

County of Bucks

LAW DEPARTMENT
55 East Court Street, Doylestown, PA 18901
Phone: 215-348-6464 EMAIL: ddgrieser@buckscounty.org

County Solicitor AMY FITZPATRICK, ESQ.

April 3, 2025

VIA EMAIL

Dan Fox, Township Manager New Britian Township 207 Park Avenue Chalfont, PA 18914 dfox@nbtpa.us

Re: 226 Chapman Road Request to Rezone

Dear Mr. Fox:

On April 5, 2024, the County of Bucks purchased the property located at 226 Chapman Road (TMP # 26-004-091) "Chapman property" to provide better service to the visitors of the County owned Peace Valley Park. The Chapman Property will support the Department of Parks and Recreation as a public recreation facility by providing environmental education and recreation programming spaces while also allowing the County to improve Chapman Road.

The 2.62-acre Chapman property is currently zoned in the WS Watershed District. The WS District requires 5 acres for the E1 Public Recreation Facility use. The County requests the property be rezoned to the C/R Conservation and Recreation District that also allows the E1 use but only requires a minimum of 2 acres. The adjoined County owned parcels are zoned in the C/R District. A proposed ordinance to rezone the property is attached.

I have also reviewed appendix H of the New Britian Township Code of Ordinances. Section H-101, Streets and Sidewalks, indicates that Chapman Road between New Galena Road to a point approximately 1,100 feet south of the intersection with Creek Road was vacated in 1970. 226 Chapman Road is on the corner of New Galena Road and Chapman Road. If the online ordinance reference is correct, it appears no additional street vacation ordinance is required and the portion of Chapman Road next to the Chapman property is a private road.

Yesterday, the County Commissioners approved your Professional Service Agreement and delegated to Bernard Griggs, the Director of Operations for Bucks County, the authority to execute it and related documents. The signed PSA and escrow check are being mailed to the Township. If you have any questions, please do not hesitate to contact me via email or via my office number.

Please include Bernard Griggs, Angie Nagle, John McLaughlin, and me on future letters/emails regarding this property.

Very truly yours,

/s/ Daniel D. Grieser
Daniel D. Grieser, Esquire
Deputy County Solicitor

ddg attachment

cc:

Bernard Griggs, Director of General Services, County of Bucks Angela Nagle, Executive Director, Parks and Recreation, County of Bucks John McLaughlin, Asset Manager, General Services, County of Bucks (via email) Craig Kennard, Township Engineer Janene Marchand, Assistant Township Engineer Scott Holbert, Township Solicitor

NEW BRITIAN TOWNSHIP BUCKS COUNTY, PENNSYLVANIA

|--|

AN ORDINANCE TO AMEND THE NEW BRITIAN TOWNSHIP OFFICIAL ZONING MAP TO RE-ZONE THE PROPERTY LOCATED AT 226 CHAPMAN ROAD (TMP #26-004-091) FROM WS WATERSHED DISTRICT TO C/R CONSERVATION AND RECREATION DISTRICT; REPEALING ALL INCONSISTENT ORDINANCES OR PARTS THEREOF; PROVIDING A SEVERABILITY CLAUSE; AND PROVIDING AN EFFECTIVE DATE

WHEREAS, the Board of Supervisors of New Britian Township has enacted the New Britian Zoning Ordinance which contains, *inter alia*, the New Britian Township Zoning Map;

WHEREAS, the Board of Supervisors have received a request from the County of Bucks to rezone the identified parcel to meet future County Parks and Recreation needs;

WHEREAS, the Board of Supervisors has met the procedural requirements of 53 P.S. § 10101, et seq., the Pennsylvania Municipalities Planning Code, for the adoption of the proposed ordinance, including holding a public hearing;

WHEREAS, the Board of Supervisors of New Britian Township, after due consideration of the proposed ordinance at a duly advertised public hearing, has determined that the health, safety and general welfare of the residents of New Britian Township will be served by amending the New Britian Township Zoning Map as identified below; and

NOW, THEREFORE, BE IT ENACTED AND ORDAINED by the Board of Supervisors of New Britian Township, Bucks County, Pennsylvania, and it is hereby enacted and ordained by the authority of same as follows:

- 1. <u>MAP AMENDMENT</u>. The Official Zoning Map of the New Britian Township is hereby amended to rezone the property located at 226 Chapman Road (TMP#26-004-001) from WS Watershed District to C/R Conservation and Recreation District. The Township Planner or Engineer is hereby authorized and directed to amend the Official Zoning Map to carry out the intent and purpose of this Ordinance amendment.
- 2. **REPEALER**. All Ordinances or parts of Ordinances inconsistent herewith or in conflict with any of the specific terms enacted hereby, to the extent of said inconsistencies or conflicts, are hereby specifically repealed.
- 3. <u>REVISIONS.</u> The New Britian Township Board of Supervisors does hereby reserve the right, from time to time, to adopt modifications of, supplements to, or amendments of its Ordinance, including this provision.

- 4. **SEVERABILITY.** The provisions of this Ordinance are declared to be severable. If any provision of this Ordinance is declared by a court of competent jurisdiction to be invalid or unconstitutional, such determination shall have no effect on the remaining provisions of this Ordinance or on the New Britian Zoning Ordinance or Zoning Map.
- 5. **EFFECTIVE DATE**. This amendment shall become effective five (5) days after date of adoption.

ORDAINED AND ENACTED by the Board of Supervisors for New Britian Town				
Bucks County, Pennsylvania, this	day of	, 2025.		
	NEW DDY	THAN TOWNSHIP		
ATTECT.		TIAN TOWNSHIP		
ATTEST:	BOARD O	F SUPERVISORS:		
	By:			
Dan Fox, Township Manager	Cynthia	M. Jones, Chair		



Matthew Indorante, Esquire

PO Box 2280 Cranberry Twp, PA 16066 MSP Development, LLC Sr. Director of Real Estate Development Cell: (724)-469-0569 Matthew@mspdevelopment.com

April 23, 2025

VIA EMAIL & FEDEX-DELIVERY

Dan Fox Township Manager New Britain Township 207 Park Avenue Chalfont, PA 18914

Re: Conditional Use Hearing Application of Celek Chalfont, LLC Properties: 241 W Butler Ave

Dear Dan:

On behalf of Celek Chalfont, LLC, enclosed are the following documents and supporting materials constituting a conditional use hearing application:

- 1. An original and seven (7) copies of the completed and executed New Britain Township Conditional Use Hearing Application;
- 2. Seven (7) 11"x 17" size copies of the conditional use plans consisting of two sheets entitled "Existing Conditions & Demolition Plan" and "Site Improvements Plan" prepared by Howell Engineering, dated April 16, 2025;
- 3. One (1) executed copy of the New Britain Township Contract for Professional Services;

Dan Fox April 22, 2025 Page 2

- 4. One (1) copy of the deed dated February 28, 2025, between Chalfont Plaza Associates, L.P. ("Grantor") and Celek Chalfont, LLC ("Grantee") recorded on March 7, 2025 with the Bucks County Recorder of Deeds, instrument number 2025009563
- 5. the application fee in the amount of \$2,500.00 check made payable to New Britain Township; and
- 6. the escrow fee in the amount of \$2,500.00 check made payable to New Britain Township.

We request a hearing on this application.

Please:

- confirm the date this application will be scheduled for a hearing before the Board of Supervisors;
- provide me with copies of any correspondence, reviews, and comments sent or received by the Township with regard to this application; and
- provide me with advance notice of any meeting of a Township board, commission, agency, or committee which intends to discuss or consider this application.

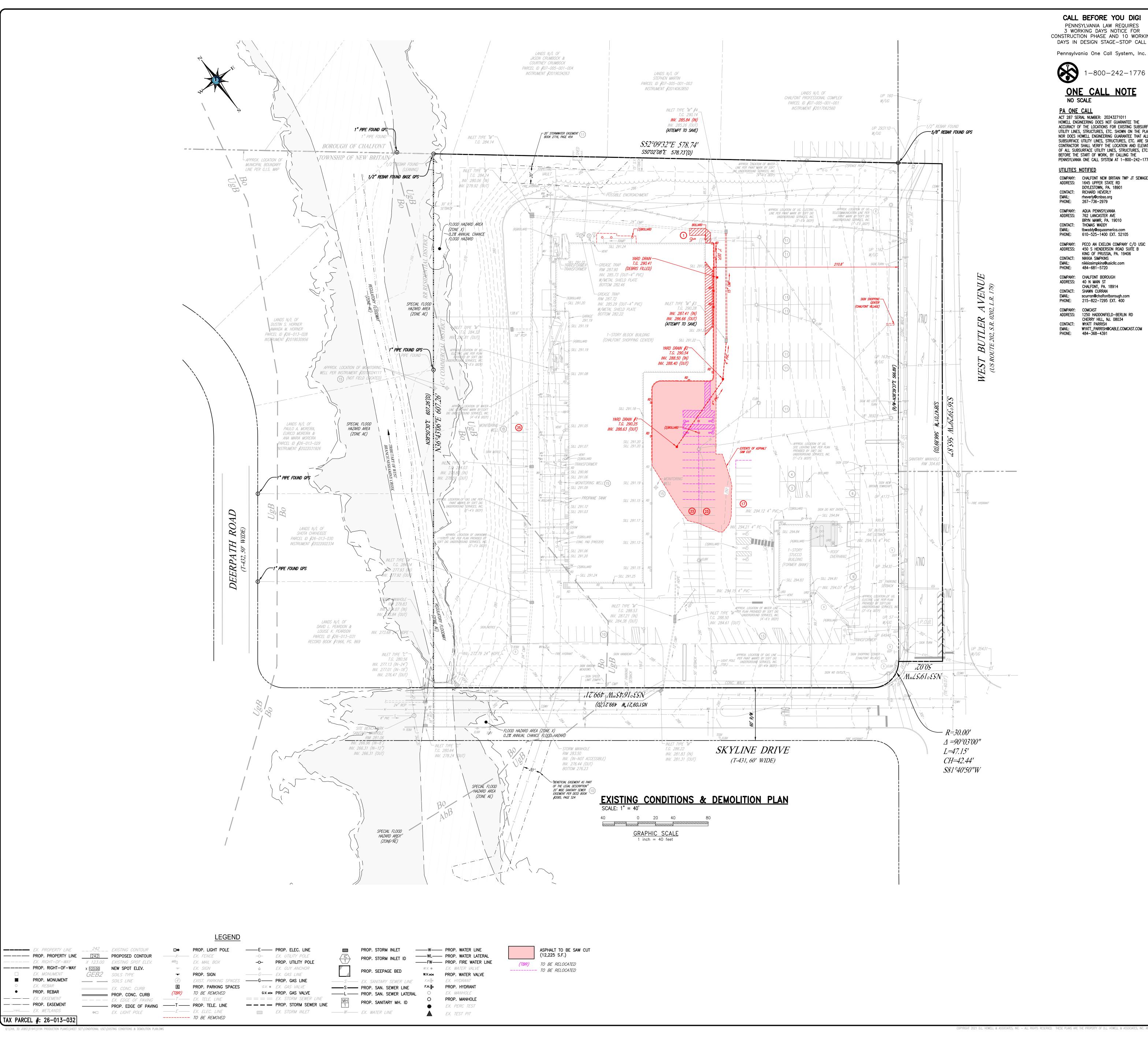
Thank you for your consideration.

Very truly yours,

Matthew W Indorante
Matthew Indorante

Enclosures

cc: Julie L. Von Spreckelsen (w/ enclosures)
Nick Urbanowicz (w/o enclosures)
Denny Howell III (w/o enclosures)



CALL BEFORE YOU DIG! PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING

Pennsylvania One Call System, Inc.

ONE CALL NOTE

HOWELL ENGINEERING DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY LINES, STRUCTURES, ETC. SHOWN ON THE PLANS, NOR DOES HOWELL ENGINEERING GUARANTEE THAT ALL SUBSURFACE UTILITY LINES, STRUCTURES, ETC. ARE SHOWN CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATIONS OF ALL SUBSURFACE UTILITY LINES, STRUCTURES, ETC. BEFORE THE START OF WORK, BY CALLING THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776.

COMPANY: CHALFONT NEW BRITAIN TWP JT SEWAGE AUTH

COMPANY: PECO AN EXELON COMPANY C/O USIC ADDRESS: 450 S HENDERSON ROAD SUITE B

WYATT_PARRISH@CABLE.COMCAST.COM

Patriot Place Chalfont Brittany Farms Trace Park Brittany Farms-the Village

LOCATION MAP SCALE: 1" = 2,000'

1. RECORD OWNER/MAILING ADDRESS: CELEK CHALFONT, LLC

GENERAL NOTES

P.O. BOX 2280 CRANBERRY TOWNSHIP, PA. 16066

237 W. BUTLER AVE. CHALFONT, PA 18914

3. TAX PARCEL #: 26-013-032 4. SOURCE OF TITLE: INSTRUMENT TYPE - DEED INSTRUMENT NUMBER - 2025009563

5. LOT AREA: 7.306 ACRES

6. BOUNDARY, TOPOGRAPHY AND PHYSICAL IMPROVEMENTS SHOWN ARE FROM FIELD SURVEY BY HOWELL SURVEYING, LLC. PERFORMED ON 11/26/2024 & 11/27/2024.

7. CONTOURS PLOTTED FROM FIELD RUN TOPOGRAPHIC SURVEY BY HOWELL SURVEYING, L.L.C.. DATUM: NAVD 88 (COMPUTED USING GEOID18) & NAD 83 (2011) (EPOCH:2010.0000) (AS DETERMINED BY GPS OBSERVATION), SITE BENCH = SANITARY AS-BUILT ON SKYLINE DRIVE, ELEVATION= 281.06', CONTOUR

8. UNDERGROUND UTILITIES SHOWN WERE PLOTTED FROM OBSERVABLE EVIDENCE AT THE TIME OF SURVEY AND INFORMATION FROM PLANS SUPPLIED BY UTILITY COMPANIES AS WELL AS MARKED BY A UNDERGROUND UTILITY LOCATOR. NO GUARANTEE IS MADE THAT UNDERGROUND UTILITIES ARE ACCURATELY OR COMPLETELY SHOWN HEREON.

9. THIS PROPERTY IS LOCATED WITHIN FLOOD HAZARD ZONE X, AN AREA OF MINIMAL FLOOD HAZARD PER THE NATIONAL FLOOD INSURANCE RATE MAP FOR BUCKS COUNTY, PA. MAP NO. 42017C0289K, PANEL 289 OF 532, DATED MARCH 21, 2017. FLOOD PLAIN BOUNDARIES SHOWN HEREON WERE SCALED FROM

10. THERE WAS NO EVIDENCE OF ANY EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELDWORK. 11. PARKING COUNT: 201 REGULAR SPACES

12. INFORMATION REGARDING PROPOSED CHANGES TO STREET RIGHT-OF-WAY LINES WAS NOT MADE

13. A ZONING USE DETERMINATION REPORT PERFORMED BY THE ASSISTANT NEW BRITAIN TOWNSHIP ZONING OFFICER DATED DECEMBER 10, 2024 WAS PROVIDED TO THE SURVEYOR. ZONING INFORMATION SHOWN HEREON WAS OBTAINED FROM TOWNSHIP ZONING ORDINANCE (AS POSTED ON THE TOWNSHIP WEBSITE) AT TIME OF SURVEY, PROJECT ENGINEER IS RESPONSIBLE FOR CHECKING LATEST TOWNSHIP ORDINANCES FOR ANY & ALL UPDATES OR TOWNSHIP REVISIONS.

14. THE PROPERTY SHOWN HEREON IS THE SAME AS DESCRIBED IN A COMMITMENT FOR TITLE INSURANCE BY FIRST AMERICAN TITLE INSURANCE COMPANY, ISSUING OFFICE FILE NO. 3020-1235013, COMMITMENT DATE: 12/23/2024.

TITLE REPORT NOTE

THIS SURVEY WAS PERFORMED UTILIZING A COMMITMENT FOR TITLE INSURANCE BY FIRST AMERICAN TITLE INSURANCE COMPANY, ISSUING OFFICE FILE NO. 3020-1235013, COMMITMENT DATE: 12/23/2024. SCHEDULE B-SECTION II OF THE TITLE COMMITMENT CONTAINS THE FOLLOWING SURVEY RELATED MATTERS (ITEM NUMBERS BELOW CORRESPOND TO THE NUMBERS FROM THE TITLE COMMITMENT AND ARE INDICATED IN AN OCTAGON ON THE PLAN OF SURVEY WHERE APPLICABLE):

6. Title to that portion of the premises lying in the bed of U.S. Route 202 is subject to public and private rights therein. (RIGHT-OF-WAY FOR S.R. 0202 SHOWN HEREON.) 7. Subject to all matters shown on the Plan as recorded in the Recorder's Office of Bucks County, Pennsylvania in Plan Book 45 Page 28, Plan Book 49 Page 4, and Plan Book 74 Page 38. (PLANS SHOW SETBACKS, EASEMENTS, AND RIGHT-OF-WAY WIDTHS. NUMBERS AND

DIMENSIONS ARE ILLEGIBLE.) 8. Rights granted to The Bell Telephone Company of Pennsylvania as set forth in Deed Book 1882 Page 399 and Deed Book 2052 Page 1126. (BLANKET EASEMENT FOR TELECOMMUNICATIONS ACROSS SITE. TELECOMMUNICATION UTILITIES ARE SHOWN HEREON.)

9. Rights granted to Philadelphia Electric Company as set forth in Deed Book 1883 Page 517 and Deed Book 2053 Page 471. (RIGHTS TO INSTALL UNDERGROUND ELECTRIC UTILITIES WITHIN 2 FEET FROM THE ROAD RIGHT-OF-WAY. ELECTRIC UTILITIES ALONG THE ROADS ARE SHOWN

10. Easement Agreement by and between J. Clyde Derstine and Joan Derstine and Chalfont Village Associates as set forth in Deed Book 2085 Page 524. (20' WIDE SANITARY SEWER EASEMENT SHOWN HEREON.)

11. Deed of Easement as set forth in Deed Book 2716 Page 454. (DESCRIBES AN STORMWATER EASEMENT BASED ON PLAN OF OXBOW MEADOWS, PLAN BOOK 30, PAGE 13, 20' WIDE STORMWATER EASEMENT SHOWN HEREON.)

12. Landlord's Consent as set forth in Land Record Book 1629 Page 2370 and Land Record Book 1630 Page 2051. (NOT SURVEY RELATED.) 13. Conditions as set forth in Land Record Book 1932 Page 1730. (DISCLOSURE OF LEVEL OF HAZARDOUS MATERIALS ON SITE. NOT SURVEY RELATED.)

 Terms and conditions of Lease to Bottom Dollar Food Northeast, LLC as evidenced by a Memorandum thereof recorded in Land Record Book 6746 Page 2109. (NOT SURVEY RELATED.) 15. Notice of the violation or enforcement of a law, ordinance, permit, or governmental regulation relating to environmental protection as disclosed by the following document entitled Environmental Covenant, recorded May 09, 2018 as Instrument No. 2018024111 of Official Records. (ENVIRONMENTAL COVENANT OCCUPIED BY CHALFONT VILLAGE SHOPPING CENTER. LOCATION OF MONITORING WELLS SHOWN HEREON.)

All that certain tract or parcel of land with the buildings and improvements thereon erected, situate in the Township of New Britain, County of Bucks, and Commonwealth of Pennsylvania, as shown on the AS BUILT SURVEY OF CHALFONT VILLAGE SHOPPING CENTER, dated August 8, 1973, and last revised December 30, 1974, made by Richard S. Cowan & Associates, Inc., Consulting Engineers, bounded and described as follows, to wit:

Beginning at a point in the centerline of U.S. Route 202, said point being located North 38 degrees, 47 minutes, 01 seconds East, a distance of 60.08 feet measured along the centerline of said U.S. Route 202 from its intersection with the centerline of Skyline Drive (60 feet wide); Thence (1) leaving the centerline of said U.S. Route 202, North 51 degrees, 12 minutes, 59 seconds West, a distance of 50.01 feet to a point of curvature on the ultimate right of way of said U.S. Route 202; Thence (2) along an arc of a curve to the right in a Northwesterly direction having an arc length of 47.15 feet and a radius of 30 feet to a point of tangency on the Northeasterly side of Skyline Drive; Thence (3) along the said side of Skyline Drive, North 51 degrees, 09 minutes, 21 seconds West, a distance of 499.21 feet to a point, a corner of Lot No. 14, Oxbow Meadows, Section No. 2; Thence (4) leaving said side of Skyline Drive and passing along Lots No. 14, 15, 16 and 17 of Oxbow Meadows, Section No. 2, North 38 degrees, 50 minutes, 30 seconds East, a distance of 607.26 feet to an iron pin in line of Oxbow Meadows, Section No. 1; Thence (5) passing along Oxbow Meadows, Section No. 1, South 50 degrees, 02 minutes, 08 seconds East, crossing the ultimate right of way a distance of 578.73 feet to a point on the centerline of the aforementioned U.S. Route 202; Thence (6) along said centerline South 38 degrees, 47 minutes, 01 seconds West, a distance of 566.89 feet to the Place of Beginning. TOGETHER WITH the easement appurtenant to the Land as set forth in that certain Agreement

BEING PARCEL NO. 26-013-032 BEING the same premises which Chalfont Associates, L.P., a Delaware limited partnership, by Deed dated September 16, 1999 and recorded September 27, 1999 in Bucks County at Land Record Book 1932 Page 1730, granted and conveyed unto Chalfont Plaza Associates, L.P., a Delaware limited partnership, in fee.

Abb - Abbottstown Silt Loam, 3 to 8 percent slopes BOWMANSVILLE-KNAUERS SILT LOAMS UgB - URBAN LAND-ABBOTTSTOWN COMPLEX

recorded May 14, 1973 in Deed Book 2085 Page 524.

APPLICANT/EQUITABLE OWNER

CELEK CHALFONT, LLC P.O. BOX 2280 CRANBERRY TOWNSHIP, PA. 16066

EXISTING CONDITIONS & DEMOLITION PLAN CLIENT: CELEK CHALFONT, LLC PROJECT: 237 W. BUTLER PIKE CONDITIONAL USE

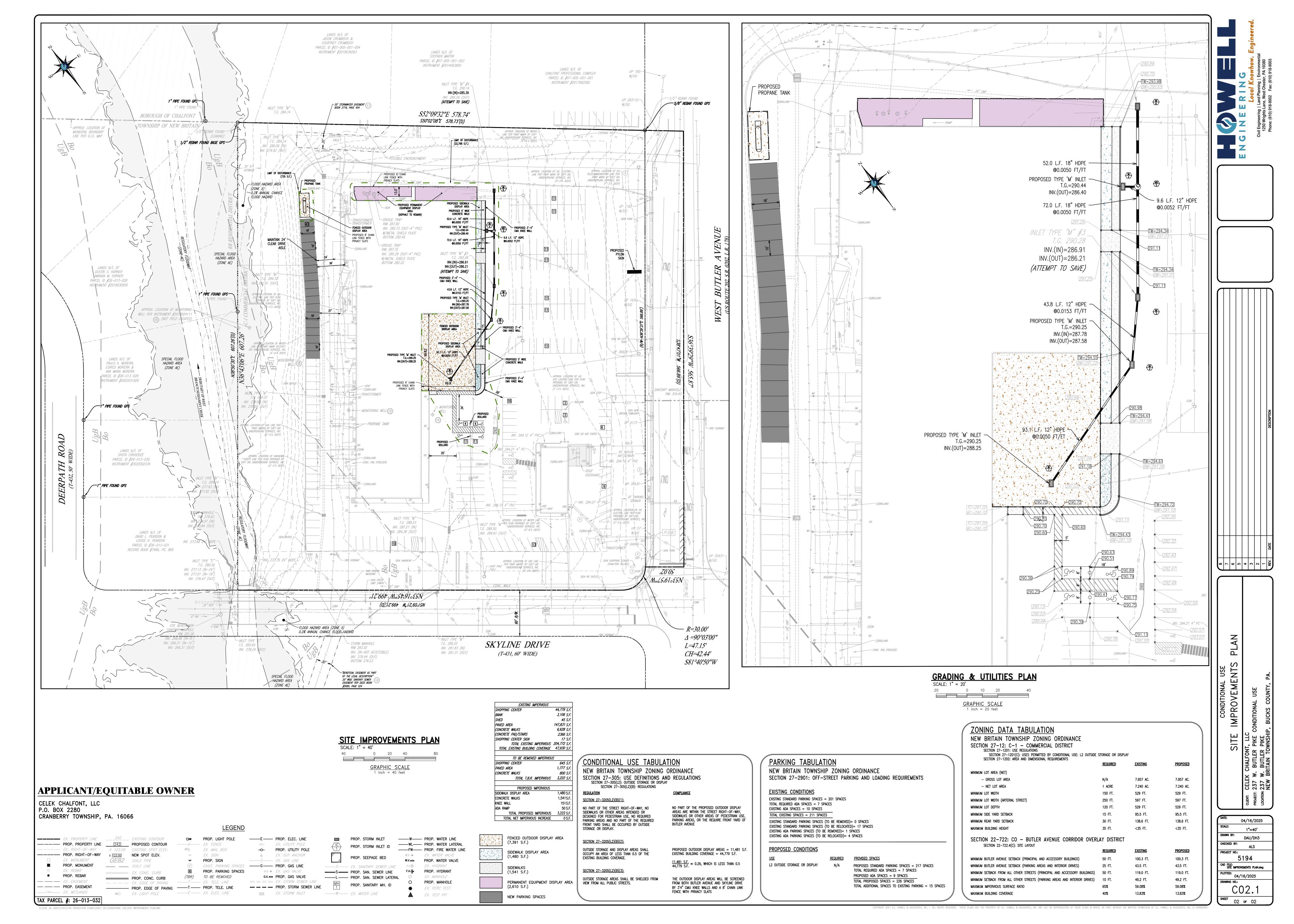
04/16/2025

CAD FILE: EXISTING CONDITIONS & DEMOLITION PLAN.du

01 of 02

PLOTTED: 04/16/2025

CHECKED BY:





NEW BRITAIN TOWNSHIP

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

SUBDIVISION & LAND DEVELOPMENT APPLICATION

1.	Date of Application:	April 11, 2025	-	TOWNSHIP US	E ONLY
2.	Date of Plan or Revision:	March 21,	2025	Date Recieved:	
	The state of the s	Land Deve		Payment: Check #:	
3.	Application for:	Spotless C		Receipt #:	
4.	Name of Subdivision or Land Development:	545 West E		Escrow Acc. #:	
5.	Location:	343 West L			2.200
6.		Total Acreage:	Gross	_ Base Site Area	0.652 AC
7.	Net Buildable Site Area (from Section 2401):	0.625 AC			
8.	Zoning Requirements: Zoning District C1 Minin	mum Lot Size	1AC	Maximum Density	N/A
	Front Yard 40 ft Side	Yard	15 ft	Rear Yard	30 ft
9.	Number of Lots or Dwelling Units:	1	SC TO THE SC TO	_	
10.	Equitable Owner of Record of Land:	Flagship Penns	sylvania Propco LL	С	
	Address:	2 Mid Amer	ica Plz, Ste 45	0	
		Oakbrook To	errace, IL 6018	1	
	Phone: 610-952-5100 E-m	nail: jlombardo@sr	ootlessbrands.co	m	
11.	Applicant:	Same as	Owner	_	
	Address:			_	
	Phone: E-m	ıail:		_	
12.	Registered Engineer or Surveyor:	Van Cleef Eng	ineering Associate	es —	
	Address:	501 North	Main Stree	<u>et</u>	
		Doylestow	vn, PA 1890	1	
	Phone: (215) 660-0268 E-m	ail: smcGranahan@va	ancleefengineering.co	m	
13.	Type of Water & Sewer: Public Water Public Sewer	The state of the s	e Water e Sewer		
14.	Proposed Use:	Car Wash			
	to certify that I have read Article V of the New E accompanying plan meets the requirements of bignature of Applicant	f that Article to the	e best of my know		

		ISION & LAND DEVELOPMENT SUBMISSION CHECKLIST
Date o	f Application:	April 11, 2025
Subdiv	rision/Land Development Name:	Spotless Carwash
Addres	ss of Property:	545 West Butler Ave
Owner	(s) Name:	Flagship Pennsylvania Propco LLC
Applica	ant(s) Name:	Flagship Pennsylvania Propco LLC
Tax Ma	ap Parcel Number:	26-006-101-001
		Adad 4a 9 4/2 y 44 (0 Full Cina 5 44y47)
		olded to 8 1/2 x 11: (9 Full Size, 5 11x17)
	NBT Board of Supervisors (Full Size) - 5 C	_
<u> </u>	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
applica		ted to the Township: All applicants include these items or the incomplete and returned to the applicant. Please also submit s.
7	New Britain Township Subdivision and Lan	d Development Application (1 Signed Original)
✓	Filing Fee according to the most current Fe	e Schedule adopted by Resolution
V	Escrow Fee according to the most current I	Fee Schedule adopted by Resolution
	Contract for Professional Services Agreem	ent (3 Signed Originals)
<u> </u>	Proof of Submission to Bucks County Plans	ning Commission
	Proof of Submission to Bucks County Cons	
	Proof of Submission to Water Authority (No	
Ø		n Joint Sewer Authority OR Buck County Department of Health
\square	Stomwater Management Report (2 Copies)	
		e Application/Mailer approved by Sewer Authority or SEO (Original & 2 Copies)
	Traffic Impact Study, if applicable (2 Copies	
	PADOT Highway Occupancy Permit Plan/A Community Impact Assessment Report, if a	
	•	ntent & Post Property of SLD Application (§ 22-401.8 General Procedures)
	Township Road Opening Permit, if application	
	Water Resource Impact Study, if applicable	
		(Le Copies) (Bigital / Booptablo)
	waiver request Letter with Justification	
☑	Waiver Request Letter with Justification	

*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 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:	Spotless Carwash		
Tax Map Parcel Number(s):	26-006-101-001		
Signature of Applicant:	Date: 4/11/2025		
Signature of Applicant:	Date: 4/11/2025		





April 3, 2025

Dan Fox Township Manager New Britain Township 207 Park Avenue Chalfont, PA 18914

RE: Flagship Car Wash (Spotless Brands)

545 West Butler Avenue, Chalfont, PA 18914

VCEA No. 24-02-NBR

Dear Mr. Fox:

In conjunction with the Land Development Application for the property (PARID No. 26-006-101-001) address is 545 West Butler Avenue, Chalfont, PA 18914; Please consider the below written waiver requests from requirements in the New Britain Township Subdivision/Land Development Ordinance (SALDO).

WAIVER REQUESTS:

1. SALDO §22-403 - Preliminary Plan Submission and Review Procedure

The applicant is proposing to combine the Preliminary and Final plan stages therefore shortening the review period required.

2. <u>SALDO §22-706.1.D & SALDO §22-708.6.1</u> – Requiring all proposed curbs shall have a minimum radius of five (5) feet.

In lieu of pavement gore stripping curbing was utilized to delineate the parking area uses, utilizing curb radii less than the required 5 feet.

3. <u>SALDO §22-708.2.F.</u> – Requiring a six (6) foot minimum width sidewalk or walkway when adjacent to parking stalls.

Due to the lot size and configuration of the site, a sidewalk of 4.33 feet was provided along the front of the proposed building in lieu of the required 6 feet width.

4. <u>SALDO §22-711.4.C.</u> – Requiring the top of bottom edge of slopes shall be a minimum of five (5) feet from property lines in order to permit normal rounding of the edge without encroaching onto the abutting property.

Due to the lot size and configuration of the site, the grading associated with the site features extends to the adjoiner property lines.

OFFICE LOCATIONS

www.vancleefengineering.com



5. <u>SALDO §22-712.5.E.</u> – Requiring storm sewers to 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.

Due to the lot size and anticipated stormwater runoff, only a maximum pipe size of 12 inches is necessary to convey stormwater for the site.

6. SALDO §22-722.4.C.(1)(a)&(b), and (2) – Requiring setbacks from Butler Avenue to be 50 feet from principal and accessory buildings. 25 feet from surface parking areas and interior drives and setbacks from all other street lines shall be 50 feet except parking areas and interior drives may be located up to 10 feet from all other street lines.

Due to the lot size and configuration of the site, the interior drive along Bulter Avenue are setback 8 feet from the property line.

7. SALDO §22-722.4.D.(6) – Requiring bicycle parking.

Due to the nature of the business, we do not believe bicycle parking is necessary.

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

FOR

FLAGSHIP CARWASH

PREPARED FOR

SPOTLESS BRANDS

SITUATED IN

NEW BRITAIN TOWNSHIP BUCKS COUNTY, PENNSYLVANIA

OWNER OF RECORD:

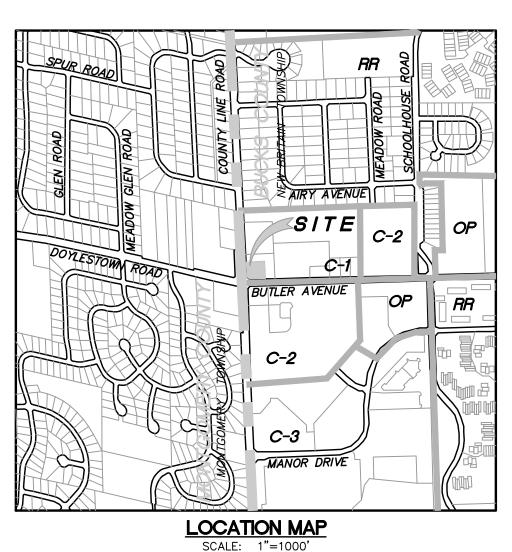
FLAGSHIP PENNSYLVANIA PROPCO, LLC

SITE ADDRESS: 545 WEST BUTLER AVENUE CHALFONT, PA 18914

PARID 26-006-101-001 INSTRUMENT NUMBER 2025004671

SITE AREA:

28,414 SQ. FT. OR 0.652 ACRES



GRAPHIC SCALE
0 500 1000 2000
1 INCH = 1000 FT

DATE: APRIL 3, 2025



VAN CLEEF ENGINEERING ASSOCIATES, LLC 501 NORTH MAIN STREET, DOYLESTOWN, PA 18901 WEB: WWW.VANCLEEFENGINEERING.COM PHONE (215) 345-1876

INDEX OF SHEETS

	<u> </u>
SHEET No.	TITLE
1	COVER SHEET

SITE PLAN

3 EXISTING FEATURES PLAN
4 AERIAL PLAN

5 GRADING PLAN

6 UTILITY PLAN

7 LANDSCAPE PLAN

8 LIGHTING PLAN
9 EROSION AND SEDIMENTATION CONTROL PLAN

10 CONSTRUCTION DETAILS

11 UTILITY DETAILS

2 EROSION AND SEDIMENTATION CONTROL NOTES

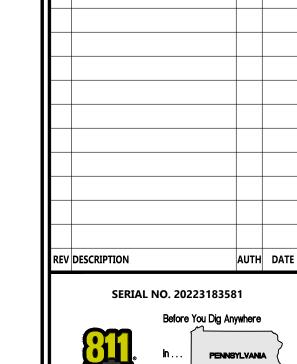
13 EROSION AND SEDIMENTATION CONTROL DETAILS

14 CONSTRUCTION DETAILS

15 CONSTRUCTION DETAILS
16 ADA DETAILS

ENGINEERING WITH FOCUS

Bridges/Highways
Construction Inspection
Environmental
Surveying/Aerial Drones/GIS



PLAN NOTATION

ONLY THOSE PLANS WHICH CONTAIN A DIGITAL IMPRESSED, OR COLORIZED INK SEAL OF THI RESPONSIBLE PROFESSIONAL SHALL BE CONSIDERED VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPAREIFOR THE OWNER DESIGNATED HEREON. AN' MODIFICATION, REVISION, DUPLICATION OR USE WITHOUT THE WRITTEN CONSENT OF VAN CLEEF ENGINEERING ASSOCIATES IS PROHIBITED RELIANCE ON THIS PLAN FOR ANY PURPOSE OTHER THAN THAT WHICH IS INTENDED SHALL BE



SEAN DAVID McGRANAHAN
PENNSYLVANIA PROFESSIONAL
ENGINEER NUMBER 085090



VAN CLEEF ENGINEERING ASSOCIATIES, 501 NORTH MAIN STREET, DOVLESTOWN, PA 189 WEB: WWW.VANCLEEFENGINEERING.COM PHONE (215) 345-1876

COVER SHEET

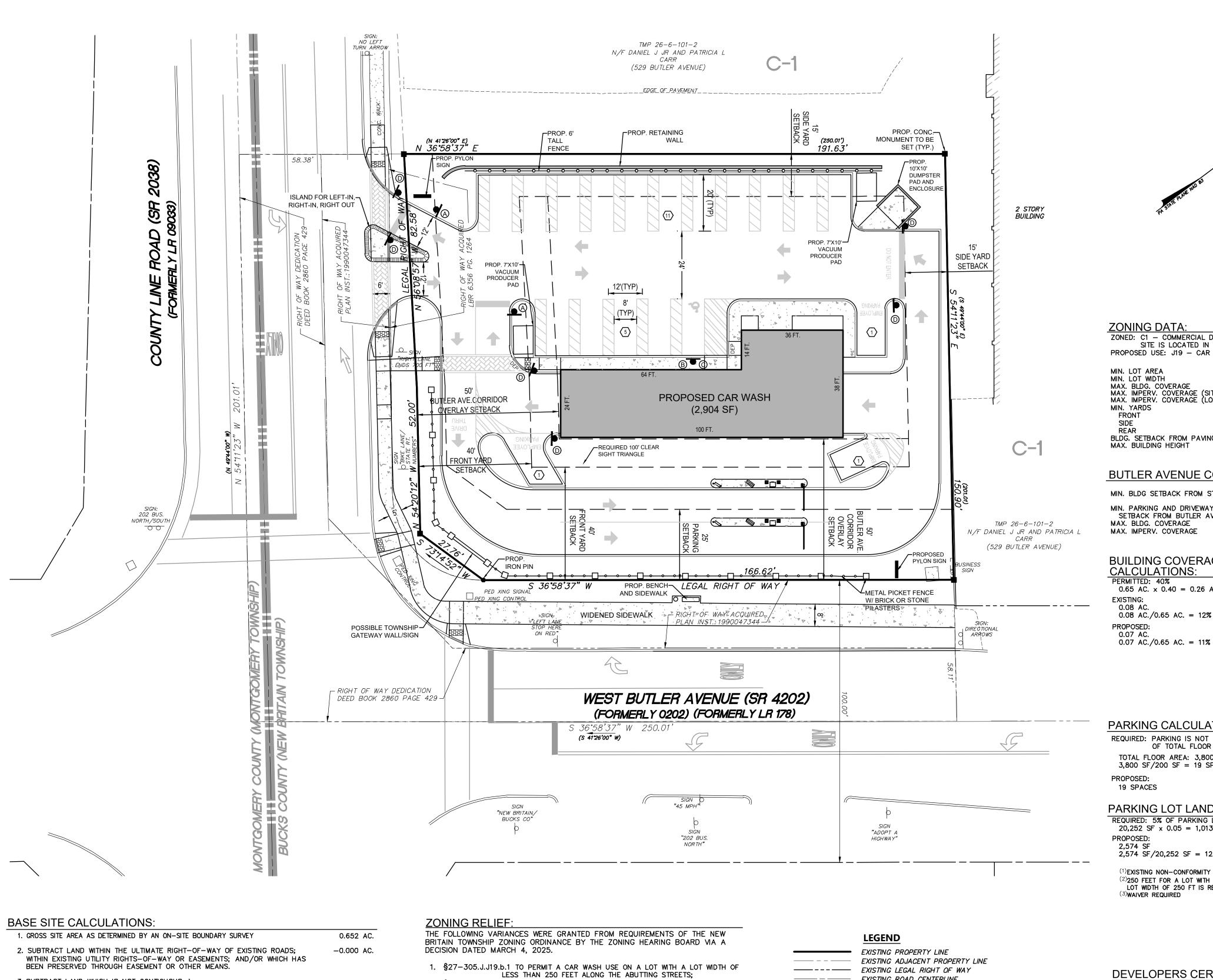
FOR

| FLAGSHIP CARWASH

DATE: APRIL 3, 202
SCALE: AS NOTE
DESIGNED BY: LDM, SDI
DRAWN BY: RJ
CHECKED BY: SD
IOR NUMBER: 2402-NB

TMP'S 26-006-101-001

NEW BRTIAIN TOWNSHIP BUCKS COUNTY, PENNSYLVANIA



3. SUBTRACT LAND WHICH IS NOT CONTIGUOUS, i.e.: (a) A SEPARATE PARCEL WHICH DOES NOT ABUT OR ADJOIN, NOR SHARE -0.000 AC. COMMON BOUNDARIES WITH, THE REST OF THE DEVELOPMENT; AND/OR (b) LAND WHICH IS CUT OFF FROM THE MAIN PARCEL BY A ROAD, RAILROAD. -0.000 AC. EXISTING LAND USE, AND/OR MAJOR STREAM, SO AS TO SERVE AS A MAJOR BARRIER TO COMMON USE AND/OR SO THAT IT IS ISOLATED AND UNAVAILABLE FOR BUILDING PURPOSES. 4. SUBTRACT LAND WHICH, IN A PREVIOUSLY APPROVED SUBDIVISION, WAS SET -0.000 AC. ASIDE, RESERVED, AND/OR RESTRICTED FOR OPEN SPACE, NATURAL RESOURCE PROTECTION, AND/OR RECREATION PURPOSES. 5. SUBTRACT LAND USED FOR ANOTHER USE (i.e. LAND WHICH IS USED OR TO BE -0.000 AC. USED, FOR COMMERCIAL OR INDUSTRIAL USES IN A RESIDENTIAL DEVELOPMENT) OR LOCATED IN A DIFFERENT ZONING DISTRICT THAN THE REST OF THE DEVELOPMENT. BASE SITE AREA 0.652 AC. NATURAL RESOURCE PROTECTION AREA (AC) PROTECTION 0.000 RIPARIAN BUFFER 0.000 FLOODPLAIN 0.000 0.000 FLOODPLAIN (ALLUVIAL) SOILS 1.00 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 WETLANDS 0.000 LAKES OR PONDS STEEP SLOPES (8%-15%) 0.000

0.000

0.000

0.000

NET BUILDABLE SITE AREA = BASE AREA - OPEN SPACE AREA = 0.625 AC - 0.00 = 0.625 AC

0.000

0.000

STEEP SLOPES (15%-25%)

STEEP SLOPES (25%+)

AGRICULTURAL SOILS

- 2. §27-1202.b TO PERMIT A SIDE YARD SETBACK OF 10 FEET IN THE AREA OF THE VACUUM STATIONS;
- 3. \$27-2901.J.J19.b and \$27-2904.a.7 TO PERMIT 16 OF THE OFF-STREET PARKING SPACES TO BE JOINTLY USED AS STALLS FOR
- VEHICLE VACUUMING; AND 4. §27-2904.q.5 TO PERMIT A PAVED AREA BE 0 FEET FROM THE EXTERIOR
- STRUCTURAL WALL OF THE PROPOSED BUILDING.

LAND TO BE DEDICATED FOR PARKS & RECREATION: 2.500 S.F. OF P&R SPACE PER 4.000 S.F. OF BUILDING AREA REQUIRED. BUILDING AREA = 2,904 S.F.=1,1815 S.F. PARKS & RECREATION SPACE REQUIRED.

1. CONTRIBUTION SHALL BE MADE BASED ON THE CURRENT TOWNSHIP FEE

SCHEDULE.

15% MIN. SITE AREA TO BE DESIGNED AS GREEN SPACE:

0.65 ACRES X 43,560 SF = 28,314 SF X 0.15 = 4,247 SF GREEN SPACE REQUIRED. GREEN SPACE AROUND BENCH, GATEWAY MONUMENT SIGN, AND TRASH RECEPTACLE OPEN GREEN AREA = 4,482 SF PROVIDED.

NOTE:

0.000

0.000

1. ROTATING OR REVOLVING SIGNS, ELECTRONIC MESSAGE BOARDS, PENNANTS, FLAGS, BANNERS, BALLOONS, AND OTHER OBJECTS AND ITEMS (SUCH AS TIRES, AUTOMOBILES, FOOD PRODUCTS, ETC.) THAT ARE DESIGNED TO DRAW ATTENTION TO THE PRODUCT OR BUSINESS ARE ALL PROHIBITED IN THE CORRIDOR OVERLAY DISTRICT.

----- EXISTING ROAD CENTERLINE

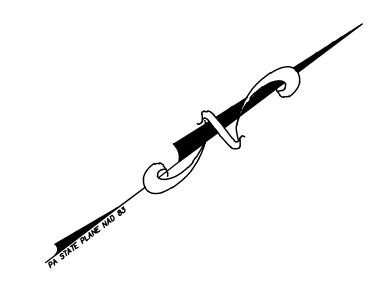
----- EXISTING EASEMENT EXISTING ROAD ===== EXISTING CURB EXISTING EDGE OF DRIVE EXISTING CONCRETE MONUMENT EXISTING PIN

ZONING CLASSIFICATION

PROPOSED MONUMENT TO BE SET PROPOSED IRON PIN TO BE SET ------ PROPOSED ROAD CENTERLINE PROPOSED CURB

PROPOSED SIDEWALK PROPOSED RIGHT OF WAY — — PROPOSED BUILDING SETBACK

----- PROPOSED EASEMENT ----- PROPOSED BUFFER PROPOSED CLEAR SIGHT TRIANGLE



ZONING DATA:

ZONED: C1 - COMMERCIAL DISTRICT SITE IS LOCATED IN THE BUTLER AVENUE CORRIDOR OVERLAY DISTRICT PROPOSED USE: J19 - CAR WASH (PERMITTED)

	REQUIRED	EXISTING	<u>PROPOSED</u>
MIN. LOT AREA	1 AC.	0.65 AC. ⁽¹⁾	0.65 AC.(1)
MIN. LOT WIDTH	150 FT. ⁽²⁾	150 FT. ⁽¹⁾⁽²⁾	150 FT. ⁽¹⁾⁽²⁾
MAX. BLDG. COVERAGE	40%	12%	11%
MAX. IMPERV. COVERAGE (SITE)	70%	75% ⁽¹⁾	75% ⁽¹⁾
MAX. IMPERV. COVERAGE (LOT)	75%	75%	75%
MIN. YARDS			
FRONT	40 FT.	61 FT.	50 FT.
SIDE	15 FT.	10 FT. ⁽¹⁾	10 FT. ⁽¹⁾
REAR	30 FT.	N/A 3.4 FT. ⁽¹⁾	N/A
BLDG, SETBACK FROM PAVING	20 FT.		0_FT.(1)
MAX. BUILDING HEIGHT	35 FT.	<35 FT.	<35 FT.

BUTLER AVENUE CORRIDOR OVERLAY REQUIREMENTS:

	<u>REQUIRED</u>	<u>EXSITING</u>	<u>PROPOSED</u>
MIN. BLDG SETBACK FROM STREETS	50 FT.	61 FT.	50 FT. ALONG BUTLER AVE
2223 32.2.31 7110111 01112210	,	· · · · · ·	50 FT. ALONG CNTY-LINE F
MIN. PARKING AND DRIVEWAY			
SETBACK FROM BUTLER AVE	25 FT.	20 FT. ⁽¹⁾	8 FT. ⁽³⁾
MAX. BLDG. COVERAGE	40%	12%	11%
WAX. DEDG. COVERAGE	TU/6	12/0	1 1/9

BUILDING COVERAGE CALCULATIONS:

PERMITTED: 40% $0.65 \text{ AC.} \times 0.40 = 0.26 \text{ AC.}$ EXISTING: O.OB. AC.

0.08 AC. / 0.65 AC. = 12%PROPOSED:

PERMITTED: 70% $0.65 \text{ AC.} \times 0.70 = 0.46 \text{ AC.}$ **EXISTING:** BUILDING SIDEWALKS 0.02 AC. PARKING

SURFACE CALCULATIONS:

SITE IMPERVIOUS

 $0.49 \text{ AC.}/0.65 \text{ AC.} = 75\%^{(1)}$ PROPOSED: BUILDING SIDEWALKS, WALLS 0.03 AC

 $0.49 \text{ AC.}/0.65 \text{ AC.} = 75\%^{(1)}$

PARKING

PARKING CALCULATIONS: REQUIRED: PARKING IS NOT REQUIRED FOR A CAR WASH OR 1 SPACE PER 200 SF OF TOTAL FLOOR AREA.

TOTAL FLOOR AREA: 3,800 SF MAX (FIRST FLOOR: 2,904 SF + SECOND FLOOR: 896 SF) 3,800 SF/200 SF = 19 SPACESPROPOSED:

PARKING LOT LANDSCAPE CALCULATIONS: REQUIRED: 5% OF PARKING LOTS MUST BE LANDSCAPE AREA

 $20,252 \text{ SF} \times 0.05 = 1,013 \text{ SF}$ PROPOSED: 2,574 SF

2,574 SF/20,252 SF = 12.7%

(1)EXISTING NON-CONFORMITY (2)250 FEET FOR A LOT WITH A DRIVEWAY ENTERING ONTO AN ARTERIAL STREET. ADDITIONALLY, A LOT WIDTH OF 250 FT IS REQUIRED PURSUANT TO J-19 CAR WASH REQUIREMENTS) (3)WAIVER REQUIRED

DEVELOPERS CERTIFICATION:

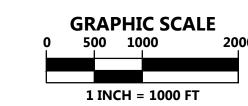
I/WE ACKNOWLEDGE THAT THE STORMWATER FACILITIES AND BMP'S ARE FIXTURES THAT CAN BE ALTERED OR REMOVED ONLY AFTER APPROVAL OF NEW BRITAIN TOWNSHIP.

SPOTLESS BRANDS

PROPOSED SIGNAGE SYMBOL LEGEND

- PROPOSED "STOP" SIGN (R1-1) PROPOSED "RESERVED PARKING" SIGN (R7-8) &
- "RESERVED PARKING PENALTIES" SIGN (R7-8F)
- PROPOSED "VAN ACCESSIBLE" SIGN (R7-8B)

PROPOSED "DO NOT ENTER" SIGN (R5-1)



CERTIFICATIONS:

COMMONWEALTH OF PENNSYLVANIA:

COUNTY OF BUCKS

OWNERSHIP, ACKNOWLEDGEMENT OF PLAN AND OFFER OF DEDICATION WE HAVE LAID OUT UPON OUR LAND, SITUATED IN THE TOWNSHIP OF NEW BRITAIN, COUNTY OF BUCKS, COMMONWEALTH OF PENNSYLVANIA, LOTS AND STREETS ACCORDING TO THIS PLAN WHICH IS INTENDED TO BE RECORDED. WITNESS MY HAND AND SEAL THIS _____ DAY OF

SPOTLESS BRANDS

NOTARY PUBLIC IN AND FOR THE COMMONWEALTH OF PENNSYLVANIA, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED REPRESENTING

KNOWN TO ME. OR SATISFACTORILY PROVEN TO ME, TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE WITHIN INSTRUMENT AS __ OF SAID __ APPEARED BEFORE ME IN PERSON AND ACKNOWLEDGED THAT HE SIGNED AND DELIVERED THE SAID INSTRUMENT AS HIS OWN FREE AND VOLUNTARY ACT AND AS THE FREE AND VOLUNTARY ACT OF SAID COMPANY FOR THE USES AND PURPOSES THEREIN SET FORTH.

MY COMMISSION EXPIRES NOTARY PUBLIC SIGNATURE

BOARD OF SUPERVISORS APPROVED BY THE NEW BRITAIN TOWNSHIP BOARD OF SUPERVISORS

THIS _____ DAY OF _____ 20____.

DAY OF ______ 20____.

TOWNSHIP ENGINEER APPROVED BY THE NEW BRITAIN TOWNSHIP ENGINEER THIS ______

TOWNSHIP ENGINEER

RECORDER OF DEEDS RECORDED IN THE OFFICE FOR THE RECORDING OF DEEDS, ETC, IN AND FOR THE COUNTY OF BUCKS AT DOYLESTOWN, PENNSYLVANIA IN PLAN BOOK _____ PAGE ____ ON ____

RECORDER OF DEEDS

ENGINEER'S CERTIFICATION

THIS IS TO CERTIFY THAT I HAVE READ ARTICLE V OF THE NEW BRITAIN TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE, AND THAT THE ACCOMPANYING PLAN MEETS THE REQUIREMENTS OF THAT ARTICLE TO THE BEST OF MY KNOWLEDGE.

4/3/25 SEAN DAVID McGRANAHAN, P.E. (PA PE-085090)

SURVEYOR'S CERTIFICATION

THIS IS TO CERTIFY THAT I HAVE READ ARTICLE V OF THE NEW BRITAIN TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE, AND THAT THE ACCOMPANYING PLAN MEETS THE REQUIREMENTS OF THAT ARTICLE TO THE BEST OF MY KNOWLEDGE.

DAVID H. ARTMAN, P.L.S. (PA SU051039-E)

OWNER OF RECORD: FLAGSHIP PENNSYLVANIA PROPCO, LLC

SITE ADDRESS: 545 WEST BUTLER AVENUE CHALFONT, PA 18914

PARID 26-006-101-001 **INSTRUMENT NUMBER 2025004671**

SITE AREA:

OAVID H. ARTMAN 28,414 SQ. FT. OR 0.652 ACRES ENNSYLVANIA PROFESSIONAL AND SURVEYOR NUMBER SU-051039-

REV DESCRIPTION **SERIAL NO. 20223183581**



PA ONE CALL SYSTEM, INC. **GRAPHIC SCALE** 10 20

1 INCH = 20 FT

PLAN NOTATION ONLY THOSE PLANS WHICH CONTAIN A DIGIT IMPRESSED, OR COLORIZED INK SEAL OF RESPONSIBLE PROFESSIONAL SHALL BE CONSIDERED VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPAREI FOR THE OWNER DESIGNATED HEREON. ANY MODIFICATION, REVISION, DUPLICATION OR USE WITHOUT THE WRITTEN CONSENT OF VAN CLEEF ENGINEERING ASSOCIATES IS PROHIBITE RELIANCE ON THIS PLAN FOR ANY PURPO OTHER THAN THAT WHICH IS INTENDED SHALL AT THE SOLE DISCRETION AND LIABILITY OF T APPLICABLE PARTY.



EAN DAVID McGRANAHAN



VAN CLEEF ENGINEERING ASSOCIATES, LLC 501 NORTH MAIN STREET, DOYLESTOWN, PA 18901 WEB: WWW.VANCLEEFENGINEERING.COM PHONE (215) 345-1876

SITE PLAN (SHEET 1 OF 1 TO BE RECORDED)

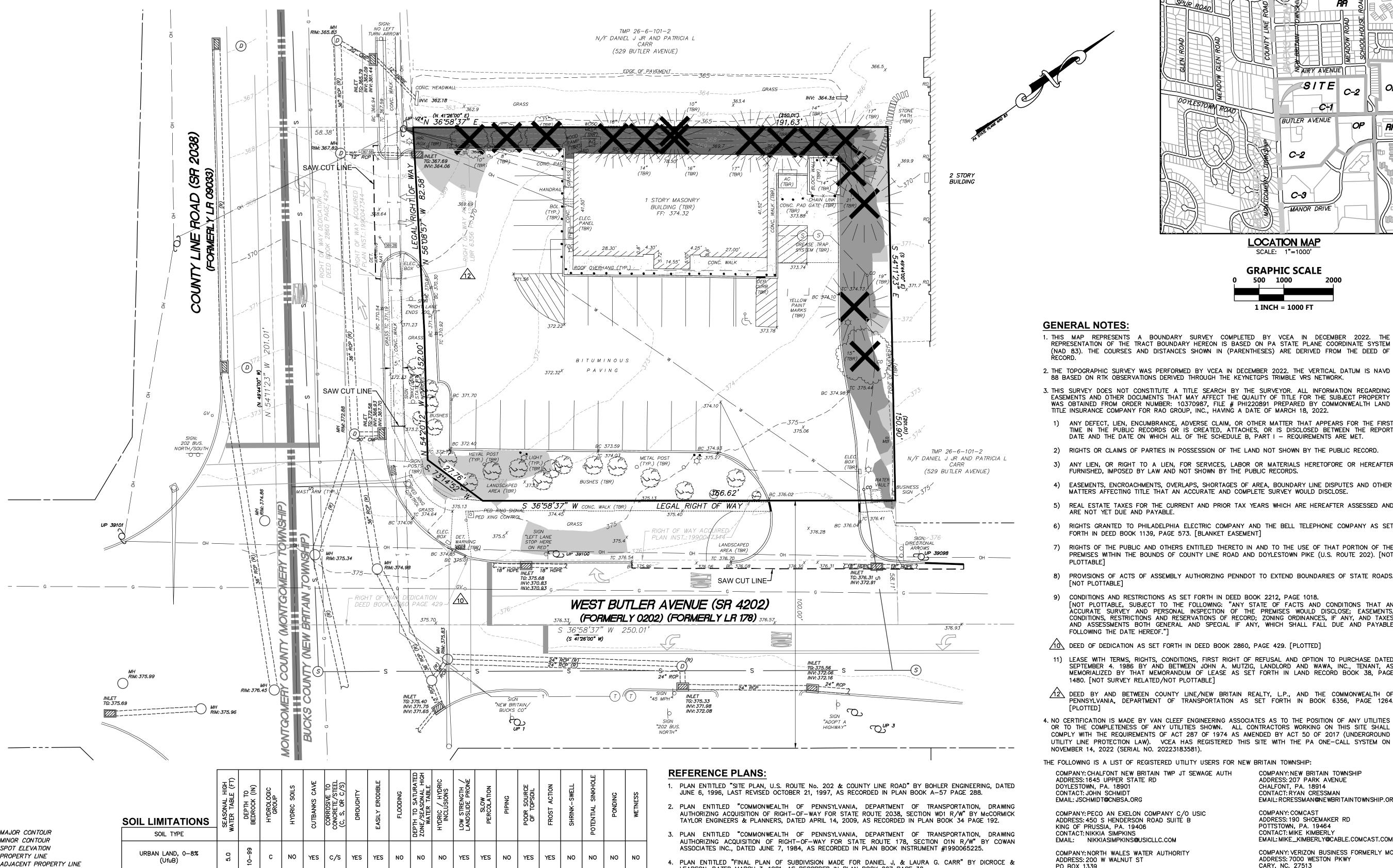
FOR

FLAGSHIP CARWASH

DESIGNED BY RAWN BY HECKED BY B NUMBER

TMP'S 26-006-101-001

NEW BRTIAIN TOWNSHIP BUCKS COUNTY, PENNSYLVANIA



LEGEND

	<u>LEGEND</u>
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
×377.8	EXISTING SPOT ELEVATION
	EXISTING PROPERTY LINE
	EXISTING ADJACENT PROPERTY LINE
	EXISTING LEGAL RIGHT OF WAY
	EXISTING EASEMENT
	EXISTING ROAD CENTERLINE
	EXISTING ROAD
	EXISTING CURB
	EXISTING EDGE OF DRIVE
AbB	EXISTING SIGN
SOIL—	EXISTING SOILS LIMIT AND SOILS TYPE
* \(\(\)	EXISTING TREES
0	EXISTING UTILITY POLES
— — ОН — —	EXISTING OVERHEAD ELECTRIC
— <i>т</i> — —	EXISTING TELEPHONE
— — G — —	EXISTING GAS MAIN
=====	EXISTING STORM SEWER
	EXISTING SANITARY SEWER

EXISTING WATER MAIN

SAW CUT LINE

EXISTING WATER VALVE

EXISTING TREE TO BE REMOVED

EXISTING ITEM TO BE REMOVED

GENERAL NOTES:

1. SOILS SHOWN HEREON ARE AS MAPPED BY THE NATURAL RESOURCES CONSERVATION SERVICES (NRCS) WEBSITE FOR BUCKS COUNTY ON SEPTEMBER 26, 2023. 2. THE SITE FLOWS DRAIN TO THE WEST BRANCH OF THE NESHAMINY CREEK (WWF, MF) WITHIN THE NESHAMINY CREEK WATERSHED. THE WATERS DESIGNATED/EXISTING USES ARE CLASSIFIED BY THE PA CODE CHAPTER 93.

SOIL RESOLUTIONS:

WHEN THE ABOVE SOILS LIMITATIONS ARE ENCOUNTERED, UTILIZE THE FOLLOWING SOILS RESOLUTIONS:

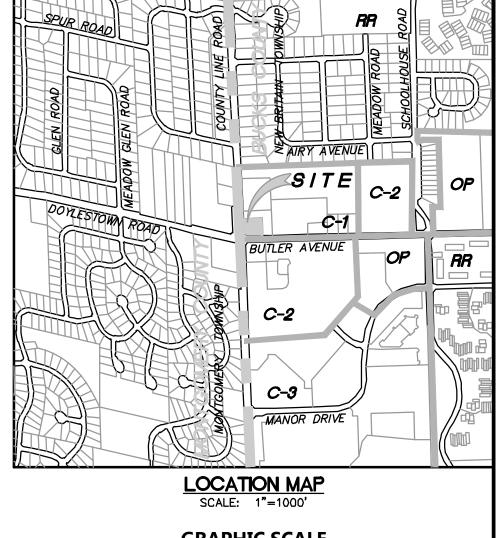
- DEPTH TO BEDROCK WHEN DEPTH TO BEDROCK IS ENCOUNTERED, CONTRACTOR MAY BLAST IF NECESSARY.
- CUTBANKS CAVE ALL APPLICABLE OSHA STANDARDS AND REGULATIONS WITH REGARD TO UTILITY AND RETAINING WALL CONSTRUCTION MUST BE IMPLEMENTED AT ALL TIMES. LIMIT SLOPES TO 3:1 MAXIMUM.
- CORROSIVE TO CONCRETE/STEEL ALL UNDERGROUND CONCRETE AND/OR STEEL MATERIALS TO BE BACKFILLED WITH APPROPRIATE MATERIAL WHEN CORROSIVENESS IS LIMITED. FOR BUILDINGS, CONTRACTOR TO COMPLY WITH THE INTERNAL RESIDENTIAL CODE (IRC) BUILDING CODE.
- . DROUGHTY PROVIDE WATER TRUCK FOR IRRIGATION IN NEEDED. WHERE LANDSCAPING IS PROPOSED WITHIN DROUGHTY SOILS, APPLYING COMPOST MAY BE NECESSARY TO HELP
- EASILY ERODIBLE SOILS TO BE STABILIZED WITH APPROPRIATE COVER AND/OR MATTING.
- . LOW STRENGTH/LANDSLIDE PRONE PRECAUTIONS SHOULD BE TAKEN TO PREVENT SLOPE FAILURES DUE TO IMPROPER CONSTRUCTION PRACTICES, SUCH AS OVER-STEEPENING AND OVERLOADING OF SLOPES, REMOVAL OF LATERAL SUPPORT, AND FAILURE TO PREVENT SATURATION OF SLOPES. ROAD FILL MATERIAL MAY NEED TO BE IMPORTED IN AREAS WHERE SOILS HAVE LOW STRENGTH.
- SLOW PERCOLATION UTILIZE STRUCTURAL BMP'S THAT DO NOT REQUIRE INFILTRATION (I.E. AMENDED SOILS, SLOW RELEASE BASIN). NO INFILTRATION BMP'S ARE PROPOSED. • POOR SOURCE OF TOPSOIL - CONTRACTOR TO SUPPLY TOPSOIL AS NEEDED.
- FROST ACTION PRECAUTIONS ARE NEEDED TO PREVENT DAMAGE, ESPECIALLY TO ROADWAYS.

