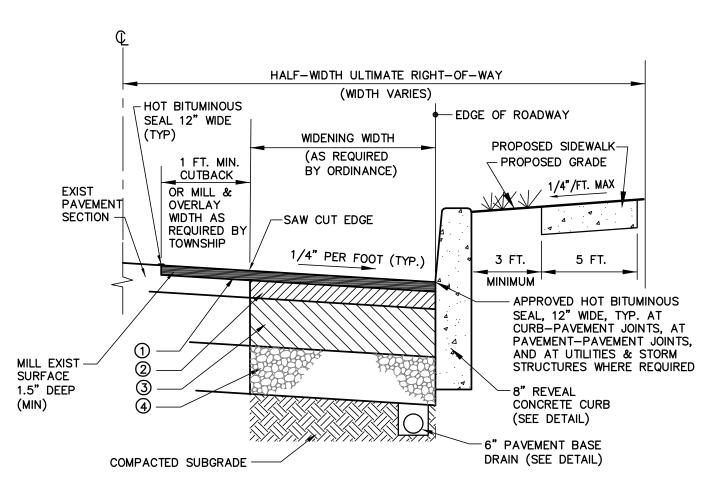
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- 1.5" SUPERPAVE ASPHALT MIXTURE DESIGN, 9.5 mm MIX, WEARING COURSE, 0.3 TO 30.0 MILLION ESALS, SRL BASED ON ADT
- 2.0" SUPERPAVE ASPHALT MIXTURE DESIGN, 19 mm MIX, BINDER COURSE, 0.3 TO 30.0 MILLION ESALS
- (4) 6" 2A OR 3A MODIFIED STONE SUBBASE (MATCH EXISTING IF GREATER)

NOTES:

- 1. NEW ROADS SHALL COMPLY WITH THE ABOVE SPECIFICATION
- PAVEMENT BASE DRAIN TO BE INSTALLED AS DEEMED NECESSARY BY TOWNSHIP ENGINEER BASED ON FIELD CONDITIONS

TYPICAL ROADWAY WIDENING SECTION DETAIL FOR ARTERIAL, COLLECTOR, AND NON-RESIDENTIAL ROADS

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



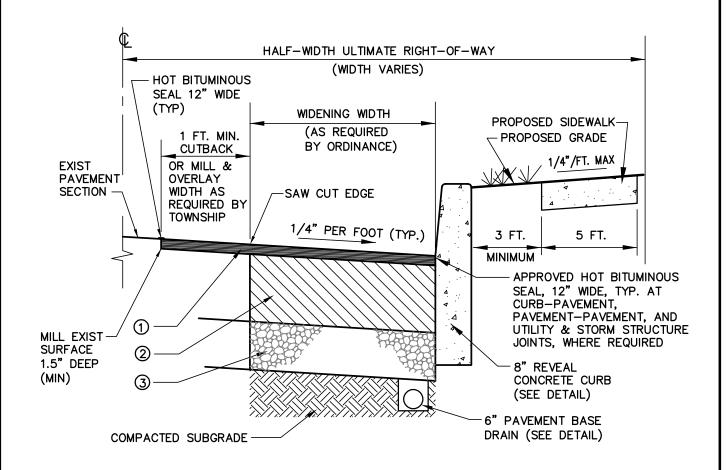
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- 1.5" SUPERPAVE ASPHALT MIXTURE DESIGN, 9.5 mm MIX, WEARING COURSE
- \bigcirc 4.5" SUPERPAVE ASPHALT MIXTURE DESIGN, 25 mm MIX, BASE COURSE
- 3 6" 2A MODIFIED STONE SUBBASE (MATCH EXISTING IF GREATER)

NOTES:

- 1. NEW ROADS SHALL COMPLY WITH THE ABOVE SPECIFICATION
- 2. PAVEMENT BASE DRAIN TO BE INSTALLED AS DEEMED NECESSARY BY TOWNSHIP ENGINEER BASED ON FIELD CONDITIONS

TYPICAL ROADWAY WIDENING SECTION DETAIL FOR RESIDENTIAL AND LOCAL ROADS

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



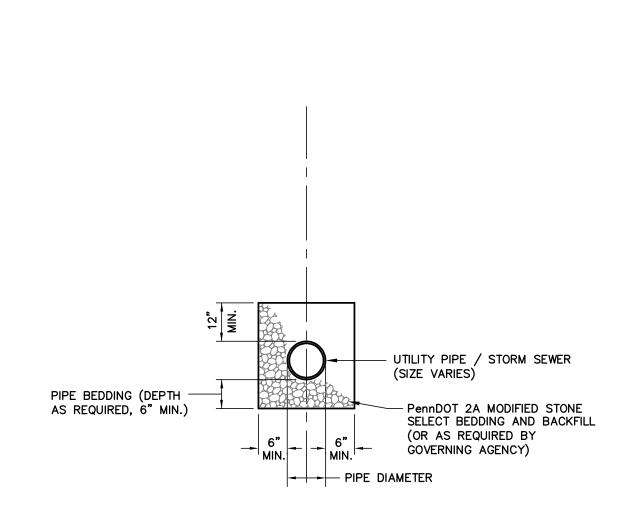
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PIPE BEDDING DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



