

RECEIVED

APR 11 2023

253 Municipal Dr, Thorndale, PA 19372
Phone: 610-384-0600 | Fax: 610-384-0617
www.calntownship.org

CODES DEPARTMENT
CALN TOWNSHIP

SUBDIVISION / LAND DEVELOPMENT PLAN APPLICATION

PROJECT NAME (TO BE COMPLETED BY TOWNSHIP): Kia SD/LD

NAME OF APPLICANT: DMS Realty LP c/o Jim Sipala

DATE OF APPLICATION: 4/11/23 SUBMISSION # 23-00297

LOCATION OF PROPERTY: 2751 Lincoln Highway, Coatesville, PA 19320

TAX PARCEL ID NUMBER: 39-4-94.1 ZONING DISTRICT: TV-1 & Lincoln Overlay

TYPE OF SUBMISSION:

SKETCH PLAN (8) FINAL PLAN (8)

PRELIMINARY PLAN (8) OTHER

IN ADDITION: (1) 11X17 PLAN AND A FLASH DRIVE CONTAINING ALL PLANS IS REQUIRED.

APPLICANT'S NAME: DMS Realty LP c/o Jim Sipala

MAILING ADDRESS: 2535 E. Lincoln Highway, Coatesville, PA 19320

PHONE NUMBER: 610-384-7700 FAX NUMBER: _____

E-MAIL ADDRESS: jsipala@jimsipalakia.com

OWNER OF RECORD: Open Hand Realty LLC

MAILING ADDRESS: 2535 E. Lincoln Highway, Coatesville, PA 19320

PHONE NUMBER: 610-384-7700 FAX NUMBER: _____

E-MAIL ADDRESS: jsipala@jimsipalakia.com

PROJECT ATTORNEY: Louis J. Colagreco, Jr., Esquire

MAILING ADDRESS: 717 Constitution Drive, Suite 201, Exton, PA 19341

PHONE NUMBER: 610-458-4400 FAX NUMBER: _____

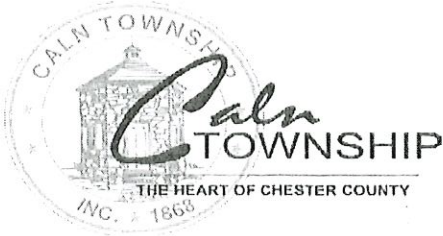
E-MAIL ADDRESS: lou@rrhc.com

PROJECT ENGINEER Howell Engineering - Christopher M. Daily, P.E.

MAILING ADDRESS: 1250 Wrights Lane, West Chester, PA 19380

PHONE NUMBER: 610-918-9002 FAX NUMBER: _____

E-MAIL ADDRESS: cdaily@dlhowell.com



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253 Municipal Dr, PO Box 72149, Thorndale, PA 19372
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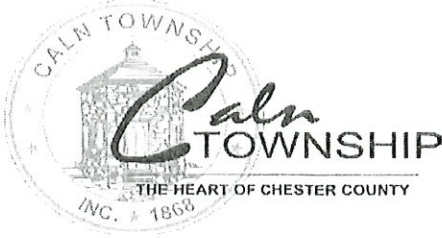
CODES DEPARTMENT
 CALN TOWNSHIP

PROPOSED LAND USE (X)	SPECIFIC TYPE OF USE, AS DEFINED BY CALN TOWNSHIP	TOTAL NUMBER OF LOTS / UNITS	TOTAL SQ. FOOTAGE OF NON-RESID. BUILDINGS
AGRICULTURAL			
CONSERVATION			
RESIDENTIAL			
COMMERCIAL	X Automobile Leasing	2	4,500 S.F.
INDUSTRIAL			
INSTITUTIONAL			
MUNICIPAL			
OTHER			

TOTAL LAND AREA (ACRES):	<u>6.465</u>	RESIDENTIAL DENSITY:	<u>N/A</u>
TOTAL LAND AREA BEING DEVELOPED:	<u>+/- 3 acres</u>	TOTAL PHASES:	<u>1</u>
TOTAL LENGTH OF NEW ROADS (LINEAR FEET):	<u>N/A</u>		
PROPOSED METHOD OF SEWAGE DISPOSAL:	<u>Public</u>		
PROPOSED METHOD OF WATER SUPPLY:	<u>Public</u>		

EIGHT COMPLETE SETS OF PLANS, ONE ORIGINAL APPLICATION AND THREE COPIES OF ALL SUPPLEMENTAL DOCUMENTS OR REPORTS SHALL BE SUBMITTED TO CALN TOWNSHIP IN ACCORDANCE WITH THE PROCEDURES ADOPTED BY THE CALN TOWNSHIP BOARD OF COMMISSIONERS. THE FOLLOWING INFORMATION HAS BEEN SUBMITTED WITH THIS APPLICATION:

TITLE OF SUBMISSION AND DESCRIPTION CONTENTS	COPIES	REFERENCE NUMBER	DATE
Please see transmittal			



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CODES DEPARTMENT
CALN TOWNSHIP

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www.calntownship.org

Jim Sipala (AUTHORIZED REPRESENTATIVE OF THE APPLICANT) HEREBY REQUEST REVIEW OF THIS APPLICATION BY CALN TOWNSHIP. TO THE BEST OF MY KNOWLEDGE, ALL OF THE INFORMATION CONTAINED WITHIN THIS APPLICATION IS TRUE, CORRECT AND COMPLETE. FURTHER, I HEREBY AGREE TO THE FOLLOWING SPECIFIC TERMS AND CONDITIONS:

- (1) I HEREBY PERMIT ANY ELECTED, APPOINTED AND/OR ASSIGNED STAFF MEMBER OF CALN TOWNSHIP TO ENTER THE EXTERIOR PREMISES OF THE PROPERTY, IN WHICH THIS APPLICATION PERTAINS, FOR THE PURPOSES OF CONDUCTING SITE INSPECTIONS WHILE THE PROPOSED APPLICATION IS BEING CONSIDERED BY CALN TOWNSHIP.
- (2) I HEREBY AGREE TO PAY ALL CONSULTANT, ADMINISTRATIVE AND/OR APPLICATION FEES REQUIRED FOR THE REVIEW OF THIS APPLICATION.
- (3) I HEREBY AGREE TO COMPLETE AND SUBMIT TO CALN TOWNSHIP, THE CHESTER COUNTY REFERRAL FORM AND APPLICABLE FEES WITH THIS APPLICATION.

SIGNATURE OF APPLICANT OR AUTHORIZED REPRESENTATIVE

DATE OF APPLICATION

[Handwritten Signature]

3-30-2023

SIGNATURE OF WITNESS

DATE

[Handwritten Signature]