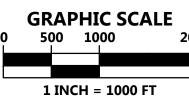
- 4. PLAN ENTITLED "FINAL PLAN OF SUBDIVISION MADE FOR DANIEL J, & LAURA G. CARR" BY DICROCE & LEAPSON, DATED MARCH 3, 1981, AS RECORDED IN PLAN BOOK 207 PAGE 32.
- 5. PLAN ENTITLED "PROPOSED WAWA FINAL LAND DEVELOPMENT PLANS DEVELOPED BY PROVCO PINEGOOD CHALFONT, LLC" BY BOHLER ENGINEERING, DATED MAY 18, 2018, LAST REVISED NOVEMBER 1, 2019, AS RECORDED IN PLAN BOOK INSTRUMENT # 2020034823.
- 6. PLAN ENTITLED "SHOWALTER SUBDIVISION MINOR SUBDIVISION PLAN" BY SHOWALTER & ASSOCIATES, DATED MARCH 26, 1984, LAST REVISED APRIL 10, 1990, AS RECORDED IN PLAN BOOK 256 PAGE 82.

SUMMARY OF ADVERSE FEE-SIMPLE CONVEYANCES:

50,244 S.F. DEED INSTRUMENT NO. 2022054655 -12,566 S.F. DEED BK. 2860 PG. 429 - 8,050 S.F. PLAN INSTRUMENT NO. 1990047344 - 1,214 S.F. DEED LRB 6356 PG. 1264

28,414 S.F. CURRENT SURVEY





GENERAL NOTES

1. THIS MAP REPRESENTS A BOUNDARY SURVEY COMPLETED BY VCEA IN DECEMBER 2022. THE REPRESENTATION OF THE TRACT BOUNDARY HEREON IS BASED ON PA STATE PLANE COORDINATE SYSTEM (NAD 83). THE COURSES AND DISTANCES SHOWN IN (PARENTHESES) ARE DERIVED FROM THE DEED OF

- 88 BASED ON RTK OBSERVATIONS DERIVED THROUGH THE KEYNETGPS TRIMBLE VRS NETWORK. 3. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY THE SURVEYOR. ALL INFORMATION REGARDING EASEMENTS AND OTHER DOCUMENTS THAT MAY AFFECT THE QUALITY OF TITLE FOR THE SUBJECT PROPERTY
- WAS OBTAINED FROM ORDER NUMBER: 10370987, FILE # PHI220891 PREPARED BY COMMONWEALTH LAND TITLE INSURANCE COMPANY FOR RAO GROUP, INC., HAVING A DATE OF MARCH 18, 2022.
- ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM, OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORDS OR IS CREATED, ATTACHES, OR IS DISCLOSED BETWEEN THE REPORT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE B, PART I - REQUIREMENTS ARE MET.
- 2) RIGHTS OR CLAIMS OF PARTIES IN POSSESSION OF THE LAND NOT SHOWN BY THE PUBLIC RECORD. ANY LIEN, OR RIGHT TO A LIEN, FOR SERVICES, LABOR OR MATERIALS HERETOFORE OR HEREAFTER
- FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.
- 4) EASEMENTS, ENCROACHMENTS, OVERLAPS, SHORTAGES OF AREA, BOUNDARY LINE DISPUTES AND OTHER MATTERS AFFECTING TITLE THAT AN ACCURATE AND COMPLETE SURVEY WOULD DISCLOSE.
- 5) REAL ESTATE TAXES FOR THE CURRENT AND PRIOR TAX YEARS WHICH ARE HEREAFTER ASSESSED AND ARE NOT YET DUE AND PAYABLE.
- 6) RIGHTS GRANTED TO PHILADELPHIA ELECTRIC COMPANY AND THE BELL TELEPHONE COMPANY AS SET FORTH IN DEED BOOK 1139, PAGE 573. [BLANKET EASEMENT] 7) RIGHTS OF THE PUBLIC AND OTHERS ENTITLED THERETO IN AND TO THE USE OF THAT PORTION OF THE PREMISES WITHIN THE BOUNDS OF COUNTY LINE ROAD AND DOYLESTOWN PIKE (U.S. ROUTE 202). [NOT
- 8) PROVISIONS OF ACTS OF ASSEMBLY AUTHORIZING PENNDOT TO EXTEND BOUNDARIES OF STATE ROADS.
- [NOT PLOTTABLE] 9) CONDITIONS AND RESTRICTIONS AS SET FORTH IN DEED BOOK 2212, PAGE 1018. [NOT PLOTTABLE, SUBJECT TO THE FOLLOWING: "ANY STATE OF FACTS AND CONDITIONS THAT AN ACCURATE SURVEY AND PERSONAL INSPECTION OF THE PREMISES WOULD DISCLOSE; EASEMENTS, CONDITIONS, RESTRICTIONS AND RESERVATIONS OF RECORD; ZONING ORDINANCES, IF ANY, AND TAXES AND ASSESSMENTS BOTH GENERAL AND SPECIAL IF ANY, WHICH SHALL FALL DUE AND PAYABLE

FOLLOWING THE DATE HEREOF."]

- 10 DEED OF DEDICATION AS SET FORTH IN DEED BOOK 2860, PAGE 429. [PLOTTED] 11) LEASE WITH TERMS, RIGHTS, CONDITIONS, FIRST RIGHT OF REFUSAL AND OPTION TO PURCHASE DATED SEPTEMBER 4. 1986 BY AND BETWEEN JOHN A. MUTZIG, LANDLORD AND WAWA, INC., TENANT, AS MEMORIALIZED BY THAT MEMORANDUM OF LEASE AS SET FORTH IN LAND RECORD BOOK 38, PAGE
- 1480. [NOT SURVEY RELATED/NOT PLOTTABLE] 12 DEED BY AND BETWEEN COUNTY LINE/NEW BRITAIN REALTY, L.P., AND THE COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF TRANSPORTATION AS SET FORTH IN BOOK 6356, PAGE 1264.
- 4. NO CERTIFICATION IS MADE BY VAN CLEEF ENGINEERING ASSOCIATES AS TO THE POSITION OF ANY UTILITIES OR TO THE COMPLETENESS OF ANY UTILITIES SHOWN. ALL CONTRACTORS WORKING ON THIS SITE SHALL COMPLY WITH THE REQUIREMENTS OF ACT 287 OF 1974 AS AMENDED BY ACT 50 OF 2017 (UNDERGROUND UTILITY LINE PROTECTION LAW). VCEA HAS REGISTERED THIS SITE WITH THE PA ONE-CALL SYSTEM ON NOVEMBER 14, 2022 (SERIAL NO. 20223183581).
- THE FOLLOWING IS A LIST OF REGISTERED UTILITY USERS FOR NEW BRITAIN TOWNSHIP:

COMPANY: CHALFONT NEW BRITAIN TWP JT SEWAGE AUTH ADDRESS: 1645 UPPER STATE RD DOYLESTOWN, PA. 18901 CONTACT: JOHN SCHMIDT EMAIL: JSCHMIDT@CNBSA.ORG

COMPANY: PECO AN EXELON COMPANY C/O USIC ADDRESS: 450 S HENDERSON ROAD SUITÉ B KING OF PRUSSIA, PA. 19406 CONTACT: NIKKIA SIMPKINS EMAIL: NIKKIASIMPKINS@USICLLC.COM

COMPANY: NORTH WALES WATER AUTHORITY ADDRESS: 200 W WALNUT ST PO BOX 1339 NORTH WALES, PA. 19454

CONTACT: JOSEPH MURPHY EMAIL: JMURPHY@NWWATER.COM

- 5. THIS SURVEY DOES NOT CERTIFY AS TO THE PRESENCE OR ABSENCE OF UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS.
- 6. THIS SURVEY DOES NOT CERTIFY AS TO THE PRESENCE OR ABSENCE OF WETLANDS OR WATERS.
- 7. THE PARCEL SHOWN HEREON IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA (SFHA), PER FLOOD INSURANCE RATE MAPS (FIRM) PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), BEING PANEL 288 OF 532 MAP NUMBER 42017C0288K, EFFECTIVE DATE MARCH 21, 2017.

OWNER OF RECORD:

FLAGSHIP PENNSYLVANIA PROPCO, LLC **SITE ADDRESS: 545 WEST BUTLER AVENUE**

PARID 26-006-101-001 **INSTRUMENT NUMBER 2025004671**

SITE AREA:

CHALFONT, PA 18914

28,414 SQ. FT. OR 0.652 ACRES

AVID H. ARTMAN

NSYLVANIA PROFESSIONA AND SURVEYOR NUMBER SU-051039

COMPANY: NEW BRITAIN TOWNSHIP ADDRESS: 207 PARK AVENUE

EMAIL: RCRESSMAN@NEWBRITAINTOWNSHIP.ORG

EMAIL: MIKE_KIMBERLY@CABLE.COMCAST.COM

COMPANY: VERIZON BUSINESS FORMERLY MCI

CHALFONT, PA. 18914

POTTSTOWN, PA. 19464 CONTACT: MIKE KIMBERLY

COMPANY: COMCAST

CARY, NC. 27513

CONTACT: VICTOR WOOD

CONTACT: RYAN CRESSMAN

ADDRESS: 190 SHOEMAKER RD

ADDRESS: 7000 WESTON PKWY

EMAIL: VICTOR.S.WOOD@VERIZON.COM

B NUMBER

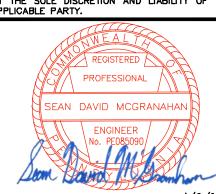
SERIAL NO. 20223183581

ow what's below. STOPI CALL 1-800-242-1776 Call before you dig. PA Law requires 3 working days not you excavate

PA ONE CALL SYSTEM, INC. **GRAPHIC SCALE** 10 20

1 INCH = 20 FT

PLAN NOTATION ONLY THOSE PLANS WHICH CONTAIN A DIGIT IMPRESSED, OR COLORIZED INK SEAL OF RESPONSIBLE PROFESSIONAL SHALL BE CONSIDERED VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPAREI FOR THE OWNER DESIGNATED HEREON. ANY MODIFICATION, REVISION, DUPLICATION OR USE WITHOUT THE WRITTEN CONSENT OF VAN CLEEF ENGINEERING ASSOCIATES IS PROHIBITE RELIANCE ON THIS PLAN FOR ANY PURPO OTHER THAN THAT WHICH IS INTENDED SHALL AT THE SOLE DISCRETION AND LIABILITY OF T APPLICABLE PARTY.



EAN DAVID McGRANAHAN



VAN CLEEF ENGINEERING ASSOCIATES, LL 501 NORTH MAIN STREET, DOYLESTOWN, PA 18901 WEB: WWW.VANCLEEFENGINEERING.COM PHONE (215) 345-1876

EXISTING FEATURES DEMOLITION PLAN

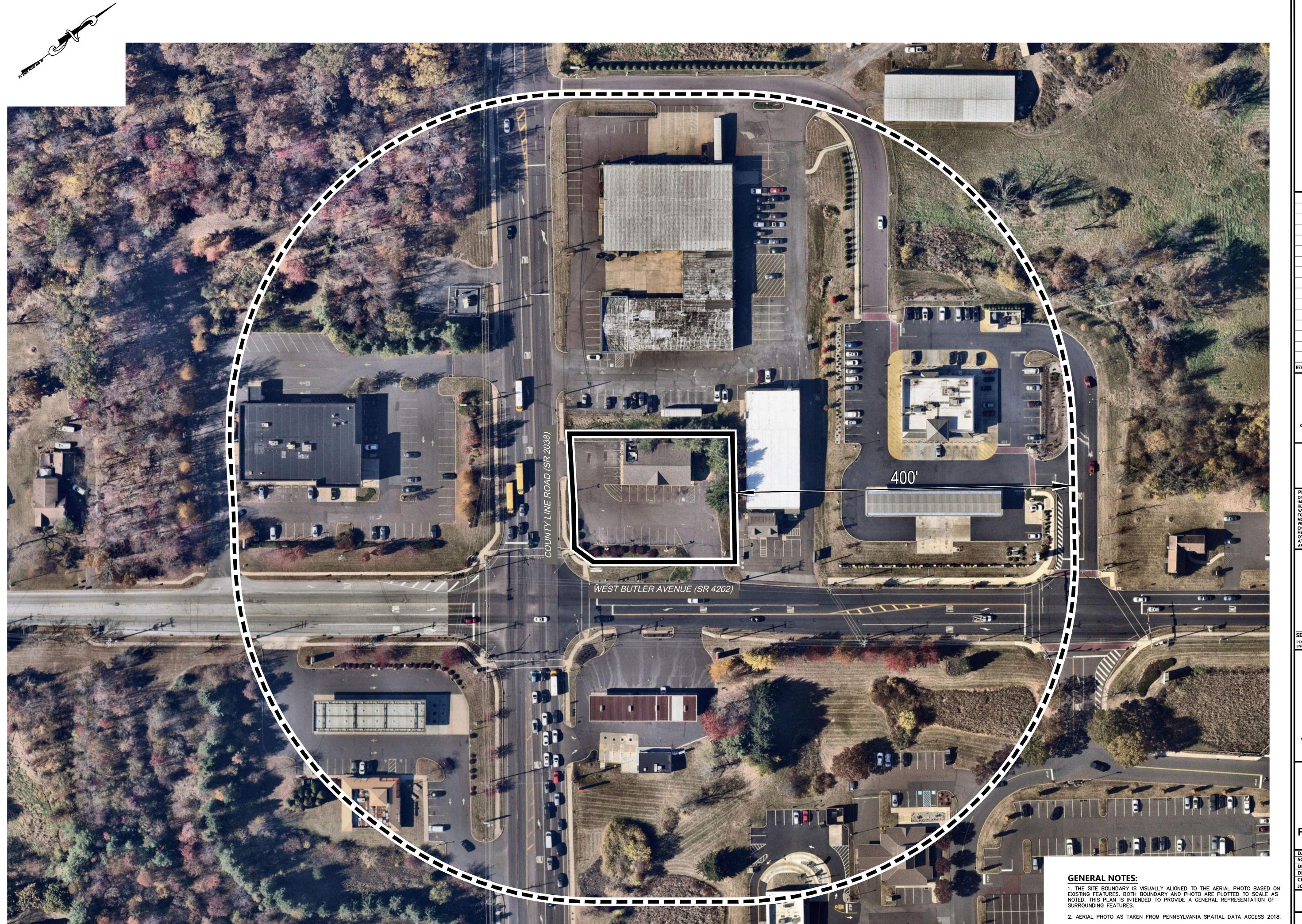
FOR

FLAGSHIP CARWASH

RAWN BY HECKED BY

TMP'S 26-006-101-001

NEW BRTIAIN TOWNSHIP BUCKS COUNTY, PENNSYLVANIA



1 INCH = 50 FT

PLAN NOTATION

ONLY THOSE PLANS WHICH CONTAIN A DIGITAL, IMPRESSED, OR COLORIZED INK SEAL OF THE RESPONSIBLE PROFESSIONAL SHALL BE CONSIDERED VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPARED FOR THE OWNER DESIGNATED HEREON. ANY MODIFICATION, REVISION, DUPLICATION OR USE WITHOUT THE WRITTEN CONSENT OF VAN CLEEF ENGINEERING ASSOCIATES IS PROHIBITED. RELIANCE ON THIS PLAN FOR ANY PURPOSE OTHER THAN THAT WHICH IS INTENDED SHALL BE AT THE SOLE DISCRETION AND LIABILITY OF THE APPLICABLE PARTY.

SEAN DAVID McGRANAHAN NNSYLVANIA PROFESSIONAL GINEER NUMBER 085090



VAN CLEEF ENGINEERING ASSOCIATES, LLC 501 NORTH MAIN STREET, DOVLESTOWN, PA 18901 WEB: WWW.VANCLEEFENGINEERING.COM PHONE (215) 345-1876

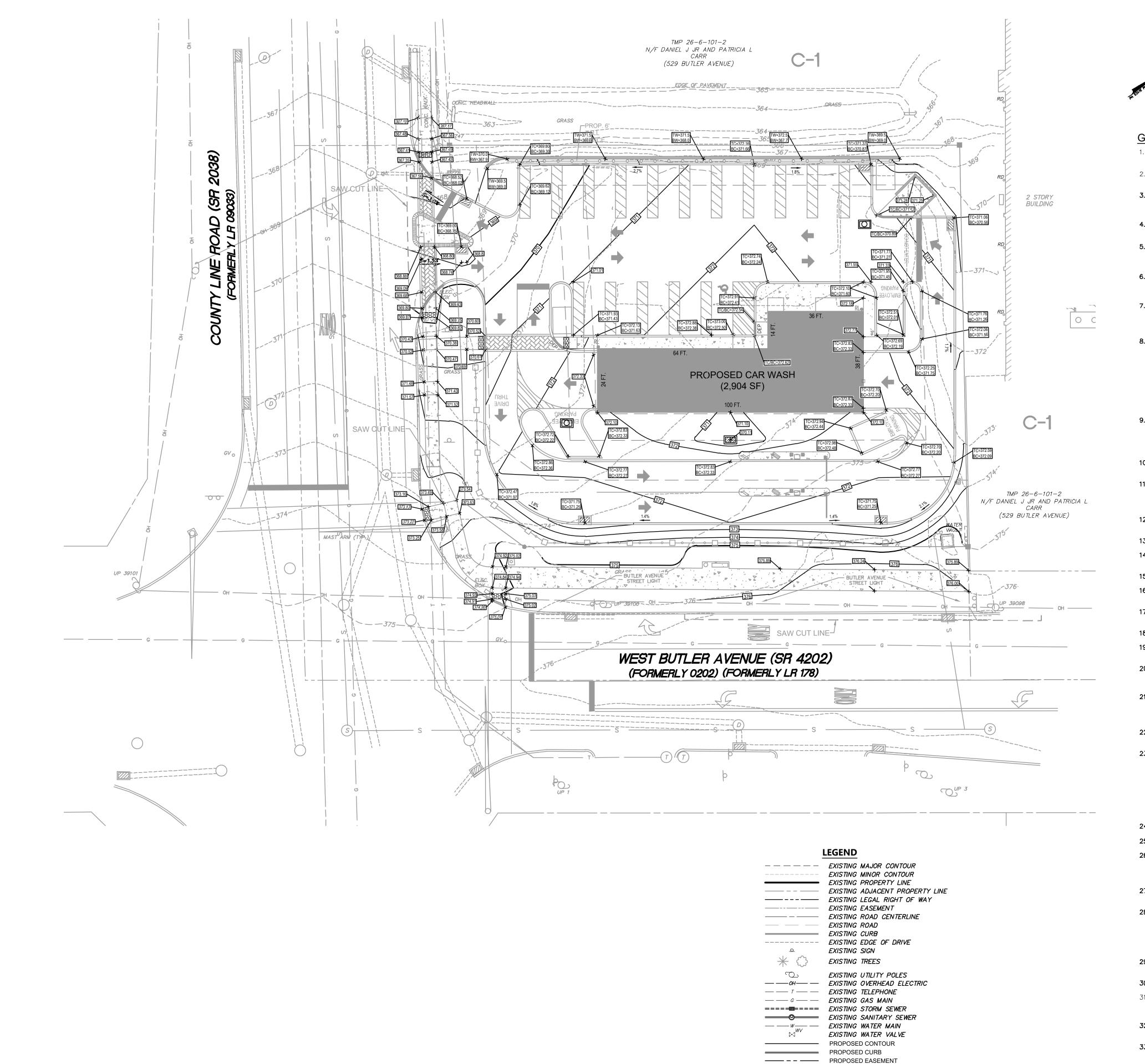
AERIAL PLAN

FLAGSHIP CARWASH

DATE:	APRIL 3, 2025
SCALE:	1"=50'
DESIGNED BY:	LDM, SDM
DRAWN BY:	RJN
CHECKED BY:	SDC
JOB NUMBER:	2402-NBR

TMP'S 26-006-101-001

NEW BRTIAIN TOWNSHIP BUCKS COUNTY, PENNSYLVANIA



PROPOSED RIGHT OF WAY

PROPOSED SIDEWALK

PROPOSED SIGN

FINISHED FLOOR ELEVATION

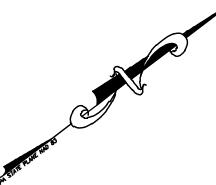
PROPOSED SPOT ELEVATION

— — PROPOSED SETBACK LINE

PROPOSED STORM SEWER

PROPOSED WATER LATERAL

507.30



GRADING NOTES:

- 1. VERTICAL DATUM IS NAVD 1988 AND ESTABLISHED BY OBSERVATIONS REFERENCED TO THE KEYSTONE VRS
- 2. THE MINIMUM SLOPE IN GRASSED AREAS SHALL NOT BE LESS THAN 2.0% AND THE MINIMUM IN PAVED AREAS SHOULD NOT BE LESS THAN 1.0%.
- 3. PAVEMENT SHALL BE SAW CUT IN STRAIGHT LINES TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS SHALL BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS WILL NOT BE PERMITTED.
- 4. IN CASE OF DISCREPANCIES BETWEEN PLANS, THE SITE / RECORD PLAN WILL SUPERSEDE IN ALL CASES. THE ENGINEER OF RECORD MUST BE IMMEDIATELY NOTIFIED IN WRITING OF ANY CONFLICTS.
- 5. THE CONTRACTOR SHALL BE REQUIRED TO SECURE ALL NECESSARY PERMITS (INCLUDING DEP, ETC.) FOR ALL OFF—SITE HAUL AND/OR BORROW SITES. CONTRACTOR SHALL SUPPLY A COPY OF APPROVALS TO DESIGN ENGINEER AND OWNER PRIOR TO INITIATING WORK.
- 6. EXISTING INLETS AND STORM SEWER INDICATED AS FILLED W/DEBRIS SHALL BE CLEANED AND FLUSHED. NEW INLETS AND PIPES SHALL BE CHECKED FOR SILT/DEBRIS AFTER CONSTRUCTION AND FLUSHED/CLEANED
- 7. DEPTH OF EXISTING UTILITIES IN PORTIONS OF THE SITE ARE UNKNOWN. WHERE EXISTING UTILITIES ARE TO REMAIN AND ARE FOUND TO HAVE INADEQUATE GROUND COVER AFTER FINAL PROPOSED GRADES HAVE BEEN ESTABLISHED, THE DESIGN ENGINEER SHALL BE CONTACTED IMMEDIATELY AND PRIOR TO FURTHER CONSTRUCTION ACTIVITIES IN THE AREA OF SAID CONFLICT.
- 8. ALL DESIGNERS AND CONTRACTORS UTILIZING THIS PLAN AND THE INFORMATION CONTAINED THEREON ARE CAUTIONED TO COMPLY WITH THE REQUIREMENTS OF PENNSYLVANIA ACT 287. LOCATION OF EXISTING AND PROPOSED UNDERGROUND UTILITIES AND FACILITIES SHOWN ON THE DRAWINGS HAVE BEEN DEVELOPED FROM INFORMATION MADE AVAILABLE. COMPLETENESS AND ACCURACY OF LOCATION AND DEPTH OF UTILITIES AND FACILITIES CANNOT BE GUARANTEED. THE CONTRACTOR IS TO VERIFY THE DEPTH AND LOCATION OF ALL UTILITIES AND FACILITIES BEFORE THE START OF WORK. UTILIZE HAND EXCAVATION AS REQUIRED. WORK IS ALSO TO BE DONE IN ACCORDANCE WITH THE STANDARDS OF THE UTILITY COMPANIES WHOSE FACILITIES ARE IN THE PROXIMITY OF THE WORK. OTHER UTILITIES MAY BE REQUIREMENTS OF PENNSYLVANIA ACT 38 (1991), THE CONTRACTOR SHALL CONTACT THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776, AT LEAST 3 DAYS PRIOR TO EXCAVATION.
- 9. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE FEDERAL, STATE AND LOCAL CODES, AND ALL REGULATIONS APPURTENANT TO THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970. ALL WORK SHALL BE DONE IN ACCORDANCE WITH PROJECT SPECIFICATIONS INCLUDING CURRENT APPLICABLE STANDARDS AND REQUIREMENTS. WHERE ANY STANDARDS SEEM IN CONFLICT WITH THESE DRAWINGS, NOTIFY THE DESIGN ENGINEER AND CONSTRUCTION MANAGER FOR DIRECTION PRIOR TO PROCEEDING WITH WORK.
- 10. CONTRACTORS SHALL HAVE ALL REQUIRED SUBMITTAL APPROVALS PRIOR TO BEGINNING WORK OR ORDERING MATERIALS.
- 11. CONTRACTORS SHALL VERIFY ALL DIMENSIONS, INVERTS, ELEVATIONS, AND EXISTING CONDITIONS PRIOR TO PROCEEDING WITH THE WORK OR PROCUREMENT OF MATERIALS. VARIATIONS BETWEEN DRAWINGS AND ACTUAL FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND RESOLVED PRIOR TO PROCEEDING WITH THE WORK.
- 12. CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY, PROCEDURES, MEANS AND METHODS, SEQUENCING, AND
- 13. ALL WORK SHALL BE PERFORMED BY QUALIFIED, EXPERIENCED PERSONNEL.
- 14. CONTRACTOR SHALL NOTIFY THE OWNER OF PREEXISTING CONDITIONS OF DETERIORATION IN AREAS OF WORK THAT ARE UNCOVERED OR EXPOSED DURING THE WORK.
- 15. FIELD CHANGES REQUIRE PRIOR DESIGN ENGINEERING REVIEW AND WRITTEN CONFIRMATION.
- 16. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR TO ANY SIDEWALKS, LAWN, TREES, PAVING, AND OTHER IMPROVEMENTS DISTURBED OR DAMAGED BY DEMOLITION ACTIVITIES PROPOSED HEREIN.
- 17. CONTRACTOR SHALL PROVIDE PROPER TEMPORARY BRACING AND SHORING OF ALL CONSTRUCTION TO REMAIN OR DEMOLITION WORK IN PROGRESS.
- 18. CONTRACTOR SHALL PROVIDE LAYOUT, LINE AND GRADE UNLESS OTHERWISE NOTED.
- 19. CONTRACTOR SHALL NOTIFY THE OWNER OF ANY DISCREPANCIES WITHIN THE DRAWINGS, SPECIFICATIONS, CODES OR STANDARDS FOR CORRECTIVE ACTION PRIOR TO START OF WORK.
- 20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND PROTECTION OF VEHICULAR AND PEDESTRIAN TRAFFIC. ALL TRAFFIC CONTROL MEASURES SHALL BE IN ACCORDANCE WITH LOCAL, PENNDOT & OSHA REGULATIONS.
- 21. CONTRACTOR SHALL PROVIDE PROTECTION FOR EXISTING UTILITIES UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL IMMEDIATELY REPAIR ANY UTILITY LINE INTERRUPTION AT NO ADDITIONAL CONTRACT COST. THE CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION AND SUPPORT FOR ALL UTILITIES EXPOSED DURING THE WORK TO INSURE AGAINST DAMAGE AT NO ADDITIONAL COST.
- 22. CONTRACTOR SHALL PROVIDE TEMPORARY DEWATERING OF EXCAVATIONS THROUGHOUT THE DURATION OF CONTRACT AT NO ADDITIONAL COST.
- 23. EXISTING UTILITIES SHOWN ARE BASED ON AVAILABLE DATA. DUE TO THE POTENTIAL LACK OF COMPLETE OR ACCURATE DATA REGARDING EXISTING ONSITE AND OFFSITE UTILITIES, THE CONTRACTOR SHALL ASSESSAVAILABLE DATA, SHALL REQUEST UTILITY COMPANY MARKOUTS, SHALL COORDINATE WITH AFFECTED UTILITY COMPANIES, AND SHALL DIG TEST PITS AT ALL PROPOSED UTILITY CROSSING LOCATIONS SO THAT ELEVATIONS CAN BE TAKEN TO ASSESS POTENTIAL CONFLICTING PIPES/UTILITIES PRIOR TO ANY PROPOSED UTILITY CONSTRUCTION. IF UNEXPECTED UTILITY LOCATIONS OR ELEVATIONS OR PIPE CONFLICTS ARE ENCOUNTERED DURING CONSTRUCTION, OR IF TEST PITS REVEAL POTENTIAL CONFLICT, DESIGN ENGINEER SHALL BE NOTIFIED SO THAT ELEVATIONS AND LOCATIONS (WHERE NECESSARY) OF AFFECTED UTILITIES CAN BE OBTAINED TO FACILITATE NECESSARY DESIGN ADJUSTMENTS.
- 24. REMOVAL OF EXISTING UTILITIES SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANIES.
- 25. REFER TO THE SITE / RECORD PLAN FOR ADDITIONAL NOTES.
- 26. ALL SIDEWALKS, CROSSWALK, TRAILS, ENTRANCES, AND RAMPS TO BE BUILT IN ACCORDANCE WITH ADA STANDARDS. MAXIMUM LONGITUDINAL SLOPE TO BE 5%. MAXIMUM CROSS SLOPE TO BE 2%. IT IS RECOMMENDED TO CONSTRUCT CROSS SLOPES AT 1.5% AND LONGITUDINAL SLOPES AT 4.9% TO ALLOW FOR CONSTRUCTION TOLERANCE.
- 27. REFER TO ADA CURB RAMP CONSTRUCTION DETAILS AND ADA ACCESSIBILITY PLAN FOR ADDITIONAL INFORMATION SPECIFIC TO CURB RAMP AND ACCESSIBLE ROUTE GRADING.
- 28. AFTER FINAL GRADING THERE SHALL BE A MINIMUM OF EIGHT INCHES OF TOPSOIL ON THE ENTIRE SITE OTHER THAN THAT PORTION OF THE SITE WHERE THERE ARE BUILDINGS OR OTHER IMPERVIOUS SURFACE COVERAGE. THE DEVELOPER IS NOT REQUIRED TO IMPORT TOPSOIL TO THE SITE IF AN EIGHT—INCH FINAL DEPTH CANNOT BE ACHIEVED. IN CASES WHERE THE ORIGINAL SITE HAS LESS THAN EIGHT INCHES OF TOPSOIL AT THE START OF GRADING ACTIVITIES, THE TOTAL AMOUNT AVAILABLE WILL BECOME THE MINIMUM TOPSOIL REQUIREMENT. NO TOPSOIL WILL BE ALLOWED TO BE RELEASED FROM THE SITE.
- 29. ALL AREAS SHALL BE PROPERLY GRADED TO ENSURE DRAINAGE FLOW AWAY FROM THE PROPOSED BUILDING WITHOUT PONDING OR OBSTRUCTION.
- 30. DURING GRADING OPERATIONS, NECESSARY MEASURES FOR DUST CONTROL SHALL BE EXERCISED.
- 31. THE CHALFONT NEW BRITAIN JOINT SEWER AUTHORITY IS TO BE CONTACTED ONE WEEK PRIOR TO SANITARY SEWER CONSTRUCTION, AND 72 HOURS PRIOR TO EXCAVATING NEAR, AND CONNECTING INTO ANY EXISTING SANITARY SEWER.
- 32. ALL SANITARY SEWER CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE NORTH WALES WATER AUTHORITY SPECIFICATIONS.
- 33. PUBLIC WATER AND SEWER CURRENTLY SERVE THE EXISTING BUILDING. THE PROPOSED WATER SERVICE
- SHALL CONNECT TO THE EXISTING WATER VAULT.

 PROPOSED HANDICAP PARKING SPACES SHALL BE PROVIDED WITH POST-MOUNTED SIGNS
- 34. PROPOSED HANDICAP PARKING SPACES SHALL BE PROVIDED WITH POST—MOUNTED SIGNS.35. CONTRACTOR TO CONNECT NEW BUILDING UTILITY CONNECTIONS TO EXISTING WATER AND SEWER.
- 36. CONTRACTOR SHALL VERIFY COMPLIANCE WITH ADA STANDARDS WITH PROJECT ARCHITECT FOR RAMP AREAS PROPOSED ADJACENT TO DOORWAYS.
- 37. ALL UTILITY SERVICES TO THE PROPOSED BUILDING SHALL BE INSTALLED UNDERGROUND.
- 38. TOPSOIL MAY NOT BE REMOVED FROM THE SITE WITHOUT APPROVAL FROM THE TOWNSHIP.
- 39. FINAL DESIGN OF PROPOSED WATER AND SEWER FACILITIES ARE SUBJECT TO THE REVIEW AND APPROVAL BY THE SERVICING WATER AND SEWER AUTHORITY.



REV	DESCRIPTION	AUTH	DATE

SERIAL NO. 20223183581



GRAPHIC SCALE
10 20 4

1 INCH = 20 FT

PLAN NOTATION
ONLY THOSE PLANS WHICH CONTAIN A DIGITAL,
IMPRESSED, OR COLORIZED INK SEAL OF THE
RESPONSIBLE PROFESSIONAL SHALL BE CONSIDERED
VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPARED
FOR THE OWNER DESIGNATED HEREON. ANY
MODIFICATION, REVISION, DUPLICATION OR USE
WITHOUT THE WRITTEN CONSENT OF VAN CLEEF
ENGINEERING ASSOCIATES IS PROHIBITED.
RELIANCE ON THIS PLAN FOR ANY PURPOSE
OTHER THAN THAT WHICH IS INTENDED SHALL BE
AT THE SOLE DISCRETION AND LIABILITY OF THE
APPLICABLE PARTY.



SEAN DAVID McGRANAHAN

DENINSYLVANIA DROFESSIONAL



VAN CLEEF ENGINEERING ASSOCIATES, LLC 501 NORTH MAIN STREET, DOYLESTOWN, PA 18901 WEB: WWW.VANCLEFFENGINEERING.COM PHONE (215) 345-1876

GRADING PLAN

FOR

FLAGSHIP CARWASH

DATE: APRIL 3, 2025

SCALE: 1"=20'

DESIGNED BY: LDM, SDM

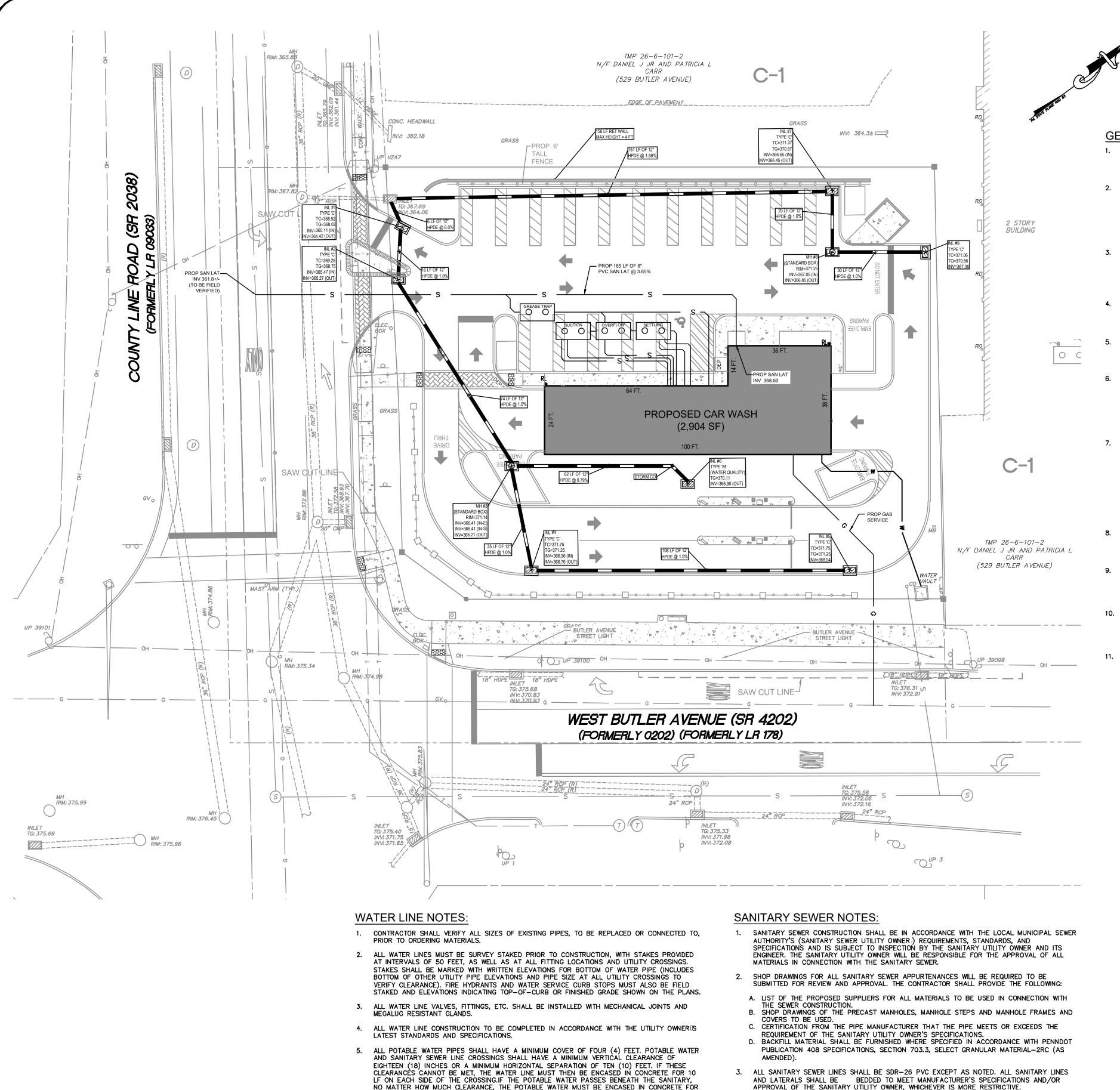
DRAWN BY: RJN

CHECKED BY: SDC

JOB NUMBER: 2402-NBR

TMP'S 26-006-101-001

NEW BRTIAIN TOWNSHIP BUCKS COUNTY, PENNSYLVANIA



- NO MATTER HOW MUCH CLEARANCE, THE POTABLE WATER MUST BE ENCASED IN CONCRETE FOR 10 LF ON EACH SIDE OF THE CROSSING.
- 6. ALL WATER LINES ARE TO BE PRESSURE TESTED TO 1.5 TIMES THE WORKING PRESSURE OR 150 P.S.I., WHICHEVER IS GREATER, IN SECTIONS BETWEEN VALVES. THE TEST PRESSURE SHALL BE MAINTAINED FOR A PERIOD NOT LESS THAN 2 HOURS. SHOULD ANY PRESSURE TEST DISCLOSE AN INABILITY TO HOLD THE TEST PRESSURE, THE CONTRACTOR SHALL LOCATE AND CORRECT DEFECTS AND RETEST TO THE SATISFACTION OF THE UTILITY OWNER.
- 7. THE INSTALLATION OR REPAIR OF ANY UNDERGROUND FACILITIES OR PIPING WHICH CONNECTS TO OR FURNISHES WATER FOR THE FIRE PROTECTION SPRINKLER SYSTEM SHALL BE PERFORMED ONLY BY A LICENSED UTILITY CONTRACTOR, FIRE PROTECTION SPRINKLER CONTRACTOR, OF LICENSED PLUMBER. A COPY OF THE LICENSE OR CERTIFICATE OF COMPETENCY SHALL BE PROVIDED TO THE INSPECTOR AT THE FINAL INSPECTION.

STORM SEWER NOTES:

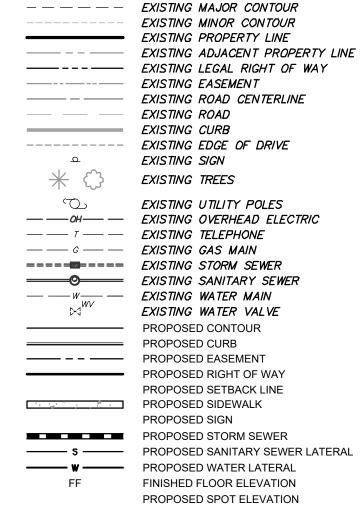
- ALL STORM CONVEYANCE PIPE SHALL BE SMOOTH LINED DOUBLE WALLED HIGH DENSITY POLYETHYLENE PIPE (HDPE), UNLESS OTHERWISE SPECIFIED. ANY ROOF LEADERS SHALL BE
- 2. IF A CONFLICT ARISES DURING THE INSTALLATION OF ANY PART OF THE STORM SEWER SYSTEM THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY IN WRITING.
- 3. LANDSCAPING, FENCES AND STRUCTURES SHALL BE PLACED A MINIMUM OF 3 FEET AWAY FROM STORM SEWERS OUTSIDE OF THE RIGHT OF WAY OF STREETS.

- 4. CONTRACTOR TO ENSURE THAT ALL SANITARY MAINS AND LATERALS HAVE A MINIMUM OF 18-INCH VERTICAL CLEARANCE OR 10 FT HORIZONTAL CLEARANCE BETWEEN ANY OTHER UTILITY CROSSING. OTHERWISE CONTRACTOR SHALL ENCASE MAIN OR LATERAL IN CONCRETE WITH A MINIMUM OF 10 LF ON EACH SIDE OF THE CROSSING. CLEANOUTS ARE TO BE PLACED AT MAXIMUM INTERVALS OF 100-FT AND AT ALL BENDS.
- 5. ALL SANITARY SEWER MANHOLES PROPOSED TO BE INSTALLED OR ADJUSTED SHALL BE INSTALLED WITH WATERTIGHT FRAMES AND COVERS. ANY MANHOLE TO BE INSTALLED OR ADJUSTED OUTSIDE OF PAVED AREAS SHALL BE INSTALLED A MINIMUM OF 6. ABOVE FINISH
- 6. CONTRACTOR SHALL VERIFY ALL SIZES, MATERIALS, AND CONDITION OF EXISTING PIPES, TO BE REPLACED OR CONNECTED TO, PRIOR TO ORDERING MATERIALS.
- 7. ALL EXISTING MANHOLES SHALL BE TESTED PER SANITARY UTILITY OWNER STANDARDS TO ASSURE NO LEAKS EXIST WITHIN THE STRUCTURES.
- 8. ALL PROPOSED SANITARY SEWER FACILITIES WILL BE OWNED AND PERPETUALLY MAINTAINED BY THE PROPERTY OWNER IN PERPETUITY.
- 9. ALL MATERIALS USED, AND DETAILS OF CONSTRUCTION, INSTALLATION PROCEDURES, AND REQUIREMENTS WITH RESPECT TO THE SANITARY SEWERAGE FACILITIES SERVED BY THE LOCAL MUNICIPAL SEWER AUTHORITY'S (SANITARY SEWER UTILITY OWNER) SHALL BE IN ACCORDANCE WITH THE AUTHORITY'S STANDARD SPECIFICATIONS FOR CONSTRUCTION OF SANITARY SEWERS, FORCE MAINS. PUMPING STATIONS AND WASTEWATER TREATMENT.

GENERAL UTILITIES NOTES:

- 1. ALL NEW UTILITIES/SERVICES, INCLUDING ELECTRIC, TELEPHONE, CABLE TV, ETC. ARE TO BE INSTALLED UNDERGROUND. ALL NEW UTILITIES/SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE UTILITY/SERVICE PROVIDER INSTALLATION SPECIFICATIONS
- 2. THE LOCATION OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH LOCAL UTILITY COMPANIES TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES WHICH LIE IN OR ADJACENT TO THE CONSTRUCTION SITE PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION, REMOVAL OR EXCAVATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING, AT HIS EXPENSE, ALL EXISTING UTILITIES DAMAGED DURING CONSTRUCTION. SANITARY SEWER AND ALL OTHER UTILITY SERVICE CONNECTION POINT CONFLICTS SHALL BE REPORTED IMMEDIATELY IN WRITING TO THE ENGINEER.
- 3. ALL UTILITY EXTENSIONS FROM THE BUILDING BY OTHER TRADES SHALL I CONNECTED TO THE CONTINUATION UTILITY LINES ON THE SITE. THE GENERAL CONTRACTOR SHALL MAKE THE CONNECTIONS AT A POINT 5 FROM THE BUILDING WALL WHERE OTHER TRADES HAVE ENDED THEIR WORK. THE GC SHALL COORDINATE SCHEDULING OF THESE CONNECTIONS WITH OTHER TRADES TO ASSURE THE SYSTEM IS COMPLETE WHEN FLOW WILL BEGIN IN THE LINES.
- 4. CONSTRUCTION SHALL COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- DEFINE AND LOCATE VERTICALLY AND HORIZONTALLY ALL ACTIVE UTILITY AND/OR SERVICE SYSTEMS THAT ARE NOT TO REMAIN. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN ALL ACTIVE SYSTEMS THAT ARE NOT BEING REMOVED/RELOCATED DURING SITE ACTIVITY.
- 6. THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL LAWS, CODES AND REGULATIONS.THE CONTRACTOR IS ALSO RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY WORK AS IDENTIFIED OR REQUIRED FOR PROJECT. THE CONTRACTOR SHALL PROVIDE THE OWNER WRITTEN NOTIFICATIONS THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTION AND UTILITY COMPANY
- 7. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, DOOR ACCESS, AND EXTERIOR GRADING. (THE UTILITY SERVICE SIZES ARE TO BE DETERMINED BY ARCHITECT.) THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES/SERVICES WITH THE INDIVIDUAL COMPANIES TO AVOID CONFLICTS AND ENSURE PROPER DEPTHS ARE ACHIEVED. IN ADDITION TO MEETING THE UTILITY OWNER REQUIREMENTS. THE UTILITY TIE-INS/CONNECTIONS SHALL BE COORDINATED. THIS SHALL BE COMPLETED PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE CONFLICTS EXIST WITH THESE PLANS, THE ENGINEER OF RECORD SHALL BE NOTIFIED IN WRITING TO RESOLVE SAID CONFLICTS PRIOR TO
- 8. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS SHALL BE ADJUSTED, IF REQUIRED, TO MATCH THE GRADING AND UTILITY PLAN(S). THE SANITARY CLEANOUT TOPS SHALL BE REINSTALLED IN THE SAME MANNER AS THE ORIGINAL CLEANOUTS.
- CONTRACTOR SHALL CONTACT THE LOCAL (I.E. TOWNSHIP, BOROUGH, ETC.) CODE ENFORCEMENT OFFICE WHEN UNDERGROUND PIPING IS BEING HYDROSTATICALLY TESTED ON SITE. APPLICANTS ARE ALSO REMINDED THAT FLUSHING OF THE UNDERGROUND PIPING SHALL BE WITNESSED BY A TOWNSHIP OFFICIAL PRIOR TO FINAL RISER CONNECTIONS, PER NFPA 13.
- UNDERGROUND UTILITY MARKOUTS BY THE UTILITY COMPANIES WERE ORDERED AND THE PHYSICAL LOCATION OF THESE MARKOUTS ARE SHOWN HEREON, HOWEVER, NO CERTIFICATION IS MADE BY VCEA AS TO THE ACTUAL UNDERGROUND POSITION OF ANY UTILITIES OR TO THE COMPLETENESS OR ACCURACY OF THE UTILITY MARKOUTS
- 11. IT IS IMPERATIVE THAT UTILITY COMPANIES ARE NOTIFIED PRIOR TO ANY EXCAVATION AND/OR CONSTRUCTION. CALL 1-800-242-1776 TO ORDER UTILITY MARKOUTS BY OTHERS.

LEGEND



- THE CONTRACTOR, DURING THE PERFORMANCE OF ALL WORK ASSOCIATED WITH THE CONSTRUCTION OF THE PROJECT, IS RESPONSIBLE FOR COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL LAWS, CODES AND REGULATIONS.
- 13. ANY DISCREPANCIES FOUND BETWEEN THE DRAWINGS AND SITE CONDITIONS OR ANY INCONSISTENCIES OR AMBIGUITIES IN DRAWINGS SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER, IN WRITING, WHO SHALL PROMPTLY ADDRESS SUCH INCONSISTENCIES OR AMBIGUITIES. WORK DONE BY THE CONTRACTOR AFTER HIS DISCOVERY OF SUCH DISCREPANCIES, INCONSISTENCIES OR AMBIGUITIES SHALL BE DONE AT THE CONTRACTOR'S RISK.
- 14. THE CHALFONT NEW BRITAIN JOINT SEWER AUTHORITY IS TO BE CONTACTED ONE WEEK PRIOR TO SANITARY SEWER CONSTRUCTION, AND 72 HOURS PRIOR TO EXCAVATING NEAR, AND CONNECTING INTO ANY EXISTING SANITARY SEWER.
- 15. ALL SANITARY SEWER CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CHALFONT NEW BRITAIN JOINT SEWER AUTHORITY (CNBSA)
- a.) THE MINIMUM ALLOWABLE LATERAL SLOPE SHALL BE 0.02 FT/FT. b.) MAGNETIC - TYPE LOCATOR TAPE SHALL BE LAID DIRECTLY OVER THE TOP OF PVC PIPE, TWO FEET (2') BELOW GRADE.
- c.) CONTRACTOR SHALL MAKE TESTS AS DIRECTED BY THE ENGINEER TO ASCERTAIN IF THE PIPE IS PROPERLY ALIGNED AND THE JOINTS ARE LIGHT. ENGINEER MUST WITNESS ALL TESTS OR THE CONTRACTOR WILL NEED TO RETEST IN THE PRESENCE OF THE ENGINEER AT THE SOLE COST OF THE CONTRACTOR.
- CONTRACTOR TO CONNECT NEW BUILDING UTILITY CONNECTIONS TO EXISTING WATER AND SEWER.
- 17. FINAL DESIGN OF PROPOSED WATER AND SEWER FACILITIES ARE SUBJECT TO THE REVIEW AND APPROVAL BY THE SERVICING WATER AND SEWER AUTHORITY. ALL WATER MAIN CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH NORTH WALES WATER AUTHORITY SPECIFICATIONS.
- 18. LATERALS ARE TO BE LOCATED AS SHOWN ON THE PLAN.
- WATER SERVICE IS TO BE LOCATED A MIN. OF 1.5 FEET ABOVE THE SANITARY LATERAL WITH A MINIMUM COVER OF 48".
- NO GROUNDING OF ELECTRICAL SERVICE TO COPPER WATER SERVICE IS PERMITTED. CABLE AND TELECOMM UTILITIES TO FOLLOW ELECTRIC FACILITIES ALIGNMENTS,
- 18" VERTICAL CLEARANCE OR 10 FEET OF HORIZONTAL CLEARANCE SHALL BE PROVIDED BETWEEN THE SANITARY SEWER AND ALL OTHER UTILITIES. OTHERWISE, CONCRETE ENCASEMENT OF THE SANITARY SEWER SHALL BE PROVIDED.
- 22. ALL DOWNSPOUT LOCATIONS TO BE OUTFITTED WITH A OVERFLOW / CLEANOUT. OVERFLOWS SHALL HAVE A SPLASHBLOCK INSTALLED AT THEIR OUTFALL LOCATION.
- 23. PROPOSED ROOF DRAIN CONNECTIONS SHOWN SCHEMATICALLY, FINAL DESIGN TO BE PROVIDED BY ARCHITECT AT TIME OF BUILDING PERMITS.
- 24. MATERIALS SHOWN HEREON, SUCH AS ADS N-12 PIPE, OR APPROVED EQUAL SHALL
- 25. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR ADDITIONAL COORDINATION W/ IN 5' OF BUILDINGS.
- 26. PUBLIC SEWER SERVICE WILL BE PROVIDED BY BCSWA, AND CONSTRUCTION OF ALL SANITARY SEWER IMPROVEMENTS SHALL COMPLY WITH AUTHORITY STANDARDS.
- 27. ALL BURIED GRAVITY SANITARY SEWER MAINS AND LATERALS SHALL BE CLASS 50 DUCTILE IRON PIPE OR PVC SDR-26 OR SDR-35.
- THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS AND TEES.
- 29. GENERAL CONTRACTOR (GC) TO COORDINATE LIGHT POLE LOCATIONS WITH TRADES.

GENERAL CONSTRUCTION NOTES

CONTACT: JOSEPH MURPHY
EMAIL: JMURPHY@NWWATER.COM

1. NO CERTIFICATION IS MADE BY VAN CLEEF ENGINEERING ASSOCIATES AS TO THE POSITION OF ANY UTILITIES OR TO THE COMPLETENESS OF ANY UTILITIES SHOWN. ALL CONTRACTORS WORKING ON THIS SITE SHALL COMPLY WITH THE REQUIREMENTS OF ACT 287 OF 1974 AS AMENDED BY ACT 50 OF 2017 (UNDERGROUND UTILITY LINE PROTECTION LAW). VCEA HAS REGISTERED THIS SITE WITH THE PA ONE-CALL SYSTEM ON NOVEMBER 14, 2022 (SERIAL NO. 20223183581).

THE FOLLOWING IS A LIST OF REGISTERED UTILITY USERS FOR NEW BRITAIN

COMPANY: CHALFONT NEW BRITAIN TWP JT SEWAGE AUTH ADDRESS: 1645 UPPER STATE RD CHALFONT, PA. 18914 CONTACT: RYAN CRESSMAN OYLESTOWN, PA. 18901 CONTACT: JOHN SCHMID EMAIL: JSCHMIDT@CNBSA.ORG EMAIL: RCRESSMAN@NEWBRITAINTOWNSHIP.ORG COMPANY: COMCAST COMPANY: PECO AN EXELON COMPANY C/O USIC ADDRESS: 190 SHOEMAKER RD POTTSTOWN, PA. 19464 ADDRESS: 450 S HENDERSON ROAD SUITE B KING OF PRUSSIA, PA. 19406 CONTACT: MIKE KIMBERLY EMAIL: MIKE_KIMBERLY@CABLE.COMCAST.COM FMAIL NIKKIASIMPKINS@USICLI C. COM COMPANY: VERIZON BUSINESS FORMERLY MCI COMPANY: NORTH WALES WATER AUTHORITY ADDRESS: 200 W WALNUT ST ADDRESS: 7000 WESTON PKWY PO BOX 1339 NORTH WALES, PA. 19454

EMAIL: VICTOR.S.WOOD@VERIZON.COM

2. IT IS IMPERATIVE THAT UTILITY COMPANIES ARE NOTIFIED PRIOR TO ANY EXCAVATION AND/OR CONSTRUCTION. CALL 1-800-242-1776 TO ORDER UTILITY MARKOUTS BY OTHERS.

- 3. THE LOCATIONS OF EXISTING UTILITIES AS SHOWN ARE APPROXIMATE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL PUBLIC OR PRIVATE UTILITIES WHICH LIE IN OR ADJACENT TO THE CONSTRUCTION SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING, AT HIS EXPENSE, ALL EXISTING UTILITIES DAMAGED DURING CONSTRUCTION.
- 4. THE CONTRACTOR, DURING THE PERFORMANCE OF ALL WORK ASSOCIATED WITH THE CONSTRUCTION OF THE PROJECT, IS RESPONSIBLE FOR COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL LAWS, CODES AND REGULATIONS.
- 5. ANY DISCREPANCIES FOUND BETWEEN THE DRAWINGS AND SITE CONDITIONS OR ANY INCONSISTENCIES OR AMBIGUITIES IN DRAWINGS SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER, IN WRITING, WHO SHALL PROMPTLY ADDRESS SUCH INCONSISTENCIES OR AMBIGUITIES. WORK DONE BY THE CONTRACTOR AFTER HIS DISCOVERY OF SUCH DISCREPANCIES, INCONSISTENCIES OR AMBIGUITIES SHALL BE DONE AT THE CONTRACTOR'S RISK.
- 6. ALL MATERIAL USED FOR FILL OR BACKFILL SHALL BE FREE OF WOOD, ROOTS, ROCKS, BOULDERS OR ANY OTHER NON-COMPACTIBLE SOIL TYPE MATERIAL. UNSATISFACTORY MATERIALS ALSO INCLUDE MAN-MADE FILLS AND REFUSE DEBRIS DERIVED FROM ANY SOURCE.
- 7. ALL EXCAVATIONS, INCLUDING TRENCHES, SHALL BE KEPT DRY TO PROTECT THEIR INTEGRITY.
- 8. MATERIALS USED TO CONSTRUCT EMBANKMENTS FOR ANY PURPOSE, BACKFILL AROUND DRAINAGE STRUCTURES OR IN UTILITY TRENCHES OR ANY OTHER DEPRESSIONS REQUIRING FILL OR BACKFILL SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AS SET OUT IN ASTM STANDARD D-698 UNLESS SPECIFIED ELSEWHERE WITHIN THE CONSTRUCTION PLANS OR IF SPECIFIED DIFFERENTLY BY THE TOWNSHIP ENGINEER. CONTRACTOR TO VERIFY COMPACTION REQUIREMENTS WITH TOWNSHIP ENGINEER'S OFFICE PRIOR TO EXCAVATION.
- 9. ALL CONSTRUCTION DEBRIS INCLUDING EXCESS EXCAVATED MATERIAL, SCRAP WOOD, BRICKS, BLOCKS, ETC. SHALL BE DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REQUIREMENTS.
- 10. ELEVATIONS, DIMENSIONS, AND THE LOCATIONS OF LINEAR FEATURES SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
- 11. MINIMUM SLOPE OF ALL GRASS AREAS SHALL NOT BE LESS THAN 2%, AND FOR PAVED AREAS, NOT LESS THAN 1%.

NEW BRTIAIN TOWNSHIP

SERIAL NO. 20223183581

Before You Dig Anywhere

ow what's below. STOP! CALL 1-800-242-1776 Call before you dig. PA Law requires 3 working days notice you excavate PA ONE CALL SYSTEM, INC.

GRAPHIC SCALE 10 20

1 INCH = 20 FTPLAN NOTATION ONLY THOSE PLANS WHICH CONTAIN A DIGIT. MPRESSED, OR COLORIZED INK SEAL OF T RESPONSIBLE PROFESSIONAL SHALL BE CONSIDERED VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPARED FOR THE OWNER DESIGNATED HEREON. A MODIFICATION, REVISION, DUPLICATION OR U WITHOUT THE WRITTEN CONSENT OF VAN CLE

ENGINEERING ASSOCIATES IS PROHIBITE RELIANCE ON THIS PLAN FOR ANY PURPO OTHER THAN THAT WHICH IS INTENDED SHALL AT THE SOLE DISCRETION AND LIABILITY OF **PROFESSIONAL** EAN DAVID MCGRAN \ FNGINFFR

AN DAVID McGRANAHAN



VAN CLEEF ENGINEERING ASSOCIATES, LLC 501 NORTH MAIN STREET, DOYLESTOWN, PA 18901 WEB: WWW.VANCLEEFENGINEERING.COM

PHONE (215) 345-1876

UTILITY PLAN

FLAGSHIP CARWASH

FOR

DESIGNED BY LDM, SDN

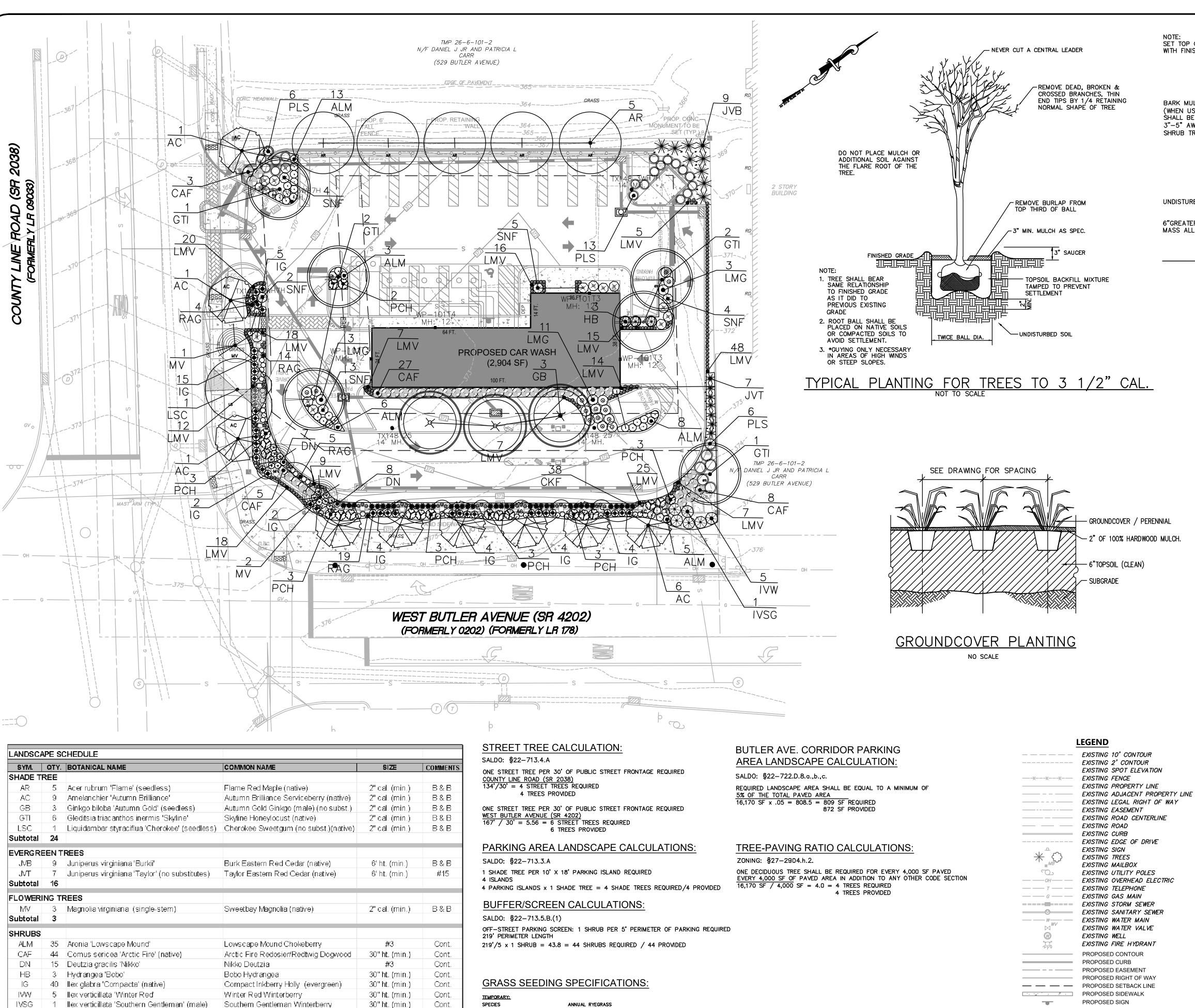
RAWN BY

CHECKED BY

B NUMBER

TMP'S 26-006-101-001

BUCKS COUNTY, PENNSYLVANIA



% PURE LIVE SEED

FERTILIZER TYPE

MULCH TYPE

MULCH RATE

PERMANENT:

MULCH TYPE

MULCH RATE

% pure live seed Application rate Fertilizer type

ANCHOR MATERIAL

ANCHORING METHOD

RATE OF ANCHOR MATERIAL APPL. N/A

FERTILIZER APPL, RATE

SPECIES

APPLICATION RATE

FERTILIZER APPL, RATE

87.0 LB/ACRE

1,100 LB/ACRE

STRAW

3 T/ACRE

RED FESCUE

1,100 LB/ACRE

2 T/ACRE HAY OR STRAW

3 T/ACRE

COMMERCIAL 10-20-10

41 / 20 / 14 / 20 LB/ACRE

COMMERCIAL 10-20-10

FESCUE / PERENNIAL RYEGRASS / CHEWNG'S

APRIL 15 - MAY 30, AUGUST 15 - OCTOBER 15

Cont.

Cont.

Cont.

Cont.

24" o.c

18" o.c

24" o.c

- 30" ht. (min.)

30" ht. (min.)

30" ht. (min.)