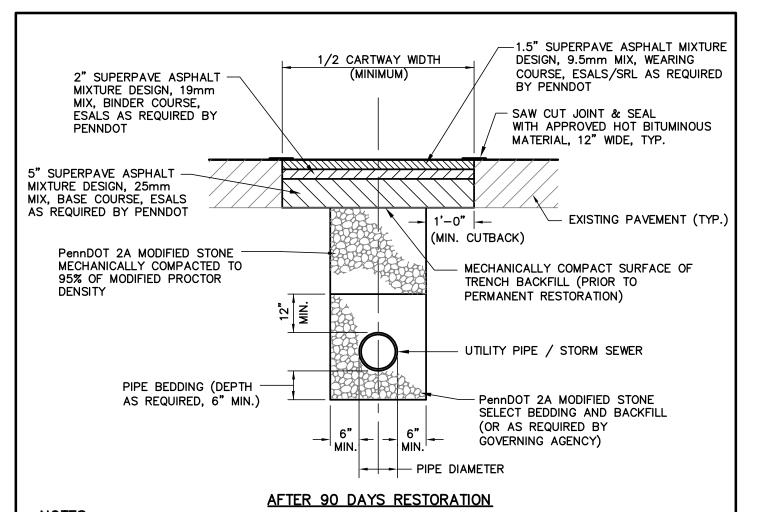
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NOTES:

- BEFORE 90 DAYS, ROADS SHALL BE TEMPORARILY RESTORED WITH 2A COURSE AGGREGATE AND 2" OF PENNDOT BINDER COURSE (TO GRADE) AND ALLOWED TO SETTLE 90 DAYS PRIOR TO PERMANENT RESTORATION, AS SHOWN ABOVE. PERMANENT RESTORATION OF TRENCHES SHALL BE COMPLETED ONLY AFTER APPROVAL BY TOWNSHIP ENGINEER.
- 2. RETAINED SUITABLE MATERIAL MAY BE USED AS BACKFILL FOR TRENCHES IN TOWNSHIP RIGHT-OF-WAY (OUTSIDE OF CARTWAY) WHEN MORE THAN THREE (3) FEET FROM EDGE OF EXISTING CARTWAY, CURB, AND/OR SIDEWALK.
- 3. THE MINIMUM WIDTH OF PAVEMENT RESTORATION SHALL BE ½ OF THE CARTWAY WIDTH. IN AREAS WHERE THE TRENCH CROSSES THE CENTERLINE OF THE CARTWWAY, THE ENTIRE CARTWAY WIDTH (CURB TO CURB OR EDGE TO EDGE) OF THE AFFECTED STREET SHALL BE MILLED AND REPAVED WITH WEARING COURSE, UNLESS OTHERWISE APPROVED BY TOWNSHIP PUBLIC WORKS.
- COLD PATCH SHALL BE APPLIED ON ALL TRENCH RESTORATIONS (PRIOR TO 90 DAYS) WHEN BINDING OR BASE COURSE ARE NOT AVAILABLE DUE TO WEATHER CONDITIONS.
- 5. FOR PLASTIC UTILITIES, INSTALL DETECTION TAPE OVER PIPE AT TOP OF STONE BACKFILL.

STORM SEWER & UTILITY TRENCH RESTORATION WITHIN PAVED AREAS DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



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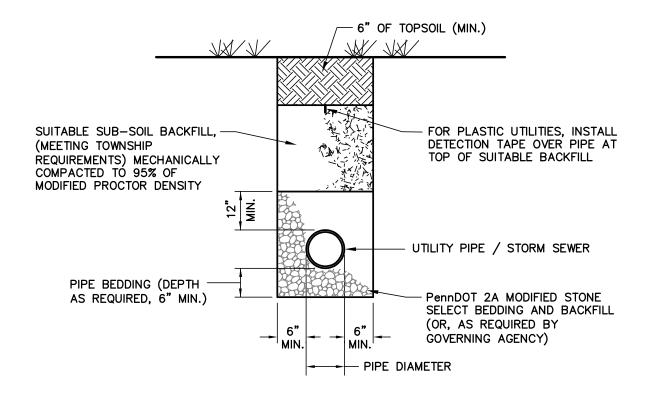
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STORM SEWER & UTILITY TRENCH RESTORATION WITHIN PERVIOUS AREAS DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



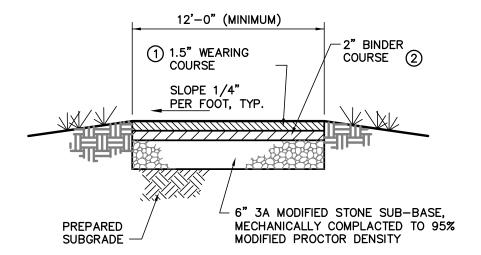
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MINIMUM SPECIFICATION

- (1) 1.5" SUPERPAVE ASPHALT MIXTURE DESIGN, 9.5 mm WEARING COURSE
- 2.0" SUPERPAVE ASPHALT MIXTURE DESIGN, 19mm MIX BINDER COURSE

RESIDENTIAL DRIVEWAY PAVING SECTION DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