FOR MUNICIPAL USE ONLY

AUTHORIZED STAFF MEMBER: *Enagry*

APPLICATION NAME: *Kia SLD*

APPLICATION # *2300297*

SUBMISSION DATE: *4/11/23*

SUBMISSION NUMBER: *1*

CALN TWP. FEE: *150.00*

CHECK NUMBER: *16853* DATE: *3/30/23*

CHESTER COUNTY PC FEE: *1160.50 Paying directly*

OTHER APPLICATION FEES: *825.00 # 16854*

DATE APPLICATION WILL BE REVIEWED BY TOWNSHIP PLANNING COMMISSION: *6/20/23*

APPLICATION COMPLETENESS REVIEW: *(PB)*

DATE: *4/17/23*

GENERAL NOTES

- THE INTENT OF THIS PLAN IS TO REDEVELOP THE SITE FOR A 4,500 S.F. LEASING FACILITY WITH ASSOCIATED PARKING. REDEVELOPMENT ALSO INCLUDES IMPROVEMENTS ALONG LINCOLN HIGHWAY WITH SIDEWALK AND STREET AMENITIES. ALSO INCLUDES IS UNDERGROUND STORM WATER MANAGEMENT, LIGHTING AND LANDSCAPING.
- RECORD OWNER/MILING ADDRESS:
OPEN HAND REALTY, LLC
2535 E. LINCOLN HIGHWAY
COATESVILLE PA. 19320
- SITE ADDRESS:
2751 LINCOLN HIGHWAY
COATESVILLE PA. 19372
- TAX PARCEL #: 39-4-94.1
- SOURCE OF TITLE: RECORD BOOK 10904, PAGE 144
(LOT #3, RECORD PLAN BOOK #4606)
- LOT AREA: 6.465 ACRES (GROSS)
6.202 ACRES (NET OF LEGAL R/W)
- BOUNDARY, TOPOGRAPHY AND PHYSICAL IMPROVEMENTS SHOWN ARE FROM FIELD SURVEY BY HOWELL KLINE SURVEYING, LLC. PERFORMED ON 11/03/2022.
- CONTOURS PLOTTED FROM FIELD RUN TOPOGRAPHIC SURVEY BY HOWELL KLINE SURVEYING, L.L.C., AND SUPPLEMENTED WITH G.L.S DATA. DATUM: NAVD 88 (COMPUTED USING GEOID12A) & NAD 83 (2011) (EPOCH:2010.0000) (AS DETERMINED BY GPS OBSERVATION), SITE BENCH = WESTERN DOOR SILL OF BLOCK BUILDING, ELEVATION= 322.43', CONTOUR INTERVAL: 2 FEET.
- UNDERGROUND UTILITIES SHOWN WERE PLOTTED FROM OBSERVABLE EVIDENCE AT THE TIME OF SURVEY AND INFORMATION FROM PLANS SUPPLIED BY UTILITY COMPANIES. NO GUARANTEE IS MADE THAT UNDERGROUND UTILITIES ARE ACCURATELY OR COMPLETELY SHOWN HEREON.
- THE 50' WIDE RIGHT OF WAY OF E. LINCOLN HIGHWAY WAS TAKEN FROM REFERENCE PLAN #1.
- A PORTION OF THIS PROPERTY IS LOCATED WITHIN FLOOD HAZARD ZONE AE, A SPECIAL FLOOD HAZARD AREA WITH BASE FLOOD ELEVATION PER THE NATIONAL FLOOD INSURANCE RATE MAP FOR CHESTER COUNTY, PA. MAP NO. 4202001956, PANEL: 195 OF 380, DATED SEPTEMBER 29, 2017. FLOOD PLAN BOUNDARIES SHOWN HEREON WERE SCALED FROM THE ABOVE MENTIONED MAP.
- THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF ANY CONSTRUCTION. THE CONTRACTOR SHALL PERFORM A PENNSYLVANIA ONE CALL IN ACCORDANCE WITH PA ACT 199.
- D.L. HOWELL & ASSOCIATES, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS OF THE EXISTING SUBSURFACE UTILITY STRUCTURES SHOWN ON THE PLANS. NOR DOES D.L. HOWELL & ASSOCIATES, INC. GUARANTEE THAT ALL SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES PRIOR TO THE START OF THE WORK.
- LOCATION OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND MUST BE CONFIRMED INDEPENDENTLY WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. IT SHALL BE THE CONTRACTOR'S FULL RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES TO LOCATE THEIR FACILITIES PRIOR TO STARTING CONSTRUCTION IN ACCORDANCE WITH PENNSYLVANIA ACT 287 OF 1974 AS AMENDED BY PENNSYLVANIA ACT 187 OF 1996, "ONE CALL" SYSTEM. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR DAMAGE AND REPAIR TO THESE FACILITIES CAUSED BY HIS WORK FORCE. SANITARY SEWER, WATER, ELECTRIC, GAS AND ALL OTHER UTILITY SERVICES CONNECTION POINTS SHALL BE CONFIRMED INDEPENDENTLY BY THE CONTRACTOR IN THE FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES SHALL BE REPORTED IMMEDIATELY IN WRITING TO THE ENGINEER. CROSSINGS WITH EXISTING UNDERGROUND INSTALLATIONS SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED THEREON, WITHOUT FIRST OBTAINING PRIOR WRITTEN AUTHORIZATION FOR SUCH DEVIATIONS FROM THE OWNER AND ENGINEER, IT SHALL BE RESPONSIBLE FOR THE PAYMENT OF ALL COSTS TO CORRECT ANY WORK DONE. ALL FINES OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING FROM IT SHALL INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ALL SUCH COSTS TO CORRECT ANY SUCH WORK AND FROM ALL SUCH FINES AND PENALTIES, COMPENSATIONS AND PUNITIVE DAMAGES AND COSTS OF ANY NATURE RESULTING THEREFROM.
- THE PROPERTY WILL BE SERVICED BY PUBLIC WATER AND PUBLIC SEWER.
- ALL CURB RADI SHALL BE 5 FT UNLESS NOTED OTHERWISE.
- ALL DIMENSIONS ARE TO FACE OF CURB OR FACE OF BUILDING UNLESS NOTED OTHERWISE. SCALED DIMENSIONS SHALL NOT BE USED WITHOUT FIRST CONTACTING THE ENGINEER OR ARCHITECT.
- CHILD PROOF NON-CLOGGING TRASH RACKS ARE REQUIRED ON ALL PIPE OPENINGS OVER 12 INCHES.
- ALL STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT PADOT RC STANDARDS.
- CONSTRUCTION IS ANTICIPATED TO BEGIN SPRING OF 2024 AND END IN SUMMER OF 2024.
- PRIOR TO THE RELEASE OF ESCROW FUNDS, AS-BUILT PLANS ARE TO BE PREPARED AND SUBMITTED TO THE TOWNSHIP.
- A BLANKET EASEMENT IS GRANTED TO THE TOWNSHIP FOR THE EXPRESS PURPOSE OF ALLOWING TOWNSHIP OFFICIALS THE ABILITY TO INSPECT AND MAINTAIN THE STORMWATER MANAGEMENT FACILITIES IN THE EVENT THAT THE PROPERTY OWNER FAILS TO MAINTAIN THEM. THE TOWNSHIP SHALL NOTIFY THE PROPERTY OWNER IN ADVANCE OF ANY VISITS TO THE PROPERTY FOR INSPECTIONS AND MAINTENANCE PRIOR TO ARRIVING.
- A FEE IN LIEU OF THE REQUIRED OPEN SPACE IS TO BE PROVIDED.
- NO WETLANDS WERE LOCATED ON THE SUBJECT PROPERTY. SEE THE LETTER PREPARED BY ENVIRONMENTAL MANAGEMENT & CONSULTING, INC. ON JULY 1, 2023.

REFERENCE PLAN(S)

- PLAN ENTITLED, "COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF HIGHWAYS, DRAWING FOR CONSTRUCTION AND CONDEMNATION OF RIGHT-OF-WAY, FOR ROUTE 142, SECTION 1, FROM STATION 1663+00 TO STATION 1875+78". DATE - NOT LEGIBLE.
- PLAN ENTITLED, "SUBDIVISION OF LAND FOR J.E.S., INC.", PREPARED BY BERGER & HAYES, INC. THORDALE, PA. DATED 06/17/1983, LAST REVISED 08/15/1983, RECORD PLAN BOOK #4606.
- PLAN ENTITLED, "PLAN OF PROPERTY FOR BUZZTOTO DEVELOPMENT CO". PREPARED BY BERGER & HAYES, INC. OF THORNDALE, PA. DATED 8/30/2005. NOT RECORDED.
- PLAN ENTITLED, "PLAN OF ALTA/ACSM LAND TITLE SURVEY FOR DEL TOYOTA - 2945 E. LINCOLN HIGHWAY", PREPARED FOR JACK DEL VECCHIO, PREPARED BY HOWELL KLINE SURVEYING, LLC. DATED 12/01/2010, LAST REVISED 09/02/2011.

APPLICANT/EQUITABLE OWNER

DMS REALTY LP
C/O JIM SIPALA
2535 E. LINCOLN HIGHWAY
COATESVILLE, PA 19320

RECORD OWNER

OPEN HAND REALTY LLC
2535 E. LINCOLN HIGHWAY
COATESVILLE, PA 19320

AGENCY PERMITS REQUIRED:

- SEWAGE FACILITIES PLANNING MODULE EXEMPTION FROM THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PADEP).
STATUS: UNDER REVIEW
DATE: N/A
PERMIT #: N/A
- NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FROM THE CHESTER COUNTY CONSERVATION DISTRICT AND THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PADEP).
STATUS: NOT YET SUBMITTED
DATE: N/A
PERMIT #: N/A
- HIGHWAY OCCUPANCY PERMIT FROM PENNSYLVANIA DEPARTMENT OF TRANSPORTATION (PENNDOT).
STATUS: NOT YET SUBMITTED
DATE: N/A
PERMIT #: N/A

WAIVER REQUESTS

- A WAIVER HAS BEEN REQUESTED FROM SECTION 135-305.A. OF THE STORMWATER MANAGEMENT ORDINANCE WHICH REQUIRES THE POST-CONSTRUCTION TOTAL RUNOFF VOLUME NOT TO EXCEED THE PRE-DEVELOPMENT TOTAL RUNOFF VOLUME FOR ALL STORMS EQUAL TO OR LESS THAN THE 2-YEAR, 24-HOUR DURATION PRECIPITATION (DESIGN STORM).
- A WAIVER HAS BEEN REQUESTED FROM SECTION 135-306 OF THE STORMWATER MANAGEMENT ORDINANCE WHICH REQUIRES STORMWATER INFILTRATION.
- A WAIVER HAS BEEN REQUESTED FROM SECTION 135-311.C. OF THE STORMWATER MANAGEMENT ORDINANCE WHICH REQUIRES A MINIMUM PIPE SLOPE OF 1%.