2 Gal.

1 Gal.

1 Gal.

Moss Green Prostrate Honeysuckle

|Schip / Skip Laurel (evergreen)

Karl Foerster Feather Reed Grass

Amer. Gold Rush Black-Eyed Susan

|Variegated Liriope_(evergreen)

Neon Flash Spirea

|Chestnut Hill Cherry Laurel (evergreen) |

LMG

SNF

Subtotal 224

PERENNIALS

Subtotal 302

TOTAL 569

CKF

RAG

17 Lonicera pliata 'Moss Green'

= 38 |Calamagrostis 'Karl Foerster'

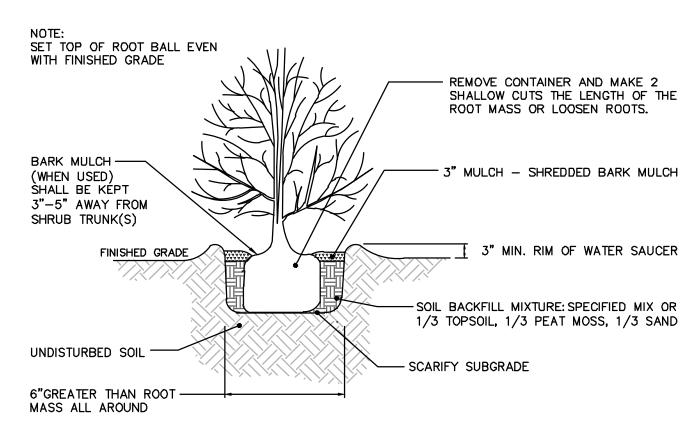
221 | Liriope muscari 'Variegata' |

18 Spirea 'Neon Flash'

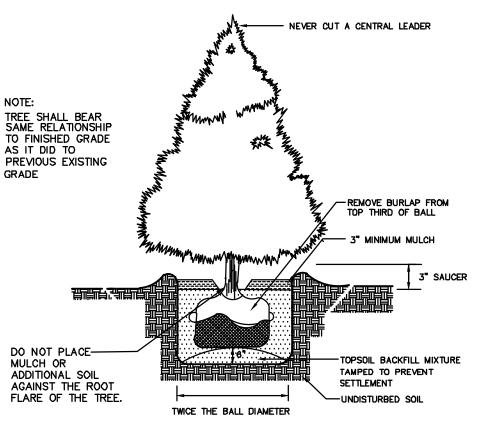
20 Prunus laurocerasus 'Chestnut Hill'

26 Prunus laurocerasus 'Schipkaensis'

43 Rudbeckia fulgida 'American Gold Rush'



TYPICAL SHRUB PLANTING DETAIL (NOT TO SCALE)



EVERGREEN PLANTING DETAIL (NOT TO SCALE)

GENERAL LANDSCAPING NOTES

- . ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY: AND SHALL HAVE NORMA WELL-DEVELOPED BRANCHES AND MGOROUS FIBROUS ROOT SYSTEMS. ALL PLANTS SHALL BE NURSERY-GROWN UNLESS OTHERWISE STATED; THEY SHALL HAVE BEEN GROWING UNDER T SAME CLIMATE CONDITIONS AS THE MUNICIPALITY FOR AT LEAST TWO (2) YEARS PRIOR TO DATE OF PLANTING. ALL PLANTS WHICH ARE FOUND UNSUITABLE IN GROWTH OR CONDITION OR WHICH ARE NOT TRUE TO NAME SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE PLANTS.
 ALL PLANT MATERIAL SHALL BE TWICE TRANSPLANTED, NURSERY-GROWN OF SPECIMEN QUALITY.
- 2. ALL PLANT MATERIAL SHALL BE TWICE TRANSPLANTED, NURSERT—GROWN OF SPECIMEN QUALITY.
 THEY SHALL BE OF SYMMETRICAL GROWTH OR TYPICAL OF THE VARIETY AND SUPPLIED FROM
 SOURCES IN THE SAME HARDINESS ZONE AS THE DEVELOPMENT IS LOCATED AND FREE OF INSECT
 AND DISEASE PROBLEMS OR OBJECTIONABLE DISFIGUREMENTS. ALL PLANT MATERIAL SHALL
 CONFORM TO THE STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

 3. ALL PRECAUTIONS CUSTOMARY IN GOOD TRADE PRACTICE SHALL BE TAKEN IN PREPARING PLANTS
 FOR MOVING. ALL BALLED AND BURLAPPED PLANTS SHALL BE DUG TO MEET OR EXCEED THE "USDA STANDARDS FOR NURSERY STOCK".
 4. ALL PLANT MATERIAL SHALL MEET THE STANDARDS OF AMERICAN STANDARD FOR NURSERY
- STOCK BY THE AMERICAN ASSOCIATION OF NURSERYMEN (1994), OR MOST RECENT EDITION, AND THE HEIGHT, SPREAD AND/OR CALIPER FOR TREES AND SHRUBS 5. ALL PLANT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE PLANTING PRACTICES STATED IN CHAPTER 3 OF TREE MAINTENANCE BY P. P. PIRONE, FIFTH OR MOST RECENT EDITION. 6. PLANTS SHALL BE PACKED, TRANSPORTED AND HANDLED WITH UTMOST CARE TO INSURE ADEQUATE PROTECTION AGAINST INJURY.
- 7. ALL PLANT MATERIALS SHALL BE QUARANTEED FOR A PERIOD OF 18 MONTHS FOLLOWING FINAL APPROVAL BY THE TOWNSHIP, EXCEPT WHERE OTHERWISE NOTED IN THIS SECTION. ANY PLANT MATERIAL THAT HAS 25% OR GREATER DEAD BRANCHES SHALL BE CONSIDERED DEAD. A TREE SHALL BE CONSIDERED DEAD WHEN THE MAIN LEADER HAS DIED OR 25% OF THE CROWN IS DEAD. ANY DEAD MATERIAL SHALL BE REPLACED AND INSTALLED ACCORDING TO APPROVED PLANTING
- 8. MAINTAIN A MINIMUM FIFTEEN (15) FOOT SEPARATION DISTANCE BETWEEN TREES AND UNDERGROUND UTILITIES. THIS MINIMUM MAY BE REDUCED TO TEN (10) FEET IN CERTAIN CIRCUMSTANCES WITH APPROVAL OF THE TOWNSHIP ENGINEER. HOWEVER, DURING CONSTRUCTION, IF IT IS DEEMED NECESSARY TO FIELD ADJUST THE LOCATIONS OF ANY PLANTINGS AND/OR UTILITY CONNECTIONS DUE TO THE NEED TO PROVIDE THE MINIMUM TEN FOOT SEPARATION BETWEEN THOSE PLAN ELEMENTS, THIS ADJUSTMENT SHOULD BE UNDERTAKEN IN CONSULTATION WITH NEW BRITAIN TOWNSHIP STAFF/PROFESSIONALS. 9. THE LOCATIONS OF ALL PLANT MATERIAL INDICATED ON THE LANDSCAPE PLANS ARE
- APPROXIMATE. THE FINAL LOCATION OF ALL PLANT MATERIAL AND PLANTING BED LINES SHALL BE DETERMINED IN THE FIELD UNDER THE DIRECTION OF THE LANDSCAPE ARCHITECT.

 10. THE PLANTING PLAN SHALL TAKE PRECEDENCE OVER THE PLANT SCHEDULE SHOULD ANY PLANT QUANTITY DISCREPANCIES OCCUR. 11. ALL SHADE TREES PLANTED NEAR PEDESTRIAN DR VEHICULAR ACCESS SHOULD BE CLEAR TRUNK UP TO 7'-0" ABOVE GRADE. ALL SHRUBBERY MATERIAL LOCATED WITHIN SIGHT TRIANGLES
- SHALL NOT EXCEED A MATURE HEIGHT OF 3' ABOVE THE ELEVATION OF THE ADJACENT CURB. ALL SHADE TREES PLANTED OR EXISTING IN SIGHT TRIANGLES SHALL BE PRUNED SO AS NOT TO HAVE BRANCHES BELOW 7'-0". 12. ALL PLANT MATERIAL SHALL BE PROPERLY GUYED, STAKED, WRAPPED AND PLANTED IN CONFORMANCE WITH THE TYPICAL PLANTING DETAILS. GUY WIRES SHALL BE ATTACHED TO THE TREE AT TWO—THIRDS THE HEIGHT OF THE TREE AND SHOULD BE LOCATED AT POINTS SO AS NOT TO SPLIT THE TRUNKS OF MULTI—STEMMED TREES. PROVIDE TWO TO THREE TREE STAKES
- PER TREE AS NOTED ON THE PLANS. INSTALL ALL PLANT MATERIAL ON UNDISTURBED GRADE. PROVIDE BURLAP WRAPPING WITH A 50% OVERLAP. CUT AND REMOVE BURLAP FROM TOP ONE—THIRD OF THE ROOT BALL.

 13. PROVIDE PLANTING PITS AS INDICATED ON PLANTING DETAILS. BACKFILL PLANTING PITS WITH ONE PART EACH OF TOPSOIL, PEAT MOSS AND PARENT MATERIAL. IF WET OR CLAY SOIL CONDITIONS EXIST, INSTALL A 4" PERFORATED DRAIN. RUN TO GRADE OR CATCH BASIN.
- . PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AS IT DID TO FXISTING GRADE. 15. NEWLY INSTALLED PLANT MATERIAL SHALL BE WATERED AT THE TIME OF INSTALLATION. REGULAR WATERING ALL PLANT MATERIAL SHALL BE PROVIDED TO ENSURE THE ESTABLISHMENT, GROWTH
- AND SURVIVAL OF ALL PLANTS.

 16. ALL DISTURBED LAWN AREAS SHALL BE STABILIZED WITH SEED AS INDICATED ON THE LANDSCAPE PLANS. SEED MIXTURE SHALL BE AS LISTED IN THE SEEDING SCHEDULE ON THE SOIL EROSION AND SEDIMENT CONTROL NARRATIVE. ALL DISTURBED LAWN AREAS SHALL BE TOPSOILED, LIMED, FERTILIZED AND FINE GRADED PRIOR TO LAWN INSTALLATION.
- 17. ALL PLANTING BEDS SHALL RECEIVE MINIMUM 3" OF SHREDDED HARDWOOD BARK.

 18. ALL SHRUB MASSES SHALL BE PLANTED IN CONTINUOUS MULCHED BEDS.

 19. ALL EXISTING TREES AND SHRUBS TO BE PRESERVED ON SITE SHALL BE PROTECTED AGAINST CONSTRUCTION DAMAGE BY SNOW FENCING. ALL FENCING SHALL BE PLACED A MINIMUM OF ONE
- (1) FOOT OUTSIDE THE INDIVIDUAL TREE DRIPLINE, OR AT THE SPECIFIC LOCATION DETERMINED APPROPRIATE BY THE LANDSCAPE ARCHITECT. ALL TREES TO REMAIN SHALL BE IDENTIFIED IN THE FIELD PRIOR TO COMMENCEMENT OF CONSTRUCTION, GRADING OR CLEARING. ALL EXISTING VEGETATION BEING PRESERVED AND LOCATED AT THE EDGE OF THE NEW TREELINE SHALL BE PRUNED AND TRIMMED TO REMOVE DEAD OR DAMAGED BRANCHES.

 20. THE QUANTITIES SHOWN ON THE PLAN SHALL HAVE PRECEDENCE OVER THE PLANT SCHEDULE IN THE EVENT OF ANY QUANTITY DISCREPANCIES.

21. A CLEAR—SIGHT TRIANGLE OF TEN FEET (10') MEASURED FROM THE POINT OF INTERSECTION OF THE STREET LINE AND THE EDGE OF THE ACCESSWAY SHALL BE MAINTAINED, WITHIN WHICH VEGETATION AND OTHER VISUAL OBSTRUCTIONS SHALL BE LIMITED TO A HEIGHT OF NOT MORE THAN TWO FEET (2') ABOVE THE STREET GRADE.

EV DESCRIPTION **SERIAL NO. 20223183581** ow what's below. STOP! CALL 1-800-242-1776 Call before you dig. PA Law requires 3 working days no you excavate PA ONE CALL SYSTEM, INC. **GRAPHIC SCALE** 10 20 1 INCH = 20 FT PLAN NOTATION ONLY THOSE PLANS WHICH CONTAIN A DIGIT. IMPRESSED, OR COLORIZED INK SEAL OF T RESPONSIBLE PROFESSIONAL SHALL BE CONSIDERED VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPAREI FOR THE OWNER DESIGNATED HEREON. ANY MODIFICATION, REVISION, DUPLICATION OR USE WITHOUT THE WRITTEN CONSENT OF VAN CLEEF ENGINEERING ASSOCIATES IS PROHIBITE RELIANCE ON THIS PLAN FOR ANY PURPO OTHER THAN THAT WHICH IS INTENDED SHALL AT THE SOLE DISCRETION AND LIABILITY OF PPLICABLE PARTY.

> INSYLVANIA PROFESSIONAL GINEER NUMBER 085090 **VAN CLEEF ENGINEERING ASSOCIATES, LLC**

501 NORTH MAIN STREET, DOYLESTOWN, PA 18901

WEB: WWW.VANCLEEFENGINEERING.COM PHONE (215) 345-1876

PROFESSIONAL

\ FNGINFFR

SEAN DAVID MCGRAN

AN DAVID McGRANAHAN

LANDSCAPE **PLAN**

FLAGSHIP CARWASH

FOR

DESIGNED BY RAWN BY HECKED BY B NUMBER

TMP'S 26-006-101-001

NEW BRTIAIN TOWNSHIP BUCKS COUNTY, PENNSYLVANIA

7 of 16

THIS PLAN IS FOR LANDSCAPE PURPOSES ONLY

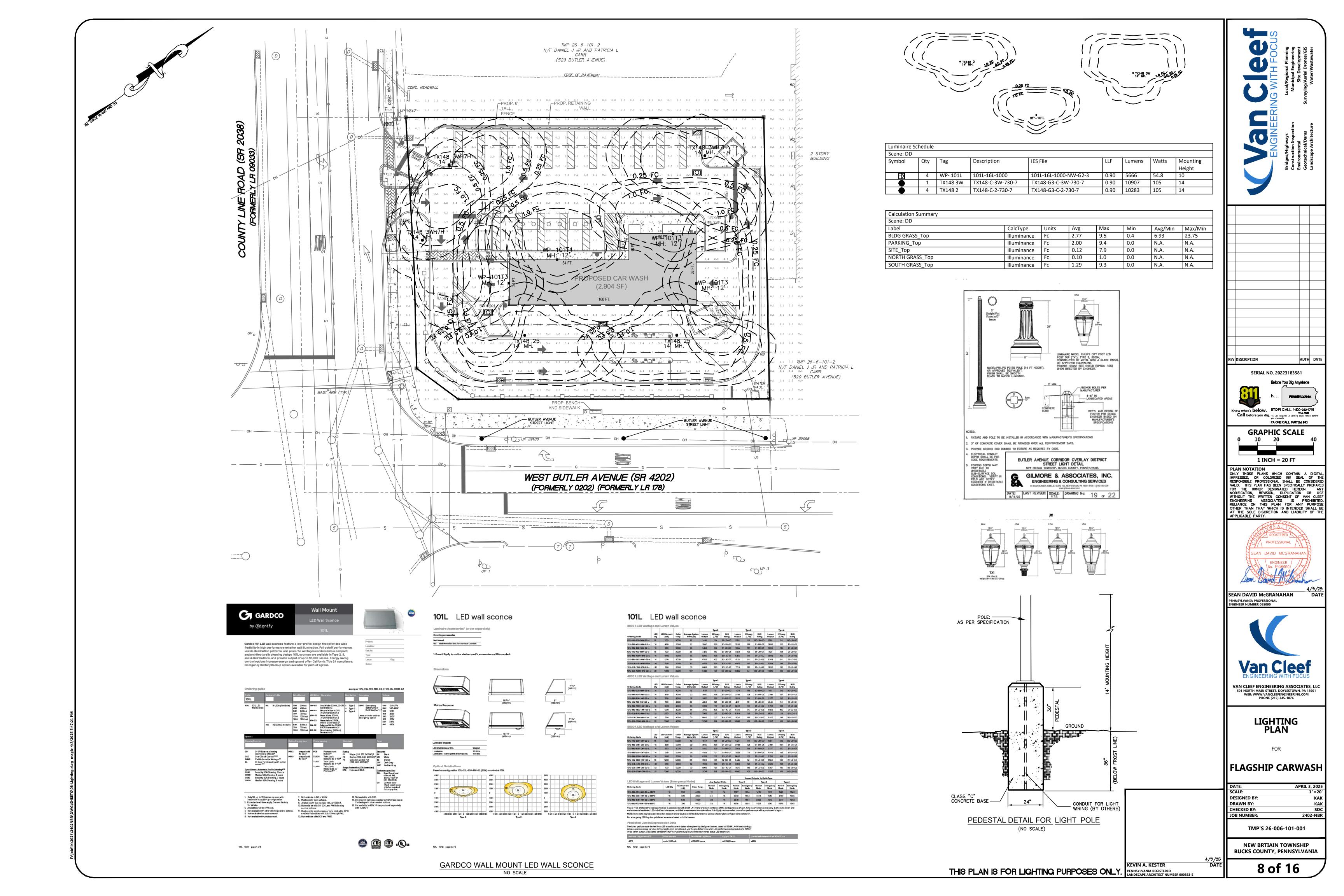
PROPOSED STORM SEWER

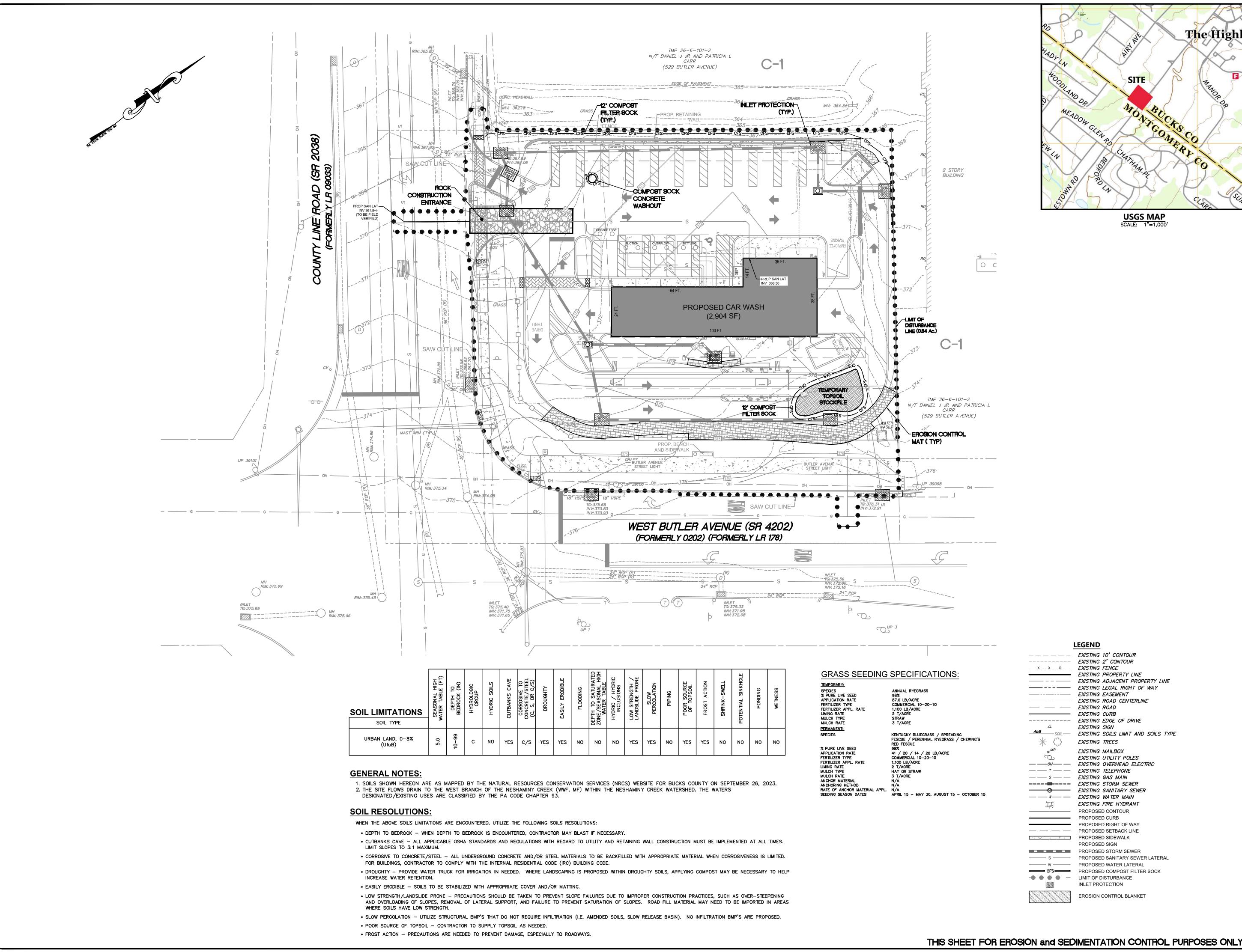
PROPOSED SANITARY SEWER LATERAL

PROPOSED WATER LATERAL

PROPOSED LANDSCAPING

PROPOSED LIGHT





REV DESCRIPTION

PLAN NOTATION

SERIAL NO. 20223183581

(now what's below. STOP! CALL 1-800-242-1776

GRAPHIC SCALE

1 INCH = 20 FT

ONLY THOSE PLANS WHICH CONTAIN A DIGITIMPRESSED, OR COLORIZED INK SEAL OF

IMPRESSED, OR COLONIZED INK SEAL OF THE RESPONSIBLE PROFESSIONAL SHALL BE CONSIDERED VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPARED FOR THE OWNER DESIGNATED HEREON. ANY MODIFICATION, REVISION, DUPLICATION OR USE WITHOUT THE WRITTEN CONSENT OF VAN CLEEF ENGINEERING ASSOCIATES IS PROHIBITED. RELIANCE ON THIS PLAN FOR ANY PURPOSE OTHER THAN THAT WHICH IS INTERIORD.

OTHER THAN THAT WHICH IS INTENDED SHALL AT THE SOLE DISCRETION AND LIABILITY OF T APPLICABLE PARTY.

PROFESSIONAL

\ FNGINFFR

VAN CLEEF ENGINEERING ASSOCIATES, LLC

501 NORTH MAIN STREET, DOYLESTOWN, PA 18901 WEB: WWW.VANCLEEFENGINEERING.COM PHONE (215) 345-1876

EROSION &

SEDIMENTATION

CONTROL PLAN

FLAGSHIP CARWASH

TMP'S 26-006-101-001

NEW BRTIAIN TOWNSHIP

BUCKS COUNTY, PENNSYLVANIA

9 of 16

DRAWN BY:

CHECKED BY

DB NUMBER:

SEAN DAVID MCGRAN

EAN DAVID McGRANAHAN

INSYLVANIA PROFESSIONAL GINEER NUMBER 085090

PA ONE CALL SYSTEM, INC.

Call before you dig. PA Law requires 3 working days notice you exceed to

GENERAL EROSION & SEDIMENT CONTROL NOTES

- 1. ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
- 2. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.
- 3. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- 4. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.
- 5. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
- 6. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
- 7. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
- 8. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAPS(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
- 9. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
- 10. ALL BUILDING MATERIAL AND WASTES MUST BE REMOVED FROM THE SITE AND RECYCLED IN ACCORDANCE WITH DEP'S SOLID WASTE REGULATIONS (25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ.), AND/OR ANY ADDITIONAL LOCAL, STATE OR FEDERAL REGULATIONS. NO BUILDING MATERIALS (USED OR UNUSED) OR WASTE MATERIALS SHALL BE BURNED, BURIED, DUMPED OR DISCHARGED AT THE SITE.
- 11. ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
- 12. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
- 13. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.
- 14. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS
 OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE
 WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF
 THE E&S BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
- 15. A LOG SHOWING DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION. WRITTEN DOCUMENTATION OF INSPECTION AND REPLACEMENT OF BMP'S BY CONTRACTOR.
- 16. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE IMMEDIATELY RETURNED TO THE CONSTRUCTION SITE AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER. OR SURFACE WATER.
- 17. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
- 18. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 8" OR TO THE DEPTH ENCOUNTERED WITHIN THE SITE PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 8" OF TOPSOIL (OR TO THE DEPTH ENCOUNTERED WITHIN THE SITE, WHICHEVER IS GREATER) IN PLACE PRIOR TO SEEDING AND MULCHING.
- 19. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
- 20. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
- 21. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
- 22. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
- 23. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
- 24. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
- 25. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
- 26. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
- 27. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING SUDING OR OTHER MOVEMENTS
- 28. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
- 29. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPS.
- 30. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPS SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
- 31. FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT—LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.
- 32. FILL MATERIAL FOR EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS.
- 33. STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET; STOCKPILE SLOPES MUST NOT EXCEED 2.1.
- 34. THE OPERATOR/RESPONSIBLE PERSON (O/RP) ON SITE SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED.
- 35. THE O/RP SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE BUCKS COUNTY CONSERVATION DISTRICT AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPOIL AND BORROW AREAS REGARDLESS OF THEIR LOCATIONS.
- 36. ALL PUMPING OF SEDIMENT-LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP SUCH AS A PUMPED WATER FILTER BAG DISCHARGING
- 37. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES.
- 38. EROSION AND SEDIMENT BMPS MUST BE CONSTRUCTED, STABILIZED AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMPS.
- 39. DISTURBED AREAS THAT ARE AT FINISHED GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN ONE YEAR MUST BE STABILIZED IN ACCORDANCE WITH PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
- 40. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% (PERCENT) VEGETATIVE OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.
- 41. SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF ON-SITE IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED OR PLACED IN SOIL STOCKPILES AND STABILIZED.
- 42. BMPs SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER MEASURABLE STORM EVENTS (I.E. AT LEAST 0.25 INCH).
- 43. TEMPORARY STABILIZATION SHALL BE PROVIDED TO ALL BARE SOIL AREAS THAT WILL REMAIN UNDISTURBED FOR 4 OR MORE DAYS IN THE FORM OF 3 TON/ACRE STRAW MULCH OR EQUIVALENT.

CONSTRUCTION SEQUENCE

- 1. AT LEAST 7 DAYS PRIOR TO START OF WORK OR EARTH DISTURBANCE ACTIVITIES, A PRE—CONSTRUCTION MEETING SHALL BE HELD INCLUDING THE OWNER, SITE CONTRACTOR(S), TOWNSHIP ENGINEER(S), COUNTY CONSERVATION DISTRICT, AND THE PLAN DESIGNER.
- 2. THE LIMITS OF DISTURBANCE SHALL BE DELINEATED WITH SURVEY STAKES OR SIMILAR, PRIOR TO ANY DISTURBANCE AND SHALL NOT BE DISTURBED DURING SITE CONSTRUCTION EXCEPT FOR TEMPORARY IMPACTS FOR MITIGATION OR RESTORATION PER THE PLAN.
- 3. INSTALL THE ROCK CONSTRUCTION ENTRANCE PER THE PLAN.
- 4. CONSTRUCTION FENCING SHALL BE INSTALLED ALONG THE SOUTH AND EASTERN PROPERTY LINES. PLACE COMPOST FILTER SOCK AND INLET PROTECTION AS DELINEATED ON THE PLAN AND DOWNSTREAM OF ALL EXCAVATED OR TOPSOIL STOCKPILING AREAS TO BE DISTURBED. INSTALL CONCRETE WASHOUT FACILITY PER THE PLAN.
- 5. DEMOLISH EXISTING BUILDING.
- 6. STRIP TOPSOIL WITHIN AREAS OF PROPOSED EARTHWORK AND STOCKPILE PER THE PLAN. CESSATION OF GRADING ACTIVITIES FOR FOUR (4) DAYS OR LONGER REQUIRES TEMPORARY SEEDING.
- 7. BEGIN CONSTRUCTION OF PROPOSED BUILDING FEATURES, DRIVEWAY AND PARKING AREAS, DUNKIN SIGNAGE, SIDEWALK AND ADA FEATURES AND ANY OTHER ASSOCIATED FEATURES.
- 8. ALL 3:1 SLOPES SHALL BE STABILIZED AND LINED WITH TEMPORARY EROSION CONTROL MATTING.
- 9. FINISH GRADE AND SPREAD TOPSOIL. SEED AND MULCH EACH AREA OF DISTURBANCE IMMEDIATELY AFTER CONSTRUCTION IS COMPLETED. AS DISTURBED AREAS WITHIN A PROJECT APPROACH FINAL GRADE, PREPARATIONS SHOULD BE MADE FOR SEEDING AND MULCHING TO BEGIN (I.E. ANTICIPATE COMPLETION DATE AND SCHEDULE SEEDING). PRIOR TO PLACING TOPSOIL, SUBSOIL SHALL BE SCARIFIED. PLANT LANDSCAPING AS DEPICTED ON THE LANDSCAPE AND LIGHTING PLAN.
- 10. REMOVE TEMPORARY CONTROL MEASURES AFTER UNIFORM EROSION RESISTANT PERENNIAL VEGETATION HAS BEEN ESTABLISHED, MINIMUM OF UNIFORM COVERAGE OR A DENSITY OF 70% ACROSS THE DISTURBED AREA, TO THE POINT WHERE THE SURFACE SOIL IS CAPABLE OF RESISTING EROSION DURING RUNOFF EVENTS AND STABILIZATION OF THE SITE IS COMPLETE TO THE SATISFACTION OF THE COUNTY CONSERVATION DISTRICT. AREAS DISTURBED DURING THE REMOVAL OF THE CONTROLS MUST BE STABILIZED. THE COUNTY CONSERVATION DISTRICT AND TOWNSHIP SHALL BE NOTIFIED PRIOR TO REMOVAL OF ANY EROSION CONTROLS.

PROJECT CONSTRUCTION WASTES

1. TREES - CHIPPED AND REMOVED OFFSITE FOR MULCH.

2. BUILDING MATERIALS — SHALL BE REMOVED AND DISPOSED OF AT PROPER RECYCLING FACILITY AS PER NOTE #6 OF THE GENERAL EROSION & SEDIMENT CONTROL NOTES.

3. ROCK WASTE - ALL ROCKS THAT ARE SUITABLE FOR LANDSCAPING USES SHALL BE USED ON SITE OR AT ANOTHER FACILITY.

4. SOIL WASTE — ALL EXCAVATED SOIL SHALL BE USED ON SITE, AS FILL MATERIAL WHERE POSSIBLE. ANY EXCESS MATERIAL NOT USED ON SITE MAY ONLY BE DISPOSED AT A FACILITY WITH A VALID EARTH DISTURBANCE AND NPDES PERMIT APPROVED AND WERE ALL BMPS ARE PROPERLY INSTALLED. ALL SEDIMENT REMOVED DURING MAINTENANCE AND CLEANING OF EROSION AND SEDIMENTATION CONTROLS DEVICES WILL BE INCORPORATED INTO THE FINE GRADING UPSTREAM FROM A SEDIMENT CONTROL DEVICE. EXCESS MATERIAL THAT IS REMOVED FROM EROSION AND SEDIMENTATION CONTROL MEASURES AND CANNOT BE INCORPORATED INTO THE FINE GRADING STABILIZATION SHALL BE REMOVED FROM THE SITE AND MAY ONLY BE DISPOSED AT A FACILITY WITH A VALID EARTH DISTURBANCE AND NPDES PERMIT APPROVAL AND WERE ALL BMPS ARE PROPERLY INSTALLED.

5. ACCUMULATED SEDIMENT FROM COMPOST FILTER SOCKS TO BE RETURNED TO SITE UPSTREAM OF ALL PROPOSED BMP'S.

MAINTENANCE OF FACILITIES

1. SILT FENCE/FILTER SOCK SHOULD BE INSPECTED AND MAINTAINED ON A DAILY BASIS.

2. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT CONTROL DEVICES MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROLS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF E&S CONTROL BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF INSTALLED MEASURES WILL BE REQUIRED.

3. CONTRACTOR SHALL MAINTAIN AND MAKE AVAILABLE TO THE COUNTY CONSERVATION DISTRICT COMPLETE, WRITTEN INSPECTION LOGS OF THE ABOVE NOTED INSPECTION AND MAINTENANCE.

- 4. SEEDING, MULCHING AND FERTILIZING SHALL BE IN ACCORDANCE WITH THE SEEDING AND MULCHING SCHEDULE.
- 5. THE CONTRACTOR SHALL HAVE AVAILABLE WATER TRUCKS OR OTHER MEANS OF CONTROLLING EXCESSIVE DUST AND AIRBORNE DEBRIS.
- 6. ALL AREAS OF CONCENTRATED SURFACE DRAINAGE SHALL BE SEEDED AND MULCHED, AND PROTECTED WITH TEMPORARY TURF REINFORCEMENT MAT: NORTH AMERICAN GREEN #D575 (OR EQUAL). IF AREAS ARE TO BE SODDED, TURF REINFORCEMENT IS NOT REQUIRED.

7. SEEDED AREAS THAT HAVE WASHED AWAY SHALL BE FILLED AND GRADED AS NECESSARY AND THEN RESEEDED. A BURLAP OR STRAW COVER WILL BE APPLIED TO RETAIN THE SEED UNTIL IT HAS A CHANCE TO ROOT PROPERLY.

8. THE ABOVE PROCEDURE SHALL BE REPEATED AFTER EACH SIZABLE STORM UNTIL NO MORE SIGNS OF EROSION ARE EVIDENT. AT MONTHLY INTERVALS THEREAFTER, INSPECTIONS AND NECESSARY CLEANING WILL BE DONE. TRASH THAT IS REMOVED FROM ANY OF THE CONTROL DEVICES SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL AREA. SILT THAT HAS ACCUMULATED SHALL BE REMOVED AND ALLOWED TO DRY AND USED AS FILL WHEREVER REQUIRED ON THE SITE.

9. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE CONTRACTOR SHALL IMPLEMENT APPROPRIATE MEASURES TO ADDRESS SAID CIRCUMSTANCES.

FILL MATERIALS

IF THE SITE WILL NEED TO HAVE FILL IMPORTED FROM AN OFF SITE LOICATION. THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND THE DETERMINATION OF CLEAN FILL WILL RESIDE WITH THE OPERATOR.

CLEAN FILL: IS DEFINED AS UNCONTAMINATED, NON-WATER SOLUBLE, ON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES HAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE ERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE.)

ENVIRONMENTAL DUE DILIGENCE: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE, IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".

FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL, REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH

THE DEPARTMENT'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA. CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271

E&S PLAN PLANNING & DESIGN NOTES

MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE.

- 1. THE CONTRACTOR SHALL MINIMIZE THE EXTENT AND DURATION OF THE EARTH DISTURBANCE BY LIMITING THE CLEARING, GRUBBING, AND TOPSOIL STRIPPING TO AREAS IN EACH PHASE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMP'S SPECIFIED BY THE CONSTRUCTION SEQUENCE FOR THAT PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THE E&S PLAN. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE
- 2. TO MAXIMIZE THE PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION, E&S BMP'S MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS TO THOSE BMP'S. E&S BMP'S SHALL REMAIN FUNCTIONAL UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED. AT NO TIME WILL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARY. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAYS SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE.
- 3. TO MINIMIZE SOIL COMPACTION, NO LAND CLEARING AND/OR GRADING SHALL BE PERFORMED OUTSIDE OF LIMIT OF DISTURBANCE FENCING.
 PROPER CARE SHALL BE TAKEN WITHIN UNDERGROUND INFILTRATION TRENCH TO MINIMIZE SOIL COMPACTION.
- 4. THE FOLLOWING MEASURES OR CONTROLS UTILIZED TO MINIMIZE GENERATION OF INCREASED STORMWATER RUNOFF: A ROCK CONSTRUCTION ENTRANCE, COMPOST FILTER SOCKS AROUND THE DISTURBANCE, A CONCRETE WASHOUT, EROSION CONTROL BLANKET, AND TEMPORARY/PERMANENT STABILIZATION OF ALL LOT FEATURES.
- 5. THERE ARE NO PROPOSED INFILTRATION BMP'S OUTSIDE PROPOSED GRADING AREAS.

APRIL 15 - MAY 30, AUGUST 15 - OCTOBER 15

CONTRACTOR SHALL STABILIZE AND AREAS DISTURBED BY ANY ACTIVITIES.

- 6. THERE ARE NO EXISTING/PROPOSED RIPARIAN FOREST BUFFERS WITHIN THE LIMITS OF DISTURBANCE THEREFORE NO ASSOCIATED REQUIREMENTS ARE SHOWN ON THE PLANS.
- 7. THIS PROJECT IS NOT LOCATED IN A SPECIAL PROTECTION (HQ/EV) WATERSHED, THEREFORE NO ANTIDEGRADATION ANALYSIS IS REQUIRED.
- 8. THERE ARE NO NATURALLY OCCURRING GEOLOGIC FORMATIONS (KARST SOILS) THAT MAY CAUSE POLLUTION WITHIN THE PROJECT LIMIT OF DISTURBANCE; THEREFORE, MEASURES TO AVOID/MINIMIZE/OR MITIGATE ARE NOT NECESSARY.

GRASS SEEDING SPECIFICATIONS:

RATE OF ANCHOR MATERIAL APPL. N/A

SEEDING SEASON DATES

TEMPORARY:

ANNUAL RYEGRASS SPECIES % PURE LIVE SEED 87.0 LB/ACRE FERTILIZER TYPE COMMERCIAL 10-20-10 FERTILIZER APPL, RATE 1,100 LB/ACRE LIMING RATE MULCH RATE 3 T/ACRE PERMANENT: SPECIES KENTUCKY BLUEGRASS / SPREADING FESCUE / PERENNIAL RYEGRASS / CHEWING'S RED FESCUE % PURE LIVE SEED APPLICATION RATE 41 / 20 / 14 / 20 LB/ACRI FERTILIZER TYPE FERTILIZER APPL, RATE 1,100 LB/ACRE 2 T/ACRE HAY OR STRAW MULCH RATE 3 T/ACRE ANCHOR MATERIAL

THIS SHEET FOR EROSION and SEDIMENTATION CONTROL PURPOSES ONLY.



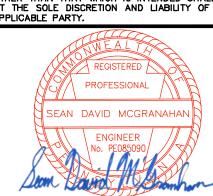
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REV DESCRIPTION AUTH



PLAN NOTATION

ONLY THOSE PLANS WHICH CONTAIN A DIGITAL,
IMPRESSED, OR COLORIZED INK SEAL OF THE
RESPONSIBLE PROFESSIONAL SHALL BE CONSIDERED
VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPARED
FOR THE OWNER DESIGNATED HEREON. ANY
MODIFICATION, REVISION, DUPLICATION OR USE
WITHOUT THE WRITTEN CONSENT OF VAN CLEEF
ENGINEERING ASSOCIATES IS PROHIBITED.
RELIANCE ON THIS PLAN FOR ANY PURPOSE



THER THAN THAT WHICH IS INTENDED SHALL

SEAN DAVID McGRANAHAN D
PENNSYLVANIA PROFESSIONAL
ENGINEER NUMBER 085090



EROSION & SEDIMENTATION

501 NORTH MAIN STREET, DOYLESTOWN, PA 18901

WEB: WWW.VANCLEEFENGINEERING.COM

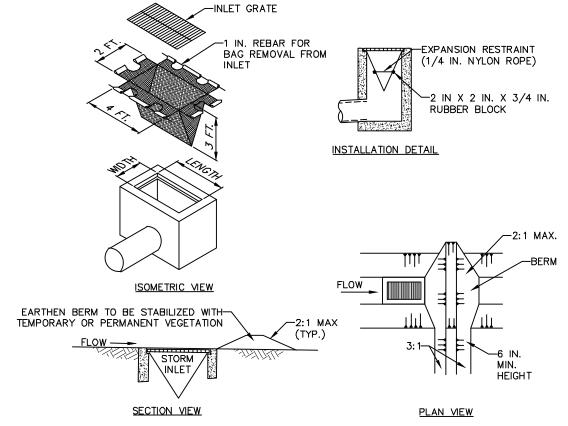
CONTROL NOTES

FLAGSHIP CARWASH

DATE: APRIL 3, 2025
SCALE: NO SCALE
DESIGNED BY: LDM, SDM
DRAWN BY: RJN
CHECKED BY: SDC
JOB NUMBER: 2402-NBR

TMP'S 26-006-101-001

NEW BRTIAIN TOWNSHIP BUCKS COUNTY, PENNSYLVANIA



NOTES:

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

PARTICLES NOT PASSING A NO. 40 SIEVE.

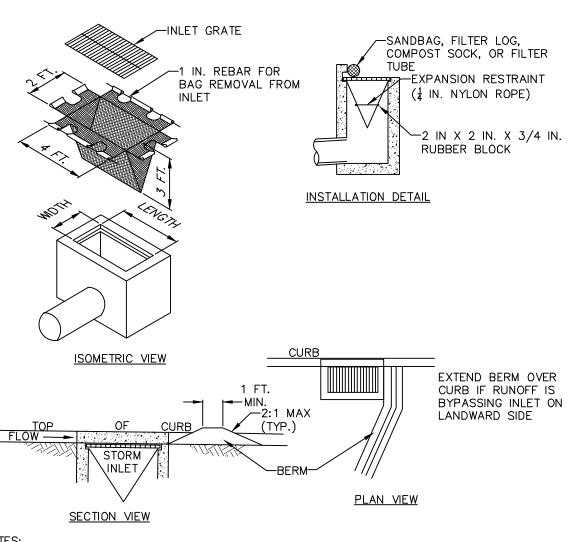
INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED ROLLED EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT

STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY. AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS., A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL

INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

STANDARD CONSTRUCTION DETAIL #4-16 FILTER BAG INLET PROTECTION - TYPE M INLET (NOT TO SCALE)



NOTES:

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

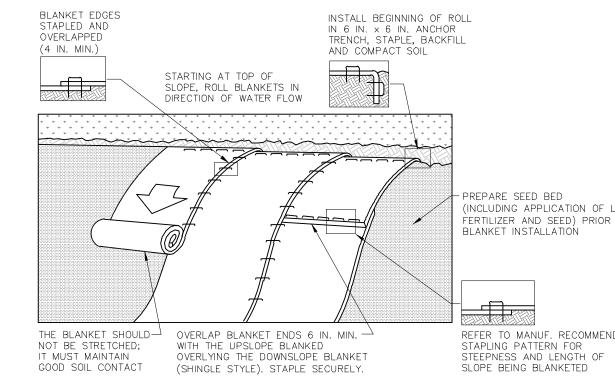
INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT. AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40

INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

STANDARD CONSTRUCTION DETAIL #4-15 FILTER BAG INLET PROTECTION — TYPË C INLET (NOT TO SCALE)



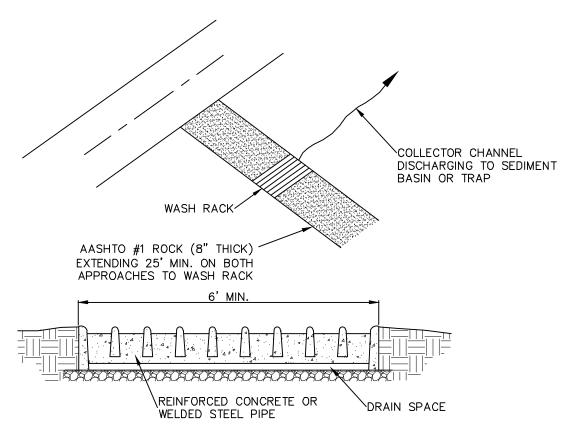
SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.

BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH

SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.

THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS. STANDARD CONSTRUCTION DETAIL #11-1

EROSION CONTROL BLANKET INSTALLATION

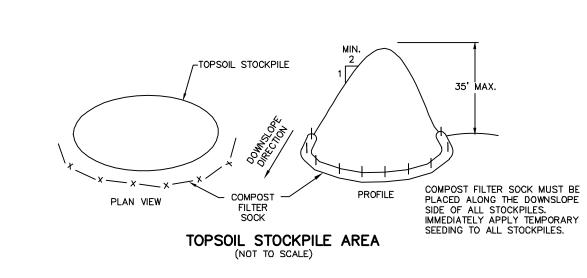


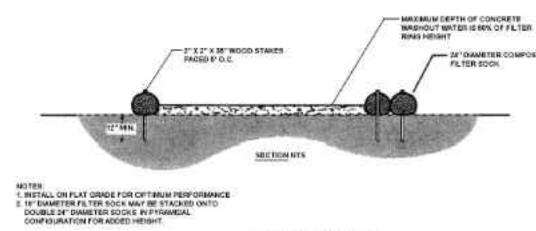
WASH RACK SHALL BE 20 FEET (MIN.) WIDE OR TOTAL WIDTH OF ACCESS. WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE ANTICIPATED CONSTRUCTION VEHICULAR TRAFFIC.

A WATER SUPPLY SHALL BE MADE AVAILABLE TO WASH THE WHEELS OF ALL VEHICLES EXITING

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. DRAIN SPACE UNDER WASH RACK SHALL BE KEPT OPEN AT ALL TIMES. DAMAGE TO THE WASH RACK SHALL BE REPAIRED PRIOR TO FURTHER USE OF THE RACK. ALL SEDIMENT DEPOSITED ON ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS

ROCK CONSTRUCTION ACCESS WITH WASH RACK (NOT TO SCALE)





2" X 2" K 38" WO CORN STATES

(NOT TO SCALE)

TMP'S 26-006-101-001

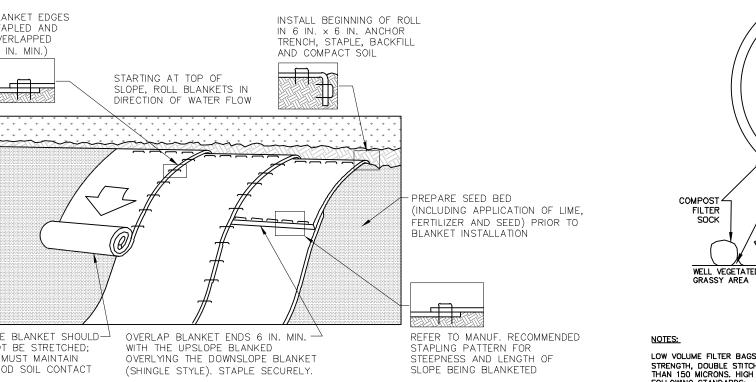
NEW BRTIAIN TOWNSHIP BUCKS COUNTY, PENNSYLVANIA

DESIGNED BY

OB NUMBER:

DRAWN BY CHECKED BY

11 of 16



LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE

PLAN VIEW

BLOWN/PLACED FILTER MEDIA-

ELEVATION VIEW

BLOWN/PLACED

-FILTER MEDIA

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE

WELL VEGETATED, GRASSY AREA

-HEAVY DUTY LIFTING STRAPS

—DISCHARGE HOSE

__CLAMP (TYP.)

REV DESCRIPTION

PLAN NOTATION

SERIAL NO. 20223183581

(now what's below. STOP! CALL 1-800-242-1776 Call before you dig. PA Law requires 3 working days no

ONLY THOSE PLANS WHICH CONTAIN A DIGIT

IMPRESSED, OR COLORIZED INK SEAL OF THE RESPONSIBLE PROFESSIONAL SHALL BE CONSIDER!

ALID. THIS PLAN HAS BEEN SPECIFICALLY PREPARE OR THE OWNER DESIGNATED HEREON. AN

MODIFICATION, REVISION, DUPLICATION OR UNITHOUT THE WRITTEN CONSENT OF VAN CLI

NGINEERING ASSOCIATES IS PROHIBITE RELIANCE ON THIS PLAN FOR ANY PURPO

OTHER THAN THAT WHICH IS INTENDED SHALL

AT THE SOLE DISCRETION AND LIABILITY OF APPLICABLE PARTY.

SEAN DAVID MCGRA

EAN DAVID McGRANAHAN

ENGINEER

VAN CLEEF ENGINEERING ASSOCIATES, LLC 501 NORTH MAIN STREET, DOYLESTOWN, PA 18901 WEB: WWW.VANCLEEFENGINEERING.COM

PHONE (215) 345-1876

EROSION & SEDIMENTATION CONTROL DETAILS

FLAGSHIP CARWASH

LDM, SDN

2402-NBR

Before You Dig Anywhere

PA ONE CALL SYSTEM, INC.

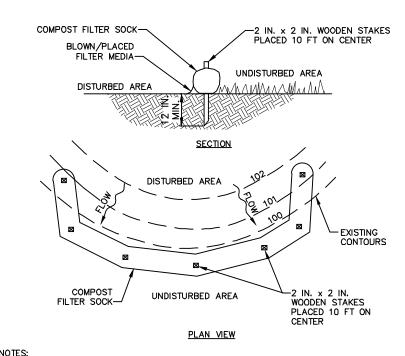
PENNSYLVANI

AUTH DATE

PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED. BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5% FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

PUMPED WATER FILTER BAG (NOT TO SCALE)

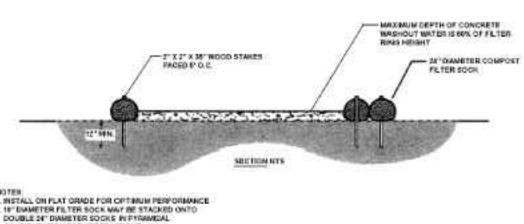


SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL CONTROL MANUAL COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DECREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA. TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN. COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER FACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE INSPECTION WEEKLT AND AFTER EACH KUNOFF EVENT.

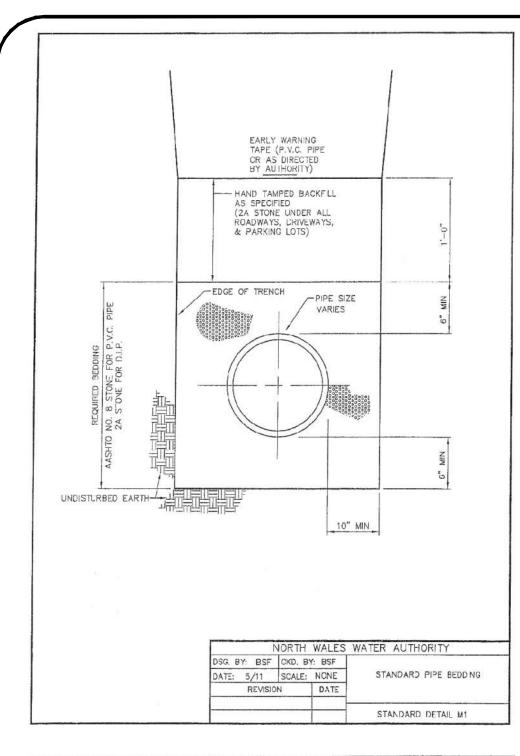
DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR

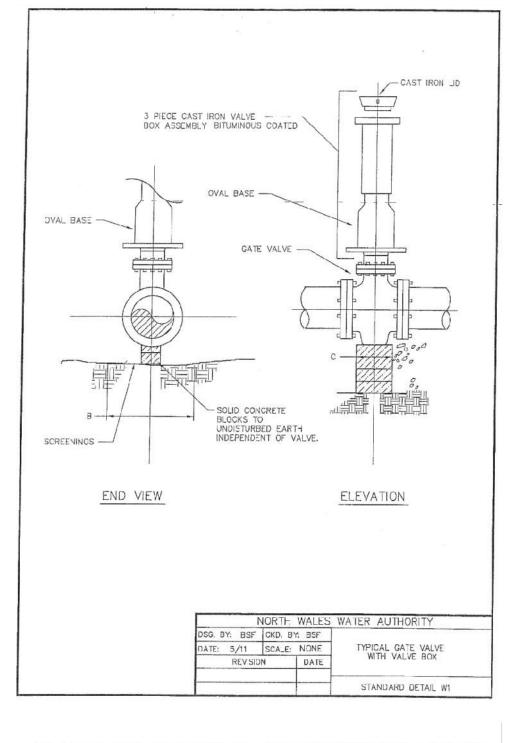
REPLACED WITHIN 24 HOURS OF INSPECTION. BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

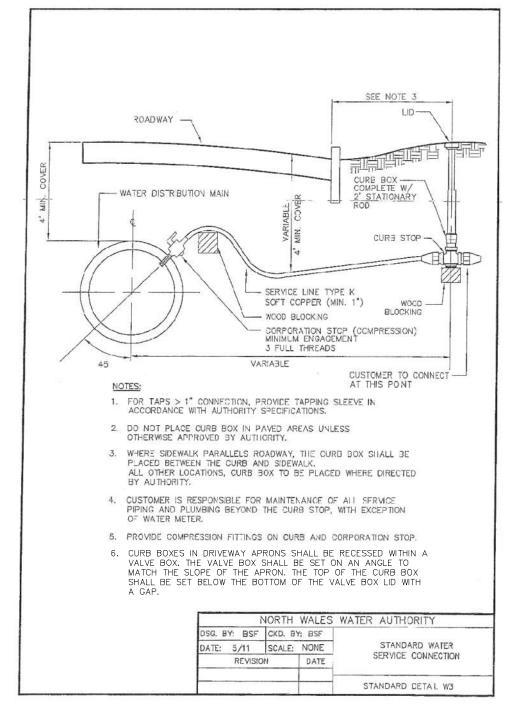
> COMPOST FILTER SOCK (NOT TO SCALE)

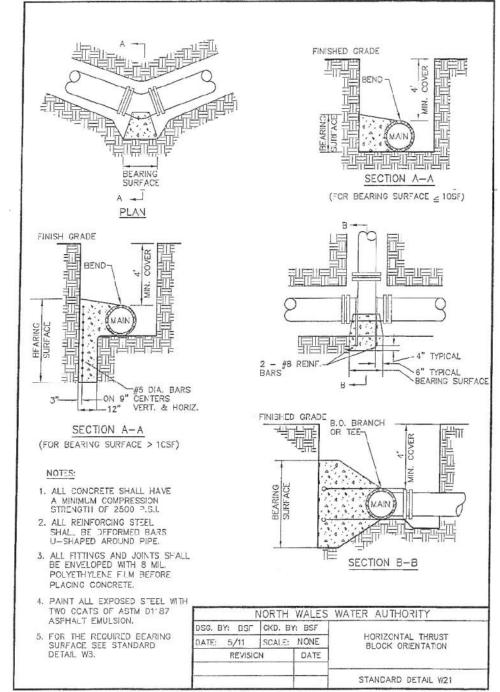


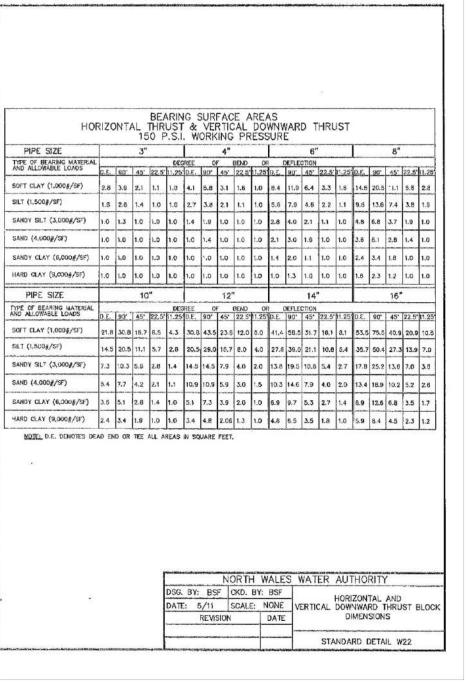
COMPOST SOCK WASHOUT DETAIL

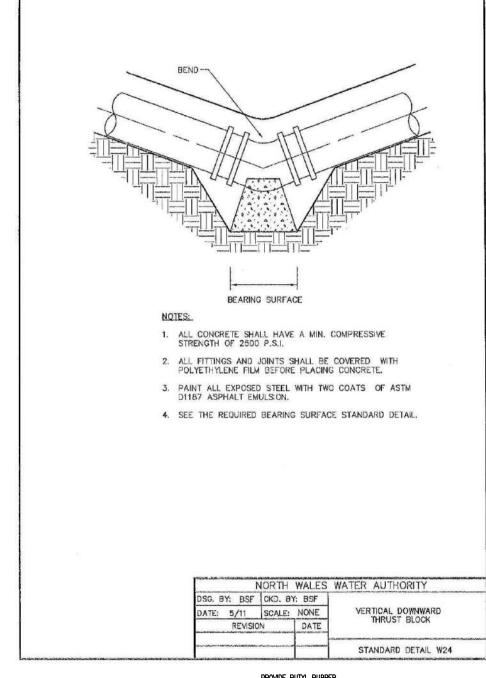


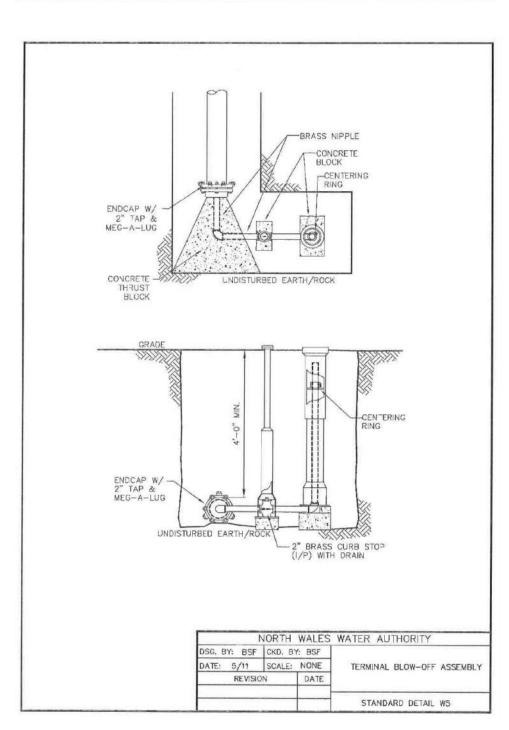


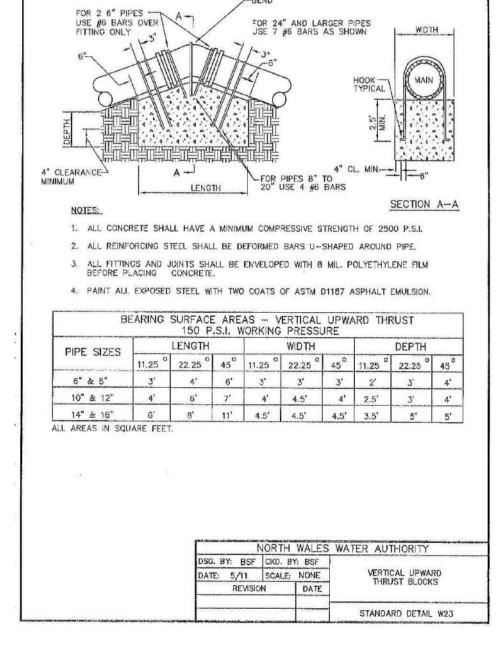


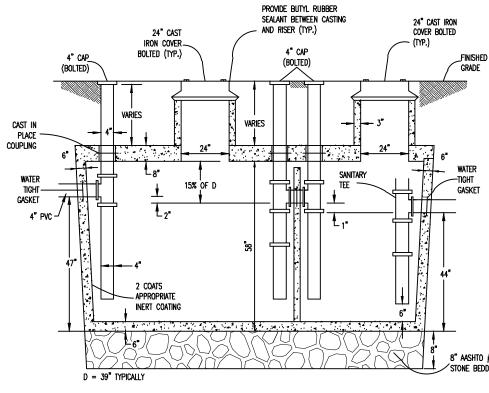












ALL INLET AND OUTLET PIPES SHALL BE INSTALLED NO MORE THAN 6" FROM THE BOTTOM OF THE GREASE TRAP. TANK TAPERS TOP TO BOTTOM AND IS TRAPEZOIDAL IN CROSS SECTION. TANK IS 5000 PSI CONCRETE-STEEL REINFORCED (@ 28 DAYS) CONCRETE CONFORMS TO ACI 318-16-4.5.1 AND 318-16-4.5.2, ASTM A615 AND A185 -DIMENSION: 151" INTERIOR/ 163" EXTERIOR LENGTH x 72" INTERIOR/ 84" EXTERIOR WIDTH

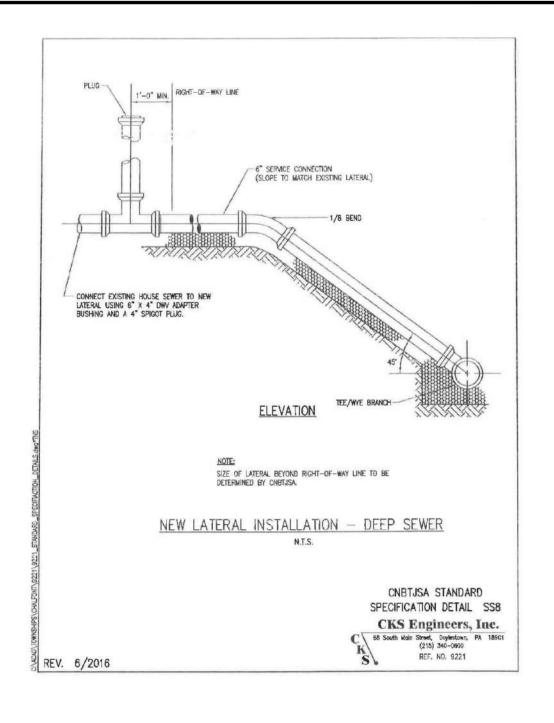
) WHEN LOCATED IN DRIVEWAYS OR PAVED AREAS, GREASE TRAP TO BE DESIGNED FOR APPROPRIATE LOAD BEARING CONDITIONS. GREASE TRAP SHALL BE CAPABLE OF WITHSTANDING HS-20 LOADING. 2) ALL PIPE PENETRATIONS SHALL BE WATERTIGHT. 3) GREASE TRAP SHALL BE PROVIDED WITH GAS-TIGHT MANHOLE COVERS, IN ACCORDANCE WITH TOWNSHIP STANDARD

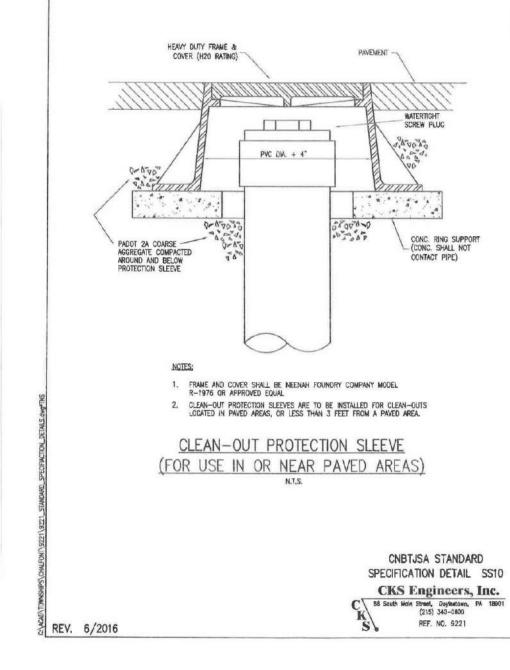
SPECIFICATIONS. 4) PRECAST CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH 5000 PSI. EXTERIOR CONCRETE SURFACES BELOW GRADE SHALL HAVE 2 COATS OF COAL TAR EPOXY. 6) SPECIFIC SEALANT DETAIL AT CONCRETE RISER TO CONCRETE VAULT INTERFACE SHALL BE WATERTIGHT. AT A MINIMUM, THE JOINT SHALL BE SEALED WITH BUTYL RUBBER SEALANT (KENT SEAL #2 OR APPROVED EQUIVALENT) AND THE EXTERIOR OF

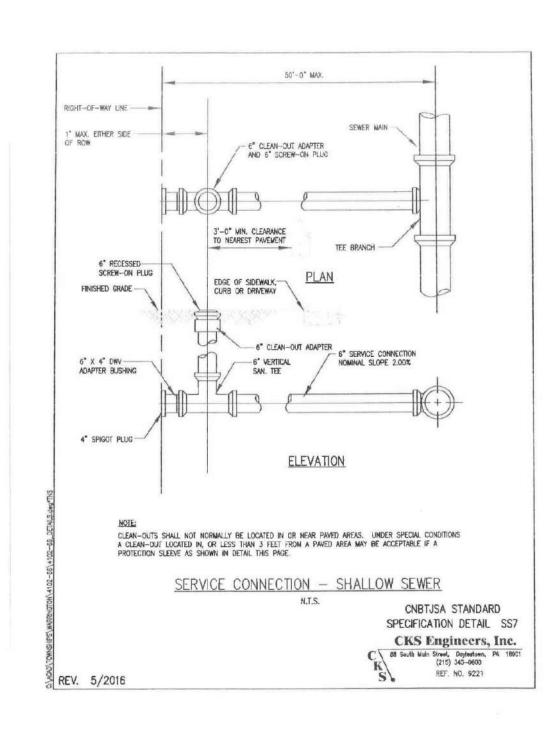
THE JOINT SHALL BE SEALED WITH NON-SHRINK GROUT IN CONFORMANCE WITH THE TOWNSHIP STANDARD GREASE TRAP 7) TANK SHALL BE TESTED FOR WATER TIGHTNESS BY FILLING FOR 24 HRS. TO SOAK, THEN TOPPED OFF, AND THEN WATCHED FOR 24 HRS. NO DROP IN WATER IS ALLOWED.