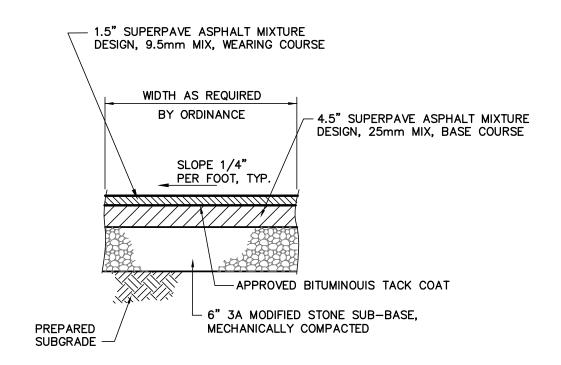
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NON-RESIDENTIAL AND MULTI-RESIDENTIAL DRIVEWAYS, PARKING AREAS AND LOADING AREAS PAVING SECTION DETAIL

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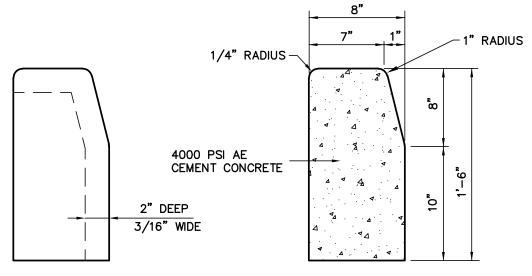
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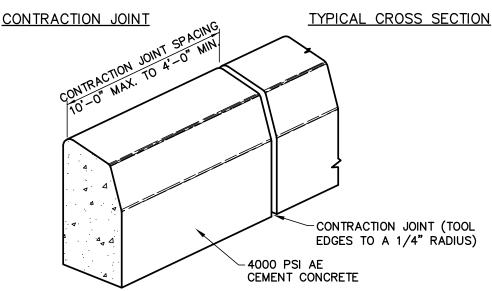
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- PLACE 1/2" PREMOLDED EXPANSION JOINT MATERIAL EVERY 50 FEET (MAX.) AND AT ALL DRIVEWAYS (DEPRESSED CURB CUTS), INLETS, AND CURB RADII.
- 2. MINIMUM 2-#6 REINFORCING BARS PER SIDE WHERE CURB ABUTS INLET HOODS, INCLUDING PREMOLDED EXPANSION JOINT MATERIAL.
- 3. WHERE CURB ARE INSTALLED BY A MACHINE, SAW CUTS SHALL BE 2" DEEP, EVERY 10 FEET.

PLAIN CEMENT CONCRETE CURB DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



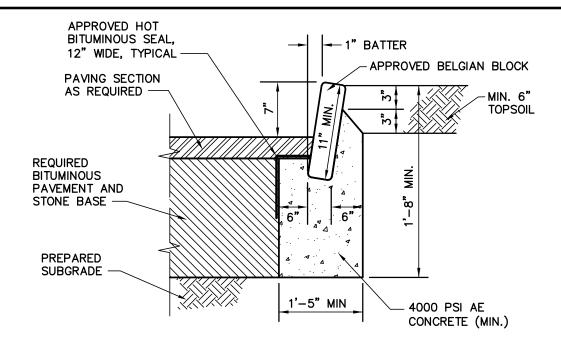
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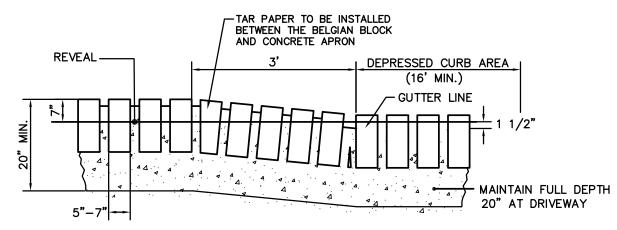
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DEPRESSED BELGIAN BLOCK CURB AT DRIVEWAY

NOTES:

- 1. TO BE USED ONLY WHERE APPROVED BY TOWNSHIP.
- 2. TYPE AND COLOR OF BELGIAN BLOCKS SHALL BE UNIFORM. THE TOWNSHIP MAY REJECT ANY BLOCK PRIOR TO DEDICATION OF STREET.
- 3. INDIVIDUAL BLOCKS CONSISTING OF 5% OF TOTAL LINEAR CURB FOOTAGE SHALL BE DELIVERED TO THE TOWNSHIP'S PUBLIC WORKS FACILITY, AND STORED AT A LOCATION APPROVED BY THE PUBLIC WORKS DIRECTOR (AS REQUIRED).

BELGIAN BLOCK CURB DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



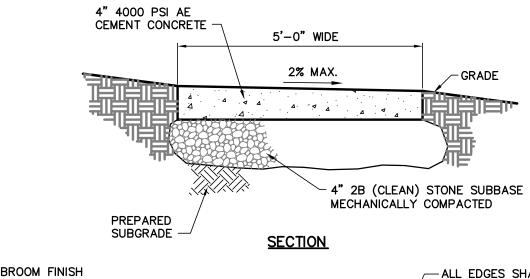
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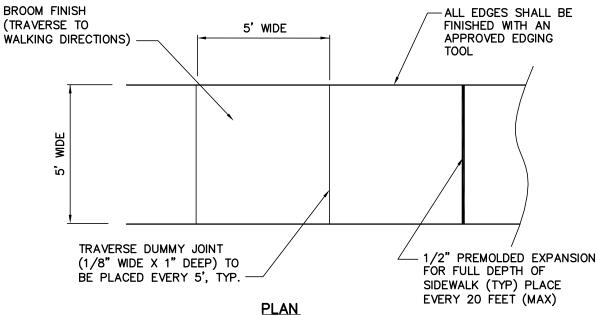
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- 1. WITH ALL PROPOSED SIDEWALK, A NON-SLIP SURFACE TEXTURE SHALL BE BROOMED TRAVERSE TO THE SLOPE OF THE SIDEWALK.
- 2. ALL SIDEWALK SHALL BE IN ACCORDANCE WITH ACI & TOWNSHIP STANDARDS.