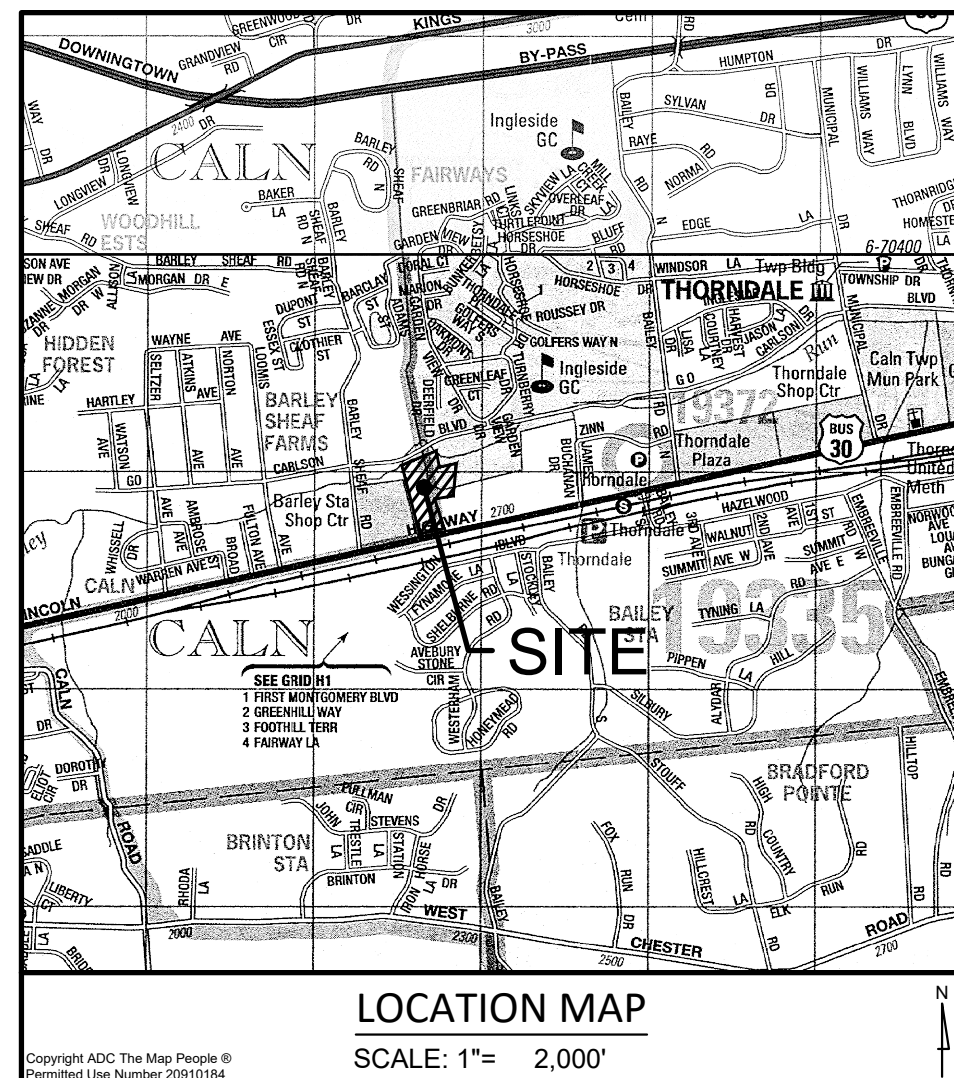
UPI# 39-4-94.1 D.B. 10904 PAGE 144

PRELIMINARY LAND DEVELOPMENT PLAN FOR KIA AUTO LEASING

SITUATED IN CALN TOWNSHIP, CHESTER COUNTY PENNSYLVANIA

SHEET LIST TABLE

SHEET NUMBER	DRAWING NUMBER	SHEET TITLE
01	C01.1	COVER SHEET
02	C01.2	LAND DEVELOPMENT PLAN
03	C02.1	EXISTING CONDITIONS PLAN
04	C03.1	GRADING & UTILITIES PLAN
05	C04.1	PCSM PLAN
06	C04.2	PCSM NOTES
07	C04.3	PCSM DETAILS
08	C04.4	PCSM DETAILS
09	C04.5	DRAINAGE AREA PLAN
10	C05.1	EROSION CONTROL PLAN
11	C05.2	EROSION CONTROL NOTES
12	C05.3	EROSION CONTROL DETAILS
13	C06.1	PROFILES
14	C07.1	CONSTRUCTION DETAILS
15	C07.2	CONSTRUCTION DETAILS
16	C08.1	TRUCK TURNING PLAN
17	C09.1	LANDSCAPE PLAN
18	C10.1	LIGHTING PLAN



REV.	DATE	DESCRIPTION
1	10/09/2023	REV. PER TWP. REVIEW COMMENTS
2	12/18/23	REVISED SITE LAYOUT PER KIA LEASING
3		
4		
5		
6		
7		
8		

PA ONE CALL

ACT 287 SERIAL NUMBER: 20222430304
HOWELL KLINE SURVEYING, LLC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY LINES, STRUCTURES, ETC. SHOWN ON THE PLANS, NOR DOES HOWELL KLINE SURVEYING, LLC. 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.

CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE--STOP CALL

Pennsylvania One Call System, Inc



1-800-242-1776

ONE CALL NOTE

SCALE: **NO SCALE**

UTILITIES NOTIFIED:

COMPANY: CALN TOWNSHIP
ADDRESS: 253 MUNICIPAL DR
THORNDALE, PA. 19372
CONTACT: SCOTT GILL
EMAIL: SGILL@CALNTOWNSHIP.ORG

COMPANY: COMCAST
ADDRESS: 1004 CORNERSTONE BLVD
DOWNTOWN, PA. 19335
CONTACT: TOM RUSSO
EMAIL: TOM_RUSSO@CABLE.COMCAST.COM

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

COMPANY: TRANSCONTINENTAL GAS/WILLIAMS GAS
ADDRESS: 99 FARMER RD
PRINCETON, NJ. 08540
CONTACT: JUSTIN ADAMS
EMAIL: JUSTIN.ADAMS@WILLIAMS.COM

COMPANY: PENNSYLVANIA AMERICAN WATER
ADDRESS: 100 CHESHIRE COURT STE 104
COATESVILLE, PA. 19320
CONTACT: GEORGE THOMAS
EMAIL: GEORGE.THOMAS@PAAMERICANWATER.COM

COMPANY: VERIZON BUSINESS FORMERLY MC
ADDRESS: 7000 WESTON PKWY
CARY, NC. 27513
CONTACT: VICTOR WOOD
EMAIL: VICTOR.S.WOOD@VERIZON.COM

COMMONWEALTH OF PENNSYLVANIA COUNTY OF CHESTER

ON THIS THE ____ DAY OF _____, 20 ____ A.D. BEFORE ME, THE SUBSCRIBER, A NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA, RESIDING IN WEST CHESTER, PERSONALLY APPEARED _____ WHO ACKNOWLEDGES _____ SELF TO BE A _____ OF _____

AND THAT AS SUCH TO DO SO, _____ EXECUTED THE FOREGOING PLAN BY SIGNING THE NAME OF THE SAID _____ BY _____ SELF AS _____ THAT THE SAID _____ IS THE OWNER OF THE PROPERTY SHOWN ON _____ AND THE SAID _____ DESIRES THE SAME TO BE RECORDED AS SUCH.

OWNER _____

NOTARY PUBLIC _____

MY COMMISSION EXPIRES: _____

**CALN TOWNSHIP BOARD OF COMMISSIONERS
CERTIFICATION**

APPROVED BY RESOLUTION OF THE BOARD OF COMMISSIONERS OF CALN TOWNSHIP THIS ____ DAY OF _____, 20 ____.

PRESIDENT _____

MEMBER _____

MEMBER _____

CALN TOWNSHIP ENGINEER CERTIFICATION

REVIEWED BY THE TOWNSHIP ENGINEER OF CALN TOWNSHIP, THIS ____ DAY OF _____, 20 ____.

TOWNSHIP ENGINEER _____

CERTIFICATE OF CONFORMANCE -- P.E.

I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THESE PLANS ARE IN CONFORMITY WITH ENGINEERING, ZONING, BUILDING, SANITATION AND OTHER APPLICABLE TOWNSHIP ORDINANCES AND REGULATIONS WITH THE EXCEPTION OF THE WAIVERS LISTED ON THE PLAN.

DENNY L. HOWELL, P.E. LICENSE NO. 053098-E

OFFER OF DEDICATION

WE THE UNDERSIGNED, OWNERS OF THE REAL ESTATE SHOWN AND DESCRIBED HEREIN, DO HEREBY CERTIFY THAT WE HAVE LAID OFF, PLATTED AND SUBDIVIDED, AND HEREBY LAY OFF, PLAT AND SUBDIVIDE, SAID REAL ESTATE IN ACCORDANCE WITH THIS PLAT, AND THAT ALL LANDS LYING WITHIN THE ULTIMATE RIGHT-OF-WAY OF ROCK RAMPOD ROAD ARE HEREBY OFFERED FOR CONTINUING DEDICATION TO CALN TOWNSHIP.

CERTIFICATE OF ACCURACY -- P.L.S.

I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, ALL SURVEY BOUNDARY INFORMATION AND COMPUTATIONS SHOWN AND DESCRIBED HEREON ARE TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE CALN TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.

THOMAS K. PHILLIPS, PLS LICENSE NO. SU 55399-E

CERTIFICATE OF CHESTER COUNTY PLANNING COMMISSION

REVIEWED BY THE CHESTER COUNTY PLANNING COMMISSION THIS ____ DAY OF _____, 20 ____.

SECRETARY _____

PREPARED BY:



Local Knowhow. Engineered.
Civil Engineering | Land Planning | Environmental
1250 Wrights Lane, West Chester, PA 19380
Phone: (610) 918-9002 Fax: (610) 918-9003

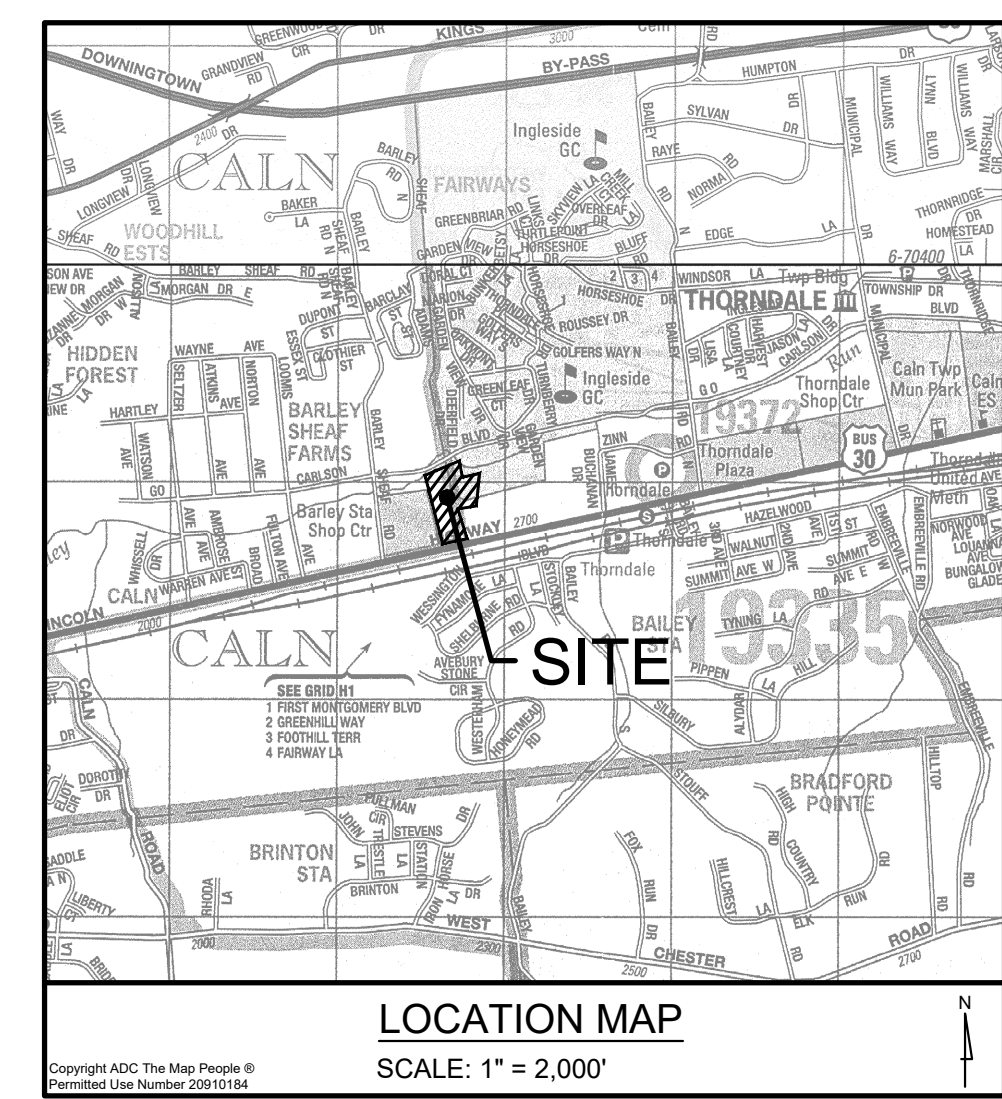
DATE:	04/07/23
SCALE:	N.T.S.
DRAWN BY:	ACB
CHECKED BY:	JSR
PROJECT NO.:	4536
CAD FILE:	
DATE TO FILE:	
PLOTTED:	12/18/23
DRAWING NO.:	C01.1
SHEET	01 of 18



50' WIDE TRANSCONTINENTAL GAS PIPE LINE CORPORATION RIGHT OF WAY PER MISC. D.B. 154 PG. 957 NOT REFERENCED IN TITLE REPORT SHOWN ON REFERENCE PLAN 1 & 2

15' WIDE WATER MAIN EASEMENT AS SHOWN ON REF. PLAN 1 AND REF. PLAN 2

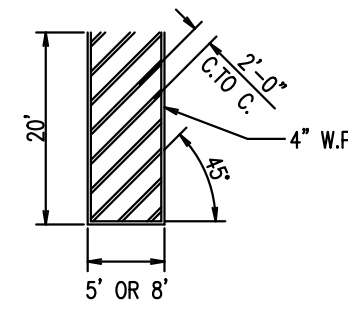
MATCHLINE - SEE BELOW



HOWELL ENGINEERING
Local Knowledge. Engineered.