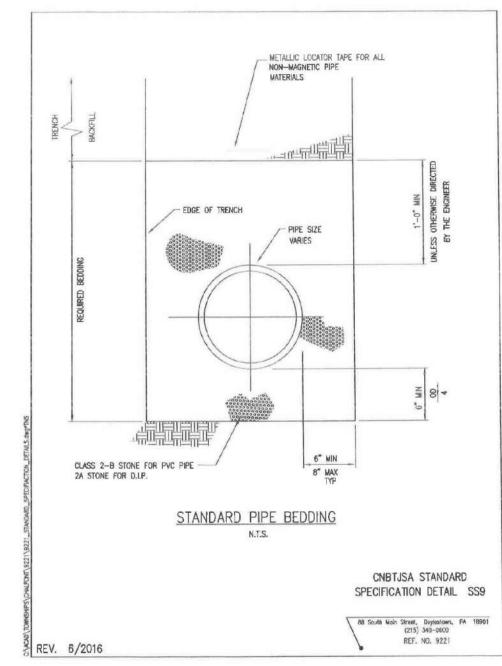
8) CAST IRON SHALL BE BOLTED TO CONCRETE WITH MASTIC TAPE (KENT SEAL OR APPROVED EQUIVALENT) SEALANT. MAXIMUM EARTH COVER=5.0', HS-20 LOADING. 10) INLET AND OUTLET EQUIPPED WITH PIPE SEALS.

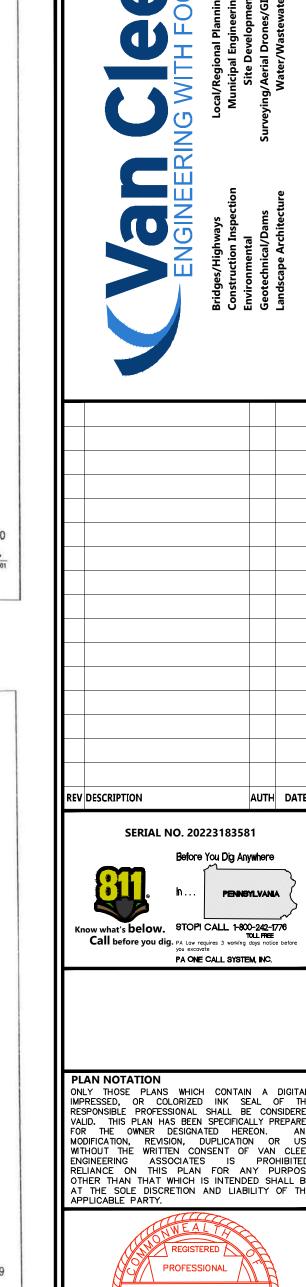
GREASE TRAP (1,500 GALLON - 2 COMPARTMENT) (NOT TO SCALE)

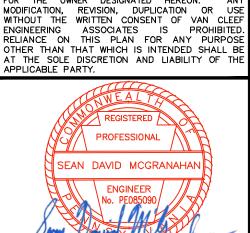












AUTH DATE

Before You Dig Anywhere

PA ONE CALL SYSTEM, INC.

PENNSYLVANI

EAN DAVID McGRANAHAN



PHONE (215) 345-1876

501 NORTH MAIN STREET, DOYLESTOWN, PA 18901 WEB: WWW.VANCLEEFENGINEERING.COM

UTILITY DETAILS

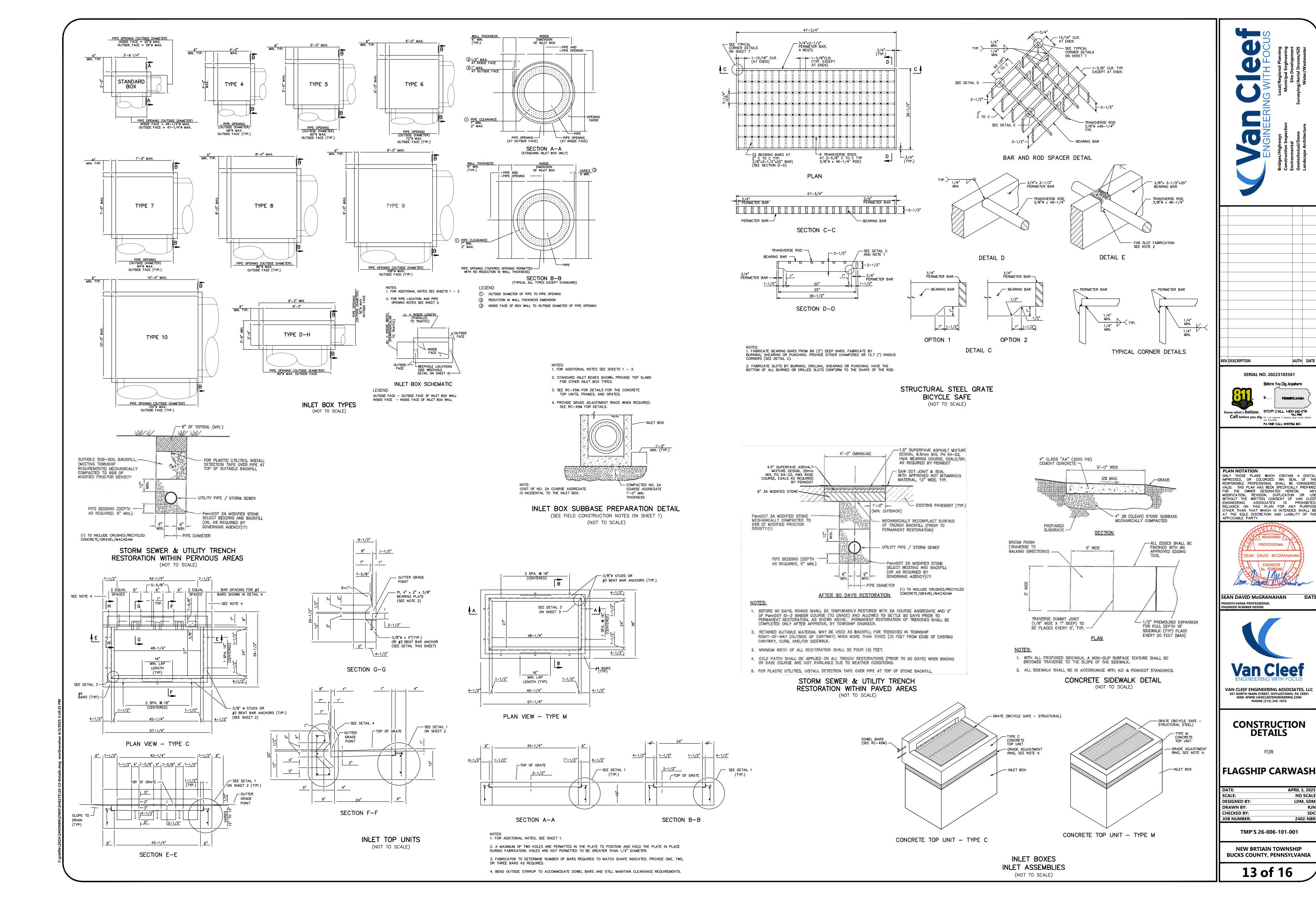
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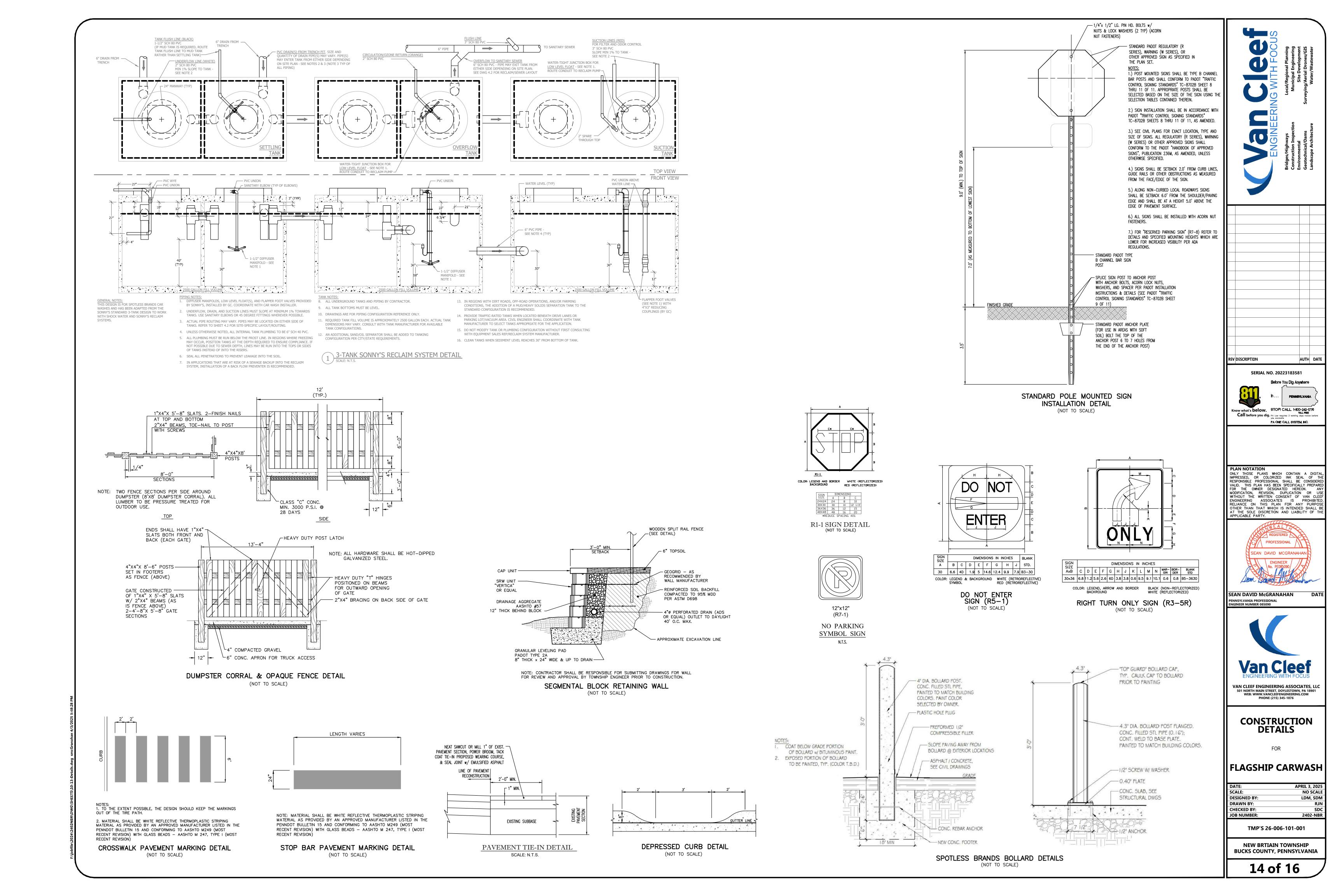
FLAGSHIP CARWASH

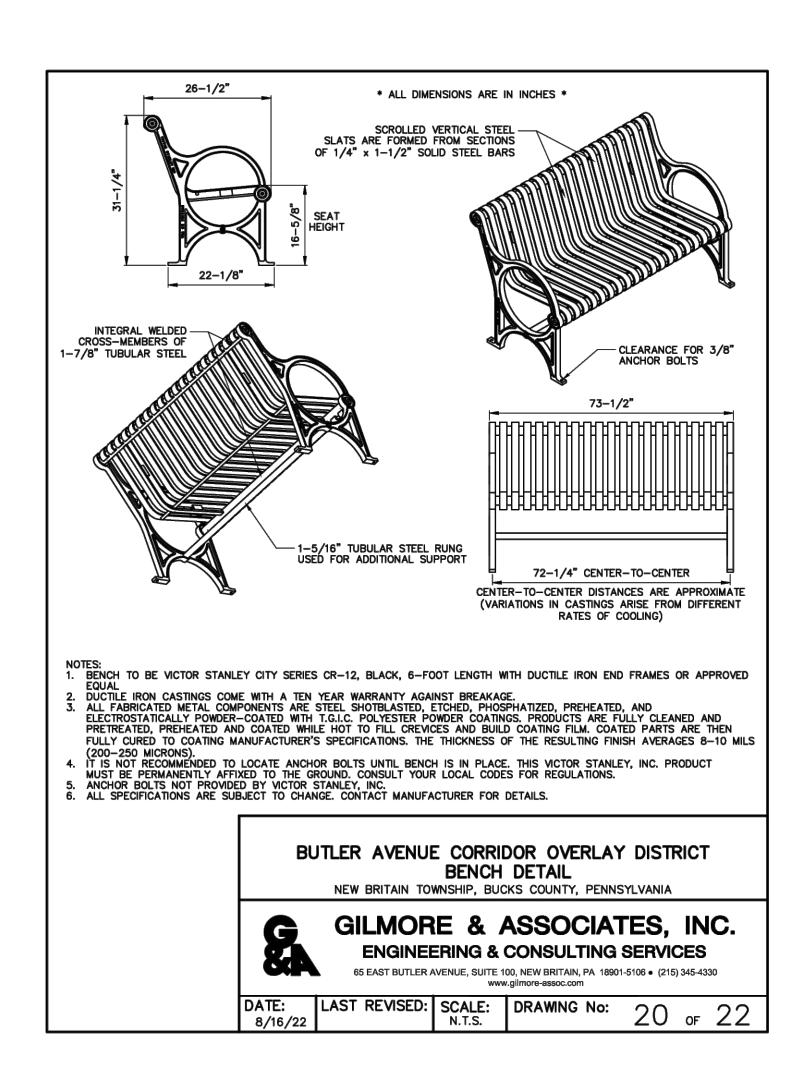
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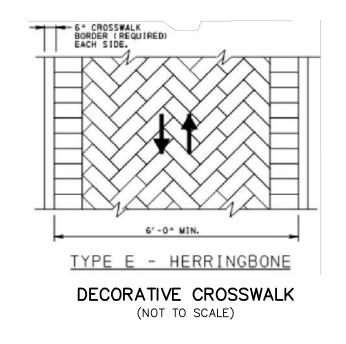
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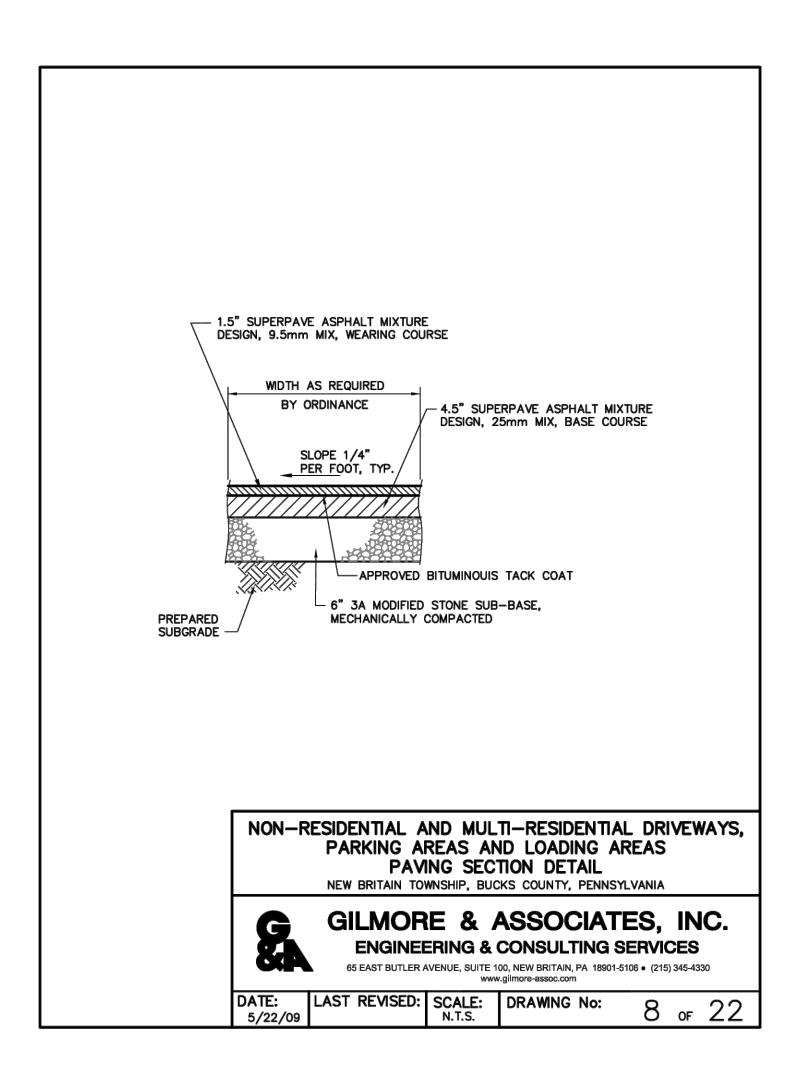


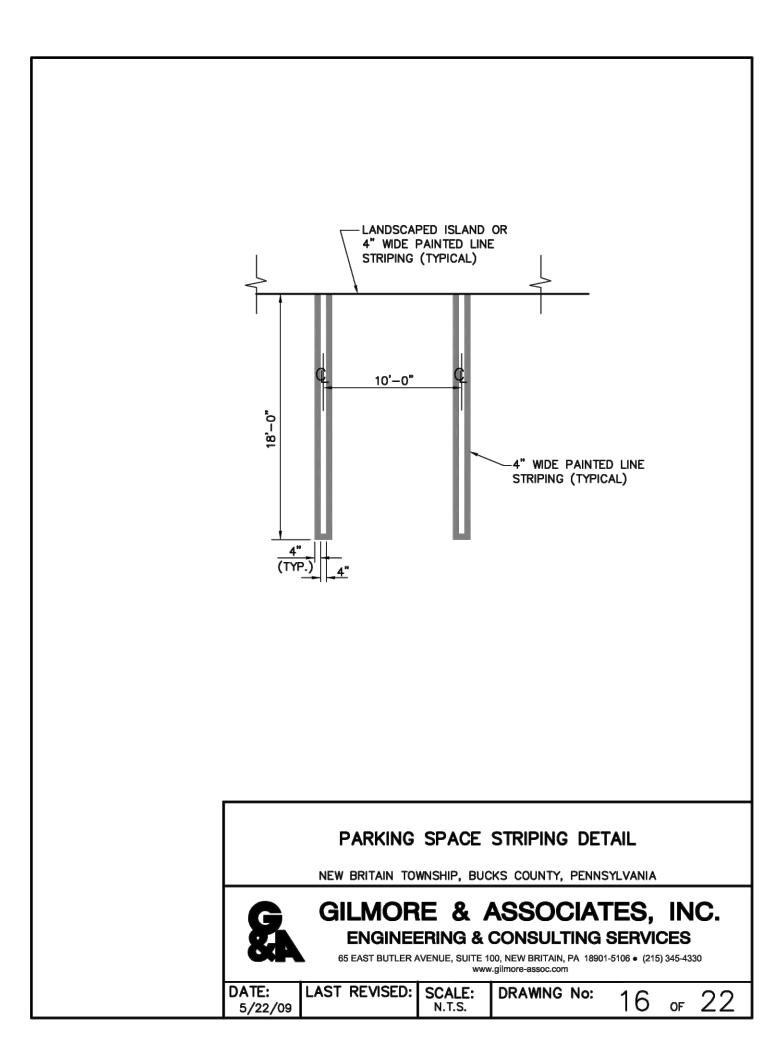


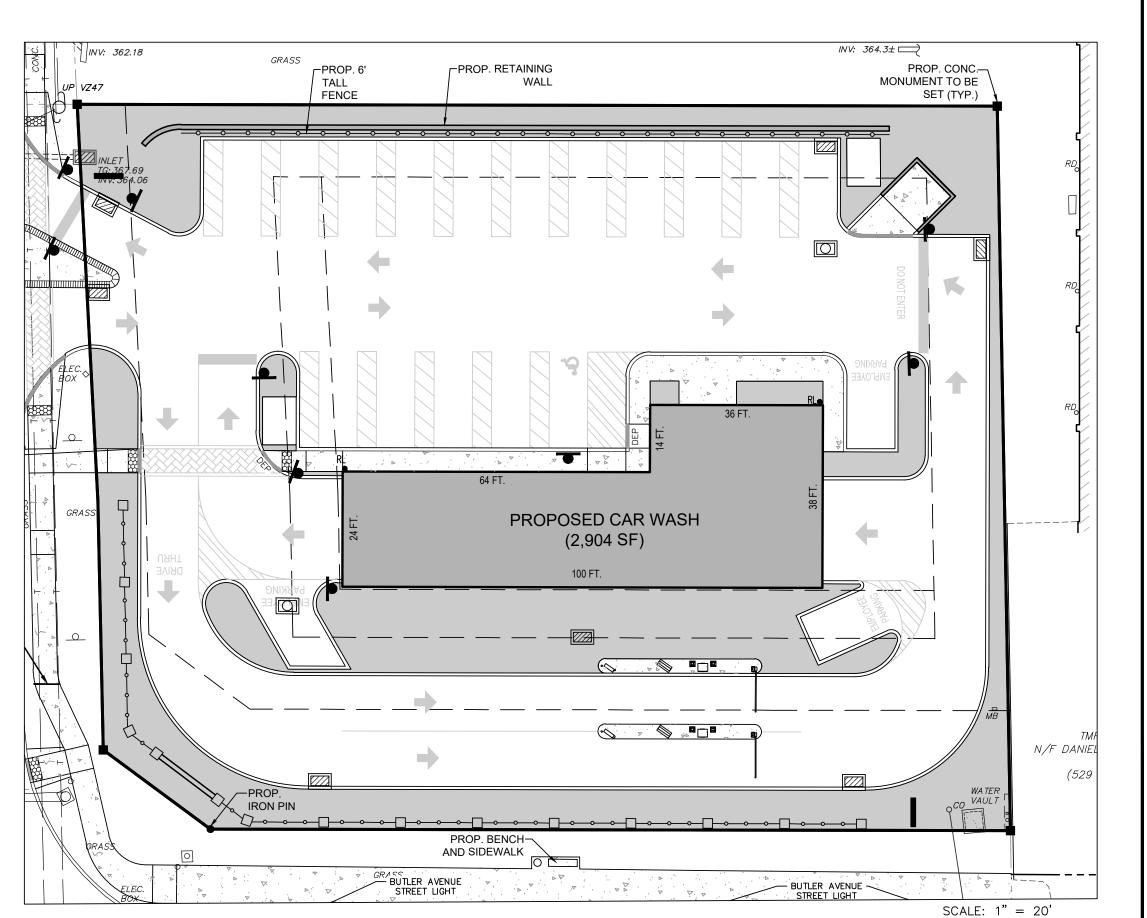














0.65 ACRES X 43,560 SF = 28,314 SF X 0.15 = 4,247 SF GREEN SPACE REQUIRED. GREEN SPACE AROUND BENCH, GATEWAY MONUMENT SIGN, AND TRASH RECEPTACLE OPEN GREEN AREA = 7,112 SF PROVIDED.



AT THE SOLE DISCRETION AND LIABILITY OF APPLICABLE PARTY.



EAN DAVID McGRANAHAN NEER NUMBER 085090



501 NORTH MAIN STREET, DOYLESTOWN, PA 18901 WEB: WWW.VANCLEEFENGINEERING.COM PHONE (215) 345-1876

CONSTRUCTION DETAILS

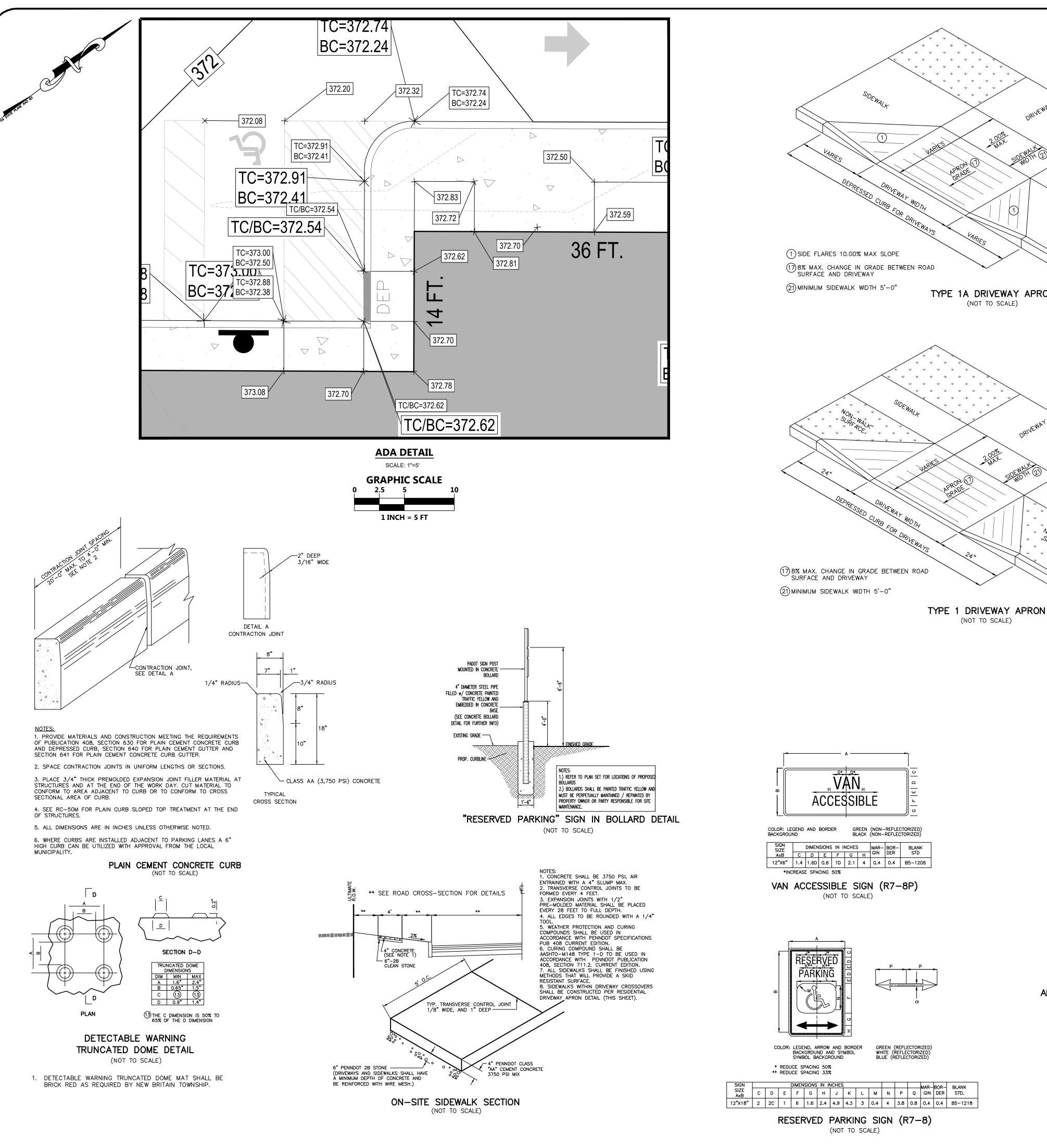
FLAGSHIP CARWASH

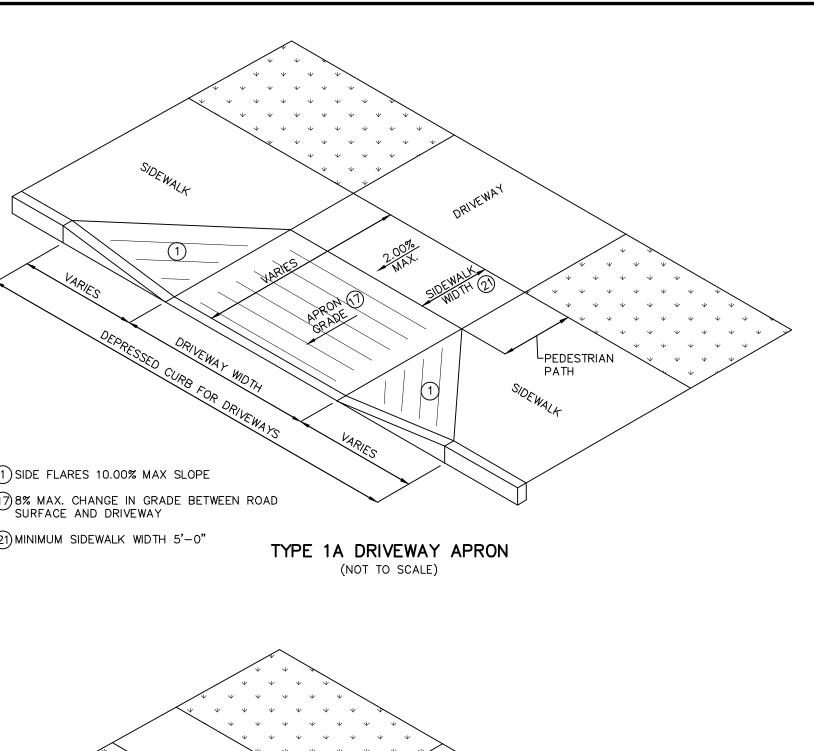
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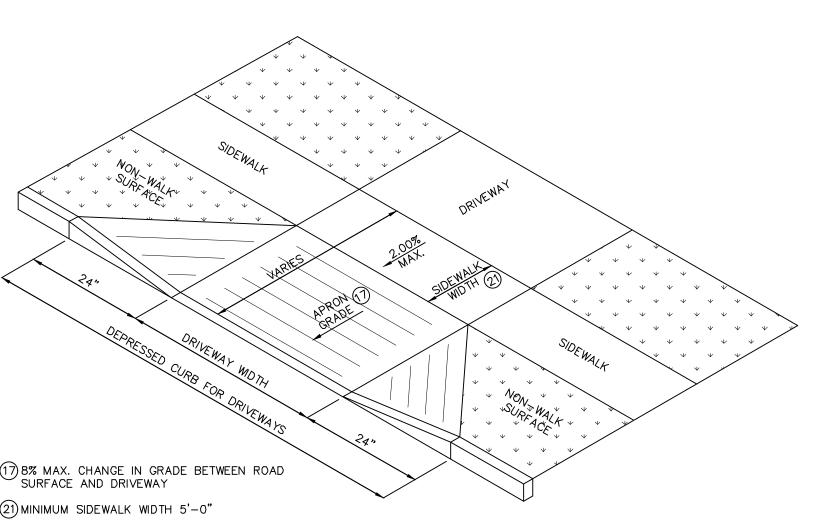
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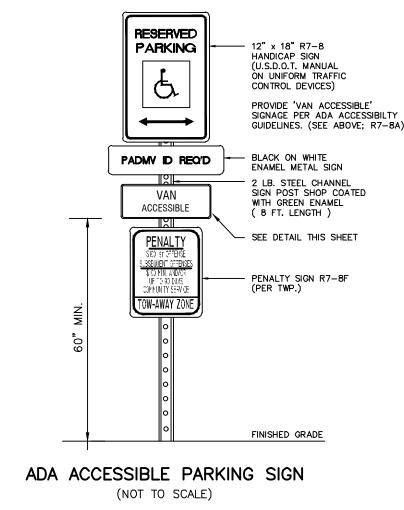
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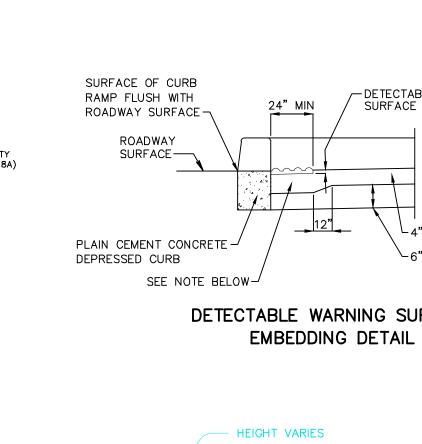
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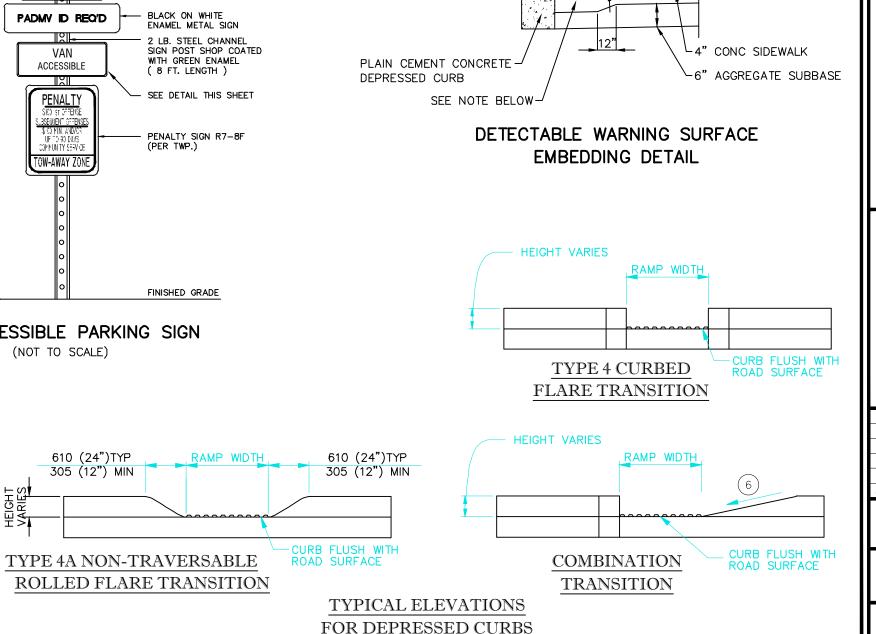






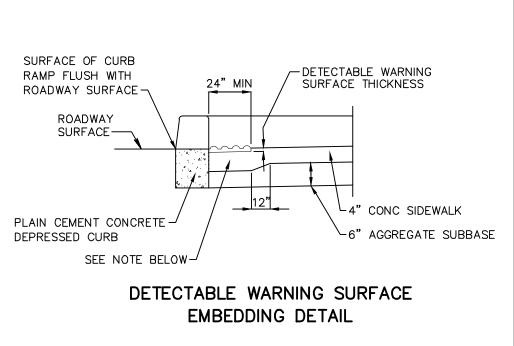


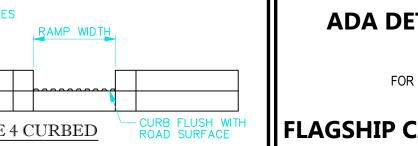




GENERAL NOTES:

- 1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTIONS 350, 409, 630, 676 AND 694.
- 2. PROVIDE EXPANSION JOINT MATERIAL 1/2" THICK WHERE CURB RAMP ADJOINS ANY RIGID PAVEMENT, SIDEWALK OR STRUCTURE WITH THE TOP OF JOINT FILLER FLUSH WITH ADJACENT CONCRETE SURFACE.
- 3. CONSTRUCT DIAGONAL CURB RAMPS WITH A 4'-0" x 4'-0" CLEAR SPACE BEYOND THE CURB FACE, WITHIN THE WIDTH OF THE CROSSWALK AND WHOLLY OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE.
- 4. SEAL JOINTS WITH AN APPROVED SEALING MATERIAL.
- 5. PROVIDE SLIP RESISTANT TEXTURE ON CURB RAMP BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP. EXTEND TEXTURE THE FULL WIDTH AND LENGTH OF THE CURB RAMP INCLUDING FLARED SIDE RAMPS.
- 6. MODIFY CONSTRUCTION DETAILS TO ADAPT DIMENSIONS TO EXISTING CURB ALTERATIONS WHERE THE CURB IS LESS THAN THE STANDARD 8" HEIGHT.
- 7. CURB RAMP AND SIDE FLARE LENGTHS ARE VARIABLE AND BASED ON CURB HEIGHT AND THE SIDEWALK PITCH.
- 8. TO AVOID CHASING GRADE INDEFINITELY WHEN TRAVERSING THE HEIGHT OF CURB, RAMP LENGTH NOT TO EXCEED 15'-0". ADJUST RAMP SLOPE AS NEEDED TO PROVIDE ACCESS TO THE MAXIMUM EXTENT FEASIBLE.
- 9. NON-WALK AREA IS AN OBSTRUCTED OR GRASS/NON-PAVED AREA ADJACENT TO THE PEDESTRIAN ACCESS ROUTE THAT IS NOT USED BY THE PEDESTRIAN FOR
- 10. THE DETAILS DEPICT PEDESTRIAN PUSHBUTTON POLES TO ILLUSTRATE THE RECOMMENDED PLACEMENT OF PEDESTRIAN PUSHBUTTONS. FOR ALTERATION PROJECTS, PROVIDE ACCESS TO EXISTING PEDESTRIAN PUSHBUTTONS TO THE MAXIMUM EXTENT FEASIBLE. INSTALL PEDESTRIAN PUSHBUTTON STUB POLES, WHERE APPLICABLE, SO AS NOT TO CREATE PEDESTRIAN OBSTRUCTIONS.
- 11. ALL DIMENSIONS ARE IN U.S. CUSTOMARY UNITS UNLESS OTHERWISE NOTED.
- 12. ALIGN DETECTABLE WARNING DOMES ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF THE RAMP AND PERPENDICULAR TO CURB.
- 13. PROVIDE DETECTABLE WARNING SURFACES (DWS) 24" MINIMUM (IN THE DIRECTION OF PEDESTRIAN TRAVEL) ACROSS FULL WIDTH OF RAMP AT THE GRADE BREAK NEAR STREET EDGE. PROVIDE DWS THAT CONTRAST VISUALLY WITH ADJACENT WALKWAY SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT FOR THE FULL
- 14. FOR NEW CONSTRUCTION, DO NOT EXCEED 2.00% CROSS SLOPE ON THE CURB RAMP OR ACCESSIBLE ROUTE.
- 15. FOR NEW CONSTRUCTION AND ALTERATIONS, CONSTRUCT CURB RAMP AND FLARE SLOPES WITH THE FLATTEST SLOPE POSSIBLE. THE SLOPES INDICATED IN THE DETAILS SHOW THE MAX SLOPE ALLOWABLE. SLOPES THAT EXCEED THOSE INDICATED IN THE DETAILS, OR CONTRACT DOCUMENTS AS APPLICABLE, WILL NOT BE ACCEPTED AND WILL BE RECONSTRUCTED.
- 16. CONSTRUCT SIDEWALKS AT A LONGITUDINAL SLOPE NOT TO EXCEED 5.0%. FOR ROADWAY PROFILE SLOPES THAT EXCEED 5.0%, CONSTRUCT PARALLEL SIDEWALKS ADJACENT TO ROADWAY AT A LONGITUDINAL SLOPE NOT TO EXCEED ROADWAY
- 17. THE CHANGE IN GRADE AT THE BOTTOM OF THE CURB RAMP AND ADJOINING ROAD SURFACE IS NOT TO EXCEED AN ALGEBRAIC DIFFERENCE OF 11.0%. THE COUNTER SLOPE OF THE GUTTER OR ROAD AT THE FOOT OF A CURB RAMP, LANDING OR BLENDED TRANSITION IS NOT TO EXCEED 5.0%.
- 18. THE CONSTRUCTION STANDARDS DEPICTED ARE MOST APPROPRIATE FOR NEW CONSTRUCTION. ALL CONSTRUCTION MUST MEET THE STANDARDS CONTAINED HEREIN UNLESS OTHERWISE NOTED OR DIRECTED.
- 19. ALL SLOPES ARE MEASURED WITH RESPECT TO A LEVEL PLANE. THEREFORE, THE LENGTH OF RAMP IS NOT SOLELY DEPENDANT ON THE HEIGHT OF CURB. (FOR EXAMPLE, A 6" CURB DOES NOT NECESSARILY MEAN A RAMP LENGTH OF 6'-0" FOR A 1:12 SLOPE.
- 20. SIDEWALK WIDTH MAY BE REDUCED TO 4'-0", WHEN PASSING AREAS $5'-0" \times 5'-0"$ ARE PROVIDED EVERY 200'.
- 21. THE TRAVEL LANE IS DEFINED BY THE OUTSIDE EDGE OF THE WHITE PAVEMENT MARKING LINE. IF A WHITE PAVEMENT MARKING LINE DOES NOT EXIST, THE TRAVEL LANE IS DEFINED BY THE CONTRACT DOCUMENTS.
- 22. CONSTRUCT DEPRESSED CURB FOR CURB RAMPS FLUSH TO ADJACENT ROADWAY. GRADE EDGE OF ROAD ELEVATIONS AT THE FLOW LINE TO ENSURE POSITIVE DRAINAGE AND PREVENT PONDING. FOR LEVEL LANDINGS BEHIND DEPRESSED CURB, ADJUST SLOPES TO PROVED POSITIVE DRAINAGE.
- 23. CHEEK WALLS ARE PERMITTED WHEN ADJACENT TO NON-WALK AREAS OR ELEVATION DIFFERENCES CANNOT BE ACCOMMODATED BY FLARES OR GRADING. GRADE GRASS AREAS OR OTHER NON-WALK AREAS AT 3:1 MAX. DO NOT INSTALL CHEEK WALLS THAT INTERSECT THE PEDESTRIAN ACCESS ROUTE.
- 24. CONSTRUCT TOP OF PLAIN CEMENT CONCRETE DEPRESSED CURB TO BE FLUSH WITH ADJACENT SURFACES (RAMPS, SIDEWALKS, FLARES)
- 25. FOR CURB RAMPS THAT LEAD TO A SINGLE CROSSWALK, THE RAMP (EXCLUDING FLARES) TO BE FULLY INSIDE OF MARKED CROSSWALK LINES.
- 26. A 4'-O" MAXIMUM DIGITAL DISPLAY LEVEL WILL BE USED TO VERIFY THE SLOPES OF CURB RAMPS AND SIDEWALKS.





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THER THAN THAT WHICH IS INTENDED SHALL AT THE SOLE DISCRETION AND LIABILITY OF APPLICABLE PARTY. EAN DAVID MCGRA ENGINEER

REV DESCRIPTION

AUTH DATE

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PENNSYLVANIA

EAN DAVID McGRANAHAN NEER NUMBER 085090

VAN CLEEF ENGINEERING ASSOCIATES, LLC 501 NORTH MAIN STREET, DOYLESTOWN, PA 18901 WEB: WWW.VANCLEEFENGINEERING.COM PHONE (215) 345-1876

ADA DETAILS

FLAGSHIP CARWASH

DB NUMBER



Traffic Engineering and Mobility Solutions

133 Rutgers Avenue Swarthmore, PA 19081

October 29, 2023

John Lombardo Sr. Development Manager – Entitlements and Permits Spotless Brands 950 Herndon Parkway, Suite 400 Herndon, VA 20170 via email only

RE: Traffic Impact Analysis - 545 West Butler Avenue (Flagship Car Wash)

Butler Avenue (SR 4202) and County Line Road (SR 2038)

New Britain Township, Bucks County

Mr. Lombardo:

EXECUTIVE SUMMARY

Spotless Brands proposes to redevelop the site of a vacant convenience store as a *Flagship Carwash*, with a single tunnel (100 feet) and sixteen vacuum positions. The site is within the northwest quadrant of the intersection of County Line Road (SR 2038) and Butler Avenue (SR 4202) in New Britain Township, Bucks County. The site currently has full movement vehicular access to both County Line Road and Butler Avenue. As part of the project the Butler Avenue driveway will be removed and exiting left turns will be prohibited at the County Line Road driveway. The location of the site is illustrated in **Figure 1**.

Car Wash

Figure 1 – Location

This document evaluates the traffic impacts of the proposed redevelopment relative to generally

accepted traffic engineering practice and §27-2501 of the New Britain Township Zoning Code. This evaluation relies in part on the Traffic Impact Analysis approved by PennDOT in April 2024 as part of previous application to redevelop the site as a *Dunkin'* and *Papa Johns* (EPS 336574) and the discussion at the September 24, 2024 Township Planning Commission meeting.

As discussed with the Township at the sketch plan meeting, the traffic associated with the proposed Car Wash will be significantly less than the previous convenience store use, and the access modifications will address previous issues with collisions. On-site circulation will be one-way counterclockwise, maximizing the available stacking.



The results of the Traffic Statement indicate that:

- o Compared to the previous use, the proposed redevelopment is anticipated to generate significantly less traffic.
- The on-site layout is anticipated to provide adequate space for queued vehicles without impacting the adjacent public roads.
- The site accesses and study intersection will operate at acceptable Overall Levels of Service (LOS) and that mitigation or improvements are not warranted.

EXISTING CONDITIONS

Property and Current Use

The subject property parcel is ± 0.65 -acres (gross) within the C1 Commercial District of New Britain Township, Bucks County. The site is currently developed with a vacant $\pm 3,300$ square foot convenience store. The site is accessed via two full movement driveways, one to County Line Road and one to Butler Avenue.

Based on the information provided in <u>Trip Generation Manual</u>, 11th Edition, published by the Institute of Transportation Engineers (ITE), it is estimated that the vacant convenience store use would generate 2,516 gross trips per day, including 206 during the morning peak hour and 162 during the evening peak hour.

Existing Transportation Infrastructure

County Line Road (SR 2038) is a two-way, State maintained Arterial roadway. For the purposes of this analysis County Line Road is assumed to run east-west. Adjacent to the site, County Line Road has a paved cartway of ± 65 feet providing for two lanes westbound (through and drop), three lanes eastbound (left, through and through/right), and shoulders. West of the site, County Line Road provides one lane in each direction. The posted speed limit for County Line Road is 45 miles per hour.

Butler Avenue (SR 4202) is a two-way, State maintained Arterial roadway. Adjacent to the site, Butler Avenue has a paved cartway of ± 50 feet providing for three lanes southbound (left, through and right) and one lane northbound. North of the site Butler Avenue provides one lane in each direction. The posted speed limit is 45 miles per hour.

The intersection of County Line Road and Butler Avenue is controlled by an actuated, coordinated traffic signal (Permit #64-0336, System #I-0121). Left turn lanes are provided on all approaches and the signal operates with protected-permitted left turn phasing on all approaches. Right turn lanes are provided on the northbound and southbound Butler Avenue approaches. Marked crossings, pedestrian indications, and pushbuttons are provided for all approaches.

There is no designated on-street parking within the vicinity of the site. The Link Belt Station (SEPTA Regional Rail - Lansdale/Doylestown) is ± 1.25 miles from the project site. The Route 132 Bus is ± 1.5 miles from the site at Doylestown Road and Cowpath Road. There are sidewalks along the site frontage, including upgraded curb ramps at the intersection of County Line Road and Butler Avenue.



Traffic Volumes

Existing Annual Average Daily Traffic (AADT) Volumes for the adjacent roadways are provided in **Table 1**.

Roadway	Existing AADT	Source
County Line Road	15,000	2023 AADT Traffic Volume Map, Bucks County
Butler Avenue	12,000	prepared by PennDOT

Table 1 - Existing Average Daily Traffic

As part of the previous application, morning and evening peak period traffic volume data for the intersection of County Line Road and Butler Avenue was collected on Tuesday, September 26, 2023. Supplemental Saturday peak period traffic volumes were collected on September 7, 2024. The peak hour vehicular turning movement volumes are illustrated in **Figure 2**.

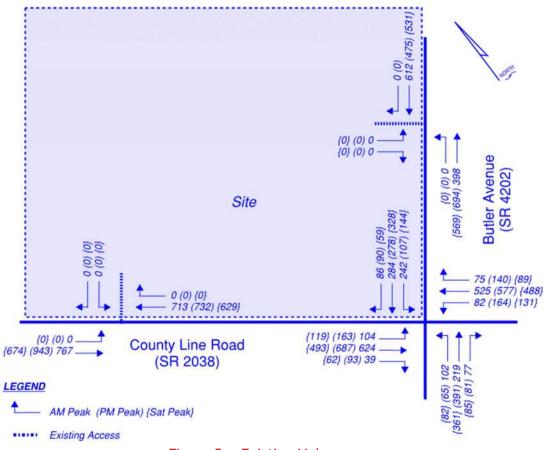


Figure 2 - Existing Volumes



Existing Level of Service

The existing morning peak hour operations of off-site study intersections were evaluated using the procedures outlined in the <u>Highway Capacity Manual 6th Edition</u> via *Trafficware Synchro version 11* software. The results of these analyses indicate that the intersection of County Line Road and Butler Avenue currently operates at an Overall (LOS) "D".

Sight Distance

The accesses were evaluated to determine compliance with PennDOT sight distance requirements. As previously noted, and presented in **Table 2**, there is adequate sight distance.

Access	Speed Limit	Movement	Desirable ⁽¹⁾	Measured	
County Line Road	45 mph	Exiting Right Turn	635′	>700′(2)	
		Entering Left Turn	470′	>400′(2)	
Butler Avenue	45 mph	Exiting Right Turn	635′	>700′(2)	

⁽¹⁾ PA 67, Chapter 441

Table 2 - Sight Distance

Collision History

The most current five years of publicly available, <u>state reportable</u> collision data was reviewed using the Pennsylvania Crash Information Tool (PCIT). The data indicated that from 2019 through 2023 there were nine reportable crashes along the Butler Avenue site frontage, seven along the County Line Road site frontage, and twenty-one at the signalized intersection.

PennDOT considers collision records confidential pursuant to 75 Pa. C.S. §3754 and 23 U.S.C. §409. Therefore, the referenced data is provided under separate cover.

FUTURE "PRE-DEVELOPMENT" TRAFFIC CONDITIONS Pre-Development Traffic Volumes

To assess the impact of the traffic generated by the proposed development an analysis of 2026 "pre-development" conditions without the proposed project was prepared. The applicant is unaware of other pending developments anticipated to impact the study intersections. Therefore, the evaluation of pre-development conditions relied on the application of the current 0.12% growth rate (PennDOT Bureau of Planning and Research – August 2024 to July 2025) to the counted traffic on the public roadways. **Figure 3** illustrates the pre-development traffic volumes for an assumed 2025 buildout.

Pre-Development Operations

The pre-development traffic volumes were evaluated using the same methodology as the existing conditions analysis. The results of these analyses indicate that under pre-development conditions the study intersection is projected to operate in a manner similar to existing conditions.

⁽²⁾ Through the signalized intersection

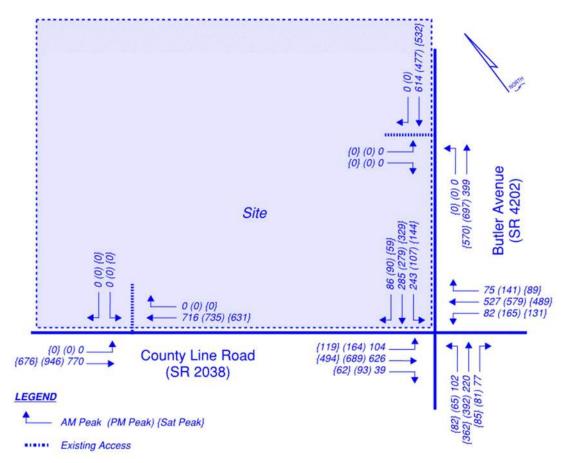


Figure 3 - 2026 Pre-development Volumes

PROPOSED CONDITIONS

Project Overview

It is proposed to redevelop the site of a vacant convenience store as a *Flagship Carwash*, with a single tunnel (100 feet) and sixteen vacuum positions. The site is within the northwest quadrant of the intersection of County Line Road (SR 2038) and Butler Avenue (SR 4202) in New Britain Township, Bucks County.

As illustrated in the plan prepared by Van Cleef Engineering Associates, LLC, the Butler Avenue driveway will be eliminated, and exiting left turns will be prohibited at the County Line Road driveway. Traffic will enter the site from County Line Road and circulate counterclockwise. The proposed layout will accommodate at least eighteen queued vehicles.



Traffic Generation

The traffic to be generated by the proposed Car Wash has been estimated using the information provided in <u>Trip Generation Manual</u>, 11th Edition, published by the Institute of Transportation Engineers (ITE). <u>Trip Generation</u> provides data and a methodology for estimating the traffic to be generated by a range of developments.

Traffic during the weekday evening and Saturday peaks was estimated based on the average rate for Land Uses 948 (Automated Car Wash) using the number of tunnels as the independent variable. <u>Trip Generation</u> does not provide information for the morning peak; therefore, the evening peak volumes were used to evaluate the morning peak conditions. No adjustments were made for potential pass-by traffic, transit usage, or pedestrian traffic. The results are presented in **Table 3**.

Haa	Morning			Evening			Saturday		
Use	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
Automated Car Wash (LU 948 – 1 tunnel)	39	39	78	39	39	78	19	22	41

Table 3 - Proposed Redevelopment Peak Hour Trip Generation

A comparison of the driveway traffic generation for the proposed redevelopment and previous convenience store use is presented in **Table 4**. The proposed redevelopment is anticipated to generate significantly less traffic than the previous use.

Hee	Morning			Evening			Evening		
Use	Enter	Enter	Enter	Enter	Exit	Total	Enter	Exit	Total
Convenience Store ¹	103	103	206	83	79	162	131	130	261
Redevelopment	39	39	78	39	39	78	19	22	41
Change	(64)	(64)	(128)	(44)	(40)	(84)	(112)	(108)	(220)

¹DLU 851, 3,300 sf

Table 4 - Driveway Trip Generation Comparison

Future Traffic Volumes

For analysis purposes it was assumed that the vehicular traffic associated with the proposed redevelopment will arrive and depart in a manner similar to existing traffic within the study area. The traffic volumes associated with background growth and the proposed redevelopment were added to the counted existing volumes to provide future traffic volumes. These traffic volumes are illustrated in **Figure 4**.

Post-Development Level of Service

Projected post-development traffic volumes were evaluated using the same methodology as the existing and pre-development conditions analyses. The results of these analyses indicate that under post-development conditions the redevelopment will have a de minimus impact on the intersection of County Line Road and Butler Avenue, and the site driveways are projected to operate at acceptable Overall LOS. The results of the capacity analyses are presented in **Table 5**.

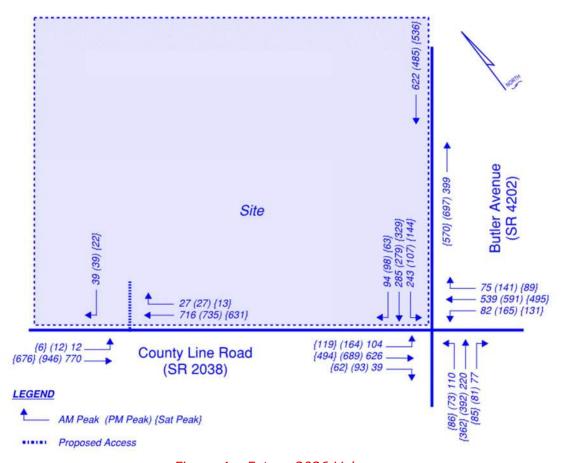


Figure 4 - Future 2026 Volumes

County Lin	e Road and Butler Avenue	Eastbound	Westbound	Northbound	Southbound	Overall
	Existing	C (24.9)	C (25.7)	E (55.0)	D (46.0)	D (35.3)
AM	No Build	C (25.0)	C (25.9)	E (55.1)	D (46.0)	D (35.3)
	Build	C (25.0)	C (26.1)	D (54.9)	D (45.9)	D (35.4)
PM	Existing	C (33.9)	C (33.6)	E (59.1)	D (37.7)	D (39.2)
	No Build	C (34.1)	C (33.8)	E (59.2)	D (37.7)	D (39.3)
	Build	C (34.1)	C (34.1)	E (58.8)	D (38.1)	D (39.5)
Saturday	Existing	C (28.7)	C (29.7)	E (58.3)	D (39.3)	D (37.7)
	No Build	C (28.7)	C (29.8)	E (58.4)	D (39.4)	D (37.8)
	Build	C (28.8)	C (29.9)	E (58.2)	D (39.6)	D (37.8)

Table 5 - Post-development (2025) Levels of Service



County Line	e Road and Site Access	Eastbound Left	Southbound Right	Overall
AM	Build	b (10.8)	b (11.1)	a (0.4)
PM	Build	b (11.0)	b (11.2)	a (0.3)
Saturday	Build	b (10.3)	b (10.4)	a (0.2)

Table 5 – Post-development (2025) Levels of Service (continued)

Car Wash Operations

Vehicles using the car wash will start at one of the dual pay stations located on the east side of the building before proceeding through the tunnel. The tunnel is proposed to be 100 feet long and is anticipated to be able to accommodate up to 100 washes an hour.

The potential queuing of drive-thru traffic was evaluated for the weekday evening and Saturday peaks utilizing the <u>Highway Capacity Manual</u> equation 19-68. The results indicate that the proposed space for eighteen vehicles is adequate to accommodate queued vehicles on-site.

SUMMARY AND CONCLUSION

Spotless Brands proposes to redevelop the site of a vacant convenience store as a *Flagship Carwash*, with a single tunnel (100 feet) and sixteen vacuum positions. The site currently has full movement vehicular access to both County Line Road and Butler Avenue. As part of the project the Butler Avenue driveway will be removed and exiting left turns will be prohibited at the County Line Road driveway.

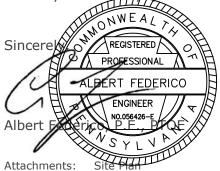
The car wash is proposed to include two pay stations and stacking is provided for over eighteen vehicles. On-site circulation will be one-way counterclockwise, maximizing the available stacking.

The results of the study indicate that:

- The proposed redevelopment is anticipated to generate less traffic than the previous convenience store use.
- The site layout can accommodate anticipated queues.
- The site driveways will operate at an acceptable LOS during the morning, evening, and Saturday peak periods.
- The traffic associated with the proposed redevelopment will not impact the adjacent signalized intersection and that mitigation is not warranted.



Please do not hesitate to contact me at 610.608.4336 or <u>albert@federico-consulting.com</u> should you have any guestions or require additional information.



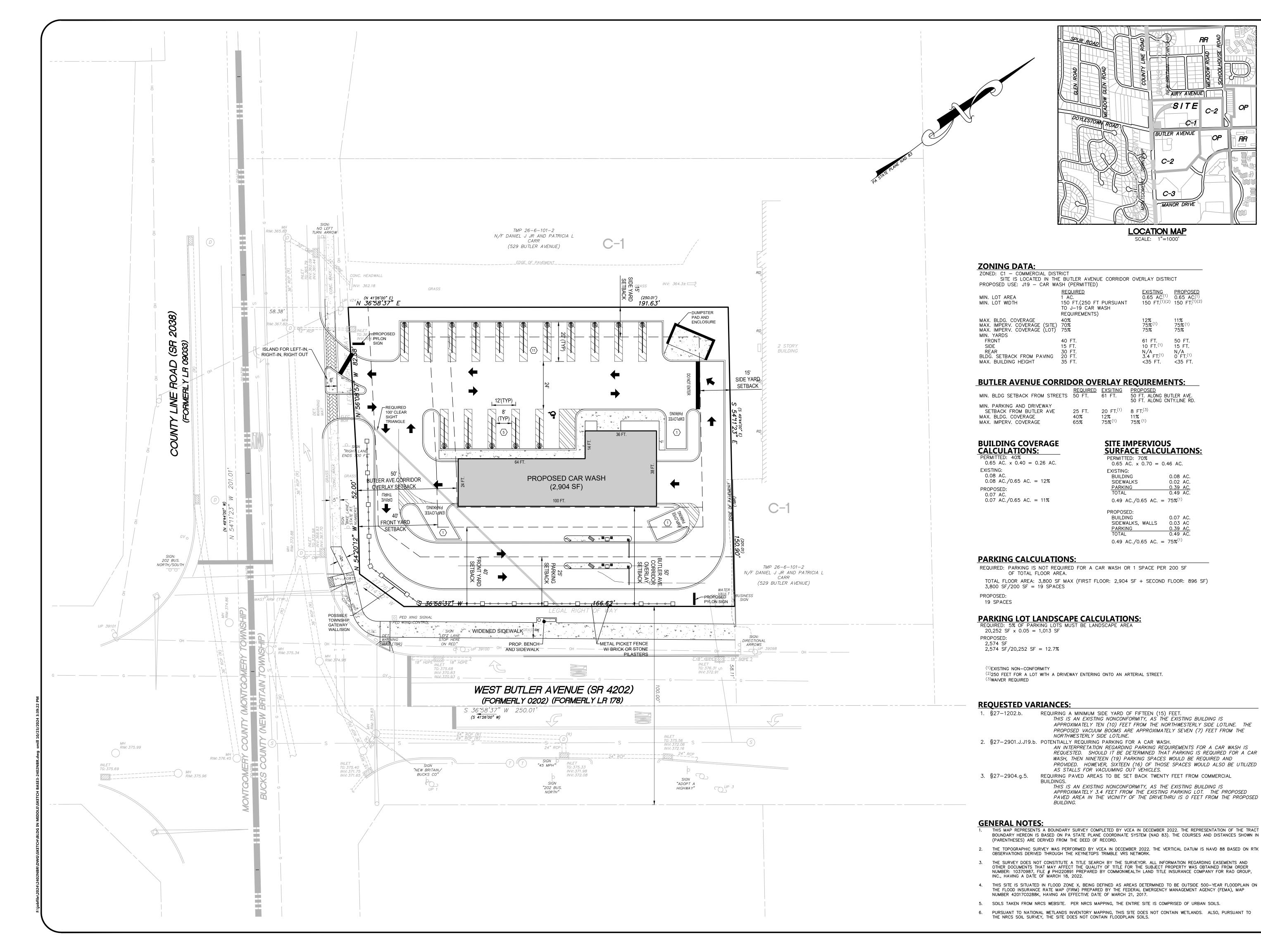
Review Correspondence

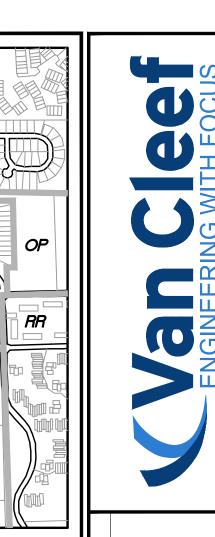
Traffic Counts

Volume Development Traffic Signal Permit Plan

Capacity Analysis

Drive-thru Queuing Evaluation





C-2

LOCATION MAP

12% 75%⁽¹⁾ 75%

11% 75% ⁽¹⁾ 75%

0.08 AC.

0.02 AC.

10 FT.⁽¹⁾ 15 FT.

N/A 3.4 FT.⁽¹⁾ N/A 0 FT.⁽¹⁾

<35 FT. <35 FT.

LIST OF REQUESTED VARIANCES ADDED. SDC 10/23, REV DESCRIPTION AUTH DATE **SERIAL NO. 20223183581**

Before You Dig Anywhere Know what's below. STOPI CALL 1-800-242-1776

Call before you dig. PA Law requires 3 working days notice PA ONE CALL SYSTEM, INC. **GRAPHIC SCALE** 0 10 20

1 INCH = 20 FT

PLAN NOTATION ONLY THOSE PLANS WHICH CONTAIN A DIGIT IMPRESSED, OR COLORIZED INK SEAL OF THE RESPONSIBLE PROFESSIONAL SHALL BE CONSIDERED TO THE PROFESSIONAL SHALL BE CONSIDERED TO THE PROFESSIONAL SHALL BE CONSIDERED TO THE PR VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPAR FOR THE OWNER DESIGNATED HEREON. AI MODIFICATION, REVISION, DUPLICATION OR US WITHOUT THE WRITTEN CONSENT OF VAN CLEE ENGINEERING ASSOCIATES IS PROHIBITEI RELIANCE ON THIS PLAN FOR ANY PURPOS OTHER THAN THAT WHICH IS INTENDED SHALL E AT THE SOLE DISCRETION AND LIABILITY OF APPLICABLE PARTY.