CONCRETE SIDEWALK DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



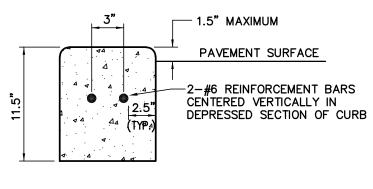
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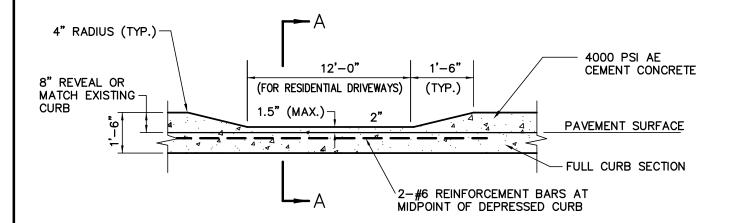
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SECTION A-A



DEPRESSED CURB DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



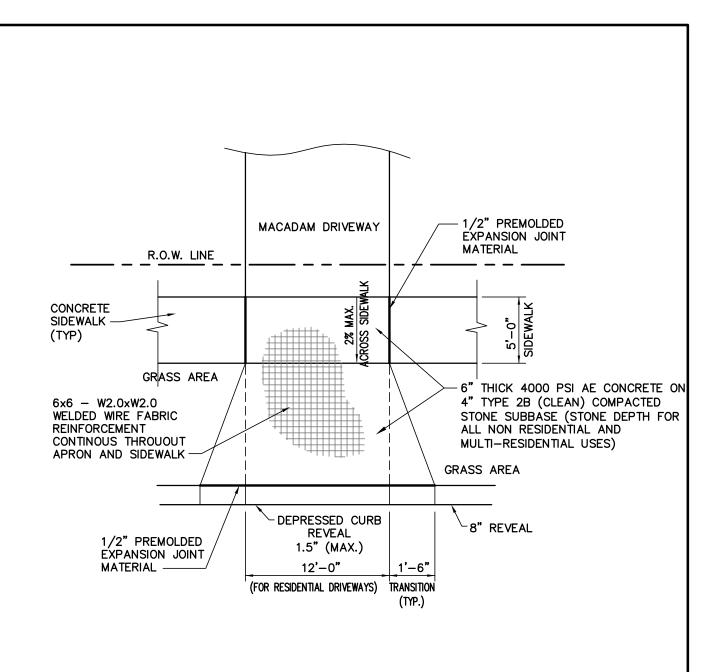
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DRIVEWAY AND APRON DETAIL

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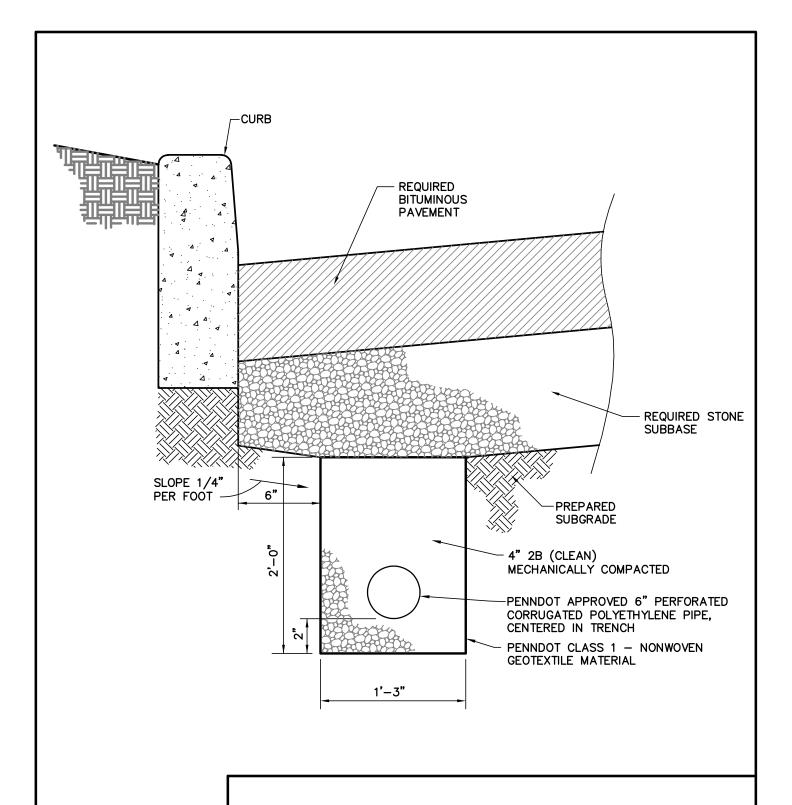
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ROAD UNDERDRAIN DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