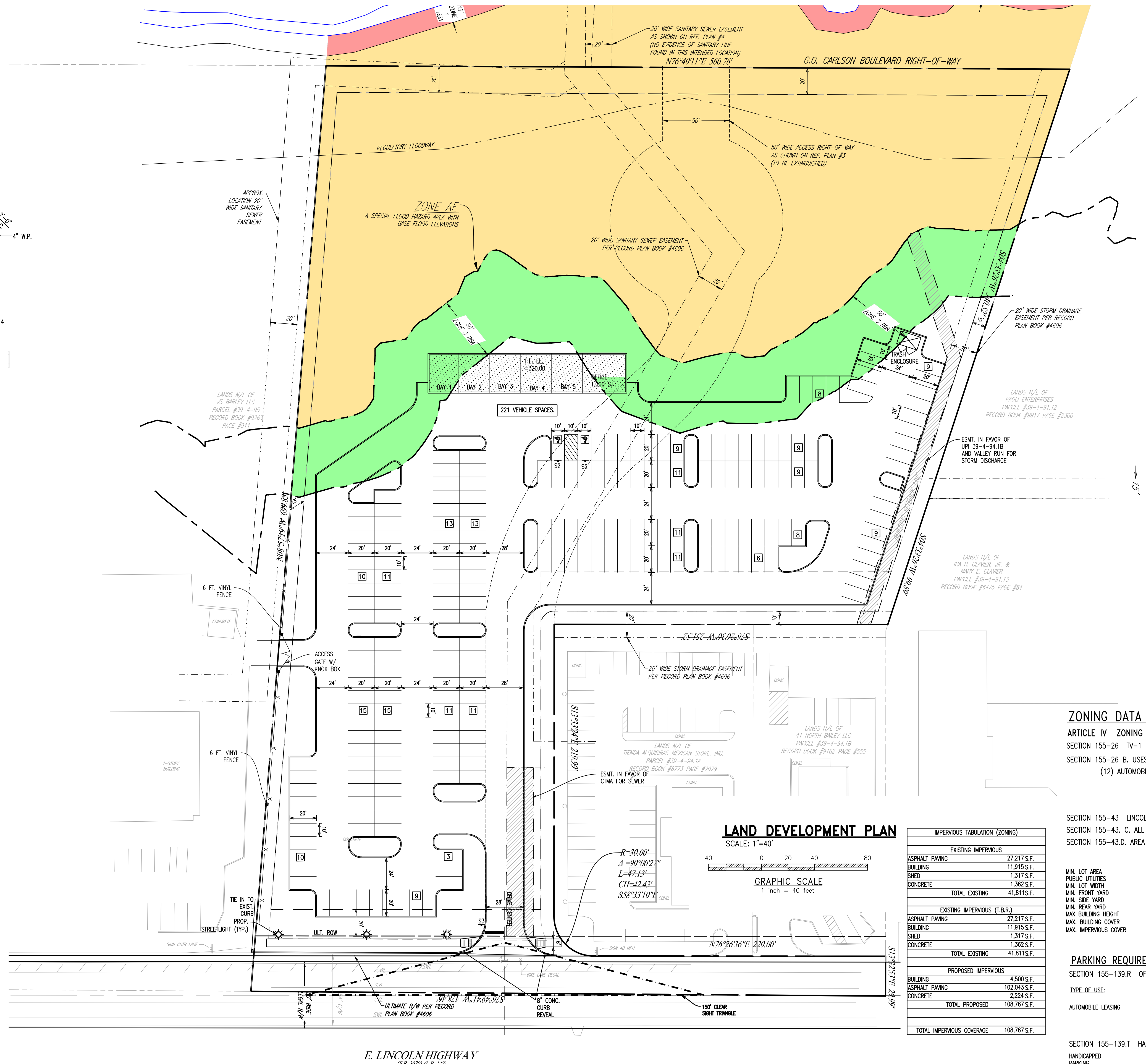
Civil Engineering | Land Planning | Environmental
1250 Wrights Lane, West Chester, PA 19380
Phone: (610) 918-9002 Fax: (610) 918-9003

- PAINT LEGEND**
- 4" W.P. 4" WIDE SOLID WHITE PAINT
 - 4" Y.P. 4" WIDE SOLID YELLOW PAINT
 - 48"x48" BLUE AND WHITE HANDICAPPED SYMBOL
- SIGN LEGEND**
- S1 4 HANDICAP PARKING SIGN - SEE DETAIL SHEET 14
 - S2 4 HANDICAP PARKING SIGN - VAN ACCESSIBLE - SEE DETAIL SHEET 14
 - S3 4 STOP SIGN - 24" X 24"
 - S4 4 LOADING AREA - 12' X 18"



NOTE: LATERAL AND VERTICAL PLACEMENT OF SIGNS IS TO BE AS REQUIRED BY PAOT STANDARD T6-7702B OR UNIFORM FEDERAL ACCESSIBILITY STANDARDS SECTION 4.30

- LEGEND**
- EX. PROPERTY LINE
 - PROP. PROPERTY LINE
 - EX. RIGHT-OF-WAY
 - PROP. RIGHT-OF-WAY
 - EX. MONUMENT
 - PROP. MONUMENT
 - EX. IRON PIPE
 - PROP. IRON PIPE
 - EX. EASEMENT
 - PROP. EASEMENT
 - EX. WETLANDS
 - PROP. WETLANDS
 - EXISTING CONTOUR
 - PROPOSED CONTOUR
 - EXISTING SPOT ELEV.
 - NEW SPOT ELEV.
 - SOILS TYPE
 - SOILS LINE
 - EX. CONC. CURB
 - PROP. CONC. CURB
 - EX. EDGE OF PAVING
 - PROP. EDGE OF PAVING
 - EX. LIGHT POLE
 - PROP. LIGHT POLE
 - EX. FENCE
 - PROP. FENCE
 - EX. MAIL BOX
 - PROP. MAIL BOX
 - EX. SIGN
 - PROP. SIGN
 - EXIST. PARKING SPACES
 - PROP. PARKING SPACES
 - TO BE REMOVED
 - EX. TELE. LINE
 - PROP. TELE. LINE
 - EX. ELEC. LINE
 - PROP. ELEC. LINE
 - EX. UTILITY POLE
 - PROP. UTILITY POLE
 - EX. GUY ANCHOR
 - PROP. GUY ANCHOR
 - EX. GAS LINE
 - PROP. GAS LINE
 - EX. GAS VALVE
 - PROP. GAS VALVE
 - EX. STORM SEWER LINE
 - PROP. STORM SEWER LINE
 - EX. STORM INLET
 - PROP. STORM INLET
 - PROP. STORM INLET ID
 - PROP. SEEPAGE BED
 - EX. SANITARY SEWER LINE
 - PROP. SAN. SEWER LINE
 - PROP. SAN. SEWER LATERAL
 - PROP. SANITARY MH. ID
 - EX. WATER LINE
 - PROP. WATER LINE
 - PROP. WATER LATERAL
 - PROP. FIRE WATER LINE
 - EX. WATER VALVE
 - PROP. WATER VALVE
 - EX. HYDRANT
 - PROP. HYDRANT
 - EX. MANHOLE
 - PROP. MANHOLE



MATCHLINE - SEE ABOVE

ZONING DATA TABULATION
ARTICLE IV ZONING DISTRICT REGULATIONS
SECTION 155-26 TV-1 THORNDALE VILLAGE DISTRICT
SECTION 155-26 B. USES BY RIGHT (PROPOSED LOT)
(12) AUTOMOBILE LEASING UNDER 7500 S.F.

SECTION 155-43 LINCOLN OVERLAY DISTRICT	REQUIRED	EXISTING	PROPOSED LOT
SECTION 155-43. C. ALL USES PERMITTED IN THE UNDERLYING ZONING DISTRICT (TV-1)	1,000 ACRES	6.15 ACS. (NET)	6.15 ACS. (NET)
SECTION 155-43.D. AREA AND BULK REGULATIONS	SEWER & WATER	SEWER & WATER	SEWER & WATER
	80 FT.	205 FT.	251 FT.
	MIN. LOT WIDTH	205 FT.	251 FT.
	MIN. FRONT YARD	20 FT.	409 FT.
	MIN. SIDE YARD	10 FT. EA.	25 FT.
	MIN. REAR YARD	5 FT.	304 FT.
	MAX. BUILDING HEIGHT	60 FT.	<60 FT.
	MAX. BUILDING COVER	50%	4.9% (13,232 S.F.)
	MAX. IMPERVIOUS COVER	80%	15.6% (41,811 S.F.)