VAN CLEEF ENGINEERING ASSOCIATES, LLC

501 NORTH MAIN STREET, DOYLESTOWN, PA 18901 WEB: WWW.VANCLEEFENGINEERING.COM PHONE (215) 345-1876

SKETCH PLAN

SPOTLESS BRANDS

FOR

OCTOBER 22, 2024 CHECKED BY: **OB NUMBER**

TMP: 26-006-101-001

NEW BRITAIN TOWNSHIP BUCKS COUNTY, PENNSYLVANIA

02 of 03



TRANSPORTATION IMPACT STUDY (TIS) DETERMINATION & SCOPING MEETING APPLICATION

Scoping Meeting Application:	<u>Received</u>
Scoping Meeting Date:	Scoping Number: S0620220107
Tax Parcel Number:	
Project/Development Name: 545 West Butler Avenue R	edevelopment - Dunkin/Papa John's
Applicant Information:	
Business Partner ID:	
Applicant Name: RAO Group Inc	
Phone: 2154903936	Email 1: mike@raogroupinc.com
Primary Contact: Mike Bahm	Email 2: dms@shafkowitzlaw.com
Additional Engineering Firm Information:	
Business Partner ID:	
Engineering Firm:	
Phone:	Email 1:
Primary Contact:	Email 2:
Creator Information:	
Business Partner ID: <u>013601</u> Firm Name:	Albert Federico Consulting, LLC.
Phone: 610-608-4336	Email 1: albert@federico-consulting.com
(1) LOCATION OF PROPOSED DEVELOPMENT:	
PennDOT Engineering District: 06	Email:
County: Bucks	Email:
Municipality: NEW BRITAIN	Email: mwalsh@newbritaintownship.org

NO.	SR	Segment	Offset	Average Daily Trips	Driveway Classification	Local Road
1	2038	0051	0171	425	Low Volume	No
2	4202	0010	0215	425	Low Volume	No

Are there any vehicle weight or size restrictions along the SR in accordance with 75 PA C.S. ss 4902? : No

(2) DESCRIPTION OF PROPOSED DEVELOPMENT (Attach site plan if available):

Proposed site access:

SR 2038 (County Line Road) - Unsignalized SR 4202 (Butler Avenue) - Unsignalized

Proposed land uses:

Previous - Convenience Store Proposed - Dunkin/Papa John's

Community linkages (access to neighboring properties, cross easements, pedestrian and transit accommodations):

Sidewalk along site frontages

(3) DEVELOPMENT SCHEDULE AND STAGING:

Anticipated Opening Date: 04-01-2024

Full Buildout Date: 04-01-2024

Describe Proposed Development Schedule/Staging:

Single phase redevelopment

(4) TRIP GENERATION:

Land Use & Size	Land Use Code	Were ITE results	Daily Trips	AM P Hot		PM P		Saturday	/ Peak Hour
	Code	used?	Hilps	Enter	Exit	Enter	Exit	Enter	Exit
Dunkin/Papa Johns	938/935	Yes	849	18	18	30	30		
		TOTAL:	849	18	18	30	30	0	0

(5) TRANSPORTATION IMPACT STUDY REQUIRED?

Transportation Impact Study Required? No

If Yes, based on:

Other considerations as described below:

(6) TRANSPORTATION IMPACT ASSESSMENT REQUIRED?

Transportation Impact Assessment Required? Yes

(7) STUDY AREA:

Roadway and Study Intersections:

SR 2038 (County Line Road) and Unsignalized driveway SR 4202 (Butler Avenue) and Unsignalized driveway SR 2038 (County Line Road) and SR 4202 (Butler Avenue)

Land use context (Refer to PennDOT Design Manual, Part 1X, Appendix B):

Suburban corrdidor

Known Congestion Areas:

SR 2038 (County Line Road) and SR 4202 (Butler Avenue)

Known Safety Concerns:

TBD

Known Environmental Constraints:

TRD

Pedestrian/Bike Review (Community Centers, Parks, Schools, etc.):

Sidewalk along site frontages

Transit Review (Current routes/stops):

SEPTA Regional Rail (Lansdale/Doylestown, Link Belt Station) +/- 1.25 mi SEPTA Bus Route 132 +/- 1.5 mi at Doylestown Road and Cowpath Road

(8) STUDY AREA TYPE:

Study Area Type: Urban

(9) TIS ANALYSIS PERIODS AND TIMES:

Analysis period and times notes:

Opening year (2024) Weekday Morning and Evening peak periods

(10) TRAFFIC ADJUSTMENT FACTORS:

(a) Seasonal Adjustment (Identify counts requiring adjustment and methodology):

None

Bureau of Planning & Research -

(b) Annual Base Traffic Growth: 0.29 %/yr. Source: Aug '21 to Jul '22

(c) Pass-By Trips (Attach justification where required):

NO.	Land Use	%	Source

(d) Captured Trips for Multi-Use Sites:

None

(e) Modal Split Reductions:

None

(f) Other Reductions:

None

(11) OTHER PROJECTS WITHIN STUDY AREA TO BE ADDED TO BASE TRAFFIC:

Notes:

TBD

(12) TRIP DISTRIBUTION AND ASSIGNMENT:

Trip Distribution Notes:

Analogy method based on intersection counts

(13) APPROVAL OF DATA COLLECTION ELEMENTS AND METHODOLOGIES:

NO.	Location	Period	Туре
1	County Line Road and Butler Avenue	Weekday AM and PM Peaks	TMC

(14) CAPACITY/LOS ANALYSIS:

NO.	Location	Period	Туре
1	County Line Road and Butler Avenue	Weekday AM and PM peaks	HCM 6 from Synchro
2	County Line Road and Unsignalized Driveway	Weekday AM and PM peaks	HCM 6 from Synchro

(15) ROADWAY IMPROVEMENTS/MODIFICATIONS BY OTHERS TO BE INCLUDED:

Roadway Improvements:

TBD

(16) OTHER NEEDED ANALYSES:

(a) Sight Distance Analysis:

Sight accesses

(b) Signal Warrant Analysis (Identify locations):

Nο

(c) Required Signal Phasing/Timing Modifications (Determine for all signalized intersections; specify methodology):

If warranted

(d) Traffic Signal Corridor/Network Analysis (Identify locations/methodology):

No

(e) Analysis of the Need for Turning Lanes (Identify locations/methodology):

Nο

(f) Turning Lane Lengths (Identify methodology to be used):

Nο

(g) Left Turn Signal Phasing Analysis (Identify locations/methodology):

No

(h) Queuing Analysis (Identify locations/methodology):

If warranted

(i) Gap Studies (Identify locations/methodology):

No

(j) Crash Analysis (Identify locations):

Site Accesses

(k) Weaving Analysis (Identify locations):

No

(I) Other Required Studies (Specify locations/methodology):

None

(17) ADDITIONAL COMMENTS OR RECOMMENDATIONS RELATIVE TO THE SCOPE OF THE TIS:

Additional Comments:

The proposed Dunkin/Papa John's will generate less traffic than the previous convenience store use. Previous - Convenience Store (LU 851) - AM 206, PM 162 Proposed - Dunkin Donuts (LU 938)/Papa John's (LU 935) - AM 40, PM 75

PennDOT Review Comments: (Current Cycle Comments)

After review of the scoping meeting application, the Department will contact the applicant regarding the need for a scoping meeting prior to applying for a highway occupancy permit.

This Electronic Copy Created on: 2022-11-15 16:11:05

Albert Federico

From: ePermitting Help <penndotepermittinghelp@pa.gov>

Sent: Wednesday, December 14, 2022 10:25 AM

To: mike@raogroupinc.com; dms@shafkowitzlaw.com; Albert Federico; fhanney@pa.gov;

jotten@pa.gov; slapenta@pa.gov; c-smccutch@pa.gov; scburton@pa.gov;

ajparker@mccormicktaylor.com; mwalsh@newbritaintownship.org

Cc: RA-PDEPSPROD@pa.gov

Subject: :: Scoping Meeting Application - Returned - Application Number is : S0620220107

(Sent on: 12/14/2022 10:24:52 AM)

PennDOT has completed its review of the TIS Determination and Scoping Meeting Application.

Please address the following comments below, and resubmit the application to PennDOT for review.

PennDOT Review Comments:

- 1. This is a preliminary review. The Department reserves the right to make additional comments when the application includes detailed plans and a Transportation Impact Assessment (TIA). If you have any questions about the technical aspects of this review, please contact the Department's representative, Erik Schmidt, PE, PTOE at ECSchmidt@mccormicktaylor.com.
- 2. The Department agrees that a TIA is appropriate for this development.
- 3. Due to the vastly increased popularity of drive-thru restaurants and the safety considerations of vehicle queues extending beyond the available site storage, the Department requires an analysis and queue storage tabulation for the peak drive-thru to ensure this queue can be stored entirely on-site and does not impact the roadway or function of the site accesses. Drive-thru analysis must be based on the peak hour of the generator. The Department is concerned that the site only provides queuing space for about four vehicles at the menu boards before the site circulation and, subsequently, operations at the SR 4202 (Butler Avenue) driveway are impacted.
- 4. The sketch site plan shows ?possible striping for right-in, right-out? only restrictions on both driveways. Any prohibited movements must be physically restricted with raised channelizing islands. The formal TIA must clearly establish the movements that will be permitted or restricted. However, please note that PennDOT will not approve lefts-in from SR 4202 (Butler Avenue). Additionally, lefts-out to SR 2038 (County Line Road) are a known operational issue during peak hours. Any lefts-in or lefts-out to/from this site must be justified with gap studies in addition to the capacity analyses. The analyses must also consider the impacts that queues from the traffic signal will have on the operation of the proposed driveways.
- 5. Accesses with movement and/or turning restrictions must be geometrically designed to physically restrict the prohibited movements to the maximum extent feasible. Provide appropriate signage and pavement markings to supplement access geometry that physically restricts prohibited movements. Should the provided turn restrictions be found ineffective, the permittee shall be responsible for installing a raised mountable median island or continuous delineator curb to further physically enforce the turn restrictions. If this median must be installed, it will become the Permittee's responsibility to maintain it in perpetuity. This will become a condition of the permit.
- 6. The Department is concerned that the design does not include a drive-thru bypass lane and that the employee parking stalls back out directly into a drive-thru lane with no additional buffer/maneuvering space. Clarify how employees would exit the site if there were a queue at the drive-thru. Since these are primarily internal site concerns, we will defer final approval of these elements to the municipality.
- 7. Collect Saturday turning movement counts and provide Saturday peak intersection and drive-thru analyses. Turning movement counts should overlap with the typical Dunkin weekend peak hours. Coordinate with the developer as needed to determine the expected Dunkin weekend peak hours.
- 8. In addition to the opening year analysis, provide an analysis of existing conditions at SR 2038 (County Line Road) & SR 4202 (Butler Avenue) for comparison.
- 9. It appears that the trip generation for Papa John?s was estimated with LU 935 (fast-food restaurant with drive-thru window and no indoor seating). Please confirm that the drive-thru window is only intended for the Dunkin. The Department acknowledges that ITE currently lacks a more appropriate land use code for Papa John?s. Considering the scale and context of this application, the Department will accept the use of LU 935 for Papa John?s for this site only.
- 10. The trip generation values shown on the transmittal letter appear to be inconsistent with the values entered in EPS. In the formal TIA, please ensure that the trip generation methodology is consistent and clearly explained. Clarify if each

result is based on the ITE average rate or fitted curve. Please note, for future scoping submissions in EPS, each land use should be listed individually in the trip generation table, rather than combined in a single row.

- 11. The scoping application does not show any pass-by trips. In the TIA, please clarify pass-by trip assumptions as needed.
- 12. For background traffic growth, use the BPR growth factors that are in effect at the time of the traffic counts. The factors listed in the application are outdated.
- 13. Confirm with the municipality if any other nearby developments should be accounted for in the opening year scenarios.
- 14. Ensure that an accessible pedestrian path is provided between the frontage sidewalk and the proposed building. ADA compliance within the limits of work must be evaluated in the final design.
- 15. Verify the segment/offset of the existing driveway on SR 2038 (County Line Road).
- 16. Truck turning templates must be provided for the largest vehicle anticipated to access the site (all movements) to ensure that the driveways can safely accommodate the design vehicle. Additionally, the templates must show how these vehicles will circulate within the site. For each site access, if the largest permitted vehicle type to utilize that access is smaller than a WB-67, then a note must be included on the plans, turning templates for that vehicle size provided, appropriate signage provided, and that vehicle size will become a condition of the permit and be recorded. 17. The Department requires written evidence, prior to the issuance of a permit, that New Britain Township has had the opportunity to comment. Provide written evidence (e.g., municipal engineering review, council or planning commission meeting minutes, executed TE-160, etc.), which is less than one year old, to satisfy this requirement. Also, provide County Planning Commission Review Letters if available. PennDOT will consider any comments or recommendations from the municipal and county reviews prior to approving the access permit. In addition, please provide the email address(es) for the appropriate individual(s) at the municipality (i.e., Township Manager, Borough Manager, Mayor, etc.) and at the County Planning Commission on the Application Information screen so that a copy of the Department's review letter can be forwarded. (PA Code, Title 67, Chapter 441.3(j)).
- 18. As per Title 67, Chapter 441.8(h)(2)(iv), the Safe Stopping Sight Distance is the absolute minimum acceptable sight distance for driveways. It is the designer?s responsibility to ensure that this minimum requirement is satisfied.
- 19. The connection to, or the installation of, a new closed drainage system within the Department Right-of-Way requires a separate permit application in the name of the municipality for the maintenance of this system. Please submit the application as Permit Type: Miscellaneous, Permit Subtype: Curb, sidewalk, drainage or other application, Permit Use: Drainage for maintenance of the drainage system.
- 20. The Department is now requiring a cost estimate be entered into EPS prior to HOP issuance. This cost estimate must include all work proposed within Department Right-of-Way including signal equipment, roadway work, pavement markings, and signage plus a 15% contingency to be entered into the Fee information & Estimate Construction Cost section in the Application setup box. Further, this section requires the cost estimate to be broken down into site frontage costs and off-site improvements costs. Please enter this information in the manner required. This cost estimate will be the basis for the value of the Letter of Credit the Department will require as security prior to the start of actual construction.
- 21. Department records indicate that PennDOT Fiber Optic facilities are present within the proposed limits of work and may be impacted by the anticipated improvements. If fiber optic facilities are affected, the applicant is responsible for the relocation of the fiber, testing of the fiber communications both prior to relocation and after the relocation of the fiber indicated on the approved plans, and the associated costs. Any relocation must be performed by a communications contractor that is acceptable to the District Traffic Unit, and the Highway Occupancy Permit will not be issued until the fiber optic impact has been reviewed and the relocation scheme approved by the Department.
- 22. Consistent with current Department Policy, applicants for Highway Occupancy Permits must apply for an EPS Business Partner ID (BPID). The EPS BPID is used in the establishment of a billing account for the invoicing of inspection costs. After an EPS BPID is obtained and activated by the applicant's system administrator, a user ID will then need to be created to ensure that the EPS BPID is integrated into EPS and searchable through the "looking glass" feature. Once this has been established, please provide the following information in the applicant contact information tab under "Applicant Team": a. BPID b. Contact information (name/title/phone/email) for a general contact person (person that typically deals with the Highway Occupancy Permit application process) c. Contact information (name/title/phone/email) for a billing contact person (person that typically deals with the Highway Occupancy Permit invoicing process) For information on obtaining an EPS BPID, you may visit:

https://www.epermittingsyst.penndot.gov/EPS/home/manageBPRegistration.jsp (follow the instructions that are in the PINK area) or contact the ECMS Help Desk. Please be aware that having an ECMS BPID does not guarantee the establishment of an EPS BPID as they are not reciprocal to one another.

Click here to access the Scoping Application



Traffic Engineering and Mobility Solutions

MEMORANDUM October 5, 2023

To: File

From: Albert Federico, P.E., PTOE

Subject: Interim Response to PennDOT Scoping Comments (S0620220107)

545 West Butler Avenue - Dunkin' and Papa John's

New Britain Township, Bucks County

On December 14, 2022, the PennDOT issued a Scoping review (EPS S0620220107) for the Dunkin' and Papa John's (545 West Butler Avenue) redevelopment. The comments and interim responses are below:

1. This is a preliminary review. The Department reserves the right to make additional comments when the application includes detailed plans and a Transportation Impact Assessment (TIA). If you have any questions about the technical aspects of this review, please contact the Department's representative, Erik Schmidt, PE, PTOE at ECSchmidt@mccormicktaylor.com.

Response: Noted.

The Department agrees that a TIA is appropriate for this development.

Response: Noted.

3. Due to the vastly increased popularity of drive-thru restaurants and the safety considerations of vehicle queues extending beyond the available site storage, the Department requires an analysis and queue storage tabulation for the peak drive-thru to ensure this queue can be stored entirely on-site and does not impact the roadway or function of the site accesses. Drive-thru analysis must be based on the peak hour of the generator. The Department is concerned that the site only provides queuing space for about four vehicles at the menu boards before the site circulation and, subsequently, operations at the SR 4202 (Butler Avenue) driveway are impacted.

Response: A queuing analysis is included in the Traffic Analysis. It is noted that site provides queuing for ten vehicles and that the Butler Avenue driveway is proposed to be right turn exit only, eliminating the potential impacts.

4. The sketch site plan shows possible striping for right-in, right-out only restrictions on both driveways. Any prohibited movements must be physically restricted with raised channelizing islands. The formal TIA must clearly establish the movements that will be permitted or restricted. However, please note that PennDOT will not approve lefts in from SR 4202 (Butler Avenue). Additionally, lefts-out to SR 2038 (County Line Road) are a known operational issue during peak hours. Any lefts-in or lefts-out to/from this site must be justified with gap studies in addition to the capacity analyses. The analyses must also consider the impacts that queues from the traffic signal will have on the operation of the proposed driveways.

Response: The Butler Avenue driveway will be modified to only allow exiting right turns, and exiting left turns will be prohibited at the County Line Road driveway.



5. Accesses with movement and/or turning restrictions must be geometrically designed to physically restrict the prohibited movements to the maximum extent feasible. Provide appropriate signage and pavement markings to supplement access geometry that physically restricts prohibited movements. Should the provided turn restrictions be found ineffective, the permittee shall be responsible for installing a raised mountable median island or continuous delineator curb to further physically enforce the turn restrictions. If this median must be installed, it will become the Permittee's responsibility to maintain it in perpetuity. This will become a condition of the permit.

Response: Prohibited movements are proposed to be physically restricted.

6. The Department is concerned that the design does not include a drive-thru bypass lane and that the employee parking stalls back out directly into a drive-thru lane with no additional buffer/maneuvering space. Clarify how employees would exit the site if there were a queue at the drive-thru. Since these are primarily internal site concerns, we will defer final approval of these elements to the municipality.

Response: The current plan includes a by-pass lane.

7. Collect Saturday turning movement counts and provide Saturday peak intersection and drive-thru analyses. Turning movement counts should overlap with the typical Dunkin weekend peak hours. Coordinate with the developer as needed to determine the expected Dunkin weekend peak hours.

Response: ITE does not provide Saturday Rates for LU 938. Based on the available rates for LU 935 the gross trip generation of the proposed redevelopment (131) is anticipated to be half of the previous convenience store use (261). In consideration of the reduction, the de minimus impact during the weekday peaks and the proposed modifications to the site access an evaluation of Saturday conditions is considered unwarranted.

8. In addition to the opening year analysis, provide an analysis of existing conditions at SR 2038 (County Line Road) & SR 4202 (Butler Avenue) for comparison.

Response: The Traffic Analysis includes an assessment of existing conditions.

9. It appears that the trip generation for Papa John's was estimated with LU 935 (fast-food restaurant with drive-thru window and no indoor seating). Please confirm that the drive-thru window is only intended for the Dunkin. The Department acknowledges that ITE currently lacks a more appropriate land use code for Papa John's. Considering the scale and context of this application, the Department will accept the use of LU 935 for Papa John's for this site only.

Response: Both Dunkin' and Papa John's will operate as drive-thruonly with no seating.

10. The trip generation values shown on the transmittal letter appear to be inconsistent with the values entered in EPS. In the formal TIA, please ensure that the trip generation methodology is consistent and clearly explained. Clarify if each result is based on the ITE average rate or fitted curve. Please note, for future scoping submissions in EPS, each land use should be listed individually in the trip generation table, rather than combined in a single row.

Response: Per the Scoping Application, the morning trip generation assumed the Dunkin' (LU 938) as the primary use and the evening assumes the Papa John's (LU 935) as the primary.



11. The scoping application does not show any pass-by trips. In the TIA, please clarify pass-by trip assumptions as needed.

Response: Pass-by was applied based on ITE LU 938 (90% morning) and LU 935 (31% evening).

12. For background traffic growth, use the BPR growth factors that are in effect at the time of the traffic counts. The factors listed in the application are outdated.

Response: The Bureau of Planning and Research – September 2023 to July 2024 growth rate was used in the traffic analysis.

13. Confirm with the municipality if any other nearby developments should be accounted for in the opening year scenarios.

Response: The Municipality has not specified any other developments to include in the analysis.

14. Ensure that an accessible pedestrian path is provided between the frontage sidewalk and the proposed building. ADA compliance within the limits of work must be evaluated in the final design.

Response: An accessible route is provided to Butler Avenue.

15. Verify the segment/offset of the existing driveway on SR 2038 (County Line Road).

Response: The SR 2038 access is proposed to be located at Segment 0042, Offset 0420.

16. Truck turning templates must be provided for the largest vehicle anticipated to access the site (all movements) to ensure that the driveways can safely accommodate the design vehicle. Additionally, the templates must show how these vehicles will circulate within the site. For each site access, if the largest permitted vehicle type to utilize that access is smaller than a WB-67, then a note must be included on the plans, turning templates for that vehicle size provided, appropriate signage provided, and that vehicle size will become a condition of the permit and be recorded.

Response: Turning Templates will be provided with the formal design submission.

17. The Department requires written evidence, prior to the issuance of a permit, that New Britain Township has had the opportunity to comment. Provide written evidence (e.g., municipal engineering review, council or planning commission meeting minutes, executed TE-160, etc.), which is less than one year old, to satisfy this requirement. Also, provide County Planning Commission Review Letters if available. PennDOT will consider any comments or recommendations from the municipal and county reviews prior to approving the access permit. In addition, please provide the email address(es) for the appropriate individual(s) at the municipality (i.e., Township Manager, Borough Manager, Mayor, etc.) and at the County Planning Commission on the Application Information screen so that a copy of the Department's review letter can be forwarded. (PA Code, Title 67, Chapter 441.3(j)).

Response: Municipal documentation will be provided with the formal design submission.

18. As per Title 67, Chapter 441.8(h)(2)(iv), the Safe Stopping Sight Distance is the absolute minimum acceptable sight distance for driveways. It is the designer's responsibility to ensure that this minimum requirement is satisfied.

Response: There is adequate sight distance for the proposed driveway movements.

19. The connection to, or the installation of, a new closed drainage system within the Department Right-of-Way requires a separate permit application in the name of the



municipality for the maintenance of this system. Please submit the application as Permit Type: Miscellaneous, Permit Subtype: Curb, sidewalk, drainage or other application, Permit Use: Drainage for maintenance of the drainage system.

Response: Noted.

20. The Department is now requiring a cost estimate be entered into EPS prior to HOP issuance. This cost estimate must include all work proposed within Department Right-of-Way including signal equipment, roadway work, pavement markings, and signage plus a 15% contingency to be entered into the Fee information & Estimate Construction Cost section in the Application setup box. Further, this section requires the cost estimate to be broken down into site frontage costs and off-site improvements costs. Please enter this information in the manner required. This cost estimate will be the basis for the value of the Letter of Credit the Department will require as security prior to the start of actual construction.

Response: A cost estimate will be provided with the formal design submission.

21. Department records indicate that PennDOT Fiber Optic facilities are present within the proposed limits of work and may be impacted by the anticipated improvements. If fiber optic facilities are affected, the applicant is responsible for the relocation of the fiber, testing of the fiber communications both prior to relocation and after the relocation of the fiber indicated on the approved plans, and the associated costs. Any relocation must be performed by a communications contractor that is acceptable to the District Traffic Unit, and the Highway Occupancy Permit will not be issued until the fiber optic impact has been reviewed and the relocation scheme approved by the Department.

Response: Noted.

22. Consistent with current Department Policy, applicants for Highway Occupancy Permits must apply for an EPS Business Partner ID (BPID). The EPS BPID is used in the establishment of a billing account for the invoicing of inspection costs. After an EPS BPID is obtained and activated by the applicant's system administrator, a user ID will then need to be created to ensure that the EPS BPID is integrated into EPS and searchable through the "looking glass" feature. Once this has been established, please provide the following information in the applicant contact information tab under "Applicant Team": a. BPID b. Contact information (name/title/phone/email) for a general contact person (person that typically deals with the Highway Occupancy Permit application process) c. Contact information (name/title/phone/email) for a billing contact person (person that typically deals with the Highway Occupancy Permit invoicing process) For information on obtaining an EPS BPID, you may visit: https://www.epermittingsyst.penndot.gov/EPS/home/manageBPRegistration.jsp (follow the instructions that are in the PINK area) or contact the ECMS Help Desk. Please be aware that having an ECMS BPID does not guarantee the establishment of an EPS BPID as they are not reciprocal to one another.

Response: Noted.



Traffic Engineering and Mobility Solutions

133 Rutgers Avenue Swarthmore, PA 19081

March 7, 2024

Pennsylvania Department of Transportation Engineering District 6-0 7000 Geerdes Boulevard King of Prussia, PA 19406-1525

ATTN: John Gallagher, P.E.

RE: Dunkin' Redevelopment (545 W. Butler Avenue) - TIA Submission EPS 336574 (Scoping S0620220107)
New Britain Township, Bucks County

Dear Mr. Gallagher:

Albert Federico Consulting is submitting a Transportation Impact Analysis (TIA) on behalf of the *RAO Group* to develop a Dunkin' with Drive-thru in New Britain Township, Bucks County.

The property (545 W. Butler Avenue) is developed with a recently closed convenience store (~3,300 sf) with full movement driveways to both Butler Avenue (SR 4202) and County Line Road (SR 2038). It is proposed to replace the existing building with a Dunkin' with Drivethru and modify the accesses to restrict the Butler Avenue driveway to right-out only, and to prohibit exiting left turns from the County Line Road driveway.

Scoping materials (S0620220107) were submitted to PennDOT and New Britain Township in November 2022. At the time of submission, the redevelopment included a Dunkin' and Papa John's. Review comments were issued by PennDOT December 14, 2022. As part of the municipal entitlement process the TIA was completed and submitted to the Township in October 2023. However, due to further discussions between the Applicant and the Township the study has not yet been reviewed by the municipal engineer. The project has been refined based on Township feedback to remove the Papa John's and proceed as a Dunkin' only.

As coordinated with Department and Consultant review staff, the Department has consented to review the October 2023 TIA which assumes both uses, understanding that the TIA overestimates the anticipated site traffic and that the proposed redevelopment will generate substantially less traffic than the previous convenience store use.

The materials submitted via EPS as Application <u>336574</u> include the following attachments:

- Submission Transmittal Letter, dated March 7, 2024
- Traffic Impact Analysis 545 West Butler Avenue (Dunkin' and Papa John's), prepared by Albert Federico Consulting, LLC., dated October 5, 2023
- Synchro file for "RAO New Britain", prepared by Albert Federico Consulting, LLC., dated October 5, 2023
- Zoning Hearing Exhibit Plan of Dunkin Donuts for RAO Group, prepared by Van Cleef Engineering Associates, LLC, dated October 10, 2023, last revised January 30, 2024
- New Britain Township Zoning Decision, issued March 6, 2024



- Supplemental coordination email, March 4, 2023
- o PennDOT Form M-950AA

The following responses are offered to the Department December 2022 Scoping comments:

1. This is a preliminary review. The Department reserves the right to make additional comments when the application includes detailed plans and a Transportation Impact Assessment (TIA). If you have any questions about the technical aspects of this review, please contact the Department's representative, Erik Schmidt, PE, PTOE at ECSchmidt@mccormicktaylor.com.

Noted.

2. The Department agrees that a TIA is appropriate for this development.

Noted.

3. Due to the vastly increased popularity of drive-thru restaurants and the safety considerations of vehicle queues extending beyond the available site storage, the Department requires an analysis and queue storage tabulation for the peak drive-thru to ensure this queue can be stored entirely on-site and does not impact the roadway or function of the site accesses. Drive-thru analysis must be based on the peak hour of the generator. The Department is concerned that the site only provides queuing space for about four vehicles at the menu boards before the site circulation and, subsequently, operations at the SR 4202 (Butler Avenue) driveway are impacted.

A queuing analysis is included in the Traffic Analysis. It is noted that site provides queuing for ten vehicles and that the Butler Avenue driveway is proposed to be right turn exit only, eliminating the potential impacts.

4. The sketch site plan shows possible striping for right-in, right-out only restrictions on both driveways. Any prohibited movements must be physically restricted with raised channelizing islands. The formal TIA must clearly establish the movements that will be permitted or restricted. However, please note that PennDOT will not approve lefts in from SR 4202 (Butler Avenue). Additionally, lefts-out to SR 2038 (County Line Road) are a known operational issue during peak hours. Any lefts-in or lefts-out to/from this site must be justified with gap studies in addition to the capacity analyses. The analyses must also consider the impacts that queues from the traffic signal will have on the operation of the proposed driveways.

The Butler Avenue driveway will be modified to only allow exiting right turns, and exiting left turns will be prohibited at the County Line Road driveway.

5. Accesses with movement and/or turning restrictions must be geometrically designed to physically restrict the prohibited movements to the maximum extent feasible. Provide appropriate signage and pavement markings to supplement access geometry that physically restricts prohibited movements. Should the provided turn restrictions be found ineffective, the permittee shall be responsible for installing a raised mountable median island or continuous delineator curb to further physically enforce the turn restrictions. If this median must be installed, it will become the Permittee's responsibility to maintain it in perpetuity. This will become a condition of the permit.

Prohibited movements are proposed to be physically restricted.

6. The Department is concerned that the design does not include a drive-thru bypass lane and that the employee parking stalls back out directly into a drive-thru lane with no additional buffer/maneuvering space. Clarify how employees would exit the site if there were a queue at the drive-thru. Since these are primarily internal site concerns, we will defer final approval of these elements to the municipality.

The current plan includes a by-pass lane.



7. Collect Saturday turning movement counts and provide Saturday peak intersection and drive-thru analyses. Turning movement counts should overlap with the typical Dunkin weekend peak hours. Coordinate with the developer as needed to determine the expected Dunkin weekend peak hours.

ITE does not provide Saturday Rates for LU 938. Based on the available rates for LU 935 the gross trip generation of the proposed redevelopment (131) is anticipated to be half of the previous convenience store use (261). In consideration of the reduction, the de minimus impact during the weekday peaks and the proposed modifications to the site access, an evaluation of Saturday conditions is considered unwarranted.

8. In addition to the opening year analysis, provide an analysis of existing conditions at SR 2038 (County Line Road) & SR 4202 (Butler Avenue) for comparison.

The Traffic Analysis includes an assessment of existing conditions.

9. It appears that the trip generation for Papa John's was estimated with LU 935 (fast-food restaurant with drive-thru window and no indoor seating). Please confirm that the drive-thru window is only intended for the Dunkin. The Department acknowledges that ITE currently lacks a more appropriate land use code for Papa John's. Considering the scale and context of this application, the Department will accept the use of LU 935 for Papa John's for this site only.

As previously noted, the project will proceed as a Dunkin' only. The Dunkin' will operate as drive-thru only with no seating.

10. The trip generation values shown on the transmittal letter appear to be inconsistent with the values entered in EPS. In the formal TIA, please ensure that the trip generation methodology is consistent and clearly explained. Clarify if each result is based on the ITE average rate or fitted curve. Please note, for future scoping submissions in EPS, each land use should be listed individually in the trip generation table, rather than combined in a single row.

Per the Scoping Application, the morning trip generation assumed the Dunkin' (LU 938) as the primary use and the evening assumes the Papa John's (LU 935) as the primary. The results for both uses are based on the ITE average rate. As previously noted, the project will proceed as a Dunkin' only, which will generate fewer evening trips (15) than the Papa John's (60) assumed in the TIA.

11. The scoping application does not show any pass-by trips. In the TIA, please clarify pass-by trip assumptions as needed.

Pass-by was applied based on ITE LU 938 (90% morning) and LU 935 (31% evening).

12. For background traffic growth, use the BPR growth factors that are in effect at the time of the traffic counts. The factors listed in the application are outdated.

The Bureau of Planning and Research – September 2023 to July 2024 growth rate was used in the traffic analysis.

13. Confirm with the municipality if any other nearby developments should be accounted for in the opening year scenarios.

The Municipality has not specified any other developments to include in the analysis.



14. Ensure that an accessible pedestrian path is provided between the frontage sidewalk and the proposed building. ADA compliance within the limits of work must be evaluated in the final design.

An accessible route is provided to Butler Avenue.

15. Verify the segment/offset of the existing driveway on SR 2038 (County Line Road).

The SR 2038 access is proposed to be located at Segment 0043, Offset 0420.

16. Truck turning templates must be provided for the largest vehicle anticipated to access the site (all movements) to ensure that the driveways can safely accommodate the design vehicle. Additionally, the templates must show how these vehicles will circulate within the site. For each site access, if the largest permitted vehicle type to utilize that access is smaller than a WB-67, then a note must be included on the plans, turning templates for that vehicle size provided, appropriate signage provided, and that vehicle size will become a condition of the permit and be recorded.

Turning Templates will be provided with the formal design submission.

17. The Department requires written evidence, prior to the issuance of a permit, that New Britain Township has had the opportunity to comment. Provide written evidence (e.g., municipal engineering review, council or planning commission meeting minutes, executed TE-160, etc.), which is less than one year old, to satisfy this requirement. Also, provide County Planning Commission Review Letters if available. PennDOT will consider any comments or recommendations from the municipal and county reviews prior to approving the access permit. In addition, please provide the email address(es) for the appropriate individual(s) at the municipality (i.e., Township Manager, Borough Manager, Mayor, etc.) and at the County Planning Commission on the Application Information screen so that a copy of the Department's review letter can be forwarded. (PA Code, Title 67, Chapter 441.3(j)).

The Zoning Hearing Board Decision is included with the current submission. Documentation of municipal reviews will be provided with the formal design submission.

18. As per Title 67, Chapter 441.8(h)(2)(iv), the Safe Stopping Sight Distance is the absolute minimum acceptable sight distance for driveways. It is the designer's responsibility to ensure that this minimum requirement is satisfied.

There is adequate sight distance for the proposed driveway movements.

19. The connection to, or the installation of, a new closed drainage system within the Department Right-of-Way requires a separate permit application in the name of the municipality for the maintenance of this system. Please submit the application as Permit Type: Miscellaneous, Permit Subtype: Curb, sidewalk, drainage or other application, Permit Use: Drainage for maintenance of the drainage system.

Noted.

20. The Department is now requiring a cost estimate be entered into EPS prior to HOP issuance. This cost estimate must include all work proposed within Department Right-of-Way including signal equipment, roadway work, pavement markings, and signage plus a 15% contingency to be entered into the Fee information & Estimate Construction Cost section in the Application setup box. Further, this section requires the cost estimate to be broken down into site frontage costs and off-site improvements costs. Please enter this information in the manner required. This cost estimate will be the basis for the value of the Letter of Credit the Department will require as security prior to the start of actual construction.

A cost estimate will be provided with the formal design submission.



21. Department records indicate that PennDOT Fiber Optic facilities are present within the proposed limits of work and may be impacted by the anticipated improvements. If fiber optic facilities are affected, the applicant is responsible for the relocation of the fiber, testing of the fiber communications both prior to relocation and after the relocation of the fiber indicated on the approved plans, and the associated costs. Any relocation must be performed by a communications contractor that is acceptable to the District Traffic Unit, and the Highway Occupancy Permit will not be issued until the fiber optic impact has been reviewed and the relocation scheme approved by the Department.

Noted.

22. Consistent with current Department Policy, applicants for Highway Occupancy Permits must apply for an EPS Business Partner ID (BPID). The EPS BPID is used in the establishment of a billing account for the invoicing of inspection costs. After an EPS BPID is obtained and activated by the applicant's system administrator, a user ID will then need to be created to ensure that the EPS BPID is integrated into EPS and searchable through the "looking glass" feature. Once this has been established, please provide the following information in the applicant contact information tab under "Applicant Team": a. BPID b. Contact information (name/title/phone/email) for a general contact person (person that typically deals with the Highway Occupancy Permit application process) c. Contact information (name/title/phone/email) for a billing contact person (person that typically deals with the Highway Occupancy Permit invoicing process) For information on obtaining **EPS** BPID, vou visit: https://www.epermittingsyst.penndot.gov/EPS/home/manageBPRegistration.jsp (follow the instructions that are in the PINK area) or contact the ECMS Help Desk. Please be aware that having an ECMS BPID does not guarantee the establishment of an EPS BPID as they are not reciprocal to one another.

Noted.

Please do not hesitate to contact me at 610.608.4336 or albert@federico-consulting.com should you have any questions or require additional information.

Sincerely,

Albert Federico, P.E., PTOE



Date: 04/03/2024

Subject: Highway Occupancy Permit Application No. 336574, Cycle No.1 - Returned For

Revisions

To: RAO Group Inc.

2200 Michener St, Ste-4 Philadelphia, PA 19115

From: PennDOT Engineering District 6-0

7000 Geerdes Boulevard King of Prussia, PA 19406

Dear Applicant,

PennDOT has reviewed your application for completeness, consistency and compliance with applicable Department Regulations. This review has identified issues that must be addressed in order for our review to continue.

The Department's review comments are attached.

Once the comments have been addressed, please resubmit the application and associated material for further review.

Upon resubmission, the applicant's engineer should put together a letter that describes how each comment has been addressed and where each can be found. This will help expedite the review. For guidance on HOP applications refer to 67 PA Code, Chapter 441, Chapter 459 and PennDOT Publication 282, "Highway Occupancy Permit Guidelines". Additional comments may follow upon review of the resubmitted application.

If you have any questions regarding this matter, you may contact Manasa Kondreddi, at mlkondreddi@mccormicktaylor.com.



Response Comments Date: 04/03/2024

Application Number: 336574, Cycle No.1

Form Letter Notes

- (1) * Upon resubmission, the applicant's engineer should put together a letter that describes how each comment has been addressed and where each can be found in the plan set. A copy of these comments and any previously submitted plans should also be provided.
 - * Additional comments may follow upon review of the resubmitted application. If you have any questions pertaining to the technical aspects of this review, please contact the Department's representative, Manasa Kondreddi at mlkondreddi@mccormicktaylor.com.
 - * For guidance on Highway Occupancy Permit applications refer to PA Code Title 67, Chapter 441, Chapter 459 and PennDOT Publication 282. This will help expedite the review."

General

- (1) Provide HOP Plans for review by the Department.
- (2) The concrete median island shown on the site plan appears to not effectively restrict the lefts out movement at the access along County Line Road (S.R. 2038). It must be redesigned with effectively restrictive geometry for the associated movement (i.e. to prohibit lefts out of the driveway). This appears possible by providing more of a 45 degree angle for the egress lane. The modifications would also allow for increasing the small size of the currently proposed islands and would allow for a larger refuge area for pedestrians crossing the access.
- (3) Per Strike-Off Letter 494-23-04, in the next submission include completed TIS/TIA Review Checklist and HOP Application Project Checklists, Part 1 and Part 2, found in Publication 282. The checklists are also found in EPS under the Application Setup/Reference Material and Forms/Checklists section.

Application

(1) Please be advised: the Department is now requiring a cost estimate be entered into EPS prior to HOP issuance. This cost estimate must include all work proposed within the Departments Right-of-Way including signal equipment, all roadway work, pavement markings and signage plus a 15% contingency to be entered into the Fee information & Estimate Construction Cost section in the Application setup box. Further, this section requires the cost estimate to be broken down into site

frontage costs and off site improvements costs. Please enter this information in the manner required. This cost estimate will be the basis for the value of the Letter of Credit the Department will require as security prior to the start of actual construction.

Transportation Impact Study/Transportation Impact Assessment

(1) The Traffic Services Division has reviewed the submitted Traffic Impact Analysis (TIA) prepared by Albert Federico Consulting, LLC, last revised Month 7, 2024, and has no further comments. This is based on the presented land use, trip generation, design horizon year, and proposed mitigation. Any modifications to these parameters will require a revision of the TIS and additional review by the Department. This will be a condition of the permit.

Development: Car Wash

Location: New Britain Township, Bucks County

Period: Morning Peak

Pass-by - - - 0%
External 39 39 78 Assigned to Driveways and Intersection

			utler Avenue Northbound	9		nty Line Ro Westbound	ad		utler Avenue Southbound	•	Cou	Inty Line Roa Eastbound	ad
		<u>Left</u>	<u>Through</u>	<u>Right</u>	<u>Left</u>	Through	<u>Right</u>	<u>Left</u>	<u>Through</u>	Right	<u>Left</u>	<u>Through</u>	<u>Right</u>
2023	Counted	102	219	77	82	525	75	242	284	86	104	624	39
0.12%	Background	0	1	0	0	2	0	1	1	0	0	2	0
2026	Pre-development	102	220	77	82	527	75	243	285	86	104	626	39
Pass-by	Distribution	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
•	Assignment	0	0	0	0	0	0	0	0	0	0	0	0
External	Distribution	20%	0%	0%	0%	30%	0%	0%	0%	20%	0%	0%	0%
	Assignment	8	0	0	0	12	0	0	0	8	0	0	0
2026	Post-development	110	220	77	82	539	75	243	285	94	104	626	39

			Northbound			nty Line Ro Westbound	ad		Site Access Southbound		County Line Road Eastbound				
		<u>Left</u>	Through	Right	<u>Left</u>	Through	Right	<u>Left</u>	Through	Right	<u>Left</u>	Through	<u>Right</u>		
2023	Counted	0	0	0	0	713	0	0	0	0	0	767	0		
0.12%	Background					3						3			
2026	Pre-development	0	0	0	0	716	0	0	0	0	0	770	0		
Pass-by	Distribution	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
	Assignment	0	0	0	0	0	0	0	0	0	0	0	0		
External	Distribution	0%	0%	0%	0%	0%	70%	0%	0%	-100%	30%	0%	0%		
	Assignment	0	0	0	0	0	27	0	0	39	12	0	0		
2026	Post-development	0	0	0	0	716	27	0	0	39	12	770	0		



Imperial Traffic & Data Collection www.imperialtdc.com PO BOX 4637 Cherry Hill, New Jersey, United States 08034 609-706-6100 hfurey@imperialtdc.com

Count Name: 1. Butler Avenue & County Line Road Site Code: 1 Start Date: 09/26/2023 Page No: 1

Turning Movement Data

	County Line Road						County Line Road						Doylestown Road												
			Easth	oound					Westl	bound					North	bound					South	bound			
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:00 AM	0	18	133	5	0	156	0	14	95	7	0	116	0	10	24	17	0	51	0	47	64	22	0	133	456
7:15 AM	0	14	146	10	0	170	0	17	118	9	0	144	0	18	31	13	0	62	0	57	82	11	0	150	526
7:30 AM	0	30	146	10	0	186	0	17	132	13	0	162	0	22	46	17	0	85	0	75	76	18	0	169	602
7:45 AM	0	27	163	11	0	201	0	24	129	20	0	173	0	20	60	25	0	105	0	57	80	26	0	163	642
Hourly Total	0	89	588	36	0	713	0	72	474	49	0	595	0	70	161	72	0	303	0	236	302	77	0	615	2226
8:00 AM	0	29	174	7	0	210	0	18	115	21	0	154	0	31	60	24	0	115	0	48	53	21	0	122	601
8:15 AM	0	18	141	11	0	170	0	23	149	21	0	193	0	29	53	11	0	93	0	62	75	21	0	158	614
8:30 AM	0	27	133	13	0	173	0	17	106	22	0	145	0	16	52	10	0	78	0	43	81	18	0	142	538
8:45 AM	0	25	133	10	0	168	0	19	111	23	0	153	0	8	53	23	0	84	0	30	72	19	0	121	526
Hourly Total	0	99	581	41	0	721	0	77	481	87	0	645	0	84	218	68	0	370	0	183	281	79	0	543	2279
*** BREAK ***	-	-	-	-	-	-	-	-	-	_	-	-	-	-	-	-	-	-	-	-	_	-	-	-	-
4:00 PM	0	29	134	17	0	180	0	37	128	26	0	191	0	20	88	20	0	128	0	26	78	22	0	126	625
4:15 PM	0	43	157	16	0	216	0	44	149	32	0	225	0	19	96	27	0	142	0	29	87	24	0	140	723
4:30 PM	0	32	179	25	0	236	0	39	159	35	0	233	0	20	111	18	0	149	0	27	55	26	0	108	726
4:45 PM	0	40	185	24	0	249	0	43	139	36	0	218	0	10	85	17	0	112	0	18	79	21	0	118	697
Hourly Total	0	144	655	82	0	881	0	163	575	129	0	867	0	69	380	82	0	531	0	100	299	93	0	492	2771
5:00 PM	0	34	160	28	0	222	0	38	158	36	1	232	0	17	87	9	0	113	0	31	61	13	0	105	672
5:15 PM	0	57	163	16	0	236	0	44	121	33	0	198	0	18	108	37	0	163	0	31	83	30	0	144	741
5:30 PM	0	34	125	16	0	175	0	22	141	27	0	190	0	17	81	32	0	130	0	25	84	29	0	138	633
5:45 PM	0	42	117	21	0	180	0	7	106	24	0	137	0	26	59	29	0	114	0	28	72	27	0	127	558
Hourly Total	0	167	565	81	0	813	0	111	526	120	1	757	0	78	335	107	0	520	0	115	300	99	0	514	2604
Grand Total	0	499	2389	240	. 0	3128	0	423	2056	385	1	2864	0	301	1094	329	0	1724	0	634	1182	348	0	2164	9880
Approach %	0.0	16.0	76.4	7.7	-	-	0.0	14.8	71.8	13.4	-	-	0.0	17.5	63.5	19.1	-	-	0.0	29.3	54.6	16.1	-	-	-
Total %	0.0	5.1	24.2	2.4	-	31.7	0.0	4.3	20.8	3.9	-	29.0	0.0	3.0	11.1	3.3	-	17.4	0.0	6.4	12.0	3.5	-	21.9	-
Lights	0	483	2312	222		3017	0	418	1923	376	-	2717	0	277	1074	326	-	1677	0	609	1160	320	-	2089	9500
% Lights	-	96.8	96.8	92.5	-	96.5	-	98.8	93.5	97.7	-	94.9	-	92.0	98.2	99.1	-	97.3	-	96.1	98.1	92.0	-	96.5	96.2
Mediums	0	12	63	11		86	0	5	120	8	-	133	0	20	18	3	-	41	0	23	21	25		69	329
% Mediums	-	2.4	2.6	4.6		2.7	-	1.2	5.8	2.1	-	4.6	-	6.6	1.6	0.9	-	2.4	-	3.6	1.8	7.2	-	3.2	3.3
Articulated Trucks	0	4	14	. 7	-	25	0	0	13	1	-	14	0	4	2	0	-	6	0	2	1	3	-	6	51
% Articulated Trucks	-	0.8	0.6	2.9	-	0.8	-	0.0	0.6	0.3	-	0.5	-	1.3	0.2	0.0	-	0.3	-	0.3	0.1	0.9	-	0.3	0.5
Bicycles on Crosswalk	-	-	<u>-</u>	-	0	-	-	-	<u>-</u>	-	0	-	-	-	-	<u>-</u>	0	-	-	-	<u>-</u>	<u>-</u>	0		-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-			0	-	-	-		-	1	-	-				0	-	-	-			0		-



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Count Name: 1. Butler Avenue & County Line Road Site Code: 1 Start Date: 09/26/2023 Page No: 4

Turning Movement Peak Hour Data (7:30 AM)

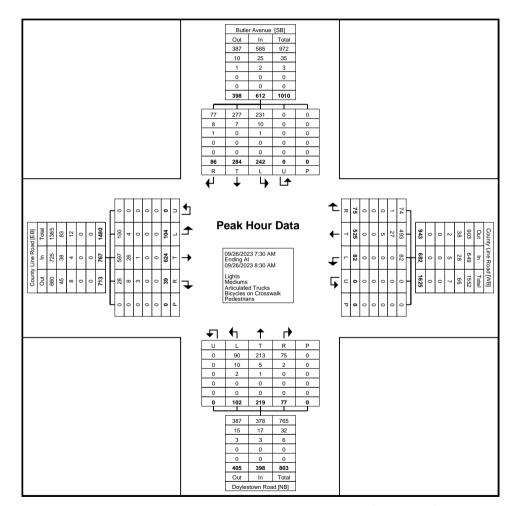
	1								-eak Flour Data (7.50 Alvi)																
			County L	ine Road					County I	Line Road					Doylesto	own Road					Butler /	Avenue			
			East	bound					West	tbound					North	bound					South	bound			
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:30 AM	0	30	146	10	0	186	0	17	132	13	0	162	0	22	46	17	0	85	0	75	76	18	0	169	602
7:45 AM	0	27	163	11	0	201	0	24	129	20	0	173	0	20	60	25	0	105	0	57	80	26	0	163	642
8:00 AM	0	29	174	7	0	210	0	18	115	21	0	154	0	31	60	24	0	115	0	48	53	21	0	122	601
8:15 AM	0	18	141	11	0	170	0	23	149	21	0	193	0	29	53	11	0	93	0	62	75	21	0	158	614
Total	0	104	624	39	0	767	0	82	525	75	0	682	0	102	219	77	0	398	0	242	284	86	0	612	2459
Approach %	0.0	13.6	81.4	5.1	-	-	0.0	12.0	77.0	11.0	-	-	0.0	25.6	55.0	19.3	-	-	0.0	39.5	46.4	14.1	-	-	-
Total %	0.0	4.2	25.4	1.6	-	31.2	0.0	3.3	21.4	3.1	-	27.7	0.0	4.1	8.9	3.1	-	16.2	0.0	9.8	11.5	3.5	-	24.9	-
PHF	0.000	0.867	0.897	0.886	-	0.913	0.000	0.854	0.881	0.893	-	0.883	0.000	0.823	0.913	0.770	-	0.865	0.000	0.807	0.888	0.827	-	0.905	0.958
Lights	0	100	597	28	-	725	0	82	493	74	-	649	0	90	213	75	-	378	0	231	277	77	-	585	2337
% Lights	-	96.2	95.7	71.8	-	94.5	-	100.0	93.9	98.7	-	95.2	-	88.2	97.3	97.4	-	95.0	-	95.5	97.5	89.5	-	95.6	95.0
Mediums	0	4	26	8	-	38	0	0	27	1	-	28	0	10	5	2	-	17	0	10	7	8	-	25	108
% Mediums	-	3.8	4.2	20.5	-	5.0	-	0.0	5.1	1.3	-	4.1	-	9.8	2.3	2.6	-	4.3	-	4.1	2.5	9.3	-	4.1	4.4
Articulated Trucks	0	0	1	3	-	4	0	0	5	0	-	5	0	2	1	0	-	3	0	1	0	1	-	2	14
% Articulated Trucks	-	0.0	0.2	7.7	-	0.5	-	0.0	1.0	0.0	-	0.7	-	2.0	0.5	0.0	-	0.8	-	0.4	0.0	1.2	-	0.3	0.6
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	<u>-</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	_	0	-	-	-	-	-	0	-	-	-	-	_	0	-	-	-	-	-	0	_	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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Count Name: 1. Butler Avenue & County Line

Road Site Code: 1 Start Date: 09/26/2023 Page No: 5



Turning Movement Peak Hour Data Plot (7:30 AM)



Imperial Traffic & Data Collection www.imperialtdc.com PO BOX 4637 Cherry Hill, New Jersey, United States 08034 609-706-6100 hfurey@imperialtdc.com

Count Name: 1. Butler Avenue & County Line Road Site Code: 1 Start Date: 09/26/2023 Page No: 6

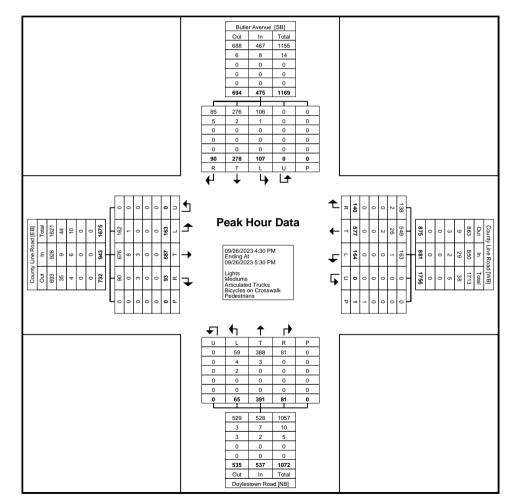
Turning Movement Peak Hour Data (4:30 PM)

							i	run	mig i	/IOVEII	IICIII I	can	noui	Dala	(4.50	1 171)									1
			County L	ine Road					County I	ine Road					Doylesto	own Road					Butler A	Avenue			
			Eastl	oound					West	bound					North	bound					South	bound			
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
4:30 PM	0	32	179	25	0	236	0	39	159	35	0	233	0	20	111	18	0	149	0	27	55	26	0	108	726
4:45 PM	0	40	185	24	0	249	0	43	139	36	0	218	0	10	85	17	0	112	0	18	79	21	0	118	697
5:00 PM	0	34	160	28	0	222	0	38	158	36	1	232	0	17	87	9	0	113	0	31	61	13	0	105	672
5:15 PM	0	57	163	16	0	236	0	44	121	33	0	198	0	18	108	37	0	163	0	31	83	30	0	144	741
Total	0	163	687	93	0	943	0	164	577	140	1	881	0	65	391	81	0	537	0	107	278	90	0	475	2836
Approach %	0.0	17.3	72.9	9.9	-	-	0.0	18.6	65.5	15.9	-	-	0.0	12.1	72.8	15.1	-	-	0.0	22.5	58.5	18.9	-	-	-
Total %	0.0	5.7	24.2	3.3	-	33.3	0.0	5.8	20.3	4.9	-	31.1	0.0	2.3	13.8	2.9	-	18.9	0.0	3.8	9.8	3.2	-	16.7	-
PHF	0.000	0.715	0.928	0.830	-	0.947	0.000	0.932	0.907	0.972	-	0.945	0.000	0.813	0.881	0.547	-	0.824	0.000	0.863	0.837	0.750	-	0.825	0.957
Lights	0	162	676	90	-	928	0	163	549	138	-	850	0	59	388	81	-	528	0	106	276	85	-	467	2773
% Lights	-	99.4	98.4	96.8	-	98.4	-	99.4	95.1	98.6	-	96.5	-	90.8	99.2	100.0	-	98.3	-	99.1	99.3	94.4	-	98.3	97.8
Mediums	0	1	8	0	-	9	0	1	26	2	-	29	0	4	3	0	-	7	0	1	2	5	-	8	53
% Mediums	-	0.6	1.2	0.0	-	1.0	-	0.6	4.5	1.4	-	3.3	-	6.2	0.8	0.0	-	1.3	-	0.9	0.7	5.6	-	1.7	1.9
Articulated Trucks	0	0	3	3	-	6	0	0	2	0	-	2	0	2	0	0	-	2	0	0	0	0	-	0	10
% Articulated Trucks	-	0.0	0.4	3.2	-	0.6	-	0.0	0.3	0.0	-	0.2	-	3.1	0.0	0.0	-	0.4	-	0.0	0.0	0.0	-	0.0	0.4
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	_	-	1	_	-	-	_	_	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Imperial Traffic & Data Collection www.imperialtdc.com PO BOX 4637 Cherry Hill, New Jersey, United States 08034 609-706-6100 hfurey@imperialtdc.com

Count Name: 1. Butler Avenue & County Line Road Site Code: 1 Start Date: 09/26/2023 Page No: 7



Turning Movement Peak Hour Data Plot (4:30 PM)



Project: County Line & Butler Municipality: New Providence, Bucks County, PA Setup: CB Location: 40.265838, -75.22843

Imperial Traffic & Data Collection www.imperialtdc.com 1804 Haddonfield-Berlin Road Cherry Hill, New Jersey, United States 08034 609-706-6100 hfurey@imperialtdc.com

Count Name: 1. County Line Road and Butler Avenue Site Code: 1 Start Date: 09/07/2024

Page No: 1

Turning Movement Data

	1		County Line Road County Line Road							Doylestown Road					W Butler Avenue						I				
			•				1		•						,										
Start Time			Easth	oound			ŀ		West	bound					North	bound					South	bound			
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
11:00 AM	0	28	127	22	1	177	0	23	92	20	0	135	0	18	81	17	. 0	116	0	31	89	14	0	134	562
11:15 AM	0	30	123	17	0	170	0	41	104	22	0	167	0	21	86	19	0	126	0	35	78	15	0	128	591
11:30 AM	0	31	111	13	0	155	0	36	126	19	0	181	0	23	78	25	0	126	0	39	75	6	0	120	582
11:45 AM	0	32	110	18	0	160	0	29	119	22	0	170	0	15	106	17	0	138	0	41	82	16	0	139	607
Hourly Total	0	121	471	70	1	662	0	129	441	83	0	653	0	77	351	78	0	506	0	146	324	51	0	521	2342
12:00 PM	0	26	149	14	1	189	0	25	139	26	0	190	0	23	91	24	0	138	0	29	93	22	0	144	661
12:15 PM	0	23	107	15	0	145	0	27	81	19	0	127	0	17	89	12	0	118	0	30	83	17	1	130	520
12:30 PM	0	37	94	21	0	152	0	36	120	25	0	181	0	16	75	13	0	104	0	21	82	16	0	119	556
12:45 PM	0	40	119	18	1	177	0	31	129	22	0	182	0	26	67	29	0	122	0	19	72	12	0	103	584
Hourly Total	0	126	469	68	2	663	0	119	469	92	0	680	0	82	322	78	0	482	0	99	330	67	1	496	2321
1:00 PM	0	19	122	17	0	158	0	38	104	17	0	159	0	24	74	12	0	110	0	28	107	30	0	165	592
1:15 PM	0	34	107	19	0	160	0	21	137	26	0	184	0	23	89	17	0	129	0	25	83	17	0	125	598
1:30 PM	0	19	109	16	0	144	0	28	111	27	0	166	0	22	82	19	0	123	0	29	73	22	0	124	557
1:45 PM	0	31	97	15	0	143	0	36	131	21	0	188	0	24	98	21	0	143	0	16	83	17	0	116	590
Hourly Total	0	103	435	67	0	605	0	123	483	91	0	697	0	93	343	69	0	505	0	98	346	86	0	530	2337
Grand Total	0	350	1375	205	3	1930	0	371	1393	266	0	2030	0	252	1016	225	0	1493	0	343	1000	204	1	1547	7000
Approach %	0.0	18.1	71.2	10.6	-	-	0.0	18.3	68.6	13.1	-	-	0.0	16.9	68.1	15.1	-	-	0.0	22.2	64.6	13.2	-	-	-
Total %	0.0	5.0	19.6	2.9	-	27.6	0.0	5.3	19.9	3.8	-	29.0	0.0	3.6	14.5	3.2	-	21.3	0.0	4.9	14.3	2.9	-	22.1	-
Lights	0	345	1351	202	-	1898	0	370	1358	264	-	1992	0	247	1010	224	-	1481	0	341	991	199	-	1531	6902
% Lights	-	98.6	98.3	98.5	-	98.3	-	99.7	97.5	99.2	-	98.1	-	98.0	99.4	99.6	-	99.2	-	99.4	99.1	97.5	-	99.0	98.6
Mediums	0	4	17	1	-	22	0	1	30	2	-	33	0	3	6	1	-	10	0	2	7	4	-	13	78
% Mediums	-	1.1	1.2	0.5	-	1.1	-	0.3	2.2	0.8	-	1.6	-	1.2	0.6	0.4	-	0.7	-	0.6	0.7	2.0	-	0.8	1.1
Articulated Trucks	0	1	7	2	-	10	0	0	5	0	-	5	0	2	0	0	-	2	0	0	2	1	-	3	20
% Articulated Trucks	-	0.3	0.5	1.0	-	0.5	-	0.0	0.4	0.0	-	0.2	-	0.8	0.0	0.0	-	0.1	-	0.0	0.2	0.5	-	0.2	0.3
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	<u>-</u>	0	-	-	-	-	_	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	_	-	-	-	-	-	_	0.0	-	-
Pedestrians	-	-	-		3	-	-	-		-	0	-	-	-			0		-	-	-		1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-
																							_		



Project: County Line & Butler Municipality: New Providence, Bucks County, PA Setup: CB Location: 40.265838, -75.22843

Imperial Traffic & Data Collection www.imperialtdc.com 1804 Haddonfield-Berlin Road Cherry Hill, New Jersey, United States 08034 609-706-6100 hfurey@imperialtdc.com

Count Name: 1. County Line Road and Butler

Avenue
Site Code: 1
Start Date: 09/07/2024
Page No: 3

Turning Movement Peak Hour Data (11:15 AM)

						1	I GIII	_		CITCI	carri	ioai L	outu (,	,,									1
		County L	ine Road					County L	ine Road					Doylesto	own Road					W Butler	Avenue			
Eastbound					Westbound					Northbound				Southbound										
U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
0	30	123	17	0	170	0	41	104	22	0	167	0	21	86	19	0	126	0	35	78	15	0	128	591
0	31	111	13	0	155	0	36	126	19	0	181	0	23	78	25	0	126	0	39	75	6	0	120	582
0	32	110	18	0	160	0	29	119	22	0	170	0	15	106	17	0	138	0	41	82	16	0	139	607
0	26	149	14	1	189	0	25	139	26	0	190	0	23	91	24	0	138	0	29	93	22	0	144	661
0	119	493	62	1	674	0	131	488	89	0	708	0	82	361	85	0	528	0	144	328	59	0	531	2441
0.0	17.7	73.1	9.2	-	-	0.0	18.5	68.9	12.6	-	-	0.0	15.5	68.4	16.1	-	-	0.0	27.1	61.8	11.1	-	-	-
0.0	4.9	20.2	2.5	-	27.6	0.0	5.4	20.0	3.6	-	29.0	0.0	3.4	14.8	3.5	-	21.6	0.0	5.9	13.4	2.4	-	21.8	-
0.000	0.930	0.827	0.861	-	0.892	0.000	0.799	0.878	0.856	-	0.932	0.000	0.891	0.851	0.850	-	0.957	0.000	0.878	0.882	0.670	-	0.922	0.923
0	117	484	61	-	662	0	131	473	88	-	692	0	80	358	84	-	522	0	143	325	58	-	526	2402
-	98.3	98.2	98.4	-	98.2	-	100.0	96.9	98.9	-	97.7	-	97.6	99.2	98.8	-	98.9	-	99.3	99.1	98.3	-	99.1	98.4
0	1	7	0	-	8	0	0	14	1	-	15	0	2	3	1	-	6	0	1	3	0	-	4	33
-	0.8	1.4	0.0	-	1.2	-	0.0	2.9	1.1	-	2.1	-	2.4	0.8	1.2	-	1.1	-	0.7	0.9	0.0	-	0.8	1.4
0	1	2	1	-	4	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	1	-	1	6
-	0.8	0.4	1.6	-	0.6	-	0.0	0.2	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	1.7	-	0.2	0.2
-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	1	_	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
				100.0										•	•	•								
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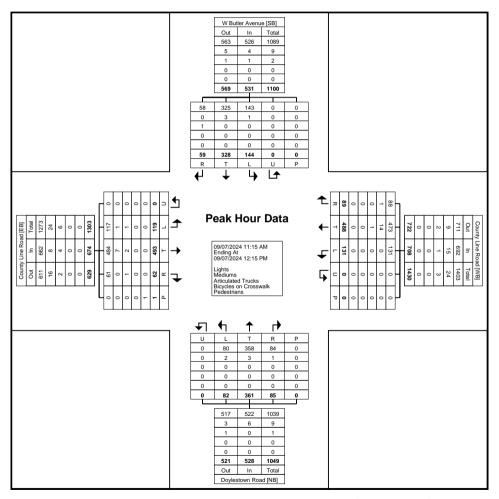