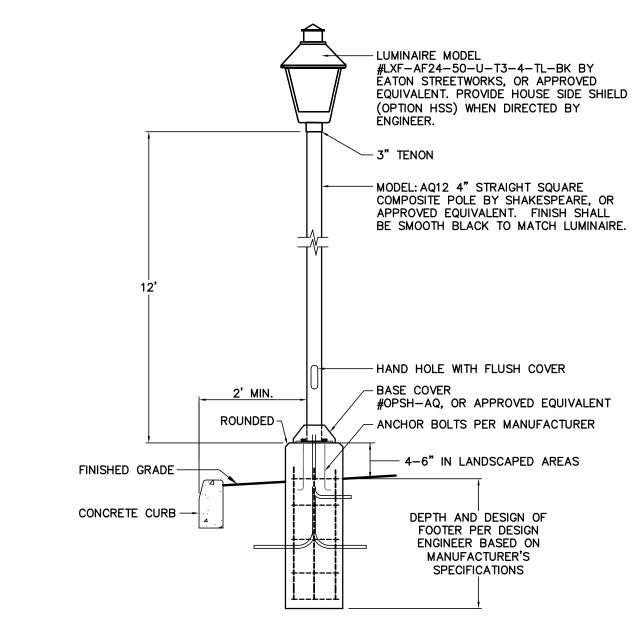
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- 3" OF CONCRETE COVER SHALL BE PROVIDED OVER ALL REINFORCEMENT BARS.
- 2. PROVIDE GROUND ROD BONDED TO FIXTURE AS REQUIRED BY CODE.
- 3. ELECTRICAL CONDUIT DEPTH SHALL BE PER CODE REQUIREMENTS.
- 4. FOOTING DEPTH MAY VARY DUE TO UNSUITABLE SUB-SURFACE SOIL CONDITIONS. VERIFY IN FIELD AND NOTIFY ENGINEER IF UNSUITABLE CONDITIONS EXIST.

RESIDENTIAL STREET LIGHT DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



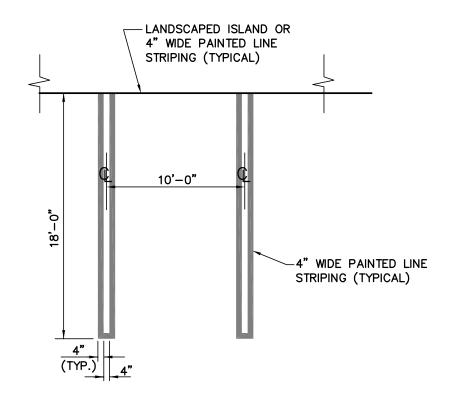
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DATE: 5/22/09

07/31/24

SCALE: N.T.S. DRAWING No:



PARKING SPACE STRIPING DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



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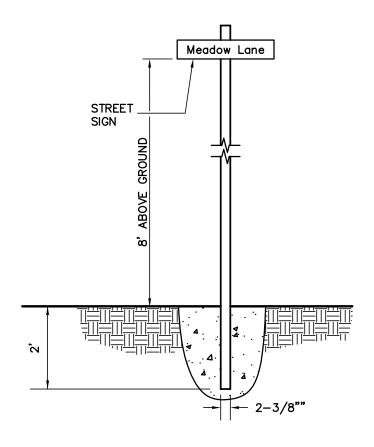
DATE: 5/22/09

07/31/24

SCALE: N.T.S. DRAWING No:



- STREET NAME SIGNS SHALL BE OF HIGH INTENSITY PRISMATIC MATERIAL (HIP) MEETING MINIMUM ASTM TYPE III RETRO—REFLECTIVE STANDARDS; NO ENGINEER GRADE SIGNS SHALL BE ACCEPTED.
- 2. STREET SIGNS TO BE 9" EXTRUDED ALUMINUM SHEETED GREEN BACKGROUND WITH WHITE 6" HIP "SERIES B" LEGEND.
- STREET NAME SIGN POST SHALL BE ALUMINUM,
 2 3/8" DIAMETER, 10' LONG, AND BE CEMENTED IN A 5 GALLON BUCKET AND BURIED SO THAT 8' REMAINS ABOVE FINISHED GRADE.
- 4. STREET NAME SIGN HARDWARE: ALL BRACKETS SHALL BE 12" LONG GS 12 BOLT THROUGH FOR EXTRUDED SIGNS AND SHALL BE FITTED ON A 2-3/8" DIAMETER POST.
- 5. LOCATION OF SIGN MUST NOT OBSCURE ANY POTENTIAL TRAFFIC HAZARD. AT ANY LOCATION WHERE THE TYPICAL PLACEMENT OF A SIGN INTERFERES WITH A SAFE SIGHT DISTANCE, AN ALTERNATIVE LOCATION MUST BE FOUND. THE LOWER EDGE OF THE PLATES SHALL BE 8 FEET ABOVE THE GROUND LEVEL OR CURB. THE PLATES SHALL BE ATTACHED TO THE STANDARD BY RUST—PROOF METAL FASTENERS.