PARKING REQUIREMENTS:

TYPE OF USE:	PARKING REQUIREMENT:	REQUIRED:	TOTAL SPACES PROPOSED:
AUTOMOBILE LEASING	1 SP/250 S.F. OFFICE	1,000 S.F. = 4	4 SPACES
	2 SPACES/SERVICE BAY	5 BAYS = 10	
		14 SP. REQ.	221 SP. PROPOSED

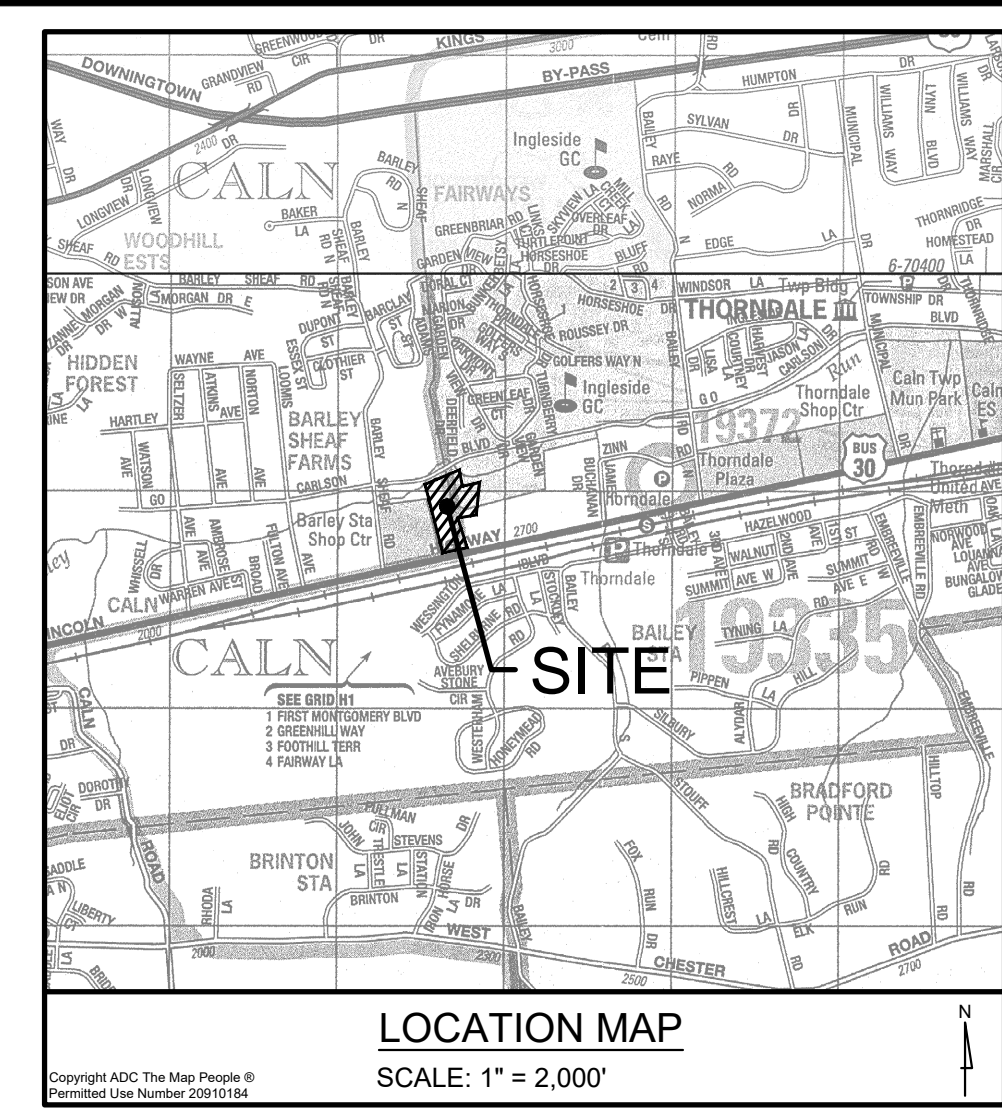
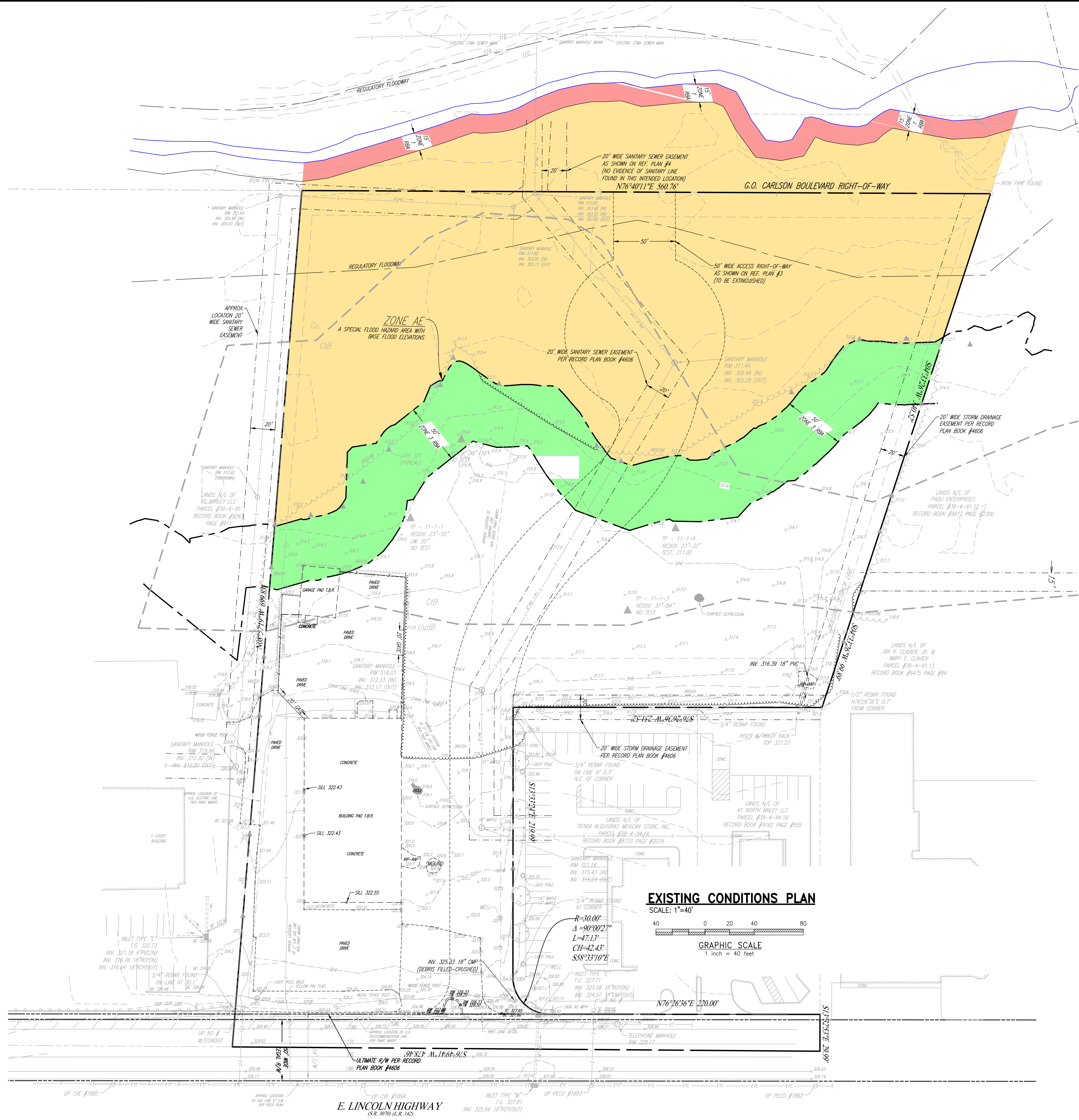
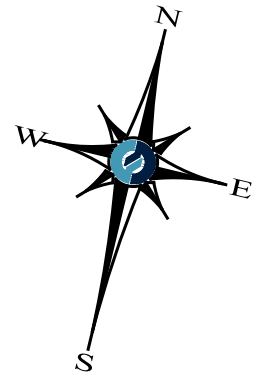
SECTION 155-139.I HANDICAP PARKING REQUIREMENTS
HANDICAPPED PARKING 1-25 RETAIL/SERVICE SPACES = 1 REQ. 2 SPACES PROVIDED

IMPERVIOUS TABULATION (ZONING)

EXISTING IMPERVIOUS	PROPOSED IMPERVIOUS
ASPHALT PAVING 27,217 S.F.	BUILDING 4,500 S.F.
BUILDING 11,915 S.F.	ASPHALT PAVING 102,043 S.F.
SHED 1,317 S.F.	CONCRETE 2,224 S.F.
CONCRETE 1,362 S.F.	TOTAL PROPOSED 108,767 S.F.
TOTAL EXISTING 41,811 S.F.	TOTAL IMPERVIOUS COVERAGE 108,767 S.F.

IMPERVIOUS TABULATION (I.B.R.)

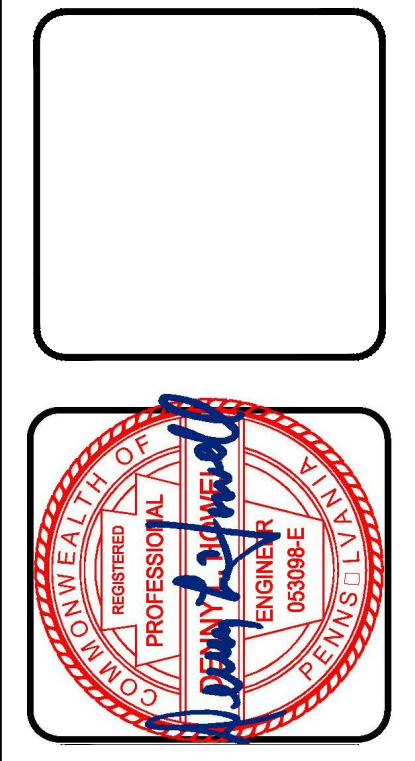
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BUILDING 11,915 S.F.	ASPHALT PAVING 102,043 S.F.
SHED 1,317 S.F.	CONCRETE 2,224 S.F.
CONCRETE 1,362 S.F.	TOTAL PROPOSED 108,767 S.F.
TOTAL EXISTING 41,811 S.F.	TOTAL IMPERVIOUS COVERAGE 108,767 S.F.