Project: County Line & Butler Municipality: New Providence, Bucks County, PA Setup: CB

Location: 40.265838, -75.22843

Imperial Traffic & Data Collection www.imperialtdc.com 1804 Haddonfield-Berlin Road Cherry Hill, New Jersey, United States 08034 609-706-6100 hfurey@imperialtdc.com

Count Name: 1. County Line Road and Butler Avenue Site Code: 1 Start Date: 09/07/2024 Page No: 4



Turning Movement Peak Hour Data Plot (11:15 AM)

Development: Car Wash

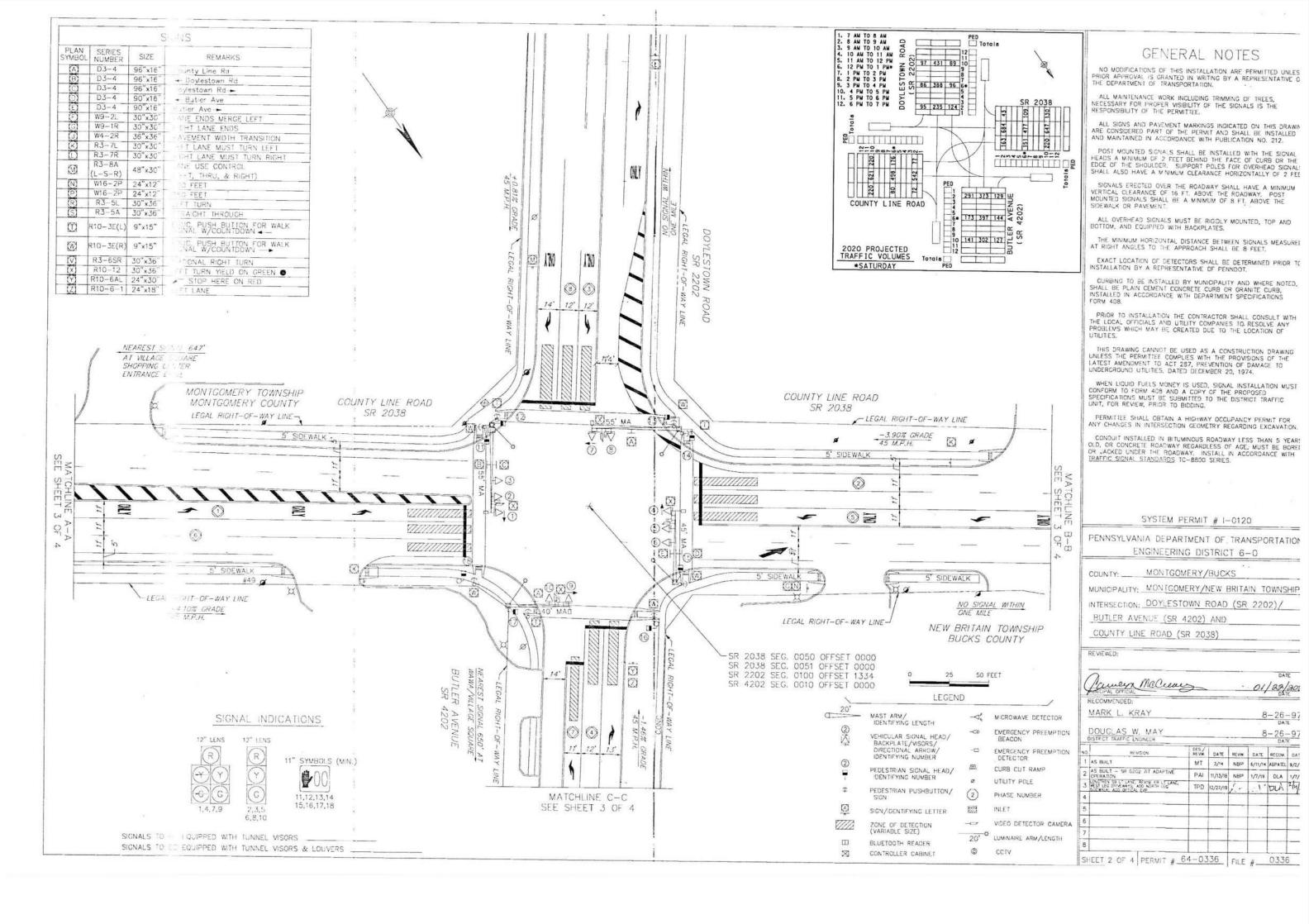
Location: New Britain Township, Bucks County

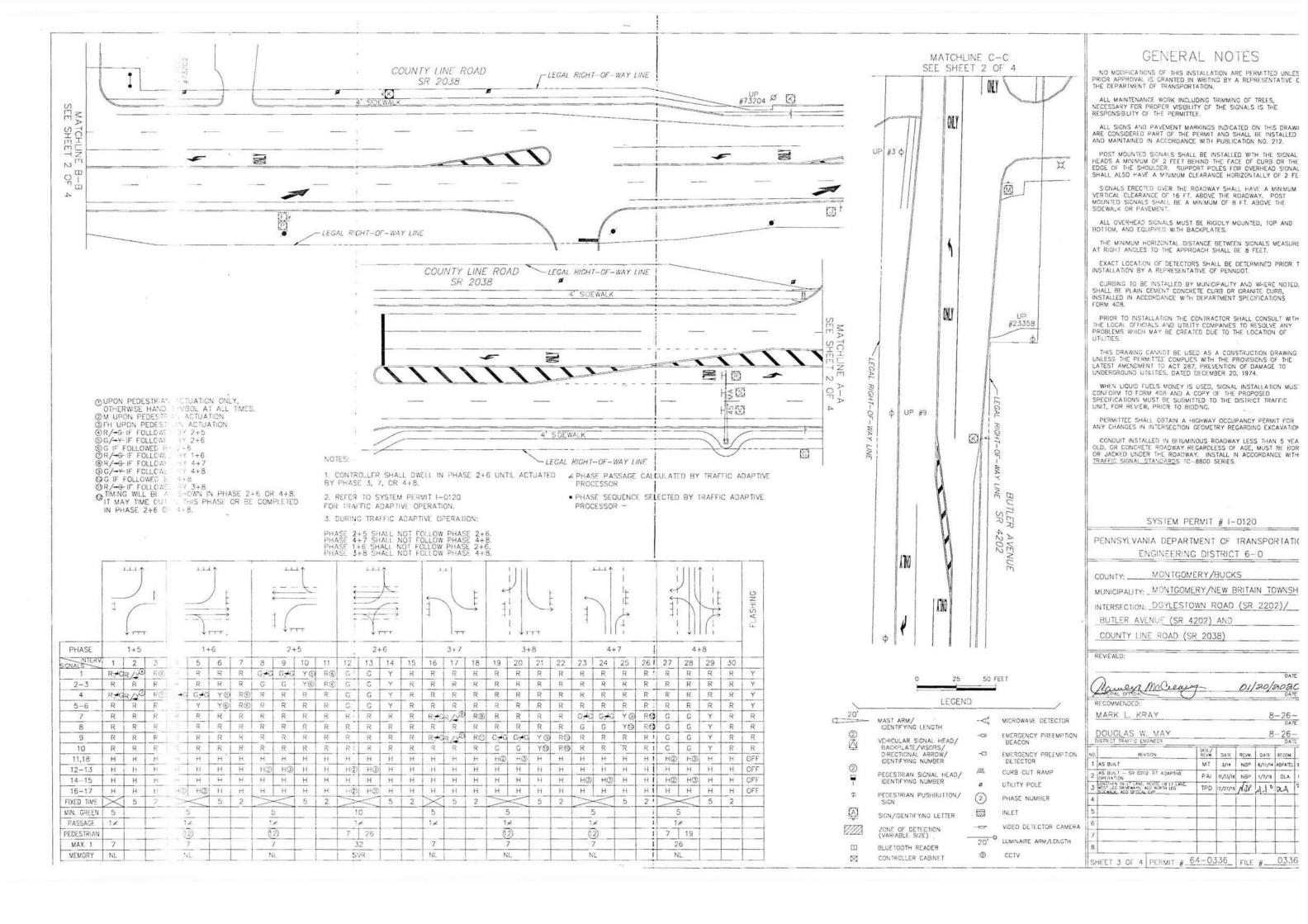
Period: Evening Peak

Pass-by - - - 0%
External 39 39 78 Assigned to Driveways and Intersection

Butler Avenue Northbound					nty Line Roa Westbound	ad		itler Avenue Southbound		County Line Road Eastbound			
		<u>Left</u>	Through	Right	<u>Left</u>	Through	Right	<u>Left</u>	<u>Through</u>	Right	<u>Left</u>	<u>Through</u>	<u>Right</u>
2023	Counted	65	391	81	164	577	140	107	278	90	163	687	93
0.12%	Background	0	1	0	1	2	1	0	1	0	1	2	0
2026	Pre-development	65	392	81	165	579	141	107	279	90	164	689	93
Pass-by	Distribution	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Assignment	0	0	0	0	0	0	0	0	0	0	0	0
External	Distribution	20%	0%	0%	0%	30%	0%	0%	0%	20%	0%	0%	0%
	Assignment	8	0	0	0	12	0	0	0	8	0	0	0
2026	Post-development	73	392	81	165	591	141	107	279	98	164	689	93

			Northbound			nty Line Ro Westbound	ad		Site Access Southbound		Cou	Inty Line Roa Eastbound	ad
		<u>Left</u>	Through	Right	<u>Left</u>	Through	Right	<u>Left</u>	Through	Right	<u>Left</u>	Through	Right
2023	Counted	0	0	0	0	732	0	0	0	0	0	943	0
0.12% 2026	Background Pre-development	0	0	0	0	3 735	0	0	0	0	0	3 946	0
Pass-by	Distribution Assignment	0% 0	0% 0	0% 0	0% 0	0% 0	70% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0
External	Distribution Assignment	0% 0	0% 0	0% 0	0% 0	0% 0	70% 27	0% 0	0% 0	-100% 39	30% 12	0% 0	0% 0
2026	Post-development	0	0	0	0	735	27	0	0	39	12	946	0







CLEARVIEW SER 9% REDUC 10.6" UC/6" WHITE REFLECTORIZED 1-- NO ON GREEN REFLECTORIZED BA GROUND

Doylestown Rd >

SIGN C DETAIL CLEARVIEW SERIES 1-W BACKGROUND

: 8" UC/6" LC WHITE REFLECTORIZED LEGEND AND BORDER ON GREEN REFLECTORIZED 0.8" BORDER 2.5" CORNER RADII

EMERGENCY PRE-EMPTION NOTES:

- ROAD/BUTLER AVENUE WITH A FLASHING FAIL SAFE DEVICE FOR EACH DIRECTION OF OPERATION. THIS EMERGENCY BEACON SHALL CONSIST OF A FLASHING WHITE FLOOD LIGHT, AND SHALL FLASH WHEN THE EMERGENCY VEHICLE HAS CONTROL OF THE INTERSECTION FOR THE APPROPRIATE APPROACH
- INTEL SIGNALS, WHEN ACTIVATED BYTEMERGENCY VEHICLE, SHALL TERMINATE ALL GREEN INDICATIONS IMMEDIATELY, FOLLOWED BY THE COMPLETE YELLOW AND RED CLEARANCE INTERVALS, ACCORDINGLY. THEN THE GREEN INTERVAL FOR THE PRE-EMPTION PHASE SHALL FOLLOW. ONLY THOSE PHASES NOT POSING A YELLOW TRAP CONDITION MAY REMAIN GREEN (1+6,2+5,3+8, OR 4+7) WHEN GOVERNED BY APPROACHING EMERGENCY VEHICLE.

- IF THE SIGNALS, WHEN ACTIVATED BY AN EMERGENCY VEHICLE, ARE FLASHING, ALL SIGNALS SHALL REMAIN FLASHING.
- RETURNING TO NORMAL OPERATION, PHASE 2+6 INTERVAL 12 SHALL
- IN EMERGENCY PRE-EMPTION, NO PRIORITY SHALL BE ESTABLISHED, PRE-EMPTION SHALL BE A "FIRST COME, FIRST SERVE" OPERATION.
- · LOCATION OF EMERGENCY VEHICLE DETECTORS ARE TO BE FIELD ADJUSTED

CONTROLLER TO BE EQUIPPED WITH EMERGENCY PRE-EMPTION FOR THE EASTBOUND & WESTBOUND APPROACHES OF COUNTY LINE ROAD AND THE NGRTHBOUND AND SOUTHBOUND APPROACHES OF DOYLESTOWN

← Butler Ave

SIGN DETAIL

CLEARVIEW SERIES 3-W

8" UC/6" LC WHITE REFLECTORIZED LEGEND AND

BORDER ON GREEN REFLECTORIZED

BACKGROUND

0.8" BORDER

2.5" CORNER RADII

- THE SIGNALS, WHEN ACTIVATED BY EMERGENCY VEHICLE, SHALL TERMINATE
- THE SIGNALS, WHEN ACTIVATED BY EMERGENCY VEHICLE, SHALL TIME OUT ALL YELLOW AND RED INDICATIONS! FOLLOWED BY THE GREEN INTERVAL OF THE PRE-EMPTION PHASE GOVERNED BY THE APPROACHING EMERGENCY.
- IF THE SIGNAL HAS BEEN ACTUATED BY A PEDESTRIAN PUSH BUTTON AND THE SIGNAL IS PRE-EMPTED DURING THE "MAN" INTERVAL, THE MAN INTERVAL SHALL TERMINATE IMMEDIATELY FOLLOWED BY THE "FLASHING HAND" INDICATION IN ITS ENTIRETY, FOLLOWED BY THE APPROPRIATE SELECTIVE CLEARANCES BEFORE PROCEEDING TO THE PRE-EMPTION PHASE.
- •IF ADDITIONAL PRE-EMPTION PHASES ARE ACTIVATED WHILE IN PRE-EMPTION, THE ORIGINAL PRE-EMPTION PHASE SHALL TIME OUT BEFORE PROCEEDING TO THE NEXT PRE-EMPTION PHASE.
- · UPON COMPLETION OF PRE-EMPTION PHASE 2, 4, 6 OR 8, IN
- TO ACHIEVE MAXIMUM OPERATION

NO MODIFICATIONS OF THIS INSTALLATION ARE PERMITTED UNLESS PRIOR APPROVAL IS GRANTED IN WAITING BY A REPRESENTATIVE OF THE DEPARTMENT OF TRANSPORTATION.

ALL MAINTENANCE WORK INCLUDING TRIMMING OF TREES, NECESSARY FOR PROPER VISIBILITY OF THE SIGNALS IS THE RESPONSIBILITY OF THE PERMITTEE.

ALL SIGNS AND PAVEMENT MARKINGS INDICATED ON THIS DRAWING ARE CONSIDERED PART OF THE PERMIT AND SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH PUBLICATION NO. 212.

GENERAL NOTES

POST MOUNTED SIGNALS SHALL BE INSTALLED WITH THE SIGNAL HEADS A MINIMUM OF 2 FEET BEHIND THE FACE OF CURB OR THE EDGE OF THE SHOULDER. SUPPORT POLES FOR OVERHEAD SIGNALS SHALL ALSO HAVE A MINIMUM CLEARANCE HORIZONTALLY OF 2 FEET

SIGNALS ERECTED OVER THE ROADWAY SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 16 FT. ABOVE THE ROADWAY. POST MOUNTED SIGNALS SHALL BE A MINIMUM OF 8 FT. ABOVE THE SIDEWALK OR PAVEMENT.

ALL OVERHEAD SIGNALS MUST BE RIGIDLY MOUNTED, TOP AND BOTTOM, AND EQUIPPED WITH BACKPLATES.

THE MINIMUM HORIZONTAL DISTANCE BETWEEN SIGNALS MEASURED AT RIGHT ANGLES TO THE APPROACH SHALL BE B FEET.

EXACT LOCATION OF DETECTORS SHALL BE DETERMINED PRIOR TO INSTALLATION BY A REPRESENTATIVE OF PENNDOT.

CURBING TO BE INSTALLED BY MUNICIPALITY AND WHERE NOTED, SHALL BE PLAIN CEMENT CONCRETE CURB OR GRANITE CURB, INSTALLED IN ACCORDANCE WITH DEPARTMENT SPECIFICATIONS FORM 40B.

PRIOR TO INSTALLATION THE CONTRACTOR SHALL CONSULT WITH THE LOCAL OFFICIALS AND UTILITY COMPANIES TO RESOLVE ANY PROBLEMS WHICH MAY BE CREATED DUE TO THE LOCATION OF UTILITIES.

THIS DRAWING CANNOT BE USED AS A CONSTRUCTION DRAWING UNLESS THE PERMITTEE COMPLES WITH THE PROVISIONS OF THE LATEST AMENDMENT TO ACT 287, PREVENTION OF DAMAGE TO UNDERGROUND UTILITIES, DATED DECEMBER 20, 1974.

WHEN LIQUID FUELS MONEY IS USED, SIGNAL INSTALLATION MUST CONFORM TO FORM 408 AND A COPY OF THE PROPOSED SPECIFICATIONS MUST BE SUBMITTED TO THE DISTRICT TRAFFIC UNIT, FOR REVIEW, PRIOR TO BIDDING.

PERMITTEE SHALL OBTAIN A HIGHWAY OCCUPANCY PERMIT FOR ANY CHANGES IN INTERSECTION GEOMETRY REGARDING EXCAVATION.

CONDUIT INSTALLED IN BITUMINOUS ROADWAY LESS THAN 5 YEARS OLD, OR CONCRETE ROADWAY RECARDLESS OF AGE, MUST BE BOREI OR JACKED UNDER THE ROADWAY, INSTALL IN ACCORDANCE WITH IRAFFIC SIGNAL STANDARDS TC-8800 SERIES.

SYSTEM PERMIT # I-0120

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION ENGINEERING DISTRICT 6-0

MONTGOMERY/BUCKS

MUNICIPALITY: MONTGOMERY/NEW BRITAIN TOWNSHIP INTERSECTION: DOYLESTOWN ROAD (SR 2202)/

BUTLER AVENUE (SR 4202) AND

COUNTY LINE ROAD (SR 2038)

REVIEWED

50 FEET MICROWAVE DETECTOR EMERGENCY PREEMPTION BEACON EMERGENCY PREEMPTION DETECTOR CURB CUT RAMP UTILITY POLE PHASE NUMBER INLET VIDEO DETECTOR CAMERA

Maney McCreary 01/20/202 RECOMMENDED MARK L. KRAY BES./ DATE REVW DATE RECOM DATE AS BUILT MT 3/14 NBP 6/11/14 ASPATEL 9/2/14 AS BUILT - SR 0202 711 ADAPTIVE PAI 11/13/18 NBP 1/7/19 DLA 1/7/15 TPD 12/27/19 12/P 43/W DLA 2/4/2 SHEET 4 OF 4 PERMIT # 64-0336 FILE # 0336

DATE

25 LEGEND IDENTIFYING LENGTH VEHICULAR SIGNAL HEAD/ BACKPLATE/VISORS/ DIRECTIONAL ARROW/ IDENTIFYING NUMBER PEDESTRIAN SIGNAL HEAD/ IDENTIFYING NUMBER PEDESTRIAN PUSHBUTTON/ (2) 22 SIGN/IDENTIFYING LETTER ZONE OF DETECTION (VARIABLE SIZE) LUMINAIRE ARM/LENGTH 20 BLUETOOTH READER 0

 \boxtimes

CONTROLLER CABINET

Butler Ave

SIGN E DETAIL

CLEARVIEW SERIES 3-W

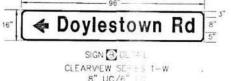
8" UC/6" LC WHITE REFLECTORIZED LEGEND AND

BORDER ON GREEN REFLECTORIZED

BACKGROUND

0.8" BORDER

2.5" CORNER RADII



8" UC/6" WHITE REFLECTORIZE FOUND AND BORDER ON GREEN BACKGRO 0.8" BOR 2.5" CORNEL IASH

EMERGENC:

111 111 PHASE SIGNALS 31 .53 34 | 35 | 36 37 38 39 40 41 42 3/-6 Y 0 RO RR RR G Y O RO 2-3 R R R R 4 RO RRR R RR 5-6 80 RRR RRR RRR RRR YR 8 Y R R G/-6 Y R 9 R 10 R RR R GYR 11.18 H н н н 12,13 HH H н н

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PREEMPTION TIMING DIAGRAM

.. 5 2 OG WHEN RETURNIN TO NORMAL OPERATION NORMAL OPERATION

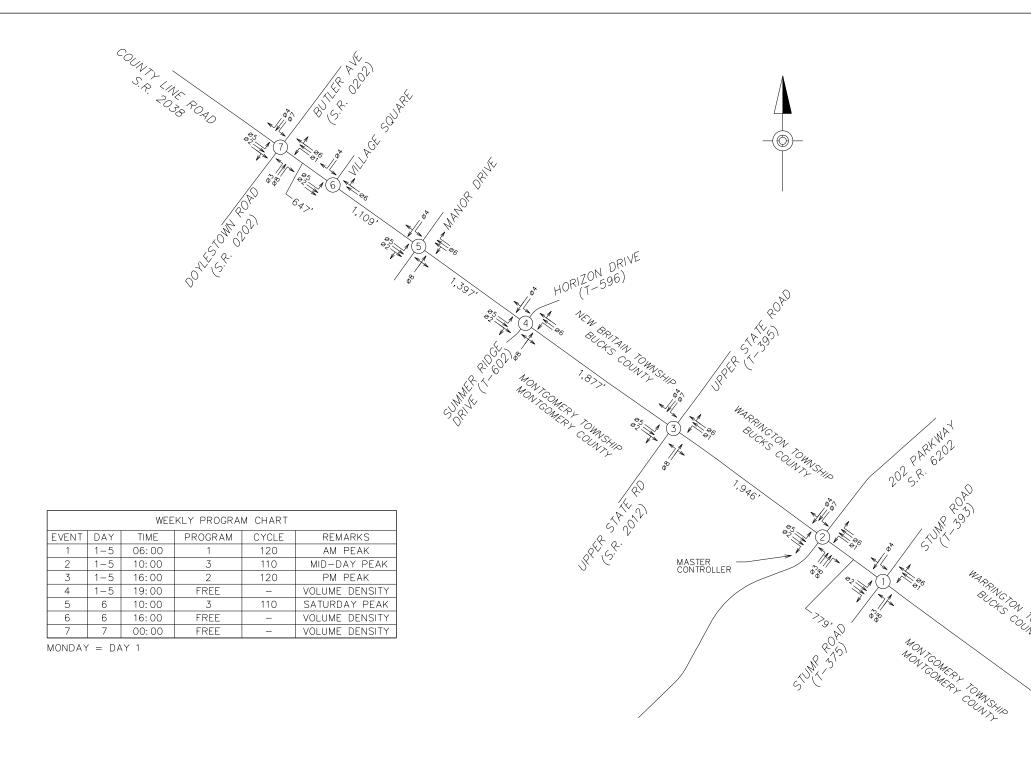
14,15

16.17

PWENT HAS ENCODING CAPABILITIES FOR N. IT IS RECOVMENDED TO HAVE THE ZERO NOTE: IF PRE-EMPTION E VEHICLE IDENTIFIC "00" FEATURE ON. GIVE UNCODED EMITTERS THE ABILITY TO NCY PREEMPTION. ACTIVATE THE EVE

H

** FOR DURATION | PRE-EMPTION



	SYSTEM	PROGRAM CYCLE LENGTH				
	INTERSECTION	FILE #	1	2	3	
1	COUNTY LINE ROAD (SR 2038) & STUMP ROAD (T-393/375)	64-2225	120	120	110	
2	COUNTY LINE ROAD (SR 2038) & 202 PARKWAY (SR 6202)	3706	120	120	110	
3	COUNTY LINE ROAD (SR 2038) & UPPER STATE ROAD (T-395/SR 2012)	1966	120	120	110	
4	COUNTY LINE ROAD (SR 2038) & HORIZON DRIVE (T-596)/SUMMER RIDGE DRIVE (T-602)	3707	120	120	110	
5	COUNTY LINE ROAD (SR 2038) & MANOR DRIVE	61-3395	120	120	110	
6	COUNTY LINE ROAD (SR 2038) & VILLAGE SQUARE ENTRANCE DRIVE	61-2320	120	120	110	
7	COUNTY LINE ROAD (SR 2038) & BUTLER AVENUE/DOYLESTOWN ROAD (SR 0202)	61-0336	120	120	110	

SYSTEM PLAN Traffic Signal Plan

DISTRICT	COUNTY	ROUTE	SECTION	SHEET		
6-0	MONTGOMERY/BUCKS	2038	WD1	1 ()F 3	
MONTGO	MERY, NEW BRITA	IN & WARR	INGTON TO	OWNSH I	IPS .	
REVISION NUMBER	REV	ISIONS		DATE	BY	

GENERAL NOTES

NO MODIFICATIONS OF THIS INSTALLATION ARE
PERMITTED UNLESS PRIOR APPROVAL IS GRANTED IN WRITING
BY A REPRESENTATIVE OF THE DEPARTMENT OF
TRANSPORTATION.

REFER TO TRAFFIC SIGNAL PERMIT DRAWING FOR INDIVIDUAL INTERSECTION OPERATION, GEOMETRY, PHASING AND CRITICAL TIMES.

FOR CONSTRUCTION AND INSPECTION THE SYSTEM PERMIT SHOULD ALWAYS BE ACCOMPANIED WITH TRAFFIC SIGNAL PERMIT DRAWING.

TEST THE SYSTEM AT LOCAL INTERSECTION LEVEL, SUBSYSTEM LEVEL, MASTER CONTROLLER LEVEL AND PERSONAL COMPUTER REMOTE DIAL UP LEVEL.

GATHER THE SYSTEM FAILURE CRITICAL ALARMS REPORT AND ARCHIVE THEM WHERE APPLICABLE.

SET UP PENNDOT DISTRICT 6-0 COMPUTER WITH THE SYSTEM DATABASE AND GRAPHICS. MODIFY THE DATABASE AND GRAPHICS FOR SYSTEMS REVISIONS.

ASSIGN LOOP DETECTORS AND PROGRAM THE CONTROLLERS TO GATHER TRAFFIC VOLUMES IN 15 MINUTE INTERVALS, WHERE APPLICABLE.

PRIOR TO INSTALLATION BY A REPRESENTATIVE OF PENNDOT

OBTAIN POLE ATTACHMENT PERMIT FOR AERIAL FIBER

EXACT LOCATION OF DETECTORS SHALL BE DETERMINED

OPTIC INSTALLATION.

MAINTAIN MASTER CONTROLLER COMMUNICATION SUCH

PRIOR TO INSTALLATION THE CONTRACTOR SHALL CONSULT WITH THE LOCAL OFFICIALS AND UTILITY COMPANIES TO RESOLVE ANY PROBLEMS WHICH MAY BE

CREATED DUE TO THE LOCATION OF THE UTILITIES.

THE DRAWING CANNOT BE USED AS A CONSTRUCTION DRAWING UNLESS THE PERMITTEE COMPLIES WITH THE PROVISIONS OF ACT 181, PREVENTION OF DAMAGE TO UNDERGROUND UTILITIES EFFECTIVE DATE MARCH 29, 2007

WHEN LIQUID FUELS MONEY IS USED, SIGNAL INSTALLATION MUST CONFORM TO FORM 408 AND A COPY OF THE PROPOSED SPECIFICATIONS MUST BE SUBMITTED TO THE DISTRICT TRAFFIC UNIT FOR REVIEW PRIOR TO BIDDING.

PERMITTEE SHALL OBTAIN A HIGHWAY OCCUPANCY PERMIT FOR ANY CHANGES IN INTERSECTION GEOMETRY REGARDING EXCAVATION.

CONDUIT INSTALLED IN BITUMINOUS ROADWAY LESS THAN 5 YEARS OLD, OR CONCRETE ROADWAY REGARDLESS OF AGE.

MUST BE BORED OR JACKED UNDER THE ROADWAY. INSTALL IN ACCORDANCE WITH TRAFFIC SIGNAL STANDARDS TC-8800 SERIES.

SYSTEM FILE # I-0121

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION ENGINEERING DISTRICT 6-0

COUNTY: MONTGOMERY/BUCKS

MUNICIPALITY: MONTGOMERY, NEW BRITAIN &

WARRINGTON TOWNSHIPS

INTERSECTION: COUNTY LINE ROAD (SR 2038)

TRAFFIC SIGNAL SYSTEM

DATE

DATE

D:

MONTGOMERY TOWNSHIP OFFICIAL

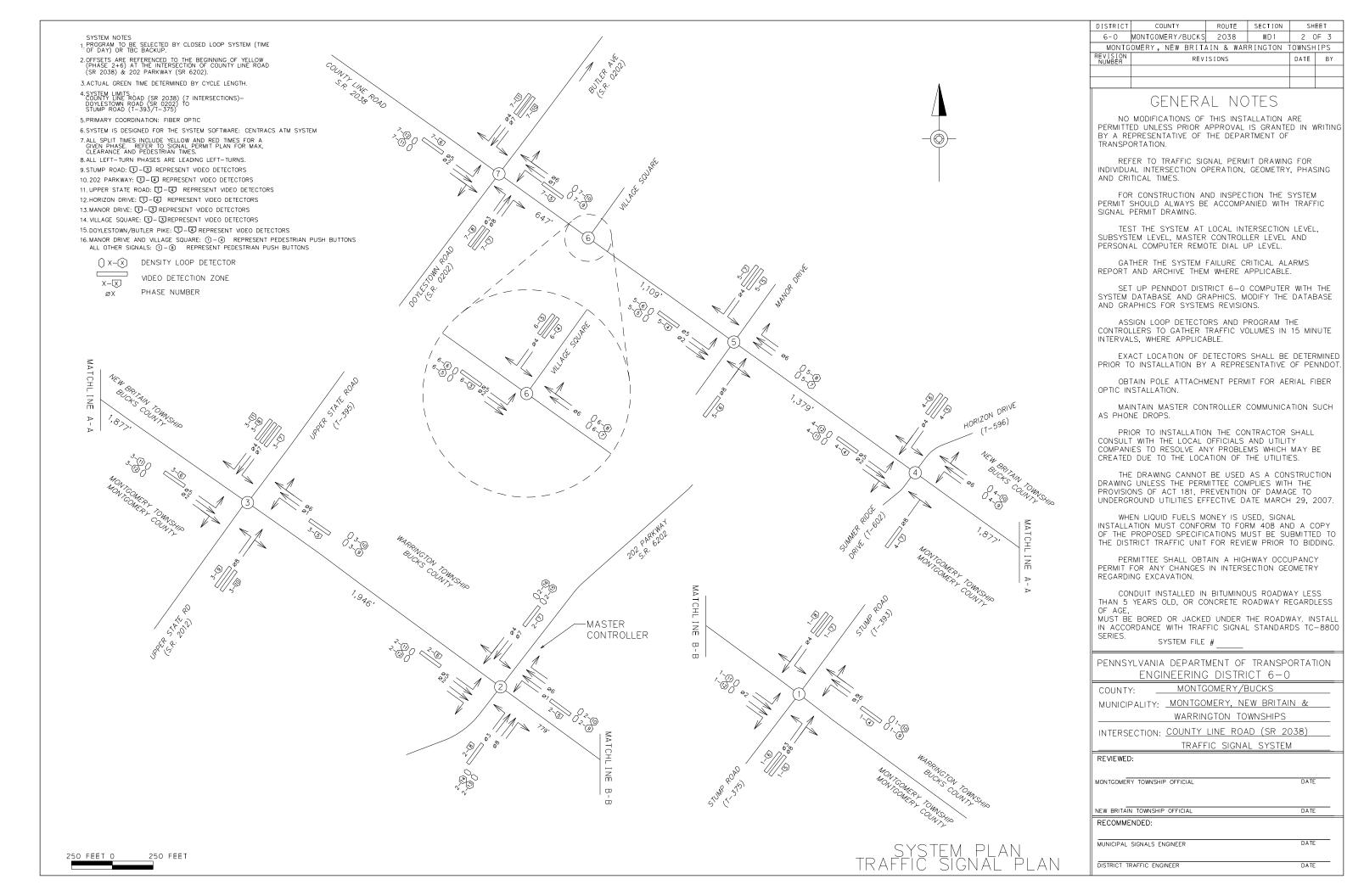
NEW BRITAIN TOWNSHIP OFFICIAL

RECOMMENDED:

MUNICIPAL SIGNALS ENGINEER

DISTRICT TRAFFIC ENGINEER

5<u>00 FEET 0 5</u>00 FEET



PROGRAM 1						PHASE					CYCLE	OFFSET	REFERENCE
INTERSECTION	FILE #	1	2	3	4	5	6	7	8	9			111121117712
1 COUNTY LINE ROAD (SR 2038) & STUMP ROAD (T-393/375)	64-2225	14(LEAD)	45	14(LEAD)	42		59		61		120	11	7
2 COUNTY LINE ROAD (SR 2038) & 202 PARKWAY (SR 6202)	3706	20(LEAD)	43	14(LEAD)	43	14(LEAD)	49	20(LEAD)	37		120	0	14
3 COUNTY LINE ROAD (SR 2038) & UPPER STATE ROAD (T-395/SR 2012)	1966	14(LEAD)	45		61	14(LEAD)	45	18(LEAD)	43		120	41	14
4 COUNTY LINE ROAD (SR 2038) & HORIZON DRIVE (T-596)/SUMMER RIDGE DRIVE (T-602)	3707		83		37	28(LEAD)	55		37		120	89	7
5 COUNTY LINE ROAD (SR 2038) & MANOR DRIVE	61-3395		79		41	23(LEAD)	56		41		120	8	6
6 COUNTY LINE ROAD (SR 2038) & VILLAGE SQUARE ENTRANCE DRIVE	61-2320		79		41	24(LEAD)	55				120	13	6
7 COUNTY LINE ROAD (SR 2038) & BUTLER AVENUE/DOYLESTOWN ROAD (SR 0202)	61-0336	22(LEAD)	40	15(LEAD)	43	14(LEAD)	48	25(LEAD)	33		120	103	14
PROGRAM 2						PHASE					CYCLE	OFFSET	REFERENCE INTERVAL
INTERSECTION	FILE #	1	2	3	4	5	6	7	8	9			
1 COUNTY LINE ROAD (SR 2038) & STUMP ROAD (T-393/375)	64-2225	14(LEAD)	49	23(LEAD)	34		63		57		120	8	7
2 COUNTY LINE ROAD (SR 2038) & 202 PARKWAY (SR 6202)	3706	20(LEAD)	43	19(LEAD)	38	15(LEAD)	48	20(LEAD)	37		120	0	14
3 COUNTY LINE ROAD (SR 2038) & UPPER STATE ROAD (T-395/SR 2012)	1966	16(LEAD)	45		59	14(LEAD)	47	18(LEAD)	41		120	48	14
4 COUNTY LINE ROAD (SR 2038) & HORIZON DRIVE (T-596)/SUMMER RIDGE DRIVE (T-602)	3707		86		34	19(LEAD)	67		34		120	83	7
5 COUNTY LINE ROAD (SR 2038) & MANOR DRIVE	61-3395		85		35	18(LEAD)	67		35		120	8	6
6 COUNTY LINE ROAD (SR 2038) & VILLAGE SQUARE ENTRANCE DRIVE	61-2320		88		32	19(LEAD)	69				120	1	6
7 COUNTY LINE ROAD (SR 2038) & BUTLER AVENUE/DOYLESTOWN ROAD (SR 0202)	61-0336	23(LEAD)	40	14(LEAD)	43	16(LEAD)	47	17(LEAD)	40		120	112	14
PROGRAM 3						PHASE					CYCLE	OFFSET	REFERENCE
INTERSECTION	FILE #	1 1	2	3	4	5	6	7	8	9			INTERVAL
1 COUNTY LINE ROAD (SR 2038) & STUMP ROAD (T-393/375)	64-2225	14(LEAD)	41	15(LEAD)	40		55		55		110	9	7
2 COUNTY LINE ROAD (SR 2038) & 202 PARKWAY (SR 6202)	3706	16(LEAD)	39	16(LEAD)	39	14(LEAD)	41	18(LEAD)	37		110	0	14
3 COUNTY LINE ROAD (SR 2038) & UPPER STATE ROAD (T-395/SR 2012)	1966	15(LEAD)	39	1.0(22.10)	56	14(LEAD)	40	18(LEAD)	38		110	43	14
4 COUNTY LINE ROAD (SR 2038) & HORIZON DRIVE (T-596)/SUMMER RIDGE DRIVE (T-602)	3707		75		35	23(LEAD)	52	-()	35		110	79	7
5 COUNTY LINE ROAD (SR 2038) & MANOR DRIVE	61-3395		72		38	20(LEAD)	52		35		110	15	6
6 COUNTY LINE ROAD (SR 2038) & VILLAGE SQUARE ENTRANCE DRIVE	61-2320		73		37	20(LEAD)	53				110	28	6
7 COUNTY LINE ROAD (SR 2038) & BUTLER AVENUE/DOYLESTOWN ROAD (SR 0202)	61-0336	15(LEAD)	43	15(LEAD)	37	18(LEAD)	40	19(LEAD)	33		110	0	14
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DISTRICT TRAFFIC ENGINEER



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Lane Configurations	1	1		7	1		7	↑	7	7	↑	7
Traffic Volume (veh/h)	104	624	39	82	525	75	102	219	77	242	284	86
Future Volume (veh/h)	104	624	39	82	525	75	102	219	77	242	284	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1864	1864	1864	1683	1683	1683	1724	1724	1793	1780	1780	1852
Adj Flow Rate, veh/h	108	650	41	85	547	78	106	228	80	252	296	90
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	6	6	6	2	2	2	5	5	5	4	4	4
Cap, veh/h	377	1462	92	332	1200	171	233	261	230	318	398	351
Arrive On Green	0.05	0.43	0.43	0.04	0.43	0.43	0.07	0.15	0.15	0.14	0.22	0.22
Sat Flow, veh/h	1775	3383	213	1603	2810	399	1642	1724	1520	1696	1780	1569
Grp Volume(v), veh/h	108	340	351	85	310	315	106	228	80	252	296	90
Grp Sat Flow(s),veh/h/ln	1775	1771	1825	1603	1599	1611	1642	1724	1520	1696	1780	1569
Q Serve(g_s), s	4.1	16.2	16.2	3.6	16.6	16.7	6.5	15.5	5.7	14.5	18.6	5.7
Cycle Q Clear(g_c), s	4.1	16.2	16.2	3.6	16.6	16.7	6.5	15.5	5.7	14.5	18.6	5.7
Prop In Lane	1.00		0.12	1.00		0.25	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	377	765	789	332	683	688	233	261	230	318	398	351
V/C Ratio(X)	0.29	0.44	0.45	0.26	0.45	0.46	0.46	0.87	0.35	0.79	0.74	0.26
Avail Cap(c_a), veh/h	393	765	789	461	683	688	233	374	329	337	534	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.8	23.9	24.0	18.9	24.4	24.5	39.7	49.8	45.6	35.4	43.4	38.4
Incr Delay (d2), s/veh	0.4	1.9	1.8	0.4	2.2	2.2	1.4	14.7	0.9	11.7	3.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	11.1	11.4	2.3	10.5	10.7	4.7	12.1	3.9	11.1	13.1	3.9
Unsig. Movement Delay, s/veh		05.0	05.0	40.0	00.0	00.0	11 1	C4 F	4C F	17.1	47.0	20.0
LnGrp Delay(d),s/veh	19.3	25.8 C	25.8	19.3	26.6	26.6	41.1	64.5	46.5	47.1	47.2 D	38.8
LnGrp LOS	В		С	В	C	С	D	E	D	D		<u>D</u>
Approach Vol, veh/h		799			710			414			638	
Approach Delay, s/veh		24.9			25.7			55.0			46.0	
Approach LOS		С			С			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.3	58.9	15.0	33.8	12.9	58.3	23.6	25.2				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	15.0	33.0	8.0	36.0	7.0	41.0	18.0	26.0				
Max Q Clear Time (g_c+I1), s	5.6	18.2	8.5	20.6	6.1	18.7	16.5	17.5				
Green Ext Time (p_c), s	0.1	2.1	0.0	1.1	0.0	2.1	0.1	0.6				
Intersection Summary												
HCM 6th Ctrl Delay			35.3									
HCM 6th LOS			D									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	†		7	1		7	↑	7	7	↑	7
Traffic Volume (veh/h)	163	687	93	164	577	140	65	391	81	107	278	90
Future Volume (veh/h)	163	687	93	164	577	140	65	391	81	107	278	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1864	1864	1864	1683	1683	1683	1724	1724	1793	1780	1780	1852
Adj Flow Rate, veh/h	170	716	97	171	601	146	68	407	84	111	290	94
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	6	6	6	2	2	2	5	5	5	4	4	4
Cap, veh/h	323	1147	155	302	957	232	252	436	385	187	488	430
Arrive On Green	0.08	0.37	0.37	0.08	0.38	0.38	0.04	0.25	0.25	0.06	0.27	0.27
Sat Flow, veh/h	1775	3134	424	1603	2551	618	1642	1724	1520	1696	1780	1569
Grp Volume(v), veh/h	170	404	409	171	376	371	68	407	84	111	290	94
Grp Sat Flow(s),veh/h/ln	1775	1771	1787	1603	1599	1571	1642	1724	1520	1696	1780	1569
Q Serve(g_s), s	7.1	22.5	22.5	7.9	23.1	23.2	3.7	27.7	5.2	5.7	16.9	5.6
Cycle Q Clear(g_c), s	7.1	22.5	22.5	7.9	23.1	23.2	3.7	27.7	5.2	5.7	16.9	5.6
Prop In Lane	1.00		0.24	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	323	648	654	302	600	590	252	436	385	187	488	430
V/C Ratio(X)	0.53	0.62	0.62	0.57	0.63	0.63	0.27	0.93	0.22	0.59	0.59	0.22
Avail Cap(c_a), veh/h	323	648	654	381	600	590	278	474	418	220	534	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.4	31.3	31.3	23.3	30.6	30.7	32.0	43.8	35.4	33.6	37.8	33.6
Incr Delay (d2), s/veh	1.6	4.5	4.5	1.7	4.9	5.0	0.6	24.6	0.3	3.1	1.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.5	15.5	15.6	5.5	14.6	14.5	2.7	21.1	3.6	4.6	12.2	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.0	35.7	35.7	24.9	35.5	35.7	32.6	68.4	35.7	36.7	39.3	33.9
LnGrp LOS	С	D	D	С	D	D	С	E	D	D	D	C
Approach Vol, veh/h		983			918			559			495	
Approach Delay, s/veh		33.9			33.6			59.1			37.7	
Approach LOS		С			С			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.1	50.9	12.1	39.9	16.0	52.0	14.6	37.4				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	16.0	33.0	7.0	36.0	9.0	40.0	10.0	33.0				
Max Q Clear Time (g_c+I1), s	9.9	24.5	5.7	18.9	9.1	25.2	7.7	29.7				
Green Ext Time (p_c), s	0.3	2.1	0.0	1.3	0.0	2.5	0.1	0.7				
Intersection Summary												
HCM 6th Ctrl Delay			39.2									
HCM 6th LOS			D									

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Existing Saturday 3: Butler Avenue & County Line Road

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	†		7	†		7	↑	7	1	†	7
Traffic Volume (veh/h)	119	493	62	131	488	89	82	361	85	144	328	59
Future Volume (veh/h)	119	493	62	131	488	89	82	361	85	144	328	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1921	1921	1921	1683	1683	1683	1780	1780	1852	1823	1823	1896
Adj Flow Rate, veh/h	129	536	67	142	530	97	89	392	92	157	357	64
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	1	1	1	1	1	1
Cap, veh/h	348	1149	143	347	978	178	238	418	368	231	486	429
Arrive On Green	0.06	0.35	0.35	0.07	0.36	0.36	0.05	0.23	0.23	0.09	0.27	0.27
Sat Flow, veh/h	1829	3265	407	1603	2700	492	1696	1780	1569	1736	1823	1607
Grp Volume(v), veh/h	129	299	304	142	313	314	89	392	92	157	357	64
Grp Sat Flow(s), veh/h/ln	1829	1825	1847	1603	1599	1594	1696	1780	1569	1736	1823	1607
Q Serve(g_s), s	4.9	14.0	14.1	6.2	17.1	17.2	4.3	23.8	5.2	7.4	19.6	3.3
Cycle Q Clear(g_c), s	4.9	14.0	14.1	6.2	17.1	17.2	4.3	23.8	5.2	7.4	19.6	3.3
Prop In Lane	1.00	14.0	0.22	1.00	17.1	0.31	1.00	23.0	1.00	1.00	19.0	1.00
· .		640	650		E70			418			106	
Lane Grp Cap(c), veh/h	348	642		347	579	577	238		368	231	486	429
V/C Ratio(X)	0.37	0.47	0.47	0.41	0.54	0.54	0.37	0.94	0.25	0.68	0.73	0.15
Avail Cap(c_a), veh/h	417	642	650	347	579	577	270	421	371	271	497	438
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	27.6	27.7	21.1	27.8	27.9	30.7	41.3	34.2	30.8	36.8	30.8
Incr Delay (d2), s/veh	0.7	2.4	2.4	0.8	3.6	3.7	1.0	28.7	0.4	5.4	5.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.8	10.5	10.7	4.2	11.3	11.3	3.3	19.8	3.7	6.2	14.6	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.3	30.0	30.1	21.9	31.4	31.5	31.6	70.0	34.6	36.2	42.2	31.0
LnGrp LOS	С	С	С	С	С	С	С	E	С	D	D	<u>C</u>
Approach Vol, veh/h		732			769			573			578	
Approach Delay, s/veh		28.7			29.7			58.3			39.3	
Approach LOS		С			С			Е			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	45.7	12.9	36.3	13.9	46.8	16.5	32.8				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	8.0	36.0	8.0	30.0	11.0	33.0	12.0	26.0				
Max Q Clear Time (g_c+l1), s	8.2	16.1	6.3	21.6	6.9	19.2	9.4	25.8				
Green Ext Time (p_c), s	0.0	2.0	0.0	1.1	0.1	2.0	0.1	0.1				
Intersection Summary	0.0	2.0	0.0		Ų. i	2.0	0.1	0.1				
			27.7									
HCM 6th Ctrl Delay			37.7									
HCM 6th LOS			D									
Notes												

User approved pedestrian interval to be less than phase max green.

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Pre-development AM 3: Butler Avenue & County Line Road

o. Ballot / Worldo & C	- Curry											<u> </u>
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	†		1	1		1	↑	7	1	↑	7
Traffic Volume (veh/h)	104	626	39	82	527	75	102	220	77	243	285	86
Future Volume (veh/h)	104	626	39	82	527	75	102	220	77	243	285	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1864	1864	1864	1683	1683	1683	1724	1724	1793	1780	1780	1852
Adj Flow Rate, veh/h	108	652	41	85	549	78	106	229	80	253	297	90
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	6	6	6	2	2	2	5	5	5	4	4	4
Cap, veh/h	376	1459	92	331	1198	170	233	262	231	318	399	352
Arrive On Green	0.05	0.43	0.43	0.04	0.43	0.43	0.07	0.15	0.15	0.14	0.22	0.22
Sat Flow, veh/h	1775	3383	213	1603	2811	398	1642	1724	1520	1696	1780	1569
Grp Volume(v), veh/h	108	341	352	85	311	316	106	229	80	253	297	90
Grp Sat Flow(s),veh/h/ln	1775	1771	1825	1603	1599	1611	1642	1724	1520	1696	1780	1569
Q Serve(g_s), s	4.1	16.3	16.3	3.6	16.7	16.8	6.5	15.6	5.7	14.6	18.6	5.7
Cycle Q Clear(g_c), s	4.1	16.3	16.3	3.6	16.7	16.8	6.5	15.6	5.7	14.6	18.6	5.7
Prop In Lane	1.00		0.12	1.00		0.25	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	376	763	787	331	681	687	233	262	231	318	399	352
V/C Ratio(X)	0.29	0.45	0.45	0.26	0.46	0.46	0.46	0.87	0.35	0.79	0.74	0.26
Avail Cap(c_a), veh/h	391	763	787	460	681	687	233	374	329	337	534	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	24.0	24.1	18.9	24.5	24.6	39.6	49.8	45.5	35.4	43.3	38.3
Incr Delay (d2), s/veh	0.4	1.9	1.8	0.4	2.2	2.2	1.4	14.8	0.9	11.8	3.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.0	11.2	11.5	2.3	10.6	10.7	4.7	12.1	3.9	11.1	13.1	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.3	25.9	25.9	19.3	26.7	26.8	41.0	64.6	46.4	47.2	47.2	38.7
LnGrp LOS	В	С	С	В	С	С	D	Е	D	D	D	D
Approach Vol, veh/h		801			712			415			640	
Approach Delay, s/veh		25.0			25.9			55.1			46.0	
Approach LOS		С			С			Е			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.3	58.7	15.0	33.9	12.9	58.1	23.7	25.2				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	15.0	33.0	8.0	36.0	7.0	41.0	18.0	26.0				
Max Q Clear Time (g_c+l1), s	5.6	18.3	8.5	20.6	6.1	18.8	16.6	17.6				
Green Ext Time (p_c), s	0.1	2.1	0.0	1.1	0.0	2.1	0.1	0.6				
Intersection Summary												
HCM 6th Ctrl Delay			35.3									
HCM 6th LOS			D									

Albert Federico Consulting, LLC. 10/07/2024

Pre-development PM 3: Butler Avenue & County Line Road

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	1		1	1		7	^	7	7	↑	7
Traffic Volume (veh/h)	164	689	93	165	579	141	65	392	81	107	279	90
Future Volume (veh/h)	164	689	93	165	579	141	65	392	81	107	279	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1864	1864	1864	1683	1683	1683	1724	1724	1793	1780	1780	1852
Adj Flow Rate, veh/h	171	718	97	172	603	147	68	408	84	111	291	94
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	6	6	6	2	2	2	5	5	5	4	4	4
Cap, veh/h	321	1144	155	302	955	232	252	437	385	187	489	431
Arrive On Green	0.08	0.37	0.37	0.08	0.37	0.37	0.04	0.25	0.25	0.06	0.27	0.27
Sat Flow, veh/h	1775	3135	423	1603	2549	620	1642	1724	1520	1696	1780	1569
Grp Volume(v), veh/h	171	405	410	172	378	372	68	408	84	111	291	94
Grp Sat Flow(s),veh/h/ln	1775	1771	1788	1603	1599	1571	1642	1724	1520	1696	1780	1569
Q Serve(g_s), s	7.2	22.6	22.7	7.9	23.2	23.3	3.7	27.8	5.2	5.7	17.0	5.5
Cycle Q Clear(g_c), s	7.2	22.6	22.7	7.9	23.2	23.3	3.7	27.8	5.2	5.7	17.0	5.5
Prop In Lane	1.00		0.24	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	321	646	653	302	599	589	252	437	385	187	489	431
V/C Ratio(X)	0.53	0.63	0.63	0.57	0.63	0.63	0.27	0.93	0.22	0.59	0.60	0.22
Avail Cap(c_a), veh/h	321	646	653	380	599	589	278	474	418	220	534	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	31.4	31.4	23.3	30.7	30.7	32.0	43.8	35.4	33.6	37.7	33.6
Incr Delay (d2), s/veh	1.7	4.6	4.5	1.7	5.0	5.1	0.6	24.7	0.3	3.1	1.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.5	15.6	15.7	5.5	14.7	14.5	2.7	21.2	3.6	4.6	12.2	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.2	35.9	35.9	25.0	35.7	35.9	32.5	68.5	35.7	36.7	39.3	33.8
LnGrp LOS	С	D	D	С	D	D	С	E	D	D	D	C
Approach Vol, veh/h		986			922			560			496	
Approach Delay, s/veh		34.1			33.8			59.2			37.7	
Approach LOS		С			С			Е			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.2	50.8	12.1	40.0	16.0	52.0	14.6	37.4				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	16.0	33.0	7.0	36.0	9.0	40.0	10.0	33.0				
Max Q Clear Time (g_c+l1), s	9.9	24.7	5.7	19.0	9.2	25.3	7.7	29.8				
Green Ext Time (p_c), s	0.3	2.1	0.0	1.3	0.0	2.5	0.1	0.7				
Intersection Summary												
HCM 6th Ctrl Delay			39.3									
HCM 6th LOS			D									

Albert Federico Consulting, LLC. 10/07/2024

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Pre-development Saturday 3: Butler Avenue & County Line Road

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	†		7	†		7	↑	7	1	•	7
Traffic Volume (veh/h)	119	494	62	131	489	89	82	362	85	144	329	59
Future Volume (veh/h)	119	494	62	131	489	89	82	362	85	144	329	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1921	1921	1921	1683	1683	1683	1780	1780	1852	1823	1823	1896
Adj Flow Rate, veh/h	129	537	67	142	532	97	89	393	92	157	358	64
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	1	1	1	1	1	1
Cap, veh/h	347	1148	143	346	978	178	238	419	369	231	487	429
Arrive On Green	0.06	0.35	0.35	0.07	0.36	0.36	0.05	0.24	0.24	0.09	0.27	0.27
Sat Flow, veh/h	1829	3266	406	1603	2702	491	1696	1780	1569	1736	1823	1607
Grp Volume(v), veh/h	129	299	305	142	314	315	89	393	92	157	358	64
Grp Sat Flow(s), veh/h/ln	1829	1825	1847	1603	1599	1594	1696	1780	1569	1736	1823	1607
Q Serve(g_s), s	4.9	14.0	14.1	6.2	17.2	17.3	4.3	23.8	5.2	7.4	19.7	3.3
Cycle Q Clear(g_c), s	4.9	14.0	14.1	6.2	17.2	17.3	4.3	23.8	5.2	7.4	19.7	3.3
Prop In Lane	1.00	14.0	0.22	1.00	17.2	0.31	1.00	23.0	1.00	1.00	19.7	1.00
•		641	649		E70			419		231	107	
Lane Grp Cap(c), veh/h	347	641		346	578	577	238		369		487	429
V/C Ratio(X)	0.37	0.47	0.47	0.41	0.54	0.55	0.37	0.94	0.25	0.68	0.74	0.15
Avail Cap(c_a), veh/h	416	641	649	346	578	577	270	421	371	271	497	438
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	27.7	27.7	21.1	27.9	27.9	30.6	41.3	34.2	30.8	36.8	30.8
Incr Delay (d2), s/veh	0.7	2.4	2.4	0.8	3.6	3.7	1.0	28.8	0.3	5.4	5.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.8	10.6	10.7	4.2	11.3	11.4	3.3	19.9	3.7	6.2	14.6	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.4	30.1	30.1	21.9	31.5	31.6	31.6	70.1	34.5	36.2	42.3	30.9
LnGrp LOS	С	С	С	С	С	С	С	E	С	D	D	<u>C</u>
Approach Vol, veh/h		733			771			574			579	
Approach Delay, s/veh		28.7			29.8			58.4			39.4	
Approach LOS		С			С			Е			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	45.7	12.9	36.4	13.9	46.8	16.5	32.9				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	8.0	36.0	8.0	30.0	11.0	33.0	12.0	26.0				
Max Q Clear Time (g_c+l1), s	8.2	16.1	6.3	21.7	6.9	19.3	9.4	25.8				
Green Ext Time (p_c), s	0.0	2.1	0.0	1.0	0.1	2.0	0.1	0.0				
Intersection Summary	0.0		0.0	1.0	Ų. i	2.0	0.1	0.0				
			27.0									
HCM 6th Ctrl Delay			37.8									
HCM 6th LOS			D									
Notes												

User approved pedestrian interval to be less than phase max green.

Post-development AM 3: Butler Avenue & County Line Road

	٠		7	1		•	1	1	~	7	1	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	1		1	1		1	↑	7	7	↑	7
Traffic Volume (veh/h)	104	626	39	82	539	75	110	220	77	243	285	94
Future Volume (veh/h)	104	626	39	82	539	75	110	220	77	243	285	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1864	1864	1864	1683	1683	1683	1724	1724	1793	1780	1780	1852
Adj Flow Rate, veh/h	108	652	41	85	561	78	115	229	80	253	297	98
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	6	6	6	2	2	2	5	5	5	4	4	4
Cap, veh/h	371	1459	92	331	1202	167	232	262	231	318	399	352
Arrive On Green	0.05	0.43	0.43	0.04	0.43	0.43	0.07	0.15	0.15	0.14	0.22	0.22
Sat Flow, veh/h	1775	3383	213	1603	2820	391	1642	1724	1520	1696	1780	1569
Grp Volume(v), veh/h	108	341	352	85	317	322	115	229	80	253	297	98
Grp Sat Flow(s),veh/h/ln	1775	1771	1825	1603	1599	1612	1642	1724	1520	1696	1780	1569
Q Serve(g_s), s	4.1	16.3	16.3	3.6	17.1	17.2	7.1	15.6	5.7	14.6	18.6	6.2
Cycle Q Clear(g_c), s	4.1	16.3	16.3	3.6	17.1	17.2	7.1	15.6	5.7	14.6	18.6	6.2
Prop In Lane	1.00		0.12	1.00		0.24	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	371	763	787	331	681	687	232	262	231	318	399	352
V/C Ratio(X)	0.29	0.45	0.45	0.26	0.47	0.47	0.49	0.87	0.35	0.79	0.74	0.28
Avail Cap(c_a), veh/h	386	763	787	460	681	687	232	374	329	337	534	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	24.0	24.1	18.9	24.6	24.7	39.9	49.8	45.5	35.4	43.3	38.5
Incr Delay (d2), s/veh	0.4	1.9	1.8	0.4	2.3	2.3	1.6	14.8	0.9	11.8	3.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.0	11.2	11.5	2.3	10.8	10.9	5.2	12.1	3.9	11.1	13.1	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.4	25.9	25.9	19.3	26.9	27.0	41.5	64.6	46.4	47.2	47.2	38.9
LnGrp LOS	В	С	С	В	С	С	D	E	D	D	D	<u>D</u>
Approach Vol, veh/h		801			724			424			648	
Approach Delay, s/veh		25.0			26.1			54.9			45.9	
Approach LOS		С			С			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.3	58.7	15.0	33.9	12.9	58.1	23.7	25.2				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	15.0	33.0	8.0	36.0	7.0	41.0	18.0	26.0				
Max Q Clear Time (g_c+l1), s	5.6	18.3	9.1	20.6	6.1	19.2	16.6	17.6				
Green Ext Time (p_c), s	0.1	2.1	0.0	1.2	0.0	2.1	0.1	0.6				
Intersection Summary												
HCM 6th Ctrl Delay			35.4									
HCM 6th LOS			D									

Albert Federico Consulting, LLC. 10/07/2024

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
				אטא	ODL	
Lane Configurations Traffic Vol, veh/h	12	770	↑	27	. 0	7
•	12	770	716	27	0	39
Future Vol, veh/h	12	770	716	27	0	39
Conflicting Peds, #/hr	0	0	0	_ 0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	
Storage Length	0	-	-	-	-	0
Veh in Median Storage,	,# -	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	4	2	2	0	0
Mvmt Flow	13	837	778	29	0	42
Major/Minor	laior1	_ ^	/aiar0		/liner0	
	Major1		/lajor2		Minor2	404
Conflicting Flow All	807	0	-	0	-	404
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.3	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	3	-	-	-	-	3.1
Pot Cap-1 Maneuver	629	-	-	-	0	634
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		_	_	-		
Mov Cap-1 Maneuver	629	_	_	-	_	634
Mov Cap-2 Maneuver	-	_	_	_	_	-
Stage 1	_	_	_	_	_	_
Stage 2			_			_
Glaye Z	<u>-</u>	_	_	_	-	<u>-</u>
Approach	EB		WB		SB	
HCM Control Delay, s	0.2		0		11.1	
HCM LOS					В	
10 1 01 1		ED!	EDT	MAIST	\A/D.=	OD! 4
Minor Lane/Major Mvmt	t	EBL	EBT	WBT	WBR :	
Capacity (veh/h)		629	-	-	-	634
HCM Lane V/C Ratio		0.021	-	-		0.067
HCM Control Delay (s)		10.8	-	-	-	11.1
HCM Lane LOS		В	-	-		В
HCM 95th %tile Q(veh)		0.1	-	-	-	0.2

Post-development PM 3: Butler Avenue & County Line Road

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	1		1	1		7	^	7	7	↑	7
Traffic Volume (veh/h)	164	689	93	165	591	141	73	392	81	107	279	94
Future Volume (veh/h)	164	689	93	165	591	141	73	392	81	107	279	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1864	1864	1864	1683	1683	1683	1724	1724	1793	1780	1780	1852
Adj Flow Rate, veh/h	171	718	97	172	616	147	76	408	84	111	291	98
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	6	6	6	2	2	2	5	5	5	4	4	4
Cap, veh/h	317	1144	155	302	960	229	254	437	385	187	481	424
Arrive On Green	0.08	0.37	0.37	0.08	0.37	0.37	0.05	0.25	0.25	0.06	0.27	0.27
Sat Flow, veh/h	1775	3135	423	1603	2561	610	1642	1724	1520	1696	1780	1569
Grp Volume(v), veh/h	171	405	410	172	384	379	76	408	84	111	291	98
Grp Sat Flow(s),veh/h/ln	1775	1771	1788	1603	1599	1573	1642	1724	1520	1696	1780	1569
Q Serve(g_s), s	7.2	22.6	22.7	7.9	23.7	23.8	4.1	27.8	5.2	5.7	17.1	5.8
Cycle Q Clear(g_c), s	7.2	22.6	22.7	7.9	23.7	23.8	4.1	27.8	5.2	5.7	17.1	5.8
Prop In Lane	1.00		0.24	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	317	646	653	302	599	589	254	437	385	187	481	424
V/C Ratio(X)	0.54	0.63	0.63	0.57	0.64	0.64	0.30	0.93	0.22	0.59	0.60	0.23
Avail Cap(c_a), veh/h	317	646	653	380	599	589	273	474	418	220	534	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	31.4	31.4	23.3	30.9	30.9	31.8	43.8	35.4	33.6	38.2	34.1
Incr Delay (d2), s/veh	1.8	4.6	4.5	1.7	5.2	5.3	0.7	24.7	0.3	3.1	1.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.6	15.6	15.7	5.5	15.0	14.8	3.0	21.2	3.6	4.6	12.3	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	35.9	35.9	25.0	36.1	36.2	32.5	68.5	35.7	36.7	39.8	34.4
LnGrp LOS	С	D	D	С	D	D	С	E	D	D	D	C
Approach Vol, veh/h		986			935			568			500	
Approach Delay, s/veh		34.1			34.1			58.8			38.1	
Approach LOS		С			С			Е			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.2	50.8	12.6	39.4	16.0	52.0	14.6	37.4				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	16.0	33.0	7.0	36.0	9.0	40.0	10.0	33.0				
Max Q Clear Time (g_c+l1), s	9.9	24.7	6.1	19.1	9.2	25.8	7.7	29.8				
Green Ext Time (p_c), s	0.3	2.1	0.0	1.3	0.0	2.5	0.1	0.7				
Intersection Summary												
HCM 6th Ctrl Delay			39.5									
HCM 6th LOS			D									

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Intersection						
	0.3					
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	7	*	1			7
Traffic Vol, veh/h	12	946	735	27	0	39
Future Vol, veh/h	12	946	735	27	0	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	
Storage Length	0	-	_	-	_	0
Veh in Median Storage,		0	0	_	0	-
Grade, %	-	0	0	_	0	_
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	4	4	0	0
Mvmt Flow	13	1028	799	29	0	42
IVIVIIIL FIOW	13	1020	1 33	23	U	42
Major/Minor N	1ajor1	N	/lajor2	N	/linor2	
Conflicting Flow All	828	0	-	0	_	414
Stage 1	-	-	_	-	_	_
Stage 2	_	_	_	_	_	_
Critical Hdwy	4.3	_	_	_	_	6.9
Critical Hdwy Stg 1		_	_	_	_	-
Critical Hdwy Stg 2				_	_	_
Follow-up Hdwy	3			_	_	3.1
Pot Cap-1 Maneuver	618	_	-	-	0	624
	010	-	_	-	0	024
Stage 1	_	-	-		0	
Stage 2	-	-	-	-	U	-
Platoon blocked, %	040	-	-	-		004
Mov Cap-1 Maneuver	618	-	-	-	-	624
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		SB	
	0.1		0		11.2	
HCM LOS	U. I		U			
HCM LOS					В	
Minor Lane/Major Mvmt		EBL	EBT	WBT	WBR :	SBLn1
Capacity (veh/h)		618	_	-	_	624
HCM Lane V/C Ratio		0.021	_	-		0.068
HCM Control Delay (s)		11	_	_		11.2
HCM Lane LOS		В	_	-	_	В
HCM 95th %tile Q(veh)		0.1	_		_	0.2
How som while Q(ven)		U. I			-	U.Z

Post-development Saturday 3: Butler Avenue & County Line Road

	٨	-	•	•		•	1	1	1	/	ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	†		7	†		7	↑	7	1	•	7
Traffic Volume (veh/h)	119	494	62	131	495	89	86	362	85	144	329	63
Future Volume (veh/h)	119	494	62	131	495	89	86	362	85	144	329	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1921	1921	1921	1683	1683	1683	1780	1780	1852	1823	1823	1896
Adj Flow Rate, veh/h	129	537	67	142	538	97	93	393	92	157	358	68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	1	1	1	1	1	1
Cap, veh/h	345	1148	143	346	979	176	239	419	369	231	483	426
Arrive On Green	0.06	0.35	0.35	0.07	0.36	0.36	0.06	0.24	0.24	0.09	0.27	0.27
Sat Flow, veh/h	1829	3266	406	1603	2707	486	1696	1780	1569	1736	1823	1607
Grp Volume(v), veh/h	129	299	305	142	317	318	93	393	92	157	358	68
Grp Sat Flow(s), veh/h/ln	1829	1825	1847	1603	1599	1595	1696	1780	1569	1736	1823	1607
Q Serve(g_s), s	4.9	14.0	14.1	6.2	17.4	17.5	4.5	23.8	5.2	7.4	19.8	3.6
Cycle Q Clear(g_c), s	4.9	14.0	14.1	6.2	17.4	17.5	4.5	23.8	5.2	7.4	19.8	3.6
Prop In Lane	1.00	14.0	0.22	1.00	17.4	0.30	1.00	23.0	1.00	1.00	19.0	1.00
•		641	649		E70			419		231	102	
Lane Grp Cap(c), veh/h	345	641		346	578	577	239		369		483	426
V/C Ratio(X)	0.37	0.47	0.47	0.41	0.55	0.55	0.39	0.94	0.25	0.68	0.74	0.16
Avail Cap(c_a), veh/h	413	641	649	346	578	577	267	421	371	271	497	438
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.8	27.7	27.7	21.1	27.9	28.0	30.6	41.3	34.2	30.8	37.0	31.0
Incr Delay (d2), s/veh	0.7	2.4	2.4	0.8	3.7	3.8	1.0	28.8	0.3	5.4	5.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.8	10.6	10.7	4.2	11.4	11.5	3.5	19.9	3.7	6.2	14.7	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.4	30.1	30.1	21.9	31.6	31.7	31.6	70.1	34.5	36.2	42.7	31.2
LnGrp LOS	С	С	С	С	С	С	С	E	С	D	D	<u>C</u>
Approach Vol, veh/h		733			777			578			583	
Approach Delay, s/veh		28.8			29.9			58.2			39.6	
Approach LOS		С			С			Е			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	45.7	13.2	36.2	13.9	46.8	16.5	32.9				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	8.0	36.0	8.0	30.0	11.0	33.0	12.0	26.0				
Max Q Clear Time (g_c+l1), s	8.2	16.1	6.5	21.8	6.9	19.5	9.4	25.8				
Green Ext Time (p_c), s	0.0	2.1	0.0	1.1	0.1	2.0	0.1	0.0				
· · ·	0.0	2.1	0.0	1.1	0.1	2.0	0.1	0.0				
Intersection Summary			0= 0									
HCM 6th Ctrl Delay			37.8									
HCM 6th LOS			D									
Notes												

User approved pedestrian interval to be less than phase max green.