STREET SIGN DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



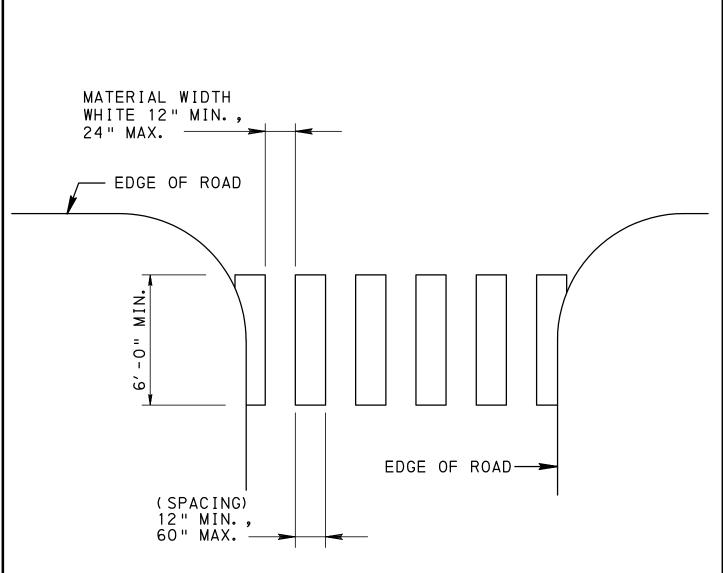
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DATE: 5/22/09

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TYPE 3 PERPENDICULAR CROSSWALK

NOTE:

- 1. ALL CROSSWALK STRIPING WITHIN RIGHT-OF-WAY TO BE THERMOPLASTIC MATERIAL UNLESS OTHERWISE SPECIFIED BY THE TOWNSHIP.
- 2. CROSSWALKS SHALL BE IN ACCORDANCE WITH PENNDOT PUB TC-8600 PAVEMENT MARKINGS

PEDESTRIAN CROSSWALK DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



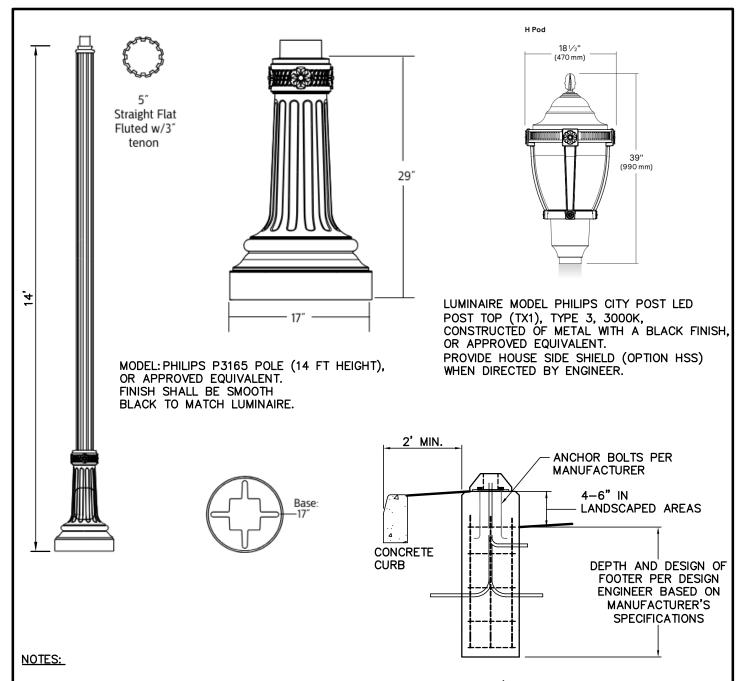
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DATE: 8/16/22

LAST REVISED: 07/31/24

SCALE: N.T.S. DRAWING No:



- 1. FIXTURE AND POLE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS
- 2. 3" OF CONCRETE COVER SHALL BE PROVIDED OVER ALL REINFORCEMENT BARS.
- 3. PROVIDE GROUND ROD BONDED TO FIXTURE AS REQUIRED BY CODE.
- 4. ELECTRICAL CONDUIT DEPTH SHALL BE PER CODE REQUIREMENTS.
- 5. FOOTING DEPTH MAY VARY DUE TO UNSUITABLE SUB-SURFACE SOIL CONDITIONS. VERIFY IN FIELD AND NOTIFY ENGINEER IF UNSUITABLE CONDITIONS EXIST.

BUTLER AVENUE CORRIDOR OVERLAY DISTRICT STREET LIGHT DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



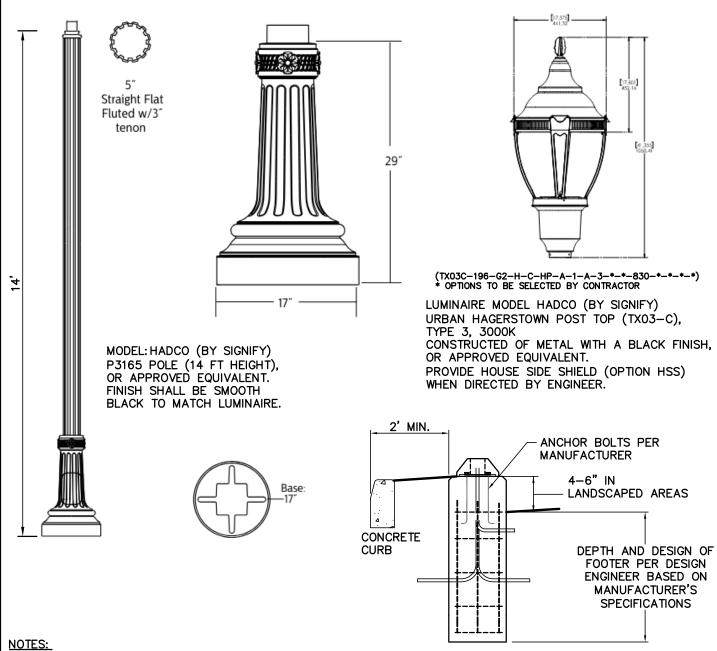
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BUTLER AVENUE CORRIDOR OVERLAY DISTRICT STREET LIGHT DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