- LEGEND**
- EX. PROPERTY LINE
 - PROP. PROPERTY LINE
 - EX. RIGHT-OF-WAY
 - PROP. RIGHT-OF-WAY
 - EX. MONUMENT
 - PROP. MONUMENT
 - EX. IRON PIPE
 - PROP. IRON PIPE
 - EX. EASEMENT
 - PROP. EASEMENT
 - EX. WETLANDS
 - 242 EXISTING CONTOUR
 - 242 PROPOSED CONTOUR
 - X 123.00 EXISTING SPOT ELEV.
 - X 623.00 NEW SPOT ELEV.
 - GEB2 SOILS TYPE
 - EX. CONC. CURB
 - PROP. CONC. CURB
 - DIG. OF FINISH
 - PROP. EDGE OF PAVING
 - EX. LIGHT POLE
 - PROP. LIGHT POLE
 - EX. FENCE
 - EX. MAIL BOX
 - EX. SIGN
 - PROP. SIGN
 - EXIST. PARKING SPACES
 - PROP. PARKING SPACES TO BE REMOVED
 - EX. TELE. LINE
 - PROP. TELE. LINE
 - EX. ELEC. LINE
 - PROP. ELEC. LINE
 - EX. UTILITY POLE
 - PROP. UTILITY POLE
 - EX. GUY ANCHOR
 - EX. GAS LINE
 - PROP. GAS LINE
 - EX. GAS VALVE
 - PROP. GAS VALVE
 - EX. STORM SEWER LINE
 - PROP. STORM SEWER LINE
 - EX. STORM INLET
 - PROP. STORM INLET
 - PROP. STORM INLET ID
 - PROP. SEEPAGE BED
 - EX. SANITARY SEWER LINE
 - PROP. SAN. SEWER LINE
 - PROP. SAN. SEWER LATERAL
 - PROP. SANITARY MH. ID
 - EX. WATER LINE
 - PROP. WATER LINE
 - PROP. WATER LATERAL
 - PROP. FIRE WATER LINE
 - EX. WATER VALVE
 - PROP. WATER VALVE
 - EX. HYDRANT
 - PROP. HYDRANT
 - EX. MANHOLE
 - PROP. MANHOLE
 - ZONE 1 RBA
 - ZONE 2 RBA
 - ZONE 3 RBA

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Phone: (610) 918-9002 Fax: (610) 918-9003



REV.	DATE	DESCRIPTION
1	10/09/2023	REV. PER TWP. REVIEW COMMENTS
2	12/18/2023	REVISED SITE LAYOUT PER KIA LEASING
3		
4		
5		
6		
7		
8		

PRELIMINARY EXISTING CONDITIONS PLAN

CLIENT: JIM SIPALA C/O SIPALA KIA
PROJECT: KIA AUTO LEASING
LOCATION: 2751 E. LINCOLN HIGHWAY
CALN TOWNSHIP, CHESTER COUNTY, PA

DATE:	04/07/23
SCALE:	1"=40'
DRAWN BY:	ACB
CHECKED BY:	JSR
PROJECT NO.:	4536
CAD FILE:	03 EXISTING CONDITIONS PLAN.dwg
PLOTTED:	12/18/23
DRAWING NO.:	C02.1
SHEET:	03 of 18

PNDI RESULTS:

- PA GAME COMMISSION: NO KNOWN IMPACT
PA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES: NO KNOWN IMPACT
PA FISH AND BOAT COMMISSION: NO KNOWN IMPACT
U.S. FISH AND WILDLIFE SERVICE: NO KNOWN IMPACT

BMP PROTECTION NOTE: - 102.8(f)(7)

SITE CONTRACTOR SHALL PROVIDE PROTECTION FOR STORMWATER BMPs UNTIL DRAINAGE AREA IS COMPLETELY STABILIZED.

PROJECT WASTE NOTE: - 102.8(f)(11)

THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIAL AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS...

PCSM PLANNING DESIGN NOTE: - 102.8(b)

THE STORMWATER MANAGEMENT SYSTEMS HAVE BEEN DESIGNED TO MAXIMIZE STORMWATER BEST MANAGEMENT PRACTICE (BMP) TECHNOLOGIES AND MINIMIZE POINT SOURCE DISCHARGES...

- PRESERVE THE INTEGRITY OF STREAM CHANNELS AND MAINTAIN AND PROTECT THE PHYSICAL, BIOLOGICAL AND CHEMICAL QUALITIES OF THE RECEIVING STREAM
PREVENT AN INCREASE IN THE RATE OF STORMWATER RUNOFF
MINIMIZE ANY INCREASE IN STORMWATER RUNOFF VOLUME
MINIMIZE IMPERVIOUS AREAS
MAXIMIZE THE PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION
MINIMIZE LAND CLEARING AND GRADING
MINIMIZE SOIL COMPACTION
UTILIZE OTHER STRUCTURAL OR NONSTRUCTURAL BMPs THAT PREVENT OR MINIMIZE CHANGES IN STORMWATER RUNOFF

THERMAL IMPACTS NOTE: - 102.8(f)(13)

COOLING WILL OCCUR IN THE PROPOSED MRC BED 1 AND 2 WHERE A SLOW RELEASE IS PROPOSED. THE MANAGED RELEASE OF STORMWATER WILL PREVENT ANY DETRIMENTAL THERMAL IMPACTS FROM OCCURRING.

RECEIVING SURFACE WATERS - 102.4(b)(5)(v)

- *THE PENNSYLVANIA TITLE 25, CHAPTER 93 CLASSIFICATION FOR THE RECEIVING WATERS OF THE COMMONWEALTH
VALLEY RUN IN THE EAST BRANCH BRANDYwine CREEK WATERSHED: A COLD WATER FISHES (CNF) AND MIGHTY FISHES (MF) WATER COURSE
IMPAIRMENTS
URBAN RUNOFF/STORM SEWERS - FLOW REGIME MODIFICATION
PATHOGENS (UNKNOWN SOURCE)
ALGAE; BIOCHEMICAL OXYGEN DEMAND (BOD); CHLOROPHYLL-A; DISSOLVED OXYGEN; EUTROPHICATION; NUTRIENTS; ORGANIC ENRICHMENT; PHOSPHORUS; SILTATION; TOTAL SUSPENDED SOLIDS (TSS); TURBIDITY

RECYCLING OR DISPOSAL OF MATERIALS - 102.4(b)(5)(w)

ANY OFF-SITE WASTE AND BORROW AREA MUST HAVE AN E&S PLAN REVIEWED AND APPROVED BY THE COCD PRIOR TO BEING ACTIVATED.

GEOLOGIC FORMATION NOTE - 102.4(B)(5)(xii)

Table with 5 columns: MAP SYMBOL, NAME, AGE, LITH1, LITH2, LITH3. Rows include Ebrock Formation, Ledger Formation, Cambrian, Silurian, etc.

LOCATION OF GEOLOGIC FORMATIONS TAKEN FROM PENNSYLVANIA DEP eMapPA "BEDROCK GEOLOGY" DEVELOPED BY THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, GEOSPATIAL DATA CENTER, DATED: DECEMBER 2004.

SOIL TYPE(S)

UudB - URBAN LAND-UDORTHERMS, LIMESTONE COMPLEX, 0 TO 8 PERCENT SLOPES

C1B - CONESTOGA SILT LOAM, 3 TO 8 PERCENT SLOPES

Co - COCORUS SILT LOAM

SOIL USE LIMITATIONS AND RESOLUTIONS

ACID SOIL TYPES: pH LOWER THAN 5.5

SOIL TESTS SHOULD BE TAKEN TO DETERMINE THE ACTUAL SOIL pH REACTION. A pH OF 5.5 SHOULD BE ACHIEVED. TO RESOLVE THIS LIMITATION THE SOIL pH SHOULD BE ADJUSTED BY APPLYING LIME RATES IN ACCORDANCE WITH THE PENN STATE AGRONOMY GUIDE AND THE RECOMMENDATIONS FROM A REPUTABLE LABORATORY.

WET SOIL TYPES

TO RESOLVE THIS LIMITATION VEGETATIVE SPECIES THAT ARE TOLERANT TO WET CONDITIONS SHOULD BE SELECTED FOR LANDSCAPING.

POOR TOPSOIL

SOIL SHOULD BE IMPORTED FROM OTHER AREAS ON SITE. THE CHESTER COUNTY CONSERVATION DISTRICT MUST APPROVE ANY DEVIATION FROM THE E&S SEQUENCE.

WET SOIL TYPES / HIGH WATER TABLE DURING EXCAVATION ACTIVITIES

WATER TO BE PUMPED TO A DOWNSIDE STRUCTURE, SEE DETAIL.

POOR SUITABILITY FOR WINTER GRADING / FROST ACTION

ADEQUATE COMPACTION OF SOIL IS REQUIRED FOR THE EMBANKMENTS, PIPE BACKFILL, ROAD CONSTRUCTION AND THE BUILDING PADs. IF ADEQUATE COMPACTION CANNOT BE ACHIEVED DUE TO FROST ACTION OR WET SOIL TYPE, EITHER SOIL SHOULD BE IMPORTED FROM OTHER AREAS ON SITE OR CONSTRUCTION OF THESE FACILITIES SHOULD NOT BE WORKED ON DURING PERIODS PRONE TO FROST.

PERMEABLE SOIL FOR EMBANKMENT CONSTRUCTION

SOIL SHOULD BE IMPORTED FROM OTHER AREAS ON SITE. THE CHESTER COUNTY CONSERVATION DISTRICT MUST APPROVE ANY DEVIATION FROM THE E&S SEQUENCE.

POORLY SUITED AS SOURCES OF TOPSOIL

IDENTIFYING AND RESOLVING CHARACTERISTICS, THAT RENDER SOIL TYPES POORLY SUITED AS TOPSOIL.

ERODIBLE SOIL

TYPES EXHIBITING K VALUES GREATER THAN 0.36 OR PLASTICITY INDEX VALUES LOWER THAN 10, LIMIT VEGETATIVE STABILIZATION OF CHANNELS. RESOLUTIONS: TEMPORARY CHANNEL LINING, PROVIDING PERMANENT CHANNEL LINING, INCREASING CHANNEL GRADE, INCREASING CHANNEL WIDTH, SELECTION VEGETATIVE WITH GREATER RESISTANCE, SELECTING PERMANENT LININGS OTHER THAN GRASSES, AND IMPLEMENTING COMBINATIONS OF THESE AND OTHER METHODS.