Intersection						
Int Delay, s/veh	0.2					
			14/5	14/5-	0-:	055
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	7	^	†			7
Traffic Vol, veh/h	6	676	631	13	0	22
Future Vol, veh/h	6	676	631	13	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage,	# -	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	4	4	0	0
Mvmt Flow	7	735	686	14	0	24
Majay/Minay	-14		Ania TO		Aim c = O	
	ajor1		Major2		/linor2	
Conflicting Flow All	700	0	-	0	-	350
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.3	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	3	-	-	-	-	3.1
Pot Cap-1 Maneuver	686	-	-	-	0	688
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	_		
Mov Cap-1 Maneuver	686	_	_	-	_	688
Mov Cap-2 Maneuver	-	_	_	_	_	-
Stage 1	_	_	_	_	_	_
Stage 2	_	_		_	_	_
Olago Z	_				-	
Approach	EB		WB		SB	
HCM Control Delay, s	0.1		0		10.4	
HCM LOS					В	
Minor Lane/Major Mvmt		EBL	EBT	WBT	WBR	SRI n1
		686	LDI	וטיי	יוטיי	688
Capacity (veh/h)		0.01	-	-	-	
HCM Lana V/C Datic		11111	-	-	-	0.035
HCM Control Doloy (a)						10.4
HCM Control Delay (s)		10.3	-	-	-	10.4
						10.4 B 0.1

Project: Spotless Brands 10/7/2024

Development: Car Wash

Location: New Britain Township, Bucks County

Car Wash Queuing

Highway Capacity Manual, equation 19-68: 95th Percetile Queue Lengths

 $Q_{95} = 900T[v_x/c_{m,x}-1+((v_x/c_{m,x}-1)^2+(3600/c_{m,x})(v_x/c_{m,x})/150T)^{0.5}](c_{m,x}/3600)$

= 95th percetile queue (veh)

		<u>input</u>
V_{x}	= flow rate of movement x (ve/h)	39
	per ITE LU 948, PM Peak of Adjacaent Street	
C _{m,x}	= capacity of movement x (ve/h)	100
Т	= analysis time period (h)	0.25

Q₉₅ **1.6 veh**

TOWNSHIP OF NEW BRITAIN BUCKS COUNTY, PENNSYLVANIA

ORDINANCE NO.

AN ORDINANCE OF THE TOWNSHIP OF NEW BRITAIN, BUCKS COUNTY, PENNSYLVANIA, PROVIDING FOR COMPREHENSIVE AMENDMENTS TO THE NEW BRITAIN TOWNSHIP ZONING 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 Zoning Ordinance, which is codified in Chapter 27 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 Zoning Ordinance in order to revise definitions of terms used in the Zoning Ordinance; to revise setback and buffer yard requirements and permitted activities within setbacks; to revise the general regulations applicable to all uses and districts; and to revise regulations pertaining to off-street parking, sightlines, lighting, fences and environmental standards; to relocate provisions that are more appropriate to the Subdivision and Land Development Ordinance; to provide for standardized fees in lieu for open space and/or recreation areas; and to make editorial and clarifying amendments throughout the Zoning Ordinance;

NOW, THEREFORE, BE IT ORDAINED AND ENACTED, Chapter 27-Zoning of the Township of New Britain is amended to read as follows:

Section 1. The following Sections of Chapter 27 Zoning is amended to read as provided for in Exhibit "A" which is attached hereto and incorporated herein by reference:

- a. Section 201 General Definitions.
 - i. Area: Lot Area
 - ii. Site Area; Site Area, Base
 - iii. Land Development
 - iv. New Definition for "Green (Stormwater) Infrastructure" is added
- b. Section 300 Applicability of Regulations
- c. Section 305 Use Definitions and Regulations
- d. Section 502 Area and Dimensional Requirements (WS District)

Commented [JM1]: Remove. N/A

Commented [JM2]: Removed the reference to "Green Stormwater Infrastructure" in Zoning. Defined in SALDO.

- e. Section 505 Environmentally Sensitive Land Standards for Watershed District
- f. Section 1403 Performance Standards (C-3 District)
- g. Section 1904 Requirements of the Floodplain Overlay District
- h. Section 2103 Minimum Lot Width
- i. Section 2108 Bifurcation of Restrictions
- i. Section 2109 Fences and Terraces in Yards
- k. Section 2111 Traffic Visibility Across Corners
- Section 2114 Special Considerations for Municipal Uses and Emergency Service Uses
- m. Section 2115 Septic System Setbacks
- n. Section 2400 Natural Resources
- o. Section 2401 Application of Natural Resource Protection Standards
- p. Section 2606 Sign Type Specific Regulations
- q. Section 2702 Open Space Designation
- r. Section 2800 Purpose and Applicability (Buffer Yard Requirements)
- s. Section 2803 General Requirements (Buffer Yard Requirements)
- t. Section 2900 Purpose and General Requirements (Off-Street Parking and Loading)
- u. Section 2901 Off-Street Parking Requirements
- v. Section 2902 General Regulations for Off-Street Parking
- w. Section 2904 Design Standards for Off-Street Parking
- x. Section 2905 Parking of Trucks and Junk Vehicles in Residential Districts
- y. Section 3003 Application Requirements for Zoning Permits
- z. Attachment 1 Appendix A. Environmental Impact Statement Report

Section 2. The following subsections shall be deleted from Section 305 Use Regulations: A3.b.5; A8.b.3.; A10.b.7.; C6.b.5.; D1.b.5.; D2.b.4; E1.b.3.; E2.b.4; E3.b.6.; E5.b.2.; E7.b.3; E8.b.2.; F2.b.2.; F3.b.3.; F4.b.2.; F5.b.6; G2.b.1.; G3.b.7; H15e.4.; H15f.2.; H15.g.7.; I.I1.b.1.; I2.b.2.; I3.b.1.; I4.b.1.; J.J1.b.1.; J3.b.1.; J4.b.2.; J5.b.1.; J6.b.1.; J7.b.3.; J8.b.1.; J10.b.; J11.b.1.; J12.b.5.; J13.b.1; J15.b.1.; J16.b.3.; J17.b.1.; J18.b.1.; J19.b.13.(g); J20.b.2.; J21.b.3.; J22.b.1.; J23.b.1.; J25.a.4.; J25.b.4.; J26.b.2.; J28.b.; J29.b.2.; J30.b.; J34.b.1. K.K1.b.1.; K2.b.1.; K3.b.2.; K4.b.1.; K5.b.1.; K6.b.5.; K7.b.1.; K8.b.1.; K9.b.1.; K10.b.2.; K15.d.5.; K17.b.17.; K20.h.; and K21.b.1.

Section 3. Sections 701, 801, 1001 and 1101 shall be amended to include Use H6 Residential Solar Energy Systems as a use permitted by Right. The Table of Use Regulations shall be amended to reflect this change.

Section 4. Sections 1201, 1401, 1501, 1601, 1701 and 1801 are amended to reflect that Use I3 is now titled "General Office" instead of Professional Office.

Section 5. Part 25 Traffic Impact Analysis shall be deleted in its entirety.

Section 6. Section 2802 Content of Planting Strips shall be deleted in its entirety.

Section 7. 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 8. Effective Date.

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

ORDAINED AND ENACTOWNShip this day of	CTED by the Board of Supervisors of New Britain, 2025.
Attest:	NEW BRITAIN TOWNSHIP BOAR OF SUPERVISORS
Dan Fox, Township	Cynthia Jones, Chair
Manager	MaryBeth McCabe, Vice Chair
	Stephanie Shortall, Member
	William B. Jones, III, Member
	Bridget Kunakorn, Member

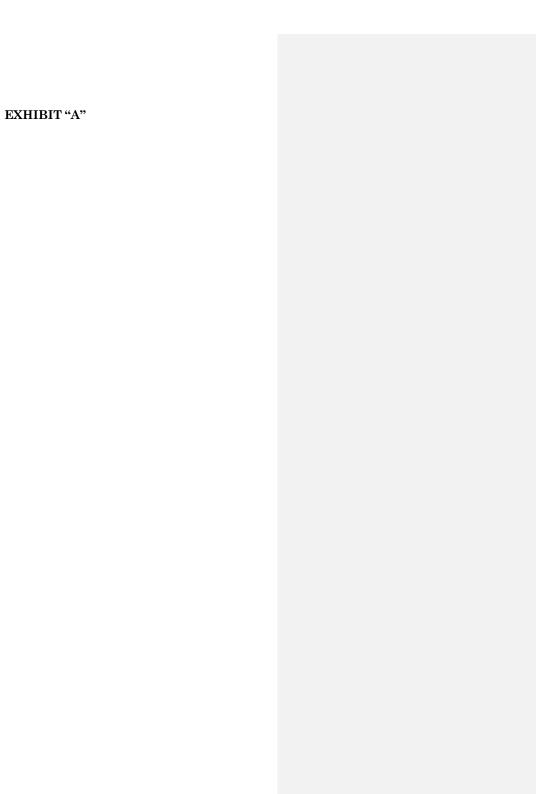


EXHIBIT "A"

§27-201.AREA. b. LOT AREA The area contained within the property lines of the individual parcels of land shown on a subdivision plan or required by this chapter, excluding any area within an existing or designated future street right-of-way; any area required as open space under this chapter; and the area of any existing easement. Adjoining "A" lots, in same ownership, shall be considered within the total lot area.

§27-201.EXTENSION An increase in the amount of existing floor area beyond the exterior wall.

§27-201 LAND DEVELOPMENT — Any of the following activities:

- a. The improvement of one lot or two or more contiguous lots, tracts or parcels of land for any purpose involving:
 - 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 the tenants; or
 - 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. Development in accordance with § 503(1.1) of the Pennsylvania Municipalities Planning Code. The addition of an accessory building, including farm buildings subordinate to the existing principal building, are excluded from the definition of land development.
- d. The condominium of land or buildings.

§27-201.SITE AREA.a. SITE AREA, BASE The base site area is the area of the site remaining after subtracting land: within the ultimate road rights-of-way of existing roads; within existing utility rights-of-way or easements; preserved through easement or other means; which is not contiguous; which is cut off from the main parcel by a road, railroad, existing land use, and/or major stream; which was set aside, reserved, and/or restricted for open space, natural resource protection, and/or recreation purposes in a previously approved subdivision/land development; used and/or to be used for another type of use (i.e., land which is used, or to be used, for commercial or industrial uses in a residential development); and/or located in a different zoning district than the rest of the development.

§27-300.a. Except as provided by law or in this chapter, in each district no building, structure or land shall be used or occupied including work, construction and loading in the ultimate right-of-way except for the purposes permitted in § 27-305 and for the zoning districts so indicated in Parts 4 through 20. On any property, parcel or tract of land, only one principal use and principal structure shall be permitted unless otherwise stated in this chapter.

§27-300.d. The proceeding provisions shall apply; except, however, there shall be an exemption

Commented [JM3]: Delete per Twp Solicitor. §27-2302 being amended to use the term "Expansion"

from the requirements of this chapter for municipal uses which are defined as those services rendered by New Britain Township, including the appurtenances owned, or to be owned by the Township and used in connection with the supplying of public services. Any existing or proposed use, structure, or extension thereof, by the Township for the purpose of providing municipal uses or services shall be exempt from the area, dimensional, parking and use regulations as otherwise would be required by this chapter.

§27-305.A.A7. Garden Center. A. Definition. The retail sale of floral items, flowers, plants, shrubs and trees in the field and/or indoors.

§27-305.B.B8. Mobile Manufactured Home Park I

§27-305.B.B9. Mobile Manufactured Home Park II

§27-305.F6.b.1

F6 b. Use Regulations.

- 1. Only one or more of the following principal sub-uses may be included in a business campus:
 - 11 Medical Office
 - 12 Veterinary Office
 - 13 General Office
 - 14 Medical and Pharmaceutical Sales Office
 - J4 Financial Establishment
 - J28 Office Supplies and Equipment Sales and Services
 - J29 Package Delivery Services
 - K2 Research
 - K3 Wholesale Business, Wholesale Storage, and Warehousing
 - K4 Printing
 - K7 Crafts

§27-305.H.H2 Residential ShedStructure.

a. Definition. Buildings such as storage sheds, garden sheds, <u>pavilions</u>, <u>gazebos</u>, <u>and</u> private greenhouses, <u>and similar structures</u>. A residential <u>shed_structure</u> shall be an uninhabitable, freestanding structure <u>not having more thanwith a maximum building coverage of 200 250 400</u> square feet <u>of building coverage</u>; not greater than 12 feet in height; without footings; and which is used for the storage of household items incidental to the day-to-day <u>use</u>, <u>care and maintenance</u> of a residential property. <u>These_Household</u> items shall include, but not be limited to, lawn mowers, garden tools and supplies, and barbecue grills.

[Amended by Ord. No. 2018-10-04, 10/1/2018]

- b. Regulations. The following regulations are exceptions to the regulations generally covering residential accessory <u>buildingsstructures</u>:
 - 1. No residential sheds shall be located in front yards except on lots 10 acres or greater in size.

Commented [JM4]: Building Permit required for 250-SF shed

Footers required for 400 SF or greater >400 SF needs to be in the building envelope-see added section below.

Commented [JM5]: EAC Comment- some structures are not for care and maintenance, just use

Such sheds shall be permitted for Use B1 in front yards but shall not be located within the required minimum front yard setback. <u>If any property has more than one front yard, the shed may be permitted within the yard that is along the side of the existing principal structure.</u>

- 2. No more than two residential sheds shall be situated on any property, one acre or less in size. On properties larger than one acre in size, one additional shed may be situated on the property for each additional acre in size above one acre.
- 3. No residential shed shall be located in any easement or right-of-way.
- A residential shed <u>structure may occupy a required side or rear yard on properties of less</u> than 25,000 square feet, provided that the shed is a minimum of five feet from any side or rear property line.
- 5. Any residential accessory structure greater than 400 square feet shall comply with the required building setbacks for the respective zoning district.
- 6. Additional regulations for Accessory Uses/Structures may be found under the regulations for each Zoning District.

§27-305.H.H3. Residential Fences, Walls.

- a. Definition. Structures such as fences, and free-standing walls. Zoning permits are not required for replacement of an existing fence in the same location, likeness, and height provided it was legally conforming at the time it was installed.
- b. Regulations.
 - 1. Fences:
 - (a) Any fence located in the front yard shall <u>not be 100% opaque</u> have a minimum ratio of 4:1 of opaque to non opaque areas and shall not exceed four (4) feet in height. Wire mesh may be attached to the inside of split rail fences if desired.
 - (b) Fences may be located on the side or rear lot line, except along a public street, and may be non-opaque. Solid wooden or split rail fences are permitted.
 - (eb) A fence located anywhere except the front yard may have a height of up to six (6) feet.
 - (dc) A fence of up to eight (8) feet high may be allowed in a rear yard for the sole purpose of enclosing a court for tennis or similar sports. Such fence shall be set back a minimum of 10 feet from the side and rear lot lines.
 - (e) A fence shall not be required to comply with accessory structure setbacks.
 - (d) Fence enclosures for swimming pools are required to meet the requirements of the Pennsylvania Uniform Construction Code, as amended.
 - 2 Walls
 - (a) Engineering retaining walls necessary to hold back slopes are exempted from the regulations for this section and are permitted by right as needed as approved by the Township Engineer.

Commented [JM6]: Contradicts individual residential zoning districts. Added #6 below.

Commented [JM7]: Added per Staff meeting based on changes above

Commented [JM8]: EAC comment to consider gap between two fences. Staff recommended not removing.

- (b) Walls may be one foot in height for every two feet they are setback from a property line, up to a maximum height of six (6) feet in the rear or side yard. No wall shall exceed four (4) feet in the front yard.
- 3. General regulations for walls and fences.
 - (a)Fences and walls shall not be required to comply with accessory structure setbacks.
 - (b) Fences or walls shall not be permitted within the Township ultimate right-of-way or PennDOT legal right-of-way, within any clear sight triangle, nor within any easement restricting the placement of structures.
 - (c) The onus shall be on the property owner to identify the property line to ensure that there are no non-compliant fence or wall encroachments onto adjoining property.
 - (d)In the instance that the property contains a recorded access easement for adjacent lands that may be under different ownership, the location of a fence or wall shall not hinder access to those adjacent lands for maintenance or other purposes in accordance with any recorded easement agreement.
 - (e)Structures such as fences, walls, or signs shall be built, constructed, and/or installed so that the front or "good side" of the structure faces outward from the lot.

§27-305.H.H11 Recreational and Other Vehicle Storage.

- a. Definition. A vehicle or piece of equipment, whether self-powered or designed to be pulled or carried, intended primarily for leisure time or recreational use. Recreational vehicles or units include, but are not limited to, the following: travel trailers, truck-mounted campers, coaches, motorized homes, folding tent campers, automobiles, busses, or trucks adapted for vacation use, snowmobiles, minibikes, all-terrain vehicles, go-carts, boats, boat trailers and utility trailers.
- b. Regulations.
 - Recreational vehicles or units shall not be stored in the front yard setback. <u>Any more than two recreational or other vehicle storage items shall be considered Use L2 Outside Storage.</u>
 - Recreational vehicles or other vehicle storage may be permitted as an accessory use of non-residential lots, single-family detached dwellings and two-family attached dwellings.

§27-305.J.J1. Retail Store Definition. A shop or store selling commodities and goods to the ultimate consumer. Not included under this use are vehicular sales, over-the-counter sale of alcoholic beverages in a tavern or bar, or a store with greater than 15 square feet of floor area devoted to the display of pornographic materials. A pharmacy is considered incidental to retail use if located within the same building.

§ 27-305.K.K5. Contracting.

- b. Regulations
 - 2. All materials and vehicles shall be stored within a building or an enclosed area which is properly screened. Any outside storage, including storage of two or more commercial, recreational or other vehicle storage, shall be considered an L2 Outside

Commented [JM9]: N/A

Storage or Display use and shall comply with all the requirements for this use, in addition to the above regulations.

§ 27-305.K18 Flexible building space that can be used for either at least two of the following uses: office, light manufacturing, assembly and/or warehousing.

§ 27-305.L.L2. Outside Storage or Display.

- a. Definition. Outside storage or display, other than storage as a primary use of the land, necessary but incidental to the normal operation of a primary use. The keeping, in an unenclosed area, of any goods, junk, material, merchandise, or vehicles in the same place including within a temporary structure for more than 24 hours.
- b. Regulations.
 - No part of the street right-of-way, no sidewalks or other areas intended or designed for pedestrian use, no required parking areas and no part of the required front yard shall be occupied by outside storage or display.
 - Outside storage and display areas shall occupy an area of less than <u>0.550%</u> of the existing building coverage.
 - Outside storage areas shall be shielded from view with a dense evergreen buffer and/or fencing so that the areas cannot be seen from all public streets. Fencing shall meet the provisions of this Ordinance.
 - 4. Uses requiring more substantial amounts of land area for storage or display may be exempt from the provisions of Subsection b.1 and b.2 above when granted as a special exception by the Zoning Hearing Board and provided;
 - (a) No more than 25% of the lot area shall be used in outdoor storage or display.
 - (b) A Special Exception is required for the following uses; nurseries (Use A6), lumber yards (Use K8), automobile sales (Use J2O), truck terminals (Use K6) and agricultural retail (Use A3).
 - (c) Among the uses that shall not be appropriate for inclusion under this provision are retail stores (Use J1), repair shops (Use J17), service station or car-washing facility (Use J19), automobile repair (Use J21), sale of automobile accessories (Use J22), wholesale business and storage (Use K3), contractor office and shops (Use K5) and crafts (Use K7).

§ 27-305.L.L3. Temporary Structure, Temporary Storage Container, Pod, or similar:

...

<u>c.5.(b)</u> – Such containers shall only be located within the front yard of any property <u>for a residential use</u> and set back from the edge of the cartway and the sidewalk a minimum of five feet, provided that there is no encroachment into the clear sight triangle for any intersecting streets or driveways. <u>For non-residential use</u>, <u>any such container shall be visible from a public street or public accessway and shall not be placed within required parking spaces for more than one month from the date installed.</u>

§ 27-305.L.L4. Temporary Community Event. A. Definition. A temporary activity including, but not limited to, flea markets, public exhibitions, auctions, carnivals, circuses, picnics, air shows,

suppers for fundraising, <u>mobile vending</u>, and similar organizational events and meetings. <u>Ice cream trucks are excluded from these regulations</u>.

- b. Regulations.
 - Such temporary uses shall be limited in time to no longer than seven days per occurrence. Such occurrences shall be limited to not more than four occurrences in a calendar year for each organization. There shall be at least a thirty-day period between such occurrences.
 - 2. Signs advertising a temporary community event shall be posted no more than 14 days prior to the first day of the event and shall be removed on the final day of the event. No more than four off-premises signs shall be placed. The location of off-premises signs must be approved by the property owners of the properties upon which they are to be fixed.
 - The applicant shall provide plans to ensure security, crowd control, adequate parking for
 existing and proposed uses on the premises, emergency access, traffic control, street
 access, sanitary facilities, erosion control, trash collection, noise control, and cleanup after
 the event.
 - The owner shall submit a certified letter to the Township indicating that they are aware of the proposed use.
 - Mobile vending shall be permitted within non-residential zoning districts only. No mobile vending shall be permitted within 500 feet of an existing restaurant or retail store selling similar goods. No more than one mobile unit shall be permitted at one location at a time. No outdoor eating areas with tables and/or chairs are permitted.
 - 6. Hours of operations shall be limited to between the hours of 9 am to 6 pm.

Add §27-305.L L15. Non-Residential Fences and Walls

a.Definition. Structures such as fences and free-standing walls. Zoning permits are not required for replacing an existing fence in the same location, likeness and height provided it was legally conforming at the time it was installed. A zoning permit is required to replace a free-standing wall.

b.Regulations.

1. Fences:

- (a)Any fence located in the front yard shall not be 100% opaque and shall not exceed four (4) feet in height. Wire mesh may be attached to the inside of split rail fences if desired.
- (b)A fence located anywhere, except the front yard, may have a height of up to six (6) feet. 2.Walls.
 - (a)Retaining walls measured four (4) feet or higher from the lowest grade to the top of the wall, tiered walls, and walls with surcharges from adjacent slopes, foundation loads, or other loads, shall require a Zoning Permit and review and approval of all required plans, details, calculations, and specifications by the Township Engineer.
 - (b)Walls may be one (1) foot in height for every two (2) feet they are setback from a property line, up to a maximum height of six (6) feet in the rear or side yard. No wall shall exceed four (4) feet in the front yard.
- 3. General regulations for walls and fences.
 - (a)Fences and walls shall not be required to comply with accessory structure setbacks.

Commented [JM10]: EAC comment to clarify wording. Previously: "Approval in the form of a certified letter shall be obtained from the owner of the site."

- (b)Fences or walls shall not be permitted within the Township ultimate right-of-way or PennDOT legal right-of-way, within any clear sight triangle, nor within any easement without permission of the beneficiary of the easement.
- (c) The onus shall be on the property owner to identify the property line to ensure that there are no non-compliant fence or wall encroachments onto adjoining property.
- (d)In the instance that the property contains a recorded access easement for adjacent lands that may be under different ownership, the location of a fence or wall shall not hinder access to those adjacent lands for maintenance or other purposes in accordance with any recorded easement agreement.
- (e)Structures such as fences, walls, or signs shall be built, constructed, and/or installed so that the front or "good side" of the structure faces outward from the lot.

4. Exemptions:

- (a)Conventional fences required for farm use, agricultural use and related 27-305.facilities on properties in excess of five acres shall be exempt from the fence regulations of this chapter, except for height regulations.
- (b)Fences required in the Butler Corridor Overlay District shall be in accordance with § 22-722.D.(7), of the Subdivision and Land Development Ordinance.
- §27-502.b.3. When a lot or tract of land undergoes subdivision/land development or is being developed with a new or expanded principal building or structure, all the natural resource protection land on this lot or tract, such as watercourses, agricultural soils, woodlands, steep slopes, wetlands, etc., shall be protected with a conservation easement in accordance with §§ 27-505 and 27-2400 of this chapter. The natural resources required to be preserved on each lot shall only be disturbed in accordance with Part 24 of this chapter and § 27-505.
- §27-505.1. Resource restrictions for environmentally sensitive land shall be considered land to be protected and preserved within the Watershed District for all uses and activities in accordance with the protection ratios noted below. All natural resource protection land, such as watercourses, agricultural soils, woodlands, steep slopes, wetlands, etc., shall be protected and preserved on each site and/or lot in accordance with § 27-2400 of this chapter through the placement of a conservation easement on the site/lot. The natural resources required to be preserved and protected shall not be disturbed, other than the cultivation of agricultural soils.
- Amend § 27-701.a., 801.a., 901.a., 1001.a., 1101.a., to include H6 Residential Solar Energy Systems as Use permitted by Right.
- 27 Attachment 2 Table of Uses Regulations for H6 Residential Solar Energy System within SR-1 to Y/SE for SR-2, RR, VR, and MHP.
- §27-1201.a., 1301.a., 1401.a., 1501.a., 1601.a., 1701.a., & 1801.a., |3 Professional General Office
- §27-1403.c.8(d) Trees shall be planted within at least 5 feet outside rights-of-way parallel to the street along all streets but not alleys.
- §27-1904.g. Structural Anchoring. Any structure placed in the identified Floodplain floodplain Overlay District area shall be anchored firmly to prevent flotation, collapse, or lateral movement. The floodplain administrator shall require the applicant to submit the written opinion of a registered

professional engineer that the proposed structural design meets the requirements of this Part for all buildings and manufactured homes and may require such an opinion for all other structures. All air ducts, large pipes, storage tanks, and other similar objects or components located below the regulatory flood elevation shall be securely anchored or affixed to prevent flotation.

§27-2103.a. Residential Lane Lots.

- A lane lot shall only be improved with one single-family detached dwelling and related residential accessory uses.
- 2. Each lot must have a separate lane, and each lane lot must contain at least twice the minimum lot area of the zoning district where the property is located. 10 acres.

§27-2108.d. These increased restrictions only apply to lots that are one acre in lot area or less, and do not apply to the B6 Multifamily and. B7 Apartment, B8 and B9 Mobile Home Park I and II uses, if such buildings are owned by a single person or entity and the individual units are rented out to tenants.

§27-2109 Fences, Walls, and Terraces

...

<u>b. Structures such as fences, walls, or signs shall be built, constructed, and/or installed so that the front or "good side" of the structure faces outward from the lot.</u>

§27-2111 - Traffic Visibility Across Corners

a. In all districts, no structure, fence, planting or other obstruction shall be maintained between a vertical plane two feet above curb level and a plane seven feet above curb level so as to interfere with traffic visibility across the corner within that part of the required front or side yard which is within a horizontal clear-sight triangle boundary by the two street lines and a straight line drawn between points on each such line 75–50 feet from the intersection of said lines or extension thereof, unless otherwise approved by the Township Engineer.

When one or both streets which form the intersection are classified as collector or arterial highways, the clear-sight triangle bounded by the two street lines and a straight line drawn between points on such line shall be 100 feet from the intersection of said lines or extension thereof.

b.At each point where a private accessway intersects a public street or road, a clear-sight triangle of 50 feet measured from the point of intersection of the street line and the edge of the accessway, shall be maintained, within which vegetation and other visual obstructions shall be limited to a height of not more than two feet above the street grade.

§ 27-2114 Special Considerations for Municipal Uses and Emergency Service Uses. [Added by Ord. 2007-10-01, 10/22/2007]

a. Notwithstanding the front, side or rear yard requirements for the F1 Municipal Building Use or the F2 Emergency Service Center Use, the required setbacks and/or buffer yards for each of these usesthis use may be either increased or decreased in an amount not to exceed 75% upon approval of the Board of Supervisors, provided that any such request for an F2 Use shall be subject to conditional use approval.

b. The modified setback requirements provided for in this section are permissible provided that the proposed use is either owned or operated by New Britain Township or is located upon land owned and/or leased by New Britain Township to a nonprofit organization.

§ 27-2115 Septic System Setbacks.

[Ord. 8-14-1995; as added by Ord. 2009-01-01, 1/26/2009]

No portion of an on-lot septic system or any of its components, including the toe of slope of the berm, shall be installed closer than 10 feet to a property line er, ultimate right-of-way, or paved area, or located within an existing easement, or located in a manner that would block any stormwater drainage or swales, or flow of stormwater from any lot. On-lot septic systems are both individual and community sewage systems, including, but not limited to, conventional in-ground systems, individual residential spray irrigation systems, drip irrigation systems, sand mounds, and any other alternate or experimental systems approved by the Pennsylvania Department of Environmental Protection.

§ 27-2303 Extension Expansion of Nonconforming Uses and Structures. [Ord. 8-14-1995, § 2303]

Commented [JM11]: Revise per Solicitor and Engineer

- a. A structure that does not conform with the dimensional, area, parking, buffer, environmental and all other requirements of the district and this chapter may be extended expanded only if the expansion extension meets all the requirements of this chapter. However, such a structure may be extended expanded by right along the building lines of the existing nonconformity in keeping with all applicable requirements of this chapter. Such extension expansion shall be permitted only one time, and then by special exception.
- A use that does not conform to the use regulations of the district in which it is located may be <u>extended expanded</u> by special exception provided that:
 - 1. The proposed extension expansion shall take place only upon the lot or contiguous lots held in the same ownership as that existing at the time the use became nonconforming. Permission to extend expand a nonconforming use as described in this Part shall not be construed to mean that new use or uses may be established. A nonconforming use shall be prohibited from encroaching on another parcel of land subsequently added to the original parcel.
 - 2. The proposed <u>expansionextension</u> shall conform with the setback, yard, area, dimensional, building height, parking, sign, environmental and other requirements of the district in which said <u>extension expansion</u> is located.
 - 3. Any increase in building or floor area shall not exceed an aggregate of more than 5025% of the building volume or floor area, whichever is less, existent at the date the use became nonconforming under this or previous ordinances, during the life of the nonconformity, and in any event shall be permitted only by special exception under the provisions of this chapter. Structures or land uses that have reached their

maximum expansion allowance under previous ordinances are not eligible for any increase in building or floor area under this chapter. A structure, which is nonconforming in terms of height, shall not be expanded extended to increase the height.

§27-2400 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. In the event that two or more resources overlap, the resource with the greatest protection shall apply to the area of overlap. The developer shall determine what design plans shall identify all environmental or natural features are present on the lot and shall meet the following standards of environmental protection. For any lot proposed for development to which the provisions of Chapter 22, Subdivision and Land Development, do not apply, the environmental standards of this section shall apply. The provisions of this section apply to all zoning districts, including nonresidential districts. For any lot proposed for development subject to Chapter 22, Subdivision and Land Development, such lot shall not be subject to the provisions of this section but rather shall meet the environmental standards set forth in Chapter 22, Subdivision and Land Development.

§27-2400.a. Watercourses. The entire extent of such areas shall not be altered, regraded, filled, piped, diverted or built upon, except roads, sewer or water lines, utility transmission lines, and trails may cross watercourses where design approval is obtained from the Township and, if required, the provided a permit is obtained from the Pennsylvania Department of Environmental Protection, if required.

Commented [JM12]: EAC comment to clarify wording.

Resource Protection Land

Natural Resources	Protection Ratio	Acres of Land in Resources	•	x Acres of Land to be Disturbed
Watercourses	1.00			
Riparian Buffer	1.00			
Floodplain	1.00			
Floodplain (Alluvial) Soils	1.00			
Wetlands	1.00			
Lakes or Ponds	1.00			
Wetlands Margins	0.80			
Woodlands in the CR, WS, SR-1, SR-2, & RR zoning districts	0.80			
Woodlands in all other zoning districts	0.50			
Steep Slopes 8-15%	0.60			
Steep Slopes 15-25%	0.70			
Steep Slopes 25% or more	0.85			
Total Land With Resource Restrictions		acres		
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

 $\underline{\$27\text{-}2400\text{.f.}} \text{Woodlands. In areas of woodlands, the following standards shall apply:}$

...

- (b)The planting of replacement trees shall be done in accordance with a woodlands management plan prepared by a licensed forester.
- (e)(b) 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., unless the ewner/developer offers a fee in lieu of the required replacement, such fee being approved by the Board of Supervisors, in its sole discretion.
- (e) Any trees that are dead, dying, or diseased, and or 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.

§27-2401.c. Deed Restrictions. For subdivision and land development plans, restrictions meeting Township specifications must be placed in the deed or an easement for each site or lot that has natural resource protection areas within its boundaries. The restrictions shall provide for the continuance of the resource protection areas in accordance with the provisions of this Part. Natural resource protection areas may be held as common open space in accordance with the requirements of this chapter and Subdivision and Land Development Ordinances [Chapter 22], or in the ownership of individual property owners. For this latter form of ownership, it shall be clearly stated in the individual deed that the maintenance responsibility lies with the individual property owner.

§27-2606.e.1.&2. Temporary Signs Commercial and Noncommercial

(f) The number of times a temporary sign may be erected upon a property in a calendar year shall be equal to is four times per year the number of temporary signs allowed on the property under Subsection e1(b) above.

§27-2702 Open Space Designation

- b. In designating use and maintenance, the following classes may be used:
 - 1. Lawn. A grass area with or without trees which may be used by the residents for a variety of purposes and which shall be mowed regularly to insure a neat and orderly appearance.
 - 2. Natural Area. An area of natural vegetation undisturbed during construction, or replanted. Such areas may contain pathways. Meadows shall be maintained as such and not left to become weed-infested. Maintenance may be minimal, but shall prevent the proliferation of weeds and undesirable plants such as honeysuckle and poison integration because in the property of the property of the provided in the property of the property of the provided in the provided
 - Active Recreation Area. An area designated for a specific recreational use, including but not limited to tennis, swimming, shuffleboard, play field and tot lot. Such areas shall be maintained so as to avoid creating a hazard or nuisance and provisions shall be

Commented [JM13]: Revise per BOS/EAC

Commented [JM14]: Revised to keep per EAC/BOS

Commented [JM15]: EAC: Ivy is native and beneficial to wildlife. Hemlock is dangerous and prolific.

made to perpetuate the proposed use.

- 4. Passive Recreation Area. Space for outdoor recreational activities not considered active such as walking, picnicking, bird watching and other similar activities.
- 5. Agricultural Area. An area to be leased for Crop Farming as defined in Part 3.
- Stormwater Management. No more than 30% of the open space may be used for stormwater detention or retention basins.
- 7. A combination of areas noted above.

§ 27-2703 Ownership of Open Space. [Ord. 8-14-1995, § 2703]

- a. Any of the following methods may be used to preserve, own or maintain open space:
 - 1. Dedication of easements in fee simple ownership to the Township, if accepted by the Township.
 - 2. Homeowners Association.
 - 3. Condominium Association.
 - 4. Transfer of fee simple title or development rights and easements to a private conservation organization or a conservation easement to the Township.
 - Private ownership.

b. The following specific requirements are associated with each of the various methods:

6. Private Ownership. Open space may be privately owned only when:

(a) Approved by the Board of Supervisors.

(b) A deed restriction shall be placed on the open space lot to prevent future subdivision for a non-open space use and to prevent the development of the open space for buildings and other structures which do not relate to the open space.

§27-2800.e. Buffer yards shall include a planting strip which creates a dense screen of closely planted trees or shrubs that obscures visibility, glare and noise in accordance with the spacing and composition as specified in the Township's Subdivision and Land Development Ordinance.

§27-2802.c. Plant materials shall be selected from the following list found in Attachment 4 of Chapter 22, Subdivision and Land Development, of this Code, Appendix D Required Plant Material List:

1. Canopy Trees (two inches' caliper minimum):

Acer rubrum — Red Maple
Acer saccharum — Sugar Maple
Betula alba — European White Birch
Fagus grandifolia — American Beech
Fagus sylvatica — European Beech
Ginkgo biloba — Ginkgo (male only)

Gleditsia triacanthos inermis - Thornless Honey Locust

Liquidambar styraciflua — Sweet Gum Liriodendron tulipifera — Tulip Tree **Commented [JM16]:** Per NBT PC/Engineer recommended all open space be publicly owned or owned by an association, not by an individual property owner.

Commented [JM17]: All open space will be dedicated to the Township, management association such as HOA, etc., not by individual property owner.

Commented [JM18]: Per EAC, remove section and refer to Appendix Plant List (List updated in SALDO)

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Phellondendron amurense — Amur Cork Tree
       Platanus acerifolia - London Plane Tree
       Quercus alba — White Oak
      Quercus rubrus - Red Oak
       Quercus palustris - Pin Oak
       Quercus phellos — Willow Oak
       Robina psuedoacacia inermis — Thornless Black Locust
      Sophora japonica Japanese Pagodatree
       Tilia *** - Linden/Basswood (all species hardy to the area)
       Zelkova serrata — Japanese Żelkova
   Flowering Trees (two inches' caliper minimum):
   [Amended by Ord. No. 2020-11-04, 11/16/2020]
       Amelanchier canadensis — Shadblow Serviceberry
       Cornus florida — Flowering Dogwood
       Cornus kousa Kousa Dogwood
      Cornus maps Cormelian Cherry
       Crataegus phaenopyrum — Washington Hawthorn
      Laburnum vossi — Goldenchain
       Magnolia soulangeana - Saucer Magnolia
      Magnolia virginiana — Sweetbay Magnolia
       Malus baccata - Siberian Crab
      Malus floribunda Japanese Flowering Crab
       Malus hopa Hopa Red-Flowering Crab
       Oxydendrum arboreum Sourwood
      Prunus kwanzan — Kwanzan Cherry
Prunus yeodensis — Yoshino Cherry
3. Evergreens (four feet high minimum):
      Abies concolor — White Fir
       <del>Ilex opaca — American Hollv</del>
      Juniperus virginiana — Eastern Red Cedar
       Picea abies Norway Spruce
       Picea omorika - Serbian Spruce
      Picea pungens — Colorado Spruce
       Pinus nigra — Austrian Pine
       Pinus strobus - Eastern White Pine
      Pseudotsuga menziesii - Douglas Fir
      Tsuga canadensis — Canada Hemlock
4. Hedge (four feet high minimum):
       Crataegus intricata — Thicket Hawthorn
      Forsythia intermedia — Border Forsythia
      Rhamnus frazula columnaris — Tallhedge Buckthorn
      Syringa chinensis — Chinese Lilac
      Syringa vulgaris — Common Lilac
Viburnum alatus — Viburnum
5. Hedgerow (four feet high minimum):
 -[Amended by Ord. No. 2020-11-04, 11/16/2020]
       Crataegus crus-galli - Cockspur Hawthorn
       Crataegus haenopyrum — Washington Hawthorn
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Viburnum sieboldii — Siebold Biburnum Viburnum tomentosum — Doublefile Viburnum
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6. Shrubs (three feet high minimum):

[Amended by Ord. No. 2020-11-04, 11/16/2020]

Ilex verticillata - Winter Berry

Juniperus virginiana - Upright Juniper

Pyracantha lalandi Laland Firethorn

Taxus capitata — Upright Yew

Taxus hichsi — Hicks Yew

Thuja occidentalis - American Arborvitae (four feet high minimum)

Hamamelis vermalis - Vernal Witch Hazel

Hamamelis virginiana — Common Witch Hazel

Rhamnus frangula — Glossy Buckthorn

Viburnum dentatum - Arrowwood Viburnum

Viburnum lantana Wayfaring Tree Viburnum

§27-2803 All buffer yards shall be maintained and kept clear of all debris, rubbish, weeds, and tall grass except for meadow or other landscaping that includes native herbaceous material for a naturalized planting scheme.

§27-2803.c No structures, including but not limited to fences, sheds, pools, hot tubs, pergolas, gazebos, or play equipment, shall be permitted in the buffer yard. No manufacturing, processing, or storage of materials, goods, or items shall be permitted in the buffer yard. Fences are permitted in accordance with the regulations of this Ordinance. Stormwater management facilities are permitted within the buffer yards provided the plantings proposed meet the buffer requirements of this section.

§27-2803.d Plant Materials.

 Minimum size at planting shall be in accordance with Attachment 4 of Chapter 22, Subdivision and Land Development, of this Code Appendix D Required Plant Material List.

Deciduous 2 inches in diameter
Ornamental 1 1/2 inches in diameter
Evergreen 6 feet in height
Shrub 30 inches in height

Commented [JM19]: Per EAC, refer to new plant list. List added to SALDO

Add §27-2900.a. -

g. The 6th edition or most current edition of the Institute of Transportation Engineers Parking Generation Manual or a study from a Traffic Engineer may be used to support a reduction in the proposed parking requirement. In either case, the Township shall have sole authority with respect to establishing the parking requirement which shall consider potential future uses. The sum of the requirements for all uses may be reduced by no more than 25%.All schools shall designate an area for overflow parking for special events of at least 100 parking spaces or one space per 2 students, whichever is less. This may be provided offsite with a recorded easement.

§ 27-2901 Off-Street Parking Requirements.

B. Residential Uses

b.

High School

B6 Multifamily 2 spaces per dwelling unit **Efficiency** 1 space per dwelling unit 1 to 3 BR 2 spaces per dwelling unit 4 BR or 3 spaces per dwelling unit more C. Institutional Use 1.75 6 spaces per bed C1 Hospital C2 Nursing Home 1.75 spaces per bed C3 Personal Care 1.75 spaces per bed Center D. Educational Uses 2 spaces per classroom4 spaces 1 space per full-D1 Nursery time employee School/Day Care per 1,000 sf of total floor area D2 College, Primary or Secondary School Elementary, a. 2 spaces per Middle, Junior classroom_{0.2} High

spaces per student

1 space

10

for every-

Commented [JM20]: Confirmed 4 spaces/1000 sf is per the ITE Manual. Removed "full-time"

s ŧ u ents of capacity0. 32 spaces per per employ student 1-space

c. College

1 space for every 10 per full students of capacity 0.45 employ spaces per student 1 space per student 1 space per ee

E. Recreational Uses

E1 Public Recreational

Facility

square feet of total floor space16 spaces per acre

1 space per 250

E2 Private Recreational

Facility

1 space per 250 square feet of total floor space 16 spaces per acre

E6 Golf Course

1 space per 100 4 spaces per square feet of total clubhouse

floor area 10 spaces per hole

E8 Library or Museum

1-4 spaces per 500-1,000 square feet of total floor area F1 Municipal Building

square feet of meeting area 4 spaces per 1,000 square feet of total floor area

1 space per 5

1 space per 50

F4 Place of Worship

seats usable for
worship or 8
linear feet of
pews,
whichever is
greater17
spaces per
1,000 square
feet of total floor
area

G. Utility and Transportation Uses

G1 Utilities

1 space per employee3 spaces per 1,000 square feet of total floor area

G2 Terminal

1 space per 400 square feet every business vehicle normally

vehicle normally stored on the premises

G3 Airport

1 space per square feet2 1 space per employee

spaces per daily enplanements

I. Office Uses

22

11 Medical Office 16 spaces per 1,000175 square feet of total floor area I2 Veterinary Office 4-6 spaces per 175 <u>1,000</u> square feet of total floor area J6 Eating Place 1 space per 50 1 space per square feet of <u>employee</u> public eating area or 3 seats, whichever is greater J7 Drive-In and Other 1 space per 50 1 space per Eating Place square feet of <u>employee</u> public area or 23-seats, whichever is greater J8 Tavern 1 space per 100 square feet for patron use or 3 seats, whichever is greater21 spaces per 1,000 square feet total floor <u>area</u>

J10 Theater 0.5 spaces per <u>seat</u> J19 Service 1 space per Station or Car 1,000 square Wash feet of total floor area J22 Automotive 1 space per 100 square feet of Accessories total floor spacearea J29 Package Delivery 1 space per Services pick-up station3 spaces per 1,000 square feet of total floor <u>area</u> J30 Photocopying 1 space per 100 Services square feet of floor space for customer use3 spaces per 1,000 square feet of total floor <u>area</u> J34 Dispensary 4-21 spaces per 1 space per employee <u>1,000</u>200 square feet of grosstotal floor area K. Industrial Use K1 Manufacturing 1 4 spaces per 1 space for 5001,000 each business vehicle square feet of total floor normally spacearea stored on the

premises

24

K3 Wholesale Business, 1 space per 500 1 space for Wholesale Storage, 1,000 square each business Warehousing feet of total floor vehicle <u>areaspace</u> normally stored on the premises K12 1 space for 1 space per each business employee **Extractive Operations** vehicle normally working on the stored on the premises premises K19 Small Lot Industrial See K19 use See K19 use regulations regulations L5 Oil and Gas Drilling 1 space per Well employee L6 Wind Energy 1 space per Conservation Systems employee L7 Air Landing Field 5 vehicle 1 space per spaces and 2 employee aircraft spaces

Commented [JM21]: BCPC Comment to based on largest number of employees for largest shift. Recommend keeping per ITE Manual.

§27-2902.c. – Changes in Use. Whenever a building or use is changed or enlarged in floor area, number of employees, number of dwellings-units, seating capacity or otherwise to create a need, based upon the requirements of this Part for an increase of 10% or more in the number of existing parking spaces, the number of total spaces to be provided shall be based upon the total parking that would be required for the entire existing and proposed use.

§27-2902.g. – Common guest parking areas shall be required at the rate of 0.3 space per dwelling unit for B3, B4, B5, and B6, and B7 Uses. On-street parking may not be counted towards meeting this requirement, and the remainder, if any, shall be provided in an off-street parking lot that meets all of the applicable regulations and requirements set forth in Chapter 22, Subdivision and Land Development, of this Code. Perpendicular parking requiring backing onto a street shall not be permitted to meet the common guest parking. [Added by Ord. No. 2020-11-04, 11/16/2020]

§27-2902.h. – Except for an off-street parking area on a single-family lot or serving a single-family or two-family dwelling, None-off-street parking area for a non-residential use shall be designed or built to require vehicles exiting the area to back out onto a street.

§ 27-2904 Design Standards for Off-Street Parking. [Ord. 8-14-1995, § 2904]

- a. General Requirements.
 - 4. No parking shall be designed to require or encourage parked vehicles to back into a public street in order to leave a parking space, except for a single family or two family dwelling backing onto a street other than an arterial or connector street.
 - Every parking area shall be designed so that each motor vehicle may proceed to and from the parking space provided for it without requiring the moving of any other vehicle, except for any spaces greater than two in number of a single-family detached dwelling.
 - 3. No parking area shall be located in a required buffer yard or within an existing street right-of-way.
 - 4. No parking or other paved area shall be located within 10 feet of a septic system absorption area.
 - <u>5.</u> Defined Traffic Ways. All parking areas shall include clearly defined and marked traffic patterns. In any lot with more than 30 off-street parking spaces, raised curbs and landscaped areas shall be used to direct traffic within the lot. Major vehicular routes shall be separated from major pedestrian routes within the lot.
 - 6. 2. Required off-street parking spaces shall be on the same lot or premises with the principal use served <u>unless shared parking lot agreements are recorded to allow access</u> and parking for all affected properties.
 - 7. 3. No parking area shall be used for any other use that interferes with its availability for the parking need it is required to serve. This includes storage or display of materials or vehicles.

b.Paved Area Setbacks (including Off-Street Parking Setbacks).

- 1.Setbacks are required to ensure that parked or moving vehicles do not obstruct sight distance or interfere with pedestrian traffic. The setbacks are also intended to aid in stormwater management along streets.
- 2.No parking area, paved area, or outdoor storage or display of vehicles shall be located in a required buffer yard or within 10 feet of the ultimate right-of-way line of any street, or property line.

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- 3.The setback areas required by this section shall be maintained in grass or other appropriate natural ground cover and shall not be covered with paving, except for approved driveway entrances and any concrete sidewalks or trails. Storm water control facilities may be located within this setback area if they do not obstruct sight distance. No fence shall be located within the paved area setback, except within the Butler Corridor Overlay District where it's demonstrated that the fence does not interfere with sight lines.
- 4.The paved setback area, along with any curbing, shall be designed to prevent vehicles from entering or exiting the lot at locations other than approved driveways.
- b.Size of Parking Spaces. [Amended by Ord. 2016-05-01, 5/16/2016]
 - 1.Each parking space shall meet the following stall width and length:

	Width	Length
Type of Space	(feet)	(feet)
Perpendicular/90°	10	18
Angled (30°/45°/60°)	10	18
Parallel	8	22

- 2.All spaces shall be marked with double lines so as to indicate their location, except those of a single-family or two-family dwelling.
- **c.** Aisles. [Amended by Ord. 2016-05-01, 5/16/2016]
 - 1.For one way traffic only, each aisle providing access to the type of stall listed shall meet the corresponding minimum aisle width specified below:

Minimum Aisle Width

Type of Parking Stall	(feet)
Parallel	12
30°	12

Minimum Aisle Width

Type of Parking Stall	(feet)
4 5°	18
60°	18
90.	20

- 2.For two-way traffic, each aisle providing access to any type of stall shall be at least 24 feet in width.
- 3.Raised pedestrian crosswalks and refuge islands shall be provided along the length of each parking aisle and row at intervals of 200 feet or less.
- d. Access Drives and Driveways.
 - 1.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.
 - 2.Private driveways serving one dwelling unit or agricultural use shall have a maximum grade of no more than 10%.S
 - 3. Any other driveway or access way shall have a 6% maximum grade, except that the initial 20 feet from the edge of the cartway of a public street shall be a maximum of 3% grade.
 - 4.Adequate provisions shall be made to maintain uninterrupted parallel drainage along a public street at the point of driveway or access drive entry.
 - 5.At least 75 feet shall be provided between any two access drives along one street along one lot.
 - 6.No access drive or driveway shall open onto a public street less than 80 feet from the existing right of way line of any intersecting public street.
 - 7.Where access is to a public street, a state or Township (if applicable) highway access permit shall be obtained.
 - 8.Where access drives and driveways are proposed as part of a subdivision or land development, the provisions of the Township's Subdivision and Land Development Ordinance [Chapter 22] shall also be met. If there are any conflicts between the requirements of the Zoning and the Subdivision and Land Development Ordinances, the stricter provision shall apply.
 - 9.Driveway Setbacks from Residence. A minimum five feet unpaved area setback shall be maintained between any driveway or access way and any abutting lot line of a single-

family detached house, unless a shared driveway is specifically shown on the approved plan.

e.c. Paving, Grading and Drainage.

- 1. Except for areas that are landscaped and so maintained, all portions of required parking, off-street loading facilities and driveways shall be graded, surfaced with asphalt, concrete, porous paving, or permeable pavers, or concrete—and drained in ways necessary to prevent dust, erosion or water flow across streets or adjoining properties. Any parking, loading, or driveway shall at a minimum meet the The-paving standards of the Township Subdivision and Land Development Ordinance are hereby included by reference. However, driveways serving an individual single-family detached house on a lot of five acres or greater or that only provide access to general or crop farming shall not be required to be paved except for the first 50 feet of the driveway or to the ultimate right-of-way, whichever is less.
- f.d. Night time Nighttime Illumination.
 - Any paved area of 1,000 square feet or more designed for use, or that would be open to
 the public during night hours shall be adequately illuminated for security purposes at no
 sest to the Township. in accordance with the lighting standards for parking areas of the
 Subdivision and Land development Ordinance.
- g. Paved Area Setbacks (including Off-Street Parking Setbacks).
 - 1.Setbacks are required to ensure that parked or moving vehicles do not obstruct sight distance or interfere with pedestrian traffic. The setbacks are also intended to aid in storm water management along streets.
 - 2.The setback areas required by this section shall be maintained in grass or other appropriate natural ground cover and shall not be covered with paving, except for approved driveway entrances and any concrete sidewalks of six feet wide or less. Storm water control facilities may be located within this setback area. No fence shall be located within the paved area setback
 - 3.No off-street parking space nor outdoor display of vehicles or articles for sale shall be located within 10 feet of the ultimate right of way line of any street.
 - 4.The paved setback area, along with any curbing, shall be designed to prevent vehicles from entering or exiting the lot at locations other than approved driveways.
 - 5.All paved areas, except curbs or concrete sidewalks, shall be set back a minimum of 20 feet from the exterior structural walls of any commercial or industrial building. This setback shall not apply to driveways entering into a garage, delivery entrance, vehicle service bay or carport. This setback is intended to allow sufficient area for firefighting, sidewalks, and foundation landscaping.

[Amended by Ord. 2017-01-01, 1/3/2017; and by Ord. 2017-06-07, 6/5/2017]

Commented [JM22]: Remove "permeable" per EAC

Commented [JM23]: Clarified what "adequately iluminated" means per EAC

h.Paved Area Landscaping.

- 1.Any lot that would include more than 30 parking spaces shall be required to provide landscaped areas within the paved area. This required landscaped area shall be equal to a minimum of 5% of the total paved area. A maximum of 15 consecutive and contiguous parking spaces in a row shall be allowed without being separated by a landscaped area.
- 2.One deciduous tree shall be required for every 4,000 square feet of paved area. This number of trees shall be in addition to any trees required by any other section or by the Subdivision and Land Development Ordinance [Chapter 22].
- 3.A substantial proportion of the trees required by this section should be planted within the parking lot within protected islands. 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."
- 4.Existing Trees. For every existing tree on the lot that is preserved and maintained and that would generally meet the requirements of this section, one less shade tree shall be required to be planted.

i.Parking Lot Screening.

- 4.No off-street parking area for five or more vehicles shall be developed in such a way that vehicle headlights could shine into a dwelling located within 200 feet or less of the parking area.
- 2.Wooden fencing, brick walls or evergreen screening shall be required as needed to resolve the concern of this section. Such screening or fencing shall have a minimum height of four feet, except that screening or fencing of up to eight feet shall be required by the Zoning Officer as needed where there is unusual topography or the parked vehicles would be trucke or buses.

i.e. Handicapped Accessible Parking.

- All The number and location of accessible parking and passenger loading zonesspaces shall comply with the requirements of the Federal Americans with Disabilities Act.
- If not otherwise specified in the Federal Americans with Disabilities Act, <u>accessible</u> parking facilities for the handicapped shall meet the following minimum standards:
 - (a) Any parking lot <u>for public use</u> including at least <u>six_one</u> off-street parking spaces, <u>except for single-family dwellings</u>, shall include of minimum of one handicapped space. A <u>minimum of 3% of all off-street parking spaces required for use shall be handicapped spaces. The total minimum number of accessible parking spaces shall be in accordance with the following chart:</u>

Minin		f Accessible Par Accessible Design 4.1.2 (
Total Number of Parking spaces Provided (per lot)	Total Minimum Number of Accessible Parking Spaces (60" & 96" aisles)	Van Accessible Parking Spaces with min. 96" wide access aisle	Accessible Parking Spaces with min. 60" wide access aisle
	Column A		
1 to 25	1	1	0
26 to 50	2	1	1
51 to 75	3	1	2
76 to 100	4	1	3
101 to 150	5	1	4
151 to 200	6	1	5
201 to 300	7	1	6
301 to 400	8	1	7
401 to 500	9	2	7
501 to 1000	2% of total parking provided in each lot	1/8 of Column A*	7/8 of Column A**
1001 and over	20 plus 1 for each 100 over 1000	1/8 of Column A*	7/8 of Column A**

- (b) Handicapped Accessible parking spaces shall be located where they would result in the shortest possible distance to an accessible building entrance.
- (c) Handicapped Accessible spaces shall measure a minimum of 13 feet in width by 18 feet in length for each space.
- (d) The slope of handicapped_accessible parking spaces shall not exceed 2% in-any-direction.

§27-2904.d.3 – Any other driveway or access way shall have an 68% maximum grade, except that the initial 20 feet from the edge of the cartway of a public street shall be a maximum of 43% grade.

§ 27-2905 Parking of Trucks, Recreational and Other Vehicle Storage, and Junk Vehicles in Residential Districts.

a. The intent of this section is to prevent residential areas from being <u>adversely</u> affected by <u>non-residential commercial</u>-vehicles; <u>and-to maintain a residential character in residential districts, and to minimize traffic safety concerns</u> by regulating <u>damaged and junk vehicles</u>, <u>commercial trucks, recreational vehicles and other vehicle storage</u>, etc.

Commented [JM24]: This section amended based on comments from NBTPD, Twp Staff, and Consultants and Motor Vehicle Code

- b. The following special definitions shall apply:
 - Commercial Truck or Van. A vehicle considered underdesignated by its issuing state of registration license to be registered as either a-"truck, apportioned, or commercial" that is primarily used for commercial/business purposes including, but not limited to, making service calls, transporting equipment used in a business or in accomplishing physical work as part of a business (such as hauling material).
 - Truck Tractor. A motor vehicle designed and used primarily for drawing other vehicles
 and not so constructed as to carry a load other than a part of the weight of the vehicle
 and load so drawn, or, a truck with two or more than two axles that is primarily intended
 to be used to pull a trailer, as defined below.
 - Trailer. A vehicle with a length of 10 feet or more, designed to be towed by a motor vehicle, and that is not self-propelled; that is intended to haul equipment, materials, vehicles, goods, gases or liquids; and/or that is intended to be pulled by a truck tractor (as defined above).

 [Amended by Ord. No. 2020-11-04, 11/16/2020]
- c. No part of this section shall apply to the following exceptions:
 - 1. Township-owned vehicles.
 - 2. Police, Fire, EMS, Ambulance, fire and rescue vehicles.
 - Buses used primarily for transporting <u>pupils</u> <u>public or private school children</u> to and from school.
 - 4. Vehicles operated by the U.S. Postal Service.
 - Vehicles engaged in the construction or repair of streets, curbs, sidewalks or utilities.
 - Vehicles engaged in making routine household deliveries or rendering routine household services to a property abutting or that is part of the location where the vehicle is parked.
- d. No part of this section shall apply to recreational vehicles. [Amended by Ord. 2017-06-07, 6/5/2017]
- d. No commercial truck or van with a gross vehicle weight rating (GVWR) exceeding 14,001 pounds or greater than two axles, or any no truck tractor, or any no trailer (as defined by this section), nor recreational or other vehicle storage shall be maintained (except emergency repairs), parked, stored, or otherwise kept within or upon a lot, driveway, on a public or private street, or other location that is within a residential zoning district, without (1) displaying a valid registration and current registration, or (2) displaying a valid, current vehicle safety inspection certificate between the hours of 8:30 p.m. and 9:00 a.m., any day of the week. Such vehicles or trailers shall not pose a traffic safety hazard as determined by the New Britain Township Police Department at any time. This prohibition does not apply to a single truck or van parked, stored, or otherwise kept within an enclosed building or garage upon a residential lot.
- e. All such vehicles or trailers may be parked or stored on private property provided they are located as follows:
 - 1. Within a carport;

Commented [JM25]: Revised per Twp Staff

- 2. Within a completely enclosed structure;
- 3. Within the side or rear of a lot, but no closer than ten feet to a property line;
- 4. Within the front yard provided it complies with the following:
 - (a) No such vehicles or trailers shall be within the front yard setback line or used for living, sleeping or housekeeping purposes when parked or stored on a residential lot or in any location not approved for that lot.
 - (b) The vehicles or trailers shall be located on a paved or modified/crushed stone and permitted driveway.
 - (c) The vehicles or trailers shall not cause ingress or egress, sight line, or safety issues as determined by the New Britain Township Police Department or the New Britain Township Zoning Officer.
- f. In addition to the requirements of this section, no vehicle that has been used for the bulk hauling of garbage shall be parked for more than 15 minutes in any 24-hour period on a portion of a lot or street that is within 200 feet of a dwelling.
- g. The provisions of this chapter that allow nonconforming uses to continue and expand do not apply to conditions under this section. Any nonconforming condition or use that exists under this section shall be made conforming within 90 days of this chapter.
- h. If a vehicle that is parked in a nonconforming fashion under this section is moved from the subject property or street for more than 24 consecutive hours, the nonconformity shall be considered to have been abandoned and the property or use shall then only occur in a manner that conforms to this chapter in that respect.
- i. No junk vehicle may be stored on a lot in a residential district unless that lot consists of one acre or more in area. No more than one junk vehicle may be stored on a lot in a residential area. No junk vehicle may be stored in a front or side yard.