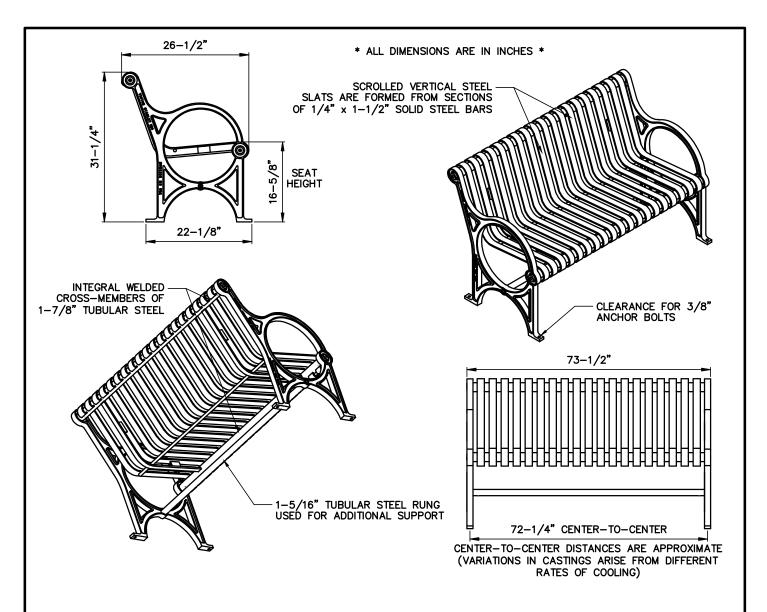


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- BENCH TO BE VICTOR STANLEY CITY SERIES CR-12, BLACK, 6-FOOT LENGTH WITH DUCTILE IRON END FRAMES OR APPROVED **EQUAL**
- DUCTILE IRON CASTINGS COME WITH A TEN YEAR WARRANTY AGAINST BREAKAGE.
 ALL FABRICATED METAL COMPONENTS ARE STEEL SHOTBLASTED, ETCHED, PHOSPHATIZED, PREHEATED, AND
 ELECTROSTATICALLY POWDER—COATED WITH T.G.I.C. POLYESTER POWDER COATINGS. PRODUCTS ARE FULLY CLEANED AND
 PRETREATED, PREHEATED AND COATED WHILE HOT TO FILL CREVICES AND BUILD COATING FILM. COATED PARTS ARE THEN FULLY CURED TO COATING MANUFACTURER'S SPECIFICATIONS. THE THICKNESS OF THE RESULTING FINISH AVERAGES 8-10 MILS (200-250 MICRONS).
- IT IS NOT RECOMMENDED TO LOCATE ANCHOR BOLTS UNTIL BENCH IS IN PLACE. THIS VICTOR STANLEY, INC. PRODUCT MUST BE PERMANENTLY AFFIXED TO THE GROUND. CONSULT YOUR LOCAL CODES FOR REGULATIONS.
 ANCHOR BOLTS NOT PROVIDED BY VICTOR STANLEY, INC.
 ALL SPECIFICATIONS ARE SUBJECT TO CHANGE. CONTACT MANUFACTURER FOR DETAILS.

BUTLER AVENUE CORRIDOR OVERLAY DISTRICT BENCH DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

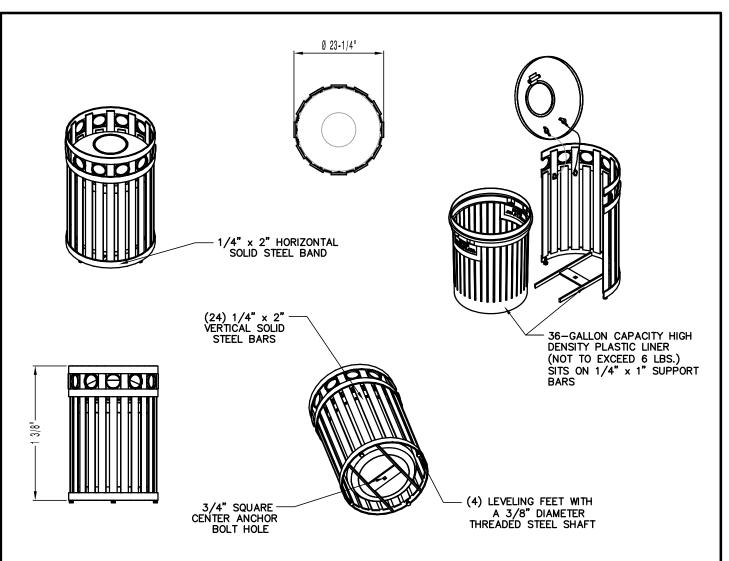


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SCALE: N.T.S.