SOILS SUSCEPTIBLE TO SINKHOLE FORMATION

LOCATING FACILITIES, SUCH AS SEDIMENT BASINS OR TRAPS OR STORMWATER DETENTION OR RETENTION BANS, ON OTHER SOIL TYPES. LINING RESERVOIR AREAS WITH IMPERMEABLE LININGS, LIMITING STANDING WATER DEPTHS, LIMITING RETENTION TIMES AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS.

STORMWATER MANAGEMENT NOTES:

- NO PROPERTY OWNER SHALL OBSTRUCT OR ALTER THE FLOW, LOCATION OR CARRYING CAPACITY OF A STREAM, CHANNEL OR DRAINAGE SWALE TO THE DETRIMENT OF ANY OTHER PROPERTY OWNER...
THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE OPERATIONS AND MAINTENANCE OF ALL STORMWATER FACILITIES INCLUDING:
CONSTRUCTED FILTER WITH MRC 1
INLETS AND PIPING
A BLANKET EASEMENT WILL BE PROVIDED OVER THE ENTIRE SITE AND EACH LOT TO ALLOW THE TOWNSHIP ACCESS TO ANY STORMWATER MANAGEMENT AREA...
THE APPLICANT SHALL BE RESPONSIBLE FOR COMPLETING AN AS-BUILT SURVEY OF ALL STORMWATER BMPs INCLUDED IN THE APPROVED PROJECT PLAN...
THE TOWNSHIP ENGINEER SHALL RECEIVE COPIES OF THE AS-BUILT PLANS IN DIGITAL CAD FORMAT...
THE OWNERS OF THE STORMWATER FACILITIES SHALL PREPARE AND SUBMIT A REPORT TO THE TOWNSHIP ENGINEER DESCRIBING ALL MAINTENANCE ACTIVITIES AND INSPECTIONS ANNUALLY...
A COPY OF THE STORMWATER FACILITY OPERATIONS AND MAINTENANCE PLAN SHALL BE SUBMITTED TO THE TOWNSHIP ENGINEER...
SEDIMENT REMOVAL SHALL OCCUR WHEN THE BED IS THOROUGHLY DRY...
DURING SITE CONSTRUCTION, ALL INFILTRATION BMPs SHALL BE PROTECTED FROM SEDIMENTATION...
SNAP PUMPS SHALL NOT BE CONNECTED TO THE BMPs UNLESS ADDITIONAL CAPACITY IS PROVIDED IN THE BMP.

GENERAL PCSM NOTES:

- AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER...
IF THE CONTRACTOR ENCOUNTERS HIGH WATER TABLE, SHALLOW BEDROCK, OR SOIL INSTABILITY...
IF GROUNDWATER OR BEDROCK IS ENCOUNTERED DURING THE INSTALLATION OF THE INFILTRATION BMP'S...
THE EROSION AND SEDIMENTATION CONTROL PLAN HAS BEEN DESIGNED IN AN EFFORT TO MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE...
THE DESIGN WILL PRESERVE THE INTEGRITY OF STREAM CHANNELS AND MAINTAIN AND PROTECT THE PHYSICAL, BIOLOGICAL AND CHEMICAL QUALITIES OF EAST BRANCH...
THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIAL AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS...
IF ANY UNFAVORABLE CONDITIONS ARE ENCOUNTERED DURING THE INSTALLATION OF THE BMPs...
THE PERMITTEE OR CO-PERMITTEE SHALL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OR REPLACEMENT OF PCSM BMPs UNLESS A DIFFERENT PERSON IS IDENTIFIED IN THE NOTICE OF TERMINATION AND HAS AGREED TO LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPs.

Table with 5 columns: MAP SYMBOL, NAME, AGE, LITH1, LITH2, LITH3. Rows include Ebrock Formation, Ledger Formation, Cambrian, Silurian, etc.

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POOR TOPSOIL

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WET SOIL TYPES / HIGH WATER TABLE DURING EXCAVATION ACTIVITIES

WATER TO BE PUMPED TO A DOWNSIDE STRUCTURE, SEE DETAIL.

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BMP IMPLEMENTATION/INSTALLATION CRITICAL STAGE OVERSIGHT AND AS-BUILT PLAN REQUIREMENTS:

- 102.8(f)(7)

OVERSIGHT

THE APPLICANT/PERMITTEE SHALL PROVIDE ENGINEERING CONSTRUCTION OVERSIGHT FOR THE PROPOSED STORMWATER BEST MANAGEMENT PRACTICES (BMPs). ADDITIONAL SOIL TESTING MAY BE REQUIRED PRIOR TO THE INSTALLATION OF INFILTRATION BMPs TO ENSURE PROPER LOCATION AND FUNCTION...

CRITICAL STAGES

- INSTALLATION OF CONSTRUCTED FILTER W/MRC 1
INSTALLATION OF WATER QUALITY INLETS

BMP SEQUENCE OF CONSTRUCTION

- INSTALL CONSTRUCTED FILTER W/MRC 1
INSTALL WATER QUALITY INLETS

AS-BUILT PLANS

REGARDLESS OF OWNERSHIP, THE APPLICANT/PERMITTEE SHALL SUBMIT TO THE TOWNSHIP AN ACTUAL AS-BUILT PLAN FOR THE STORMWATER MANAGEMENT FACILITIES REQUIRED PER THE APPROVED STORMWATER MANAGEMENT FACILITIES AND SHALL BE BASED ON AN ACTUAL FIELD SURVEY PERFORMED BY THE SURVEYOR...

THE AS-BUILT PLAN FOR THE STORMWATER MANAGEMENT FACILITIES SHALL BE SUBMITTED TO THE TOWNSHIP WITHIN SIX MONTHS OF THE COMPLETION OF THE PROJECT FOR REVIEW AND FINAL INSPECTION BY THE MUNICIPAL ENGINEER.

AS-BUILT PLANS FOR THE STORMWATER BMPs SHALL BE SUBMITTED TO THE CONSERVATION DISTRICT WITHIN SIX MONTHS FOLLOWING THE COMPLETION OF THE PROJECT TO ALLOW FOR NOTICE OF TERMINATION (NOT) PROCESSING.

NOTICE OF TERMINATION & FINANCIAL SECURITY

A NOTICE OF TERMINATION (NOT) WILL BE REQUIRED TO BE SUBMITTED FOLLOWING THE APPROVAL OF THE FINAL AS-BUILT PLANS (SEE POST CONSTRUCTION STORMWATER FACILITIES OPERATIONS AND MAINTENANCE PROCEDURES - THIS PLAN).

ANY PERFORMANCE AND/OR FINANCIAL SECURITIES ESTABLISHED FOR THE PROJECT SHALL INCLUDE REQUIREMENTS FOR SUBMITTAL OF AS-BUILT PLANS AND ENGINEERING CONSTRUCTION OVERSIGHT.

PCSM REPORTING AND RECORDKEEPING - THE PCSM PLAN, INSPECTION REPORTS AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.

THE PERMITTEE SHALL INCLUDE WITH THE NOTICE OF TERMINATION "RECORD DRAWINGS" WITH A FINAL CERTIFICATION STATEMENT FROM A LICENSED PROFESSIONAL WHICH READS AS FOLLOWS:
I, DO HEREBY CERTIFY PURSUANT TO THE PENALTIES OF 18 PA.C.S.A. § 4904 TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THE ACCOMPANYING RECORD DRAWINGS ACCURATELY REFLECT THE AS-BUILT CONDITIONS, ARE TRUE AND CORRECT, AND ARE IN CONFORMANCE WITH CHAPTER 102 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THAT THE PROJECT SITE WAS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PCSM PLAN AND ALL APPROVED PLAN CHANGES AND ACCEPTED CONSTRUCTION PRACTICES.

UPON PERMANENT STABILIZATION OF THE EARTH DISTURBANCE ACTIVITY WITH § 102.22(A)(2) (RELATING TO PERMANENT STABILIZATION), AND INSTALLATION OF BMPs IN ACCORDANCE WITH AN APPROVED PLAN PREPARED AND IMPLEMENTED IN ACCORDANCE WITH §§ 102.4 AND 102.8 (ACTUALLY TO EROSION AND SEDIMENT CONTROL REQUIREMENTS, AND PCSM REQUIREMENTS), THE PERMITTEE OR CO-PERMITTEE SHALL SUBMIT A NOTICE OF TERMINATION TO THE DEPARTMENT OR CONSERVATION DISTRICT.

THE NOTICE OF TERMINATION (NOT) MUST INCLUDE:

- (1) THE FACILITY NAME, ADDRESS AND LOCATION.
(2) THE OPERATOR NAME AND ADDRESS.
(3) THE PERMIT NUMBER.
(4) THE REASON FOR PERMIT TERMINATION.
(5) IDENTIFICATION OF THE PERSONS WHO HAVE AGREED TO AND WILL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs IN ACCORDANCE WITH § 102.8(M) AND PROOF OF COMPLIANCE WITH § 102.8(M)(2).

PRIOR TO ACCEPTING THE NOT, THE DEPARTMENT AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION AND APPROVE OR DENY THE NOTICE OF TERMINATION.

PCSM LONG TERM OPERATIONS AND MAINTENANCE REQUIREMENTS

UNTIL THE PERMITTEE OR CO-PERMITTEE HAS RECEIVED WRITTEN APPROVAL OF A NOTICE OF TERMINATION, THE PERMITTEE OR CO-PERMITTEE WILL REMAIN RESPONSIBLE FOR COMPLIANCE WITH THE PERMIT TERMS AND CONDITIONS INCLUDING LONG-TERM OPERATION AND MAINTENANCE OF ALL PCSM BMPs ON THE PROJECT SITE AND IS RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE.

THE PERMITTEE OR CO-PERMITTEE SHALL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPs UNLESS A DIFFERENT PERSON IS IDENTIFIED IN THE NOTICE OF TERMINATION AND HAS AGREED TO LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPs.