§27-3003.a. All applications for zoning permits shall be made in writing by the owner, tenant, vendee under contract of sale, or authorized agent on a form supplied by the municipality and shall be filed with the Zoning Officer. The application shall include four-two copies of the following information:

Attachment 1 - Appendix A. Environmental Impact Statement Report

. . .

Add e. For projects that involve dedication of land to the Township, properties with current or former environmentally sensitive uses or where site conditions warrant it, upon request by theBoard of Supervisors a Phase I Environmental Site Assessment shall be performed at the Applicant's expense. The Board of Supervisors may also request a Phase II Environmental Assessment and any similar additional environmental studies, work plans, remediation plans, environmental data, etc. as required by the Township Engineer pursuant to commonly accepted standards to characterize the site's environmental conditions considering the proposed use. The assessments shall conform with the scope and limitations of the ASTM Standard Practice for Environmental Site Assessment Process (ASTM E-I 525-05) as subsequently amended, and U.S. EPA Title 40 Code of Federal Regulations Part 312, Standard Practices for All Appropriate Inquiries (40 CFR Part 312) as subsequently amended.

Attachment 3 - Zoning Map - Replace with legible, digital copy.

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27 Attachment 1

Township of New Britain

APPENDIX A ENVIRONMENTAL IMPACT STATEMENT REPORT

- a. The impact on the environment generated by subdivision, land development and other projects necessitates a comprehensive analysis of the variety of problems that may result in actions that can be taken to minimize these problems. In order to effectively evaluate the environmental consequences or effects of certain projects proposed in the Township, an Environmental Impact Statement (EIS) report shall be submitted together with preliminary plans when required by this Chapter or by the Board of Supervisors. In order to encourage the thorough preparation of an EIS report, the applicant may use the components of the EIS report to satisfy the reporting requirements of the Subdivision and Land Development Ordinance [Chapter 22]; provided, however, that a list of the Sections of the Subdivision and Land Development Ordinance [Chapter 22] that are proposed to be satisfied by the EIS report shall be submitted with the EIS report.
- b. An updated EIS report shall accompany and form a part of a final land development or subdivision plan.
- c. Twenty copies of the EIS report shall be submitted with the plans, preliminary or final. Within the EIS report, specific emphasis shall be directed toward the proposed effects on and relationship to applicable site, neighborhood (including areas in adjacent municipalities where applicable) and Township-wide resources, conditions or characteristics. The EIS report shall include text, tables, maps and analyses for the purpose of describing the project site, proposed use(s), environmental characteristics and the environmental effects of the proposal as follows:
 - 1. Overview. Indicate the purpose and scope of the proposed project. Enumerate the benefits to the public which will result from the proposed project and describe the suitability of the site for the intended use. A description of the proposed project shall be presented to indicate the extent of which the site must be altered, the kinds of facilities to be constructed, how they are to be considered and the uses intended. The resident population, working population and visitor population shall be projected. The basis of the projections shall be clearly stated in the report.
 - 2. Compatibility. The compatibility or incompatibility of the proposed project shall be described in relation to the Township Comprehensive Plan, especially the land use and open space elements.
 - 3. Location. An identification of the site location and area through the use of a location map drawn at a scale of not more than 2,000 feet to the inch. The location map shall depict all streets, adjoining prop-

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erties, zoning district boundaries and municipal boundaries within 2,500 feet of any part of the tract. In the case of development of only a portion of the entire tract, the location shall also show the relationship of the section to the entire tract.

- 4. Photographs. An identification of the character and appearance of the site through the presentation of black and white photographs or copies thereof. Such photographs shall provide a representation of what the site looks like from ground level. Photographs shall be properly identified or captioned and shall be keyed to a map of the site.
- Description of the Project. An identification of the nature of the proposals through the presentation of the following:
 - (a) A site development plan, including notes pertaining to the number and type of lots or units, the square footage and/or acreage of the tract and a depiction of the features which are proposed such as streets, driveways, parking areas, buildings and other structures and all impervious surfaces. The plan shall be drawn at a scale of not smaller than 100 feet to the inch, i.e., 50 feet to the inch is permitted but 200 feet to the inch is not and may be submitted as an attachment to the report. The plan shall reflect all the information required under the plan requirements of the Subdivision and Land Development Ordinance [Chapter 22].
 - (b) A statement indicating the existing and proposed ownership of the tract and where applicable, the type of ownership, operation and maintenance proposed for areas devoted to open space or otherwise not under the control of a single lot owner.
- 6. Physical Resources Inventory. An identification of physical resources associated with the natural environment of the tract, including such features as geology, topography, soils, hydrology and the like. The identification of physical resources shall include a narrative description of the qualitative aspects of each of the resources mentioned above. In addition, these resources shall be mapped at a scale of not smaller than 100 feet to the inch as specified below and may be either incorporated into the EIS report or submitted as attachments to the report.
 - (a) A map depicting the geological characteristics of the tract. Such map shall define the location and boundaries of the rock formations at or influencing the tract and features such as faults and/or fractures.
 - (b) A map depicting the topographical characteristics of the tract. Such map shall contain contours with at least two-foot

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- intervals and shall depict steep slopes as defined in the Subdivision and Land Development Ordinance [Chapter 22].
- (c) A map depicting the soil characteristics of the tract. Such map shall depict all soil types and shall include a table identifying soil characteristics pertinent to the proposed project such as prime agricultural soils, depth of bedrock, depth of water table, flood hazard potential and limitations for septic tank filter fields.
- (d) A map depicting the hydrological characteristics of the tract. Such map shall depict surface water resources, their drainage characteristics, watersheds and floodplains and groundwater resources. Surface water resources include features such as creeks, runs and other streams, ponds, lakes and other natural bodies of water, springs, wetlands and any manmade impoundments. Groundwater resources include features such as aquifers and aquifer recharge areas.
- 7. Biological Inventory. An identification of biological resources associated with the natural environment of the tract, including such features as vegetation and wildlife. The identification of biological resources shall include a narrative description of each of the resources mentioned above.
- 8. Land Use Inventory. An identification of the land use conditions and characteristics associated with the tract, such as current and past use, land cover and encumbrances and the relationship of these to adjacent tracts. The identification of land use conditions and characteristics shall include a narrative description of the above.
- 9. Surface Water Inventory. Describe existing watercourses and water bodies that are partially or totally on the site and their relationship to the area of land disturbance. Calculate existing surface runoff from the site and the associated watershed, including the potential development of the remainder of the watershed. When the natural drainage pattern will be significantly altered an analysis shall be conducted which will investigate flow, depth, capacity and water quality of the receiving waters. When required, floodplain areas will be mapped in consultation with the Department of Environmental Protection. Existing drainage structures shall be mapped and the capacity of the drainage network shall be determined. Additionally, wetland areas as defined by the Department of Environmental Protection and the U.S. Corps of Army Engineers shall be delineated.
- 10. Subsurface Water Inventory. Describe the subsurface water conditions on the site both in terms of depth to groundwater and water supply capabilities of the site. Where existing conditions warrant, provide detailed information regarding existing wells within 1,000 feet of the site relative to depth, capacity and water quality. Dis-

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- cuss the water supply capabilities of the adjacent areas and the recharge capabilities of the site.
- 11. Existing Features Inventory. Describe any existing features on the site that are not considered to be part of the natural environment. This may include, but not necessarily be limited to, roads, housing units, accessory structures, utility lines, etc.
- 12. Historic Resources Inventory. An identification of the manmade resources associated with or within 500 feet of the tract which are older than 50 years. Areas, structures and/or routes and trails included on the National Register of Historic Places, the Pennsylvania Inventory of Historic Places, the Historic American Building Survey, the Bucks County Conservancy and any which may be identified in the Comprehensive Plan shall be identified. The identification of historic resources shall include a narrative description of the above.
- 13. Visual Resources Inventory. An identification of the visual resources associated with the tract such as areas which have a particular amenity value and areas which offer interest in viewing the tract. The identification of visual resources shall include a narrative description of the above.
- 14. Community Needs Inventory. An identification of the community facility needs associated with the users and/or residents of the proposed project. The community facility needs assessment shall indicate in narrative form the type of services which will be in demand. Where applicable, community facilities (such as schools, park and recreation areas, libraries, hospitals and other health care facilities, fire protection, police protection, ambulance and rescue service and postal services) shall be discussed in terms of the ability of existing facilities and services to accommodate the demands of future users and/or residents of the lot(s) and/or tract and the need for additional or expanded community facilities.
- 15. Utility Needs Inventory. An identification of the utility needs associated with the users and/or residents of the proposed project and a statement whether the project is within the area to be served by public sewers under the Township's Act 537 Plan. The utility needs assessment shall indicate in narrative form the type of installations which will be in demand. Utilities (such as those used for water supply, sewage disposal, refuse disposal, storm drainage, communications and electrical transmission) shall be discussed in terms of the ability of existing utility installations to accommodate the demands of the future users and/or residents of the lot(s) and/or tract, the need for additional or expanded utility installations, the ability to achieve an adequate, potable quantity of water whenever individual wells are proposed, the ability to achieve an adequate system for onsite sewage disposal whenever such a system is proposed and the ability to achieve an adequate system for storm drainage and

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stormwater management. Certificates from the utilities confirming that adequate capacity exists to service the proposed development shall be included.

- 16. Transportation System Inventory. An identification of the relationship of the transportation and circulation system needs of the proposed project to the existing street or highway network. A discussion of this relationship shall be in narrative form and shall indicate factors such as methods to be used for traffic control within the tract and at points of ingress to and egress from it and expected traffic volumes generated from the project, including their relationship to existing traffic volumes on existing streets for both peak hour and non-peak hour traffic conditions. In addition, there shall be a discussion of the physical condition of existing streets which will service the proposed project and what improvements are proposed to remedy any physical deficiencies.
- 17. Adverse Impacts. Probable adverse effects which cannot be precluded, including:
 - (a) Water quality and quantity.
 - (b) Air quality.
 - (c) Noise.
 - (d) Undesirable land use patterns.
 - (e) Damage or destruction of significant plant or wildlife sys-

tems.

- (f) Aesthetic values.
- (g) Destruction of natural resources.
- (h) Displacement of people and businesses.
- (i) Displacement of viable farms.
- (j) Employment and property taxes.
- (k) Destruction of manmade resources.
- (I) Disruption of desirable community and regional growth.
- (m) Health, safety and well being of the public.

In indicating such effects, a discussion shall be presented regarding whether they will have primary or secondary implications, that is,

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- whether the adverse effects will have direct or indirect influence on a particular resource, condition or characteristic.
- 18. Mitigation Measures. Measures to mitigate adverse effects. To indicate such measures, the applicant shall submit exhibits or diagrams which will depict the type of remedial, protective and mitigative measures described in narrative form. These measures shall include those required through existing procedures and standards.
- 19. Irreversible Impacts. Any irreversible environmental changes which would occur due to the proposed project should it be implemented. To indicate such changes, the use of non-renewable resources during the initial and continued phases of the project shall be discussed. Further, the loss of environmental resources shall be indicated through a presentation of the quantity of loss and related qualitative effects.
- d. In making its evaluation, the Board of Supervisors, and/or the Planning Commission, may request any additional information it deems necessary to adequately assess potential environmental impacts. Whenever any information required in this Section is assumed not directly applicable to the proposed project, the applicant shall indicate such assumed inapplicability in the narrative of the EIS report and state why such information is considered to be inapplicable in the case of the particular project in question.

Add e. For projects that involve dedication of land to the Township, properties with current or former environmentally sensitive uses or where site conditions warrant it, upon request by the Board of Supervisors a Phase I Environmental Site Assessment shall be performed at the Applicant's expense. The Board of Supervisors may also request a Phase II Environmental Assessment and any similar additional environmental studies, work plans, remediation plans, environmental data, etc. as required by the Township Engineer pursuant to commonly accepted standards to characterize the site's environmental conditions considering the proposed use. The assessments shall conform with the scope and limitations of the ASTM Standard Practice for Environmental Site Assessment Process (ASTM E-I 525-05) as subsequently amended, and U.S. EPA Title 40 Code of Federal Regulations Part 312, Standard Practices for All Appropriate Inquiries (40 CFR Part 312) as subsequently amended.

ZONING 27 ATTACHMENT 3 Zoning Map Hilltown Township New Britain Township Hilltown Township Hatfield Township CR Peace Valley Park Montgomery County Lake Galena Chalfont Borough RR/SA-4 Doylestown Township C1 Chalfont Doylestown Township Borough OP / SA-6 New Britain Borough Fairwoods Subdivision 12/29/75 William B. Jones, III, Chairman New Britain Township Board of Supervisors Cedar Hill Road Subdivision 2/24/86 CA-2 Curative Amendment Warrington Township [_. Tower Hill Subdivision (Regency Glen) 3/17/75 Court Stipulation and Agreement Tower Hill Meadows Subdivision 3/17/75 Court Stipulation and Agreement Commerce Bank/Kindercare Land Development Court Stipulation and Agreement 2/14/00 Doylestown Township Wordsworth Academy/Pine Valley Crossing Assoc. Amended Court Stipulation and Agreement M & N Homes Lot #3 Land Development (Goddard School) Court Stipulation and Agreement 3/11/02 ZONING DISTRICT SA-6 Feld Tract Land Development (Fountainville Center) Court Stipulation and Agreement 10/22/02 New Britain Township Secretary Conservation and Recreation District Barclay Road S/LD Court Stipulation and Agreement WS Watershed District Court Stipulation and Agreement Zoning Ordinance SR-1 Single Family Residential 1 District SA-9 Frost Tract (Rolling Ridge) Court Stipulation and Agreement 5/5/06 Adoption Date 8/4/1995 SR-2 Single Family Residential 2 District 3/17/75 PRD-1 Highlands Subdivision Planned Residential Development **ZONING MAP** RR Residential District PRD-2 Rocky Meadow Subdivision (Meadow Ridge) Planned Residential Development 9/2/75 REVISION DATES NOTES VR Village Residential District Hunter Way Subdivision Planned Residential Development 6/21/76 MHP Mobile (Manufactured) Home Park District NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA PRD-4 Forest Park Subdivision Planned Residential Development 2/14/94 C-1 Commercial District 8/18/98 PRD-5 Cassel/Bank Subdivision (Willow Woods) Planned Residential Development Add Color/ SA-4 October 2, 2013 Commercial District PRD-6 Colebrook Development Planned Residential Development 5/4/15 PRD-6/ RZ-2 Rev. 4 February 23, 2015 GILMORE & ASSOCIATES, INC. Commercial District Planned Residential Development 2/5/18 Correct Drafting Errors/ Add Seal OP OP Office Park District ENGINEERING & CONSULTING SERVICES 65 EAST BUTLER AVENUE NEW BRITAIN, PA 18901-5106 - (215) 345-4330 - www.glimore-10/27/97 LPD-1 Twin Maples Subdivision Land Preservation Development ☐ IN Institutional District Add Butler Avenue Corridor Overlay District Line Lexington Mennonite Church Institutional Rezoning (SR-2 to IN) 2/12/01 I Industrial District Colebrook/Quad Graphics/Cotton Park Residential and Conservation Re-Zoning 2/23/15 Update Color Coding IO Industrial Office District DATE: 10/19/2020 Cotton Park- Quad Graphic Acquisition Conservation Re-Zoning Butler Avenue Corridor Overlay District

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TOWNSHIP OF NEW BRITAIN BUCKS COUNTY, PENNSYLVANIA

ORDINANCE NO.

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; to provide for standardized fees in-lieu for open space and/or recreation areas; 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

Commented [JM1]: N/A

- 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
- l. 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.

thisday of	, 2025.
Attest:	
Dan Fan	Cynthia Jones, Chair
Dan Fox, Township Manager	MaryBeth 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:

BIORETENTION – 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.

GREEN STORMWATER INFRASTRUCTURE – 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 imperious 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.

INVASIVE PLANTS – 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, or parcels</u> of land for any purpose involving:
 - 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
 - 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. Development in accordance with § 503(1.1) of the Pennsylvania Municipalities 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.

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

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.

§22-401.7. 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.

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§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.

§22-405.1. 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. and
 - (5) <u>signature of an official of the Bucks County Planning Commission file</u> number, and-
 - (6) The signature of the certified wetlands scientist certifying any delineated wetlands.

 \S 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>, <u>or</u> diseased tree(s) <u>within existing or proposed conservation</u> <u>easements or trees that may pose a threat to safety as determined by the</u> <u>Township or Township Engineer</u>.
- (b) Outer limits of woodlands to remain. Approximate—Limits 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:
 - 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:
 - . 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 guidelines</u>
- e.Limits of each statistical area.
- f.Lighting manufacturer's details for all proposed fixtures, including lamps, photo control devices, shields, poles and foundation supports.
- 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
- 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.

§22-504.3. 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.

Board of Supervisors.

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 be assigned to each 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 lines, and 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 lines and 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. Overstory trees are deciduous or evergreen trees that include oak, hickory, maple gum, sycamore, hemlock, pine and fir.

3)(2) Evergreen and deciduous shrubs should consist of elderberry, viburnum, azalea, rhododendron, helly, laurel and alders. 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.

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Commented [JM2]: Revise to reference Tree List per EAC

Commented [JM3]: Updated reference section

(4)(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.

Resource

§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.

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

 Multiply by Minimum Open Space Ratio
 x
 acres

 Standard 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.

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

<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.

§22-704.4. 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, unless otherwise approved by the Township Engineer.

§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, elear sight triangles and curb radii listed below shall be considered minimum requirements.

Functional Classification	Intersection Spacing	Clear Sight Triangle	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 not be permitted only as side streets extending from a through street-off of another cul-de-sac street. Such-Cul-de-sac 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.

§22-705.8.F. 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 34%, 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	10%	8%
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> %

\$22-705.13.H. Sight distances 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. Clear sight triangle for access drives and driveways intersecting a street shall be 10 feet, 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.

§22-705.15.B. Crosswalks shall be a minimum of five—six 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.

§22-705.15.D. Crosswalks shall consist of brick redwhite thermoplastic striping in astreet imprint with herringbone-continental pattern and six inch white stripes, unless otherwise approved by the Board of SupervisorsPublic 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 stormwater management and landscape design 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.

Commented [JM4]: Per EAC, taken from Lower Merion Parking Lot Greening standards

- 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.

<u>§22-708.2.B.</u> 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. Depressed curb 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 minimum.ten-foot plantings-strips.

. . .

§22-708.3.C. 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.

<u>§22-708.5.</u> Service Drives <u>, Drive-Through Lanes, and Bypass/Escape Lanes</u> 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.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.
- D.A minimum 10-foot-wide bypass lane/escape lane shall be provided for all drivethrough 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.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.
- H.Delayed service parking areas shall be provided.
- H.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.
- 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.
- 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.

Commented [JM5]: Added per BCPC

Commented [JM6]: Per EAC provide 10-foot wide grass or other filtering strip.

§22-709.1.

- 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.
- §22-711.3.A. All disturbed land within a development to be vegetated 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:

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.

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.

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.

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].
 - B. 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>].
 - C.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>PC</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 O Ring joints, with a minimum size of 48-15 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.
- L.H..The minimum freeboard through the emergency spillway for basins shall be one foot and the maximum spillway length shall not exceed 75 feet.

- 4. 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.
- P.Basins shall be screened and landscaped in accordance with the Landscape Planting requirements of this chapter and the following minimum 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.
 - 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:
 - Underground detention basins shall be located outside all public rights-ofway.
 - 2) Underground detention basins shall be constructed of high densityhighdensity 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 <u>one footsix inches</u> 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 <u>within the Township ultimate right-of-way</u> shall be reinforced concrete pipe <u>with a minimum diameter of 15 inches or equivalent</u>. Storm sewer located outside a public ultimate right-of-way or easement shall be high density corrugated polyethylene.

6. Inlets.

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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

. . .

7. Manholes.

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

8. Headwalls and Endwalls.

...

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.

. . .

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 <u>Board-Township Engineer</u> 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 <u>Engineer and Utility provider</u>.
 - (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.

§22-713.1.E 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.

Add \$22-713.1.G. 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

Commented [JM7]: (In the "Purpose" section) Revise per EAC

Commented [JM8]: Per EAC, used Lower Merion Parking Lot Greening standards

Commented [JM9]: Per EAC, used Lower Merion Parking Lot Greening standards

- 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
	(c)	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
	<u>(g)</u>	1 evergreen per 25 feet and 1 shrub per 10 feet
(h)		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 the followinglist Appendix D of this Chapter Required Plant Material List:

§22-713.5.B.(1) 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.

Commented [JM10]: Removed list of plant materials and referenced Appendix Plant List

§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 Minimum Number of Required Trees	Minimum Number of Tree Species	Maximum % of any 1 species
<u>1-5</u>	<u>1</u>	<u>100</u>
<u>6-15</u>	<u>2</u>	<u>50</u>
<u>16-30</u>	<u>3</u>	<u>40</u>
<u>31-50</u>	<u>4</u>	<u>30</u>
<u>51+</u>	<u>5</u>	<u>20</u>

Commented [JM11]: Per EAC, used Lower Merion Parking Lot Greening standards

§ 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.
 - D. <u>Limit spacing, fixture type and height of lighting to lessen light pollution. Protect the natural environment from the adverse effects of night lighting from artificial light sources.</u>
 - 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</u> A luminaire classification system that classifies Backlight (B), Uplight (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.
- 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>
- Mounting Height The height of the photometric center of a luminaire above grade level
- <u>Uplight</u> For an exterior <u>luminaire</u>, <u>flux radiated in the hemisphere at or</u> 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.

3.4. 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

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(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 accommedate 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.

Commented [JM12]: Remove from Streetlight section per PC/EAC, included below under "Control of Light"

- 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, Leading 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>
 <u>Infrastructure</u>

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	5:1 ave:min
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) <u>Color Temperature</u>. <u>Luminaires shall have a maximum color temperature of 3,000K</u>.
- (4) Uplight (U) value for all luminaires shall be zero (0).
- (4)(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) Illuminated signs shall have a shielded lighting source and shall be directed 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

Commented [JM13]: Per BOS, confirmed 25% is consistent with other local ordinances.

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

§22-717.3 All underground utilities shall be installed prior to street paving at locations approved by the Township, and 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.

§22-719.6. The site plan shall contain a plan notation stating that any existing or 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.

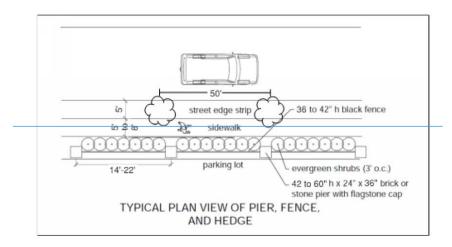
§§22-722.4.C.(7)(b) All street trees shall be planted in the planting strip located between the curbline and the sidewalk 5 to 10 feet behind the ultimate right-of-way. See the "Typical Plan View" illustration in Subsection 4D(7).

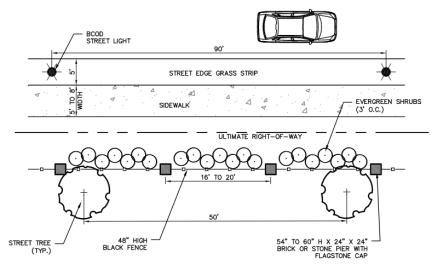
22-722.4.D.(7)(a) Where parking areas are located or are proposed to be located between a street and a principal building, a buffer fence shall be installed withinbetween five and ten feet outside of the ultimate right-of-way line of the street between this parking area and the street. This buffer fence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

 The fencing shall be black steel or aluminum, 36 inches to 42 48 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 **Commented [JM14]:** Clarify for projects without sidewalk per PC.

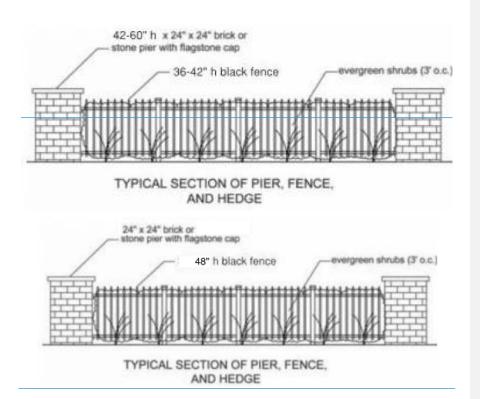
them, 24 to 36-inches or greater in width and depth, and with a concrete or stone cap. The piers shall be evenly installed 44 to 2216 to 20 feet on center or at a spacing to be approved by the Township Engineer.

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.

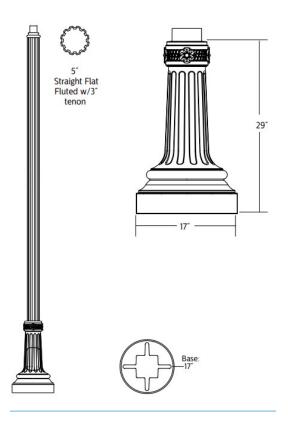
(4) Freestanding fixtures shall utilize appropriate shape cutoff luminaires with shielding of the light source at angles above 72° from the vertical having an Uplight (U) rating of (0).

42

(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.

Commented [JM15]: Add per EAC

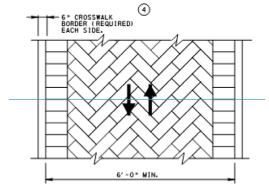




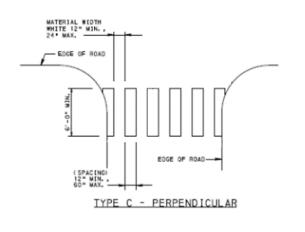
- (c) The maximum height of freestanding fixtures shall—may vary to provide scale and dimension to the project. All lighting fixtures shall not exceed 15 feet in height, except up to 25% of the fixtures may be up to 25 feet in height. Fixture heights shall be measured from the top of the fixture to ground 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.





TYPE E - HERRINGBONE





NEW BRITAIN TOWNSHIP

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

SUBDIVISION & LAND DEVELOPMENT APPLICATION

FÈ	Date of Application:				_ T	OWNSHIP	USE ONLY
Œ	Date of Plan or Revision:	-					
HÈ	Application for (check all that apply):					ck #:	
	Sketch Plan Prelimin	nary	Final	Prelim/Fin	nal Rec	eipt #:	
ΙÈ	Name of Subdivision or Land Dev	velopment: _					
ĺÈ	Location:				_ PSA	\ #: 	
ÎÈ	Tax Map Parcel #: 26	Tota	al Acreage:	Gross	Bas	se Site Area	
ΪÈ	Net Buildable Site Area (from Sec	ction 2401): _					
ÌÈ	Zoning Requirements:						
	Zoning District	Minim	um Lot Size		Max	imum Density	
	Front Yard	Side Y	⁄ard		Rea	r Yard	
9.	Number of Lots or Dwelling Units	i:					
10.	Equitable Owner of Record of La	nd:					
	Address:			· · · · · · · · · · · · · · · · · · ·			
	Phone:	E-ma	ail:				
11.	Applicant:		_				
	Address:			· · · · · · · · · · · · · · · · · · ·			
	Phone:	E-ma	ail:				
12.	Offct[} ^^: '''''						
	Address:						
	Phone: E-	-mail:					
13.	Registered Engineer or Surveyor	:					
	Address:						
	Phone: E-	-mail:					
14.	3 1	Public Water Public Sewer		ivate Water ivate Sewer			
15.	Proposed Use:						
	to certify that I have read Article V accompanying plan meets the red						dinance and
	Signature of Applicant			Signature of Re	egistered I	Engineer or Sur	veyor

SUBDIVIS	ION & LAND DEVELOPMENT			
PLAN S	SUBMISSION CHECKLIST			
Date of Application:				
Subdivision/Land Development Name:				
Address of Property:				
Owner(s) Name:				
Applicant(s) Name:				
Tax Map Parcel Number:				
Tax map i alcommunicor.				
Plan Sets for New Britain Township - Fold	ed to 8 1/2 x 11: (9 Full Size, 5 11x17)			
NBT Board of Supervisors (Full Size) - 5 Copi	es 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			
Stomwater Management Report (2 Copies) (D	Schedule adopted by Resolution e Schedule adopted by Resolution t (3 Signed Originals) g Commission vation District n Penn/North Wales/Aqua), if applicable loint Sewer Authority OR Buck County Department of Health			
Traffic Impact Study, if applicable (2 Copies) (Digital Acceptable)			
PADOT Highway Occupancy Permit Plan/App	olication, if applicable (2 Copies)			
Community Impact Assessment Report, if app	olicable (4 Copies)			
Affidavit of Mailing Notification, Mailing Conter Township Road Opening Permit, if applicable Water Resource Impact Study, if applicable (2 Waiver Request Letter with Justification	nt & Post Property of SLD Application (§ 22-401.8 General Procedures) 2 Copies) (Digital Acceptable)			
Reviewed By: Township Representative	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:



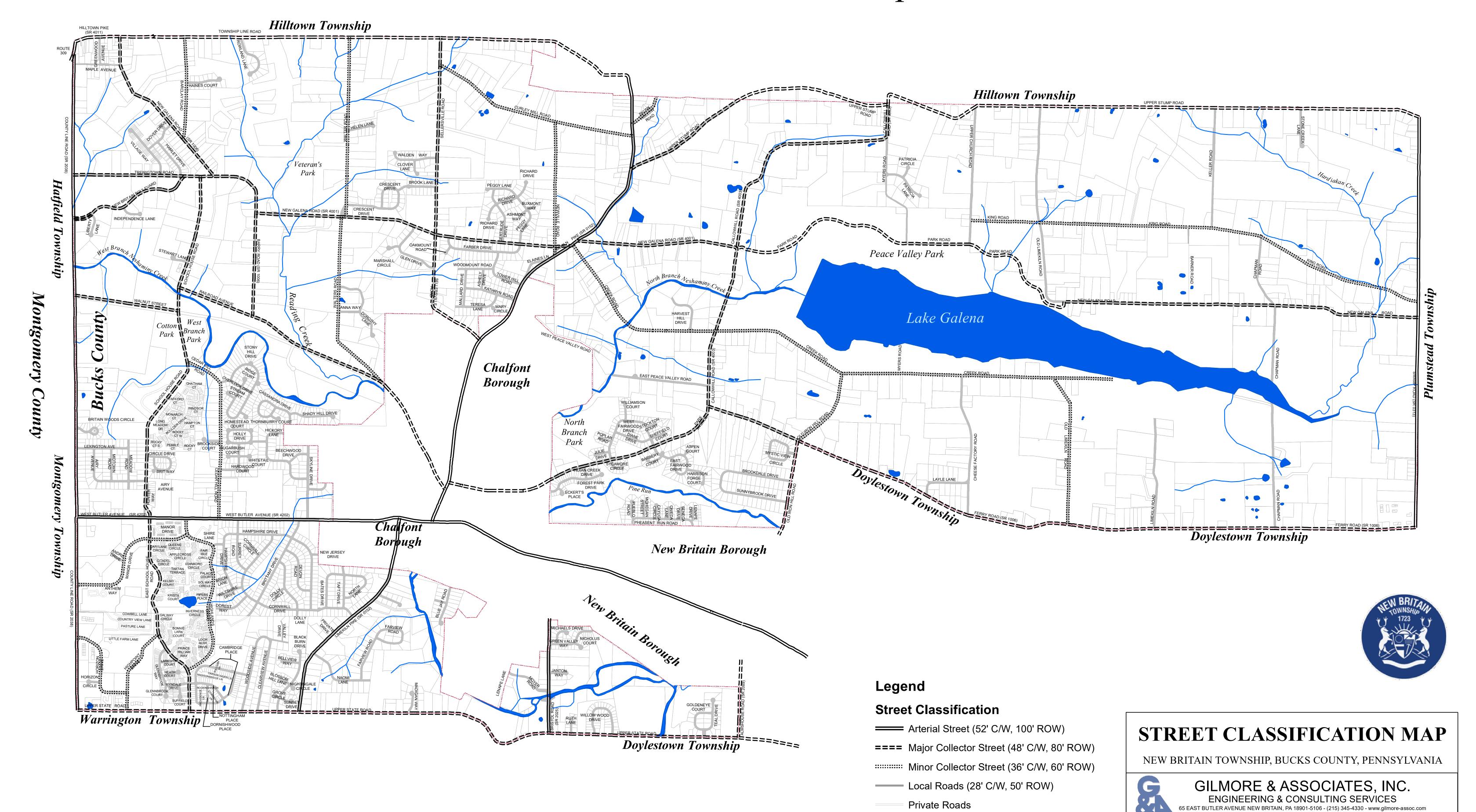


JOB NO: 22-01002

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 He	eight Deciduou	ıs Trees	
Scientific name	Common name	Location Usage & Soil Conditions		
		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	sweetbay magnolia	X	X	moist to wet
virginiana				

	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 arboreum	sourwood		X	moist	
Prunus	pin cherry		X	dry	
pensylvanica			.,		
Prunus virginiana	common chokeberry		Х	dry to moist	
Ptelea trifoliata	water-ash		X	dry to moist	
Quercus marilandica	black jack				
Quercus stellata	post oak				
Salix nigra	black willow	X		moist to wet	
Sassafras albidum	sassafras	Х		dry to moist	
Swida (Cornus) alternifolia	pagoda dogwood		Х	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 Condition		
		Riparian Buffer	Soil Moisture Preference	
Chamaecyparis thyoides	Atlantic white-cedar	Χ	moist to wet	
llex opaca	American holly	Χ	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	Lo	ocation U	sage & Soil Con	ditions
		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			Х	moist
Euonymus	strawberry-bush			Х	dry to moist
americanus	(hearts-a-bursting)				
Euonymus	American wahoo			Χ	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	L	ocation L	Isage & Soil Con	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			Χ	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	X		Χ	moist
Viburnum nudum	possumhaw	X		X	moist
Viburnum	blackhaw	X	Х	X	wet
prunifolium	viburnum				
Viburnum trilobum	American	X	X	X	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	Х		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

Some Common Perennials Su	itable for Riparian Buffers, Ra	in Gardens, an	d Basins
Scientific name	Common name	Dry side ¹	Wet area ²
Amsonia tabernaemontana	eastern bluestar	X	
Andropogon virginicus	broomsedge	X	
Asclepius incarnata	swamp milkweed		X
Baptisia australis	tall blue wild indigo	X	
Boltonia asteroides	green wild indigo	X	
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	Х	
Helianthus angustifolius	narrowleaf sunflower	X	
Helenium autumnale	sneezeweed	X	
Hibiscus mosceutos	eastern rose-mallow		Х
Iris Versicolor	northern blue flag		X
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		Х
Senecio aureus	golden ragwort	Х	
Solidago patula	rough-leaved goldenrod	Х	
Solidago rougosa	wrinkle-leaved goldenrod	Х	
Symphyotrichum novae-angliae	New England aster	X	
Symphyotrichum novi-belgii	New York aster	X	
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
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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



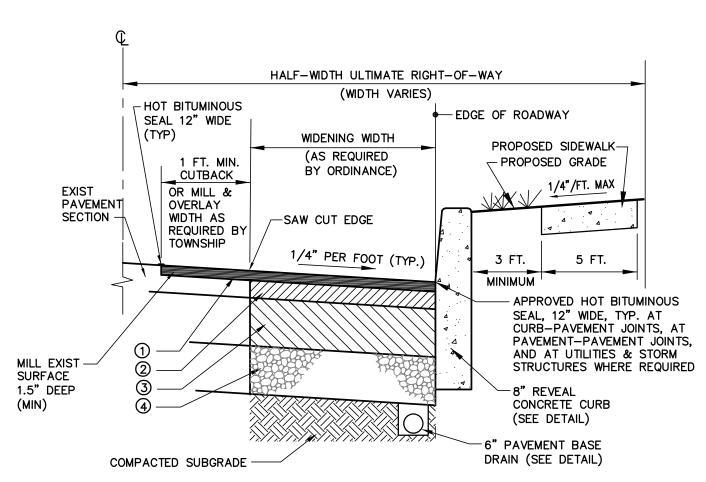
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- ① 1.5" SUPERPAVE ASPHALT MIXTURE DESIGN, 9.5 mm MIX, WEARING COURSE, 0.3 TO 30.0 MILLION ESALS, SRL BASED ON ADT
- 2.0" SUPERPAVE ASPHALT MIXTURE DESIGN, 19 mm MIX, BINDER COURSE, 0.3 TO 30.0 MILLION ESALS
- (4) 6" 2A OR 3A MODIFIED STONE SUBBASE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

- 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 ARTERIAL, COLLECTOR, AND NON-RESIDENTIAL ROADS

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



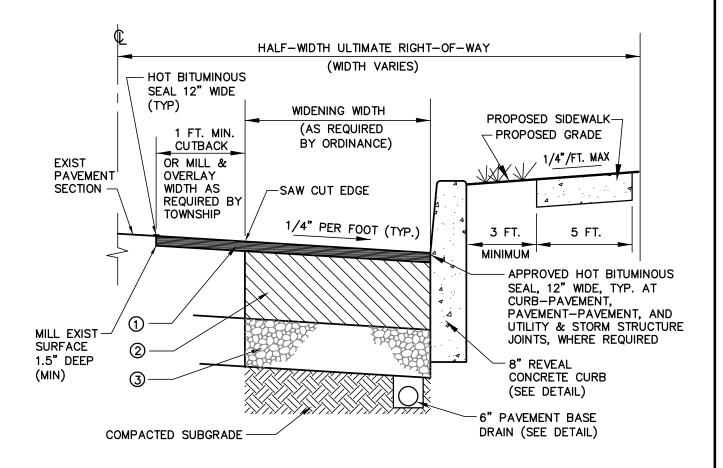
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- 1.5" SUPERPAVE ASPHALT MIXTURE DESIGN, 9.5 mm MIX, WEARING COURSE
- \bigcirc 4.5" SUPERPAVE ASPHALT MIXTURE DESIGN, 25 mm MIX, BASE COURSE
- 3 6" 2A MODIFIED STONE SUBBASE (MATCH EXISTING IF GREATER)

- 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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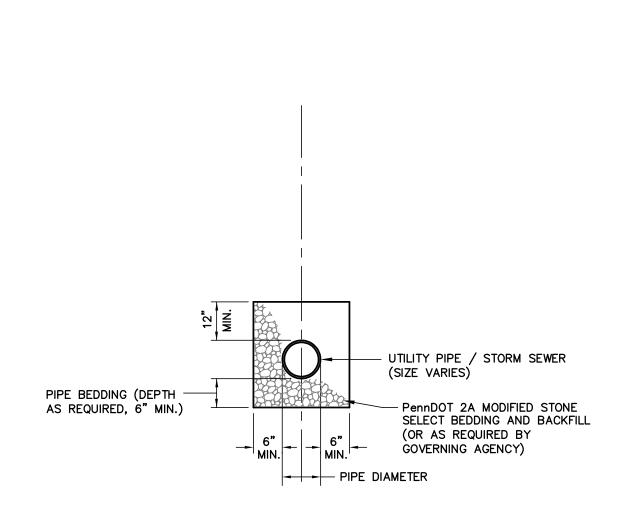
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PIPE BEDDING DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



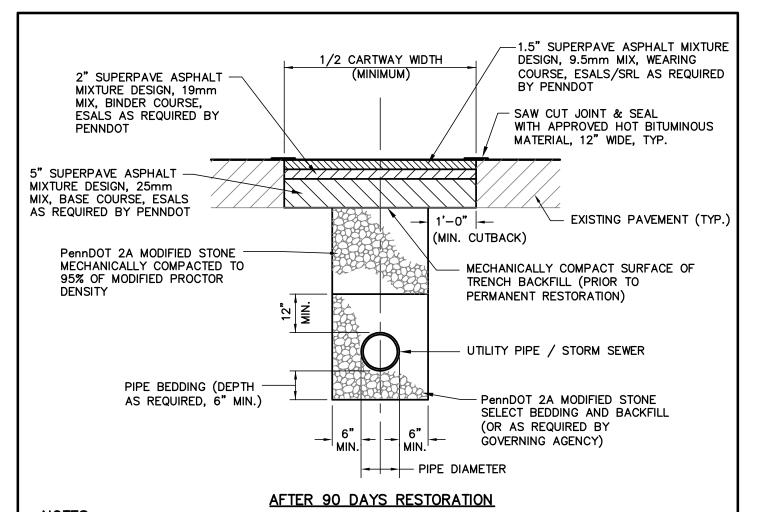
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- BEFORE 90 DAYS, ROADS SHALL BE TEMPORARILY RESTORED WITH 2A COURSE AGGREGATE AND 2" OF PENNDOT BINDER COURSE (TO GRADE) AND ALLOWED TO SETTLE 90 DAYS PRIOR TO PERMANENT RESTORATION, AS SHOWN ABOVE. PERMANENT RESTORATION OF TRENCHES SHALL BE COMPLETED 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.
- 4. 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



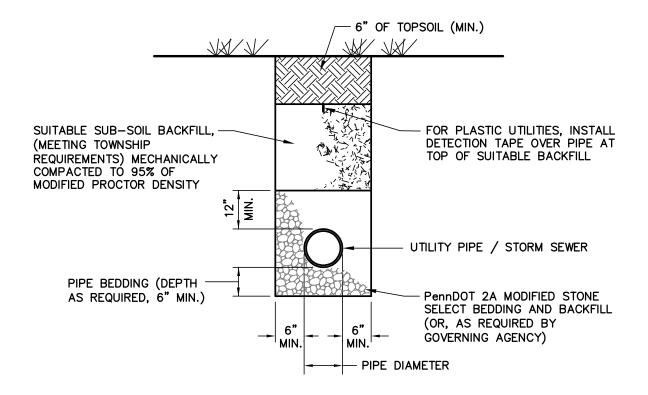
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STORM SEWER & UTILITY TRENCH RESTORATION WITHIN PERVIOUS AREAS DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



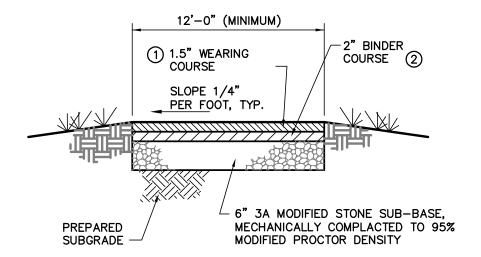
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MINIMUM SPECIFICATION

- (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



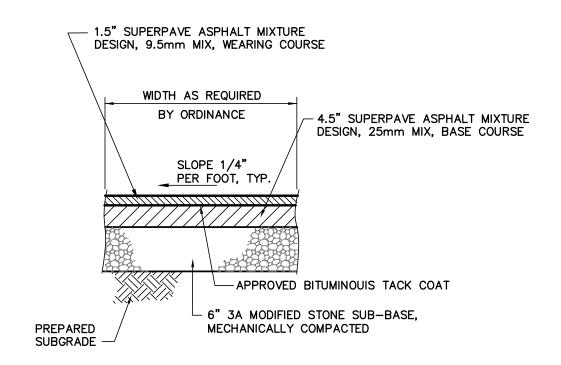
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NON-RESIDENTIAL AND MULTI-RESIDENTIAL DRIVEWAYS, PARKING AREAS AND LOADING AREAS PAVING SECTION DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



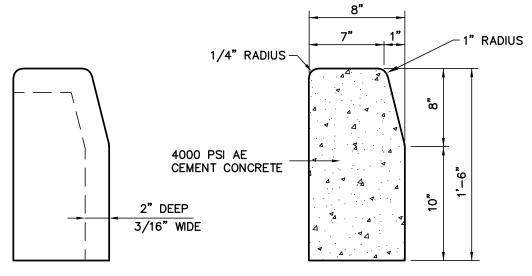
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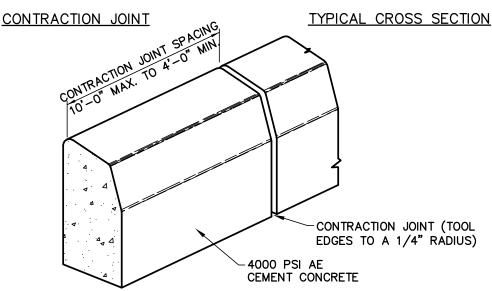
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- PLACE 1/2" PREMOLDED EXPANSION JOINT MATERIAL EVERY 50 FEET (MAX.) AND AT ALL DRIVEWAYS (DEPRESSED CURB CUTS), INLETS, AND CURB RADII.
- 2. MINIMUM 2-#6 REINFORCING BARS PER SIDE WHERE CURB ABUTS INLET HOODS, INCLUDING PREMOLDED EXPANSION JOINT MATERIAL.
- 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



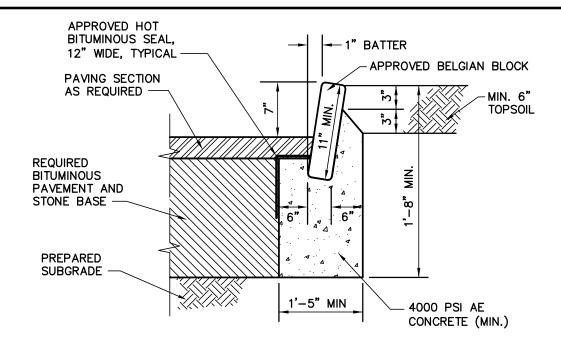
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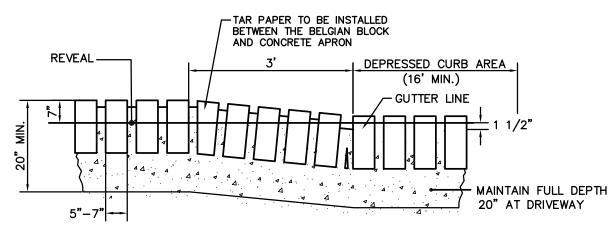
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DEPRESSED BELGIAN BLOCK CURB AT DRIVEWAY

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



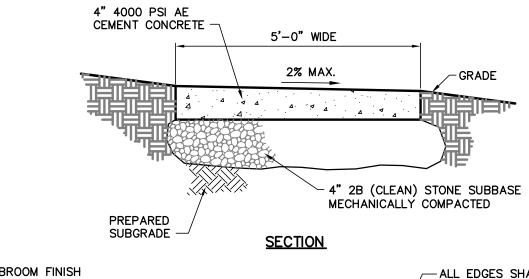
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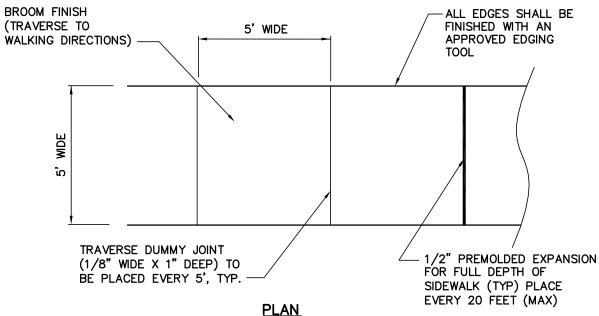
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- 1. WITH ALL PROPOSED SIDEWALK, A NON-SLIP SURFACE TEXTURE SHALL BE BROOMED TRAVERSE TO THE SLOPE OF THE SIDEWALK.
- 2. ALL SIDEWALK SHALL BE IN ACCORDANCE WITH ACI & TOWNSHIP STANDARDS.

CONCRETE SIDEWALK DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



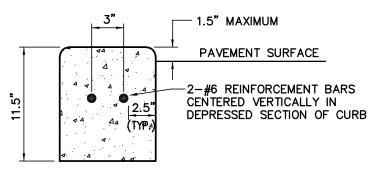
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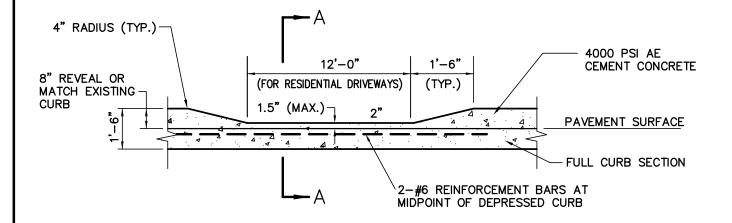
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SECTION A-A



DEPRESSED CURB DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



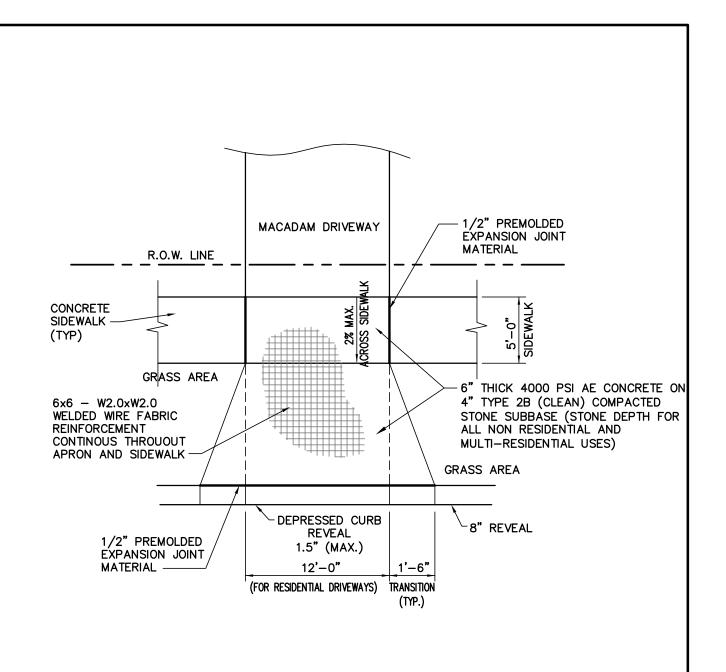
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DRIVEWAY AND APRON DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



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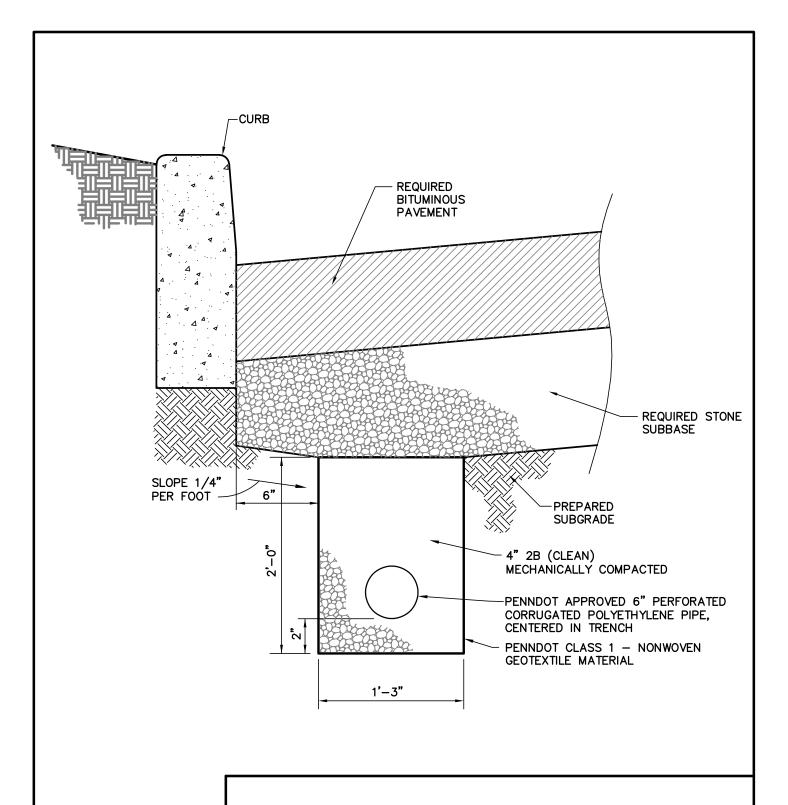
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ROAD UNDERDRAIN DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



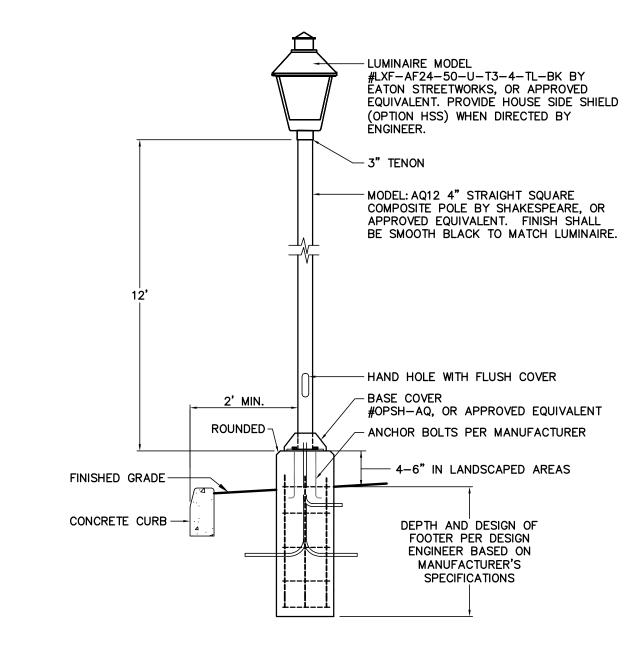
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DATE: 5/22/09

07/31/24

SCALE: N.T.S. DRAWING No:



- 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



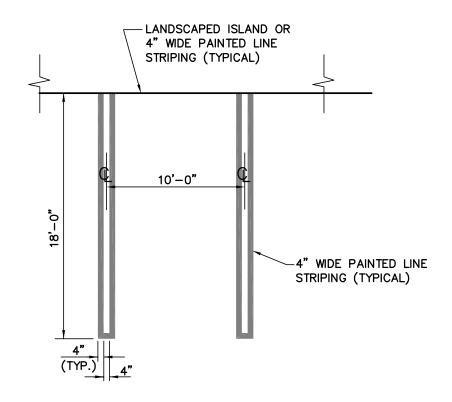
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DATE: 5/22/09

07/31/24

SCALE: N.T.S. DRAWING No:



PARKING SPACE STRIPING DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



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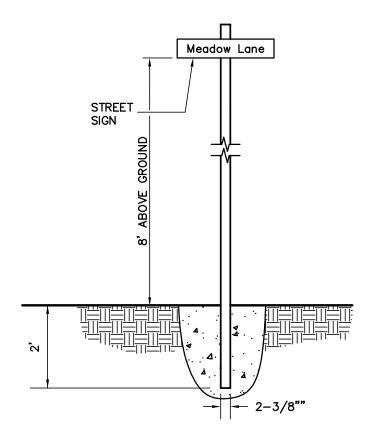
DATE: 5/22/09

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



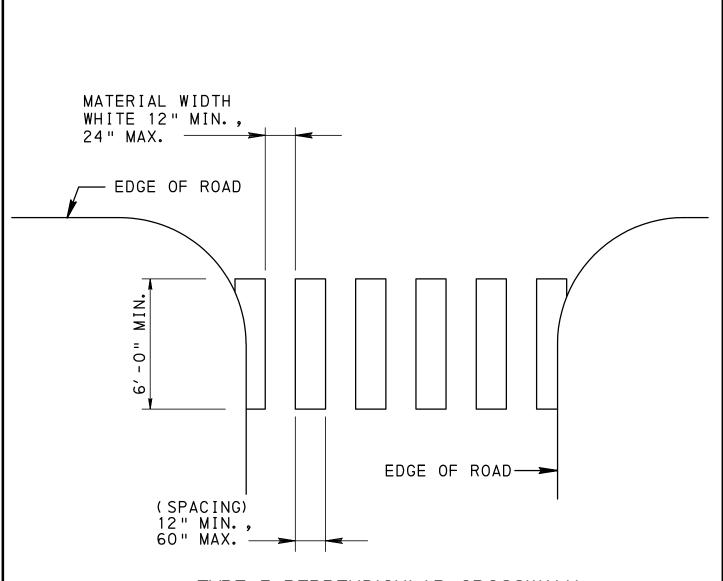
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DATE: 5/22/09

07/31/24

SCALE: N.T.S. DRAWING No:



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



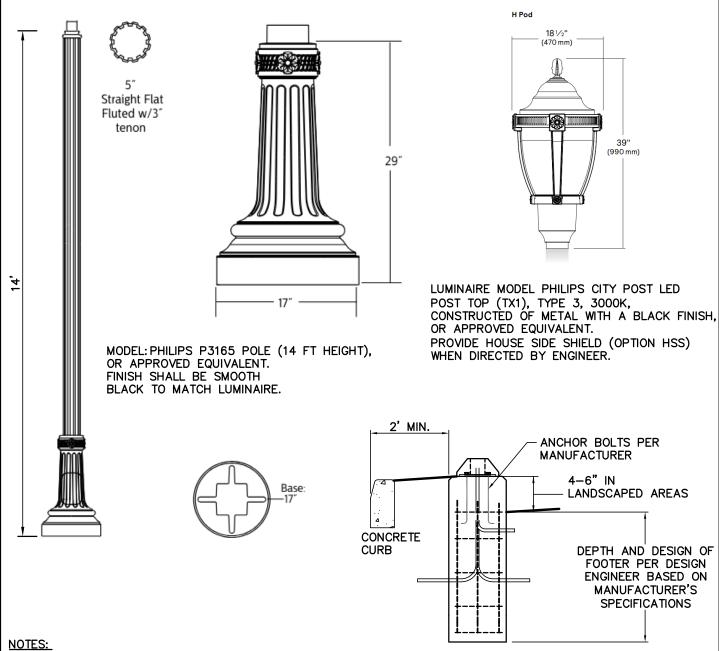
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DATE: 8/16/22

LAST REVISED: 07/31/24

SCALE: N.T.S. DRAWING No:



- FIXTURE AND POLE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS
- 3" OF CONCRETE COVER SHALL BE PROVIDED OVER ALL REINFORCEMENT BARS.
- PROVIDE GROUND ROD BONDED TO FIXTURE AS REQUIRED BY CODE.
- 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

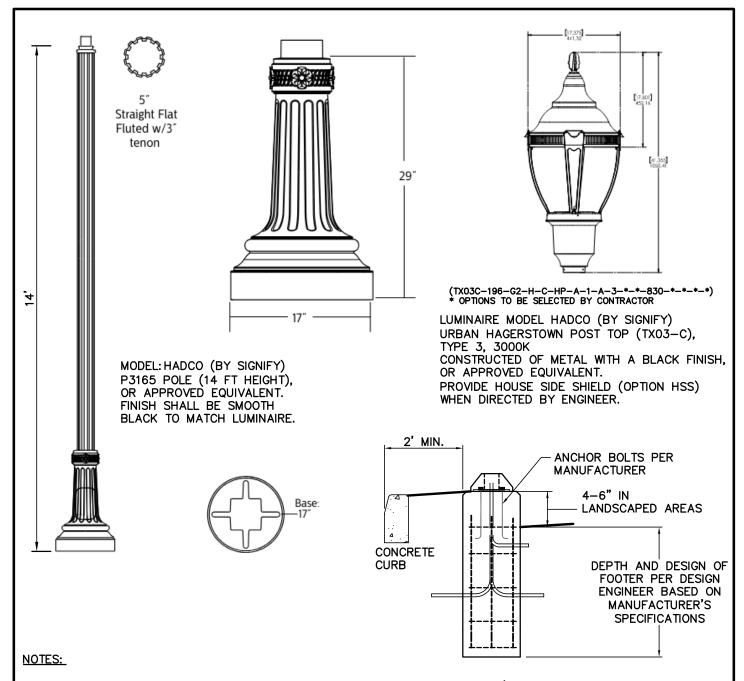


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SCALE: N.T.S.



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BUTLER AVENUE CORRIDOR OVERLAY DISTRICT STREET LIGHT DETAIL

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



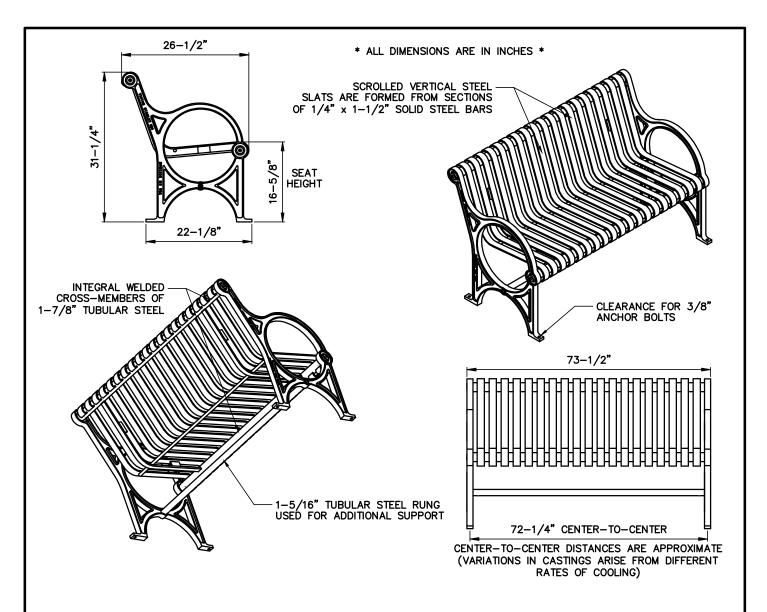
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DATE: 8/16/22

07/31/24

SCALE: N.T.S. DRAWING No:



- 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

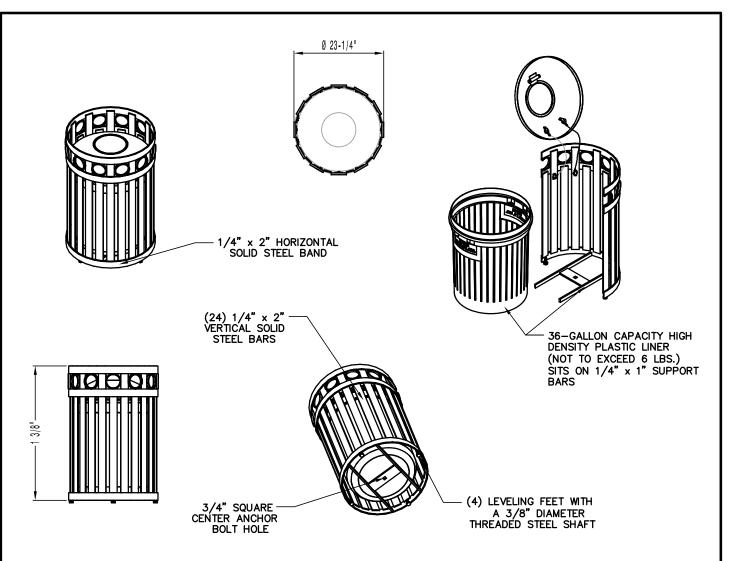


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SCALE: N.T.S.



- 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

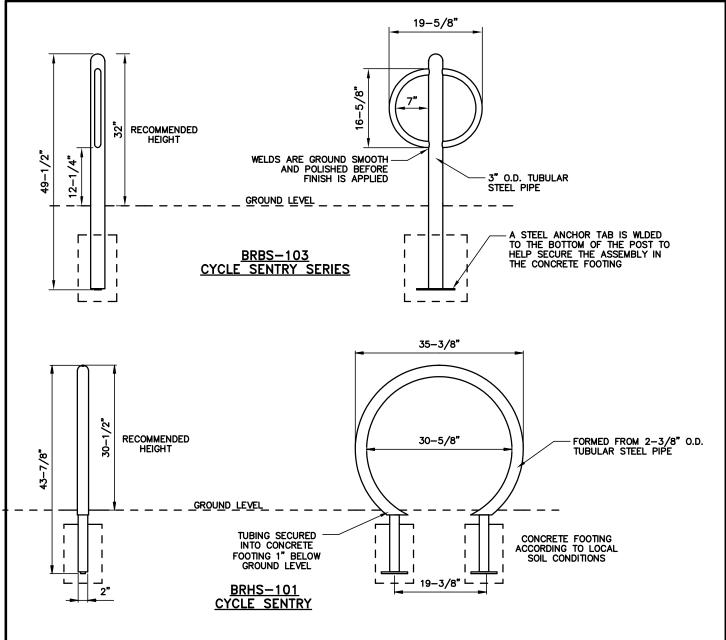


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SCALE: N.T.S.



- 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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