- TRASH RECEPTACLE TO BE VICTOR STANLEY CONCOURSE SERIES, FC-12, BLACK, 36 GALLON OR APPROVED EQUAL.
 ALL FABRICATED METAL COMPONENTS ARE STEEL SHOTBLASTED, ETCHED, PHOSPHATIZED, PREHEATED, AND
 ELECTROSTATICALLY POWDER-COATED WITH T.G.I.C. POLYESTER POWDER COATINGS. PRODUCTS ARE FULLY CLEANED AND
 PRETREATED, PREHEATED AND COATED WHILE HOT TO FILL CREVICES AND BUILD FILM COATING. COATED PARTS ARE THEN FULLY CURED TO COATING MANUFACTURER'S SPECIFICATIONS. THE THICKNESS OF THE RESULTING FINISH AVERAGES 8-10 MILS (200-250 MICRONS).
- THIS VICTOR STANLEY, INC. PRODUCT MUST BE PERMANENTLY AFFIXED TO THE GROUND. CONSULT YOUR LOCAL CODES FOR REGULATIONS.
- VICTOR STANLEY, INC., PLASTIC INNER LINERS ARE MOLDED ON TOOLING DESIGNED FOR AND OWNED BY VICTOR STANLEY, INC. THEY OFFER MAXIMUM CAPACITY AND STRENGTH WITH LIGHTWEIGHT CONSTRUCTION USING CRITICAL MOLDED RIBS, INTEGRAL HANDHOLDS, AND HIGH-STRENGTH MATERIALS. THIS MINIMIZES HANDLING DIFFICULTY AND FACILITATES EASY EMPTYING AND STORAGE WHILE AFFORDING LONG SERVICE LIFE.

 ANCHOR BOLT NOT PROVIDED BY VICTOR STANLEY, INC.

 FOR HIGH SALT ABUSIVE CLIMATES, HOT DIP GALVANIZING BEFORE POWDER COATING IS AVAILABLE. SEE WRITTEN SPECIFICATIONS FOR DETAILS.

- ALL SPECIFICATIONS ARE SUBJECT TO CHANGE. CONTACT MANUFACTURER FOR DETAILS.

BUTLER AVENUE CORRIDOR OVERLAY DISTRICT TRASH RECEPTACLE DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

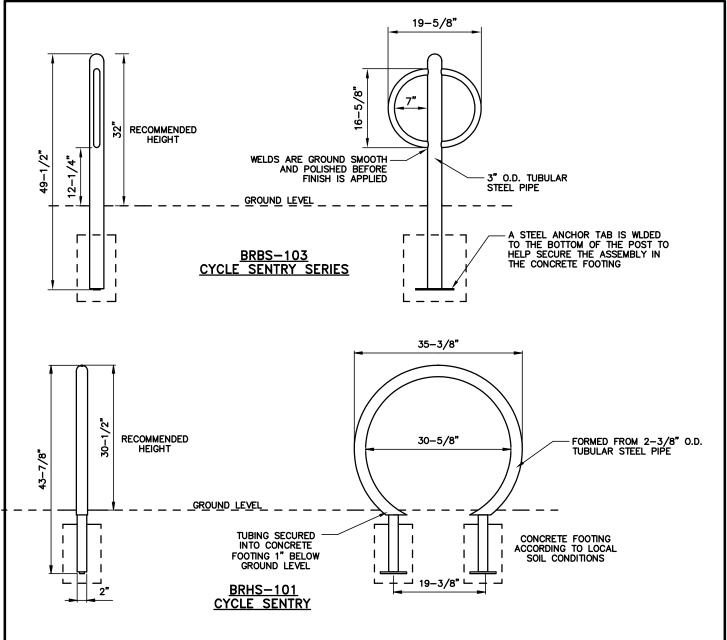


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SCALE: N.T.S.



- BICYCLE PARKING AREAS TO BE VICTOR STANLEY CYCLE SENTRY SERIES, BRBS-103, BRHS-101 OR APPROVED EQUAL.
 ALL FABRICATED METAL COMPONENTS ARE STEEL SHOTBLASTED, ETCHED, PHOSPHATIZED, PREHEATED, AND ELECTROSTATICALLY
 POWDER-COATED WITH T.G.I.C. POLYESTER POWDER COATINGS. PRODUCTS ARE FULLY CLEANED AND PREHEATED, PREHEATED
 AND COATED WHILE HOT TO FILL CREVICES AND BUILD COATING FILM. COATED PARTS ARE THEN FULLY CURED TO COATING MANUFACTURER'S SPECIFICATIONS. THE THICKNESS OF THE RESULTING FINISH AVERAGES 8-10 MILS (200-250 MICRONS). THIS SECURE SITE DESIGN, LLC. PRODUCT MUST BE PERMANENTLY AFFIXED IN THE GROUND. CONSULT YOUR LOCAL CODES FOR
- REGULATIONS
- ALL SPECIFICATIONS ARE SUBJECT TO CHANGE. CONTACT MANUFACTURER FOR DETAILS.

BUTLER AVENUE CORRIDOR OVERLAY DISTRICT BICYCLE PARKING DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



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