FOR ANY PROPERTY CONTAINING A PCSM BMP, THE PERMITTEE OR CO-PERMITTEE SHALL RECORD AN INSTRUMENT WITH THE RECORDER OF DEEDS WHICH WILL ASSURE DISCLOSURE OF THE PCSM BMP AND THE RELATED OBLIGATIONS IN THE ORDINARY COURSE OF A TITLE SEARCH OF THE SUBJECT PROPERTY. THE RECORDED INSTRUMENT MUST IDENTIFY THE PCSM BMP, PROVIDE FOR NECESSARY ACCESS RELATED TO LONG-TERM OPERATION AND MAINTENANCE FOR PCSM BMPs AND PROVIDE NOTICE THAT THE RESPONSIBILITY FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP IS A COVENANT THAT RUNS WITH THE LAND THAT IS BINDING UPON AND ENFORCEABLE BY SUBSEQUENT GRANTEE, AND PROVIDE PROOF OF FILING WITH THE NOTICE OF TERMINATION UNDER § 102.7(B)(5) (RELATING TO PERMIT TERMINATION).

THE PERSON RESPONSIBLE FOR PERFORMING LONG-TERM OPERATION AND MAINTENANCE MAY ENTER INTO AN AGREEMENT WITH ANOTHER PERSON INCLUDING A CONSERVATION DISTRICT, NONPROFIT ORGANIZATION, MUNICIPALITY, AUTHORITY, PRIVATE CORPORATION OR OTHER PERSON, TO TRANSFER THE RESPONSIBILITY FOR PCSM BMPs OR TO PERFORM LONG-TERM OPERATION AND MAINTENANCE AND PROVIDE NOTICE THEREOF TO THE DEPARTMENT.

A PERMITTEE OR CO-PERMITTEE THAT FAILS TO TRANSFER LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP OR OTHERWISE FAILS TO COMPLY WITH THIS REQUIREMENT SHALL REMAIN JOINTLY AND SEVERALLY RESPONSIBLE WITH THE LANDOWNER FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs LOCATED ON THE PROPERTY.

VEHICLES SHOULD NOT BE PARKED OR DRIVEN OVER THE ABOVE-GROUND MRC BASIN.

BMP GENERAL NOTE:

UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION BMPs MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION BMPs AFTER EACH RAINFALL EVENT AND ON A WEEKLY BASIS. ALL SITE INSPECTIONS WILL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE...

- A. THE LOCATION AND SEVERITY OF THE BMP'S FAILURE AND ANY POLLUTION EVENTS.
B. ALL STEPS TAKEN TO REDUCE, ELIMINATE AND PREVENT THE REOCCURRENCE OF THE NON-COMPLIANCE.
C. THE TIME FRAME TO CORRECT THE NON-COMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.

LONG TERM OPERATION AND MAINTENANCE SCHEDULE:

- 102.8(f)(10)

POST CONSTRUCTION STORMWATER FACILITIES OPERATION AND MAINTENANCE PROCEDURES:

WITHIN THREE (3) MONTHS OF THE APPLICATION FOR NOTICE OF TERMINATION OF THE NPDES PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES TO THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, THE PROPERTY OWNER SHALL ASSUME RESPONSIBILITY FOR STORMWATER RELATED DISCHARGES FROM THE SITE...

THE OWNER OF EACH BMP AND CONVEYANCE SHALL KEEP ON FILE WITH THE MUNICIPALITY THE NAME, ADDRESS, AND TELEPHONE NUMBER OF THE PERSON RESPONSIBLE FOR MAINTENANCE ACTIVITIES AND IMPLEMENTATION OF THE O&M PLAN...

THE OPERATION AND MAINTENANCE REQUIREMENTS FOR THE POST CONSTRUCTION STORMWATER MANAGEMENT BMPs FOR THIS PROJECT INCLUDE THE FOLLOWING:

CONSTRUCTED FILTER W/MRC:

THE CONSTRUCTED FILTER WITH MRC 1 SHALL BE INSPECTED AT LEAST TWO TIMES PER YEAR AFTER RAINFALL EVENTS GREATER THAN 0.8 INCH. INSPECTION ITEMS SHALL INCLUDE THE CONDITION OF THE INSPECTION PORTS, OUTLET STRUCTURE, AND ANY VISIBLE CONNECTIONS FOR SEDIMENT ACCUMULATION OR STANDING WATER...

MAINTENANCE: REMOVE ANY ACCUMULATED SEDIMENT AND DEBRIS FROM THE INSPECTION PORTS. IF SEDIMENT IS OBSERVED IN THE MANHOLE PIPE, FLUSH THE SYSTEM WITH A HIGH POWERED JET, MAKING SURE TO CATCH AND DISPOSE OF THE DISPLACED MATERIAL BY AN APPROVED METHOD...

INLETS

INSPECTION: INLETS SHALL BE INSPECTED AND CLEANED ANNUALLY OR MORE OFTEN IF HISTORICAL MAINTENANCE RECORDS SUGGEST A MORE FREQUENT CLEANING. WHEN INLETS ARE INSPECTED, THE VEGETATION IN THE CONTRIBUTING DRAINAGE AREAS SHALL ALSO BE INSPECTED. CHECK FOR SEDIMENT DEPOSITION IN THE SWAMP...

MAINTENANCE: SEDIMENT SHALL BE REMOVED FROM THE SWAMP WHEN IT HAS REACHED 6 INCHES IN DEPTH OR YEARLY WHICHEVER COMES FIRST. LEAF LITTER SHALL BE REMOVED ANNUALLY. VACUUM TRUCKS ARE THE RECOMMENDED REMOVAL METHOD...

INSPECTION: CLEAR THE DRAIN HOLES IN THE BOTTOM OF THE INLET. REMOVE SEDIMENT SHALL BE DISPOSED OF IN ACCORDANCE WITH PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION REGULATIONS. IN WATER QUALITY INLETS, IF APPLICABLE, CLEAR THE ANTI-SIPHON TUBE AS NECESSARY AND RE-ATTACH OR RE-ALIGN THE HOOD UNIT IF IT HAS SHIFTED...

INSPECTION: CLEAR THE ANTI-SIPHON TUBE AS NECESSARY AND RE-ATTACH OR RE-ALIGN THE HOOD UNIT IF IT HAS SHIFTED. OPERATION AND MAINTENANCE SHALL BE PER MAINTENANCE SPECIFICATIONS. IF ANY BARE SPOTS AND/OR EROSION ARE IDENTIFIED IN THE CONTRIBUTING DRAINAGE AREAS, THEY SHALL BE REVEGETATED AND REPAIRED.

SNOUT WATER QUALITY INLETS

INSPECTION: THE PROPERTY OWNER SHALL AT ALL TIMES PROPERLY OPERATE AND MAINTAIN THE WATER QUALITY STRUCTURES PER MANUFACTURERS SPECIFICATIONS. INSPECTIONS OF THE WATER QUALITY UNITS SHALL BE PERFORMED QUARTERLY FOR THE FIRST YEAR OF OPERATION AND ANNUALLY THEREAFTER...

- A. THE DATE AND TIME OF INSPECTION.
B. THE NAME OF THE INDIVIDUAL(S) WHO PERFORMED THE INSPECTION.
C. THE TOTAL DEPTH OF SEDIMENT IN THE STRUCTURE.
D. THE TOTAL DEPTH OF OIL AND GREASE IN THE STRUCTURE.
E. TRANSPORT AND DISPOSAL RECORDS OF REMOVED PRODUCT(S).

MAINTENANCE: PER MANUFACTURER RECOMMENDATION, THE STRUCTURE SHALL BE CLEANED WHEN THE SWAMP IS HALF FULL. REFER TO THE INLET SHEETS FOR SWAMP DEPTHS. MAINTENANCE IS BEST DONE WITH A VACUUM TRUCK...

INSPECTION: MAINTAIN THE ANTI-SIPHON PROPERTIES. OPENING AND CLOSING THE ACCESS HATCH ONCE A YEAR ENSURES A LIFETIME OF TROUBLE-FREE SERVICE. THE OWNER SHALL PERMIT MUNICIPALITY OFFICIALS AND/OR THEIR AGENTS TO ENTER THE PROPERTY TO INSPECT THE STORMWATER WATER QUALITY STRUCTURE AND TO SAMPLE ANY DISCHARGE OF STORMWATER.

HEADWALLS & ENDWALLS

INSPECTION: HEADWALL & ENDWALL/ENDSECTIONS SHALL BE INSPECTED QUARTERLY AND AFTER MAJOR RAINFALL EVENTS FOR THE FIRST TWO (2) YEARS AND THEN TWICE YEARLY AFTER THAT. INSPECT THE CONDITION OF THE STRUCTURE IN TERMS OF CRACKING OR SPALLING, SHIFTING OR SETTLEMENT, EROSION OR DEPOSITION...

MAINTENANCE: REMOVE SEDIMENT, VEGETATION AND DEBRIS AT THE INFLOW AND OUTFLOW POINTS AS NECESSARY TO INSURE THAT PIPES STAY FREE AND CLEAR OF OBSTRUCTIONS. REPAIR OR REPLACE STRUCTURE AS NECESSARY USING GROUT OR CASKEDED BANDS AND PROPER BEDDING MATERIAL OR GEOTEXTILE...

WATER QUALITY FILTERS

FREQUENCY OF INSPECTIONS: INSPECTION SHOULD OCCUR FOLLOWING ANY RAIN EVENT >1". POST CONSTRUCTION INSPECTIONS SHOULD OCCUR 4 TIMES PER YEAR...

- REMOVE THE GRATE.
REMOVE THE SKIMMER TRAY.
CUT ZIP TIES, REMOVE STORMBOOM™ AND DISPOSE.
REMOVE AND DISPOSE OF DEBRIS IN SKIMMER TRAY.
ATTACH NEW STORMBOOM™ TO SKIMMER TRAY WITH ZIP TIES.
REPLACE FILTRATION BOX, DISPOSE OF DEBRIS AND BRUSH SCREENS.
REPLACE FILTRATION BOX INTO INLET, REPLACE SKIMMER TRAY INTO FILTRATION BOX AND REPLACE GRATE.

VACUUM SERVICING: REMOVE THE GRATE-REMOVE THE SKIMMER TRAY. CUT ZIP TIES, REMOVE STORMBOOM™ AND DISPOSE-REMOVE AND DISPOSE OF DEBRIS IN SKIMMER TRAY.

- ATTACH NEW STORMBOOM™ TO SKIMMER TRAY WITH ZIP TIES.
REACH INTO FILTRATION BOX WITH VACUUM AND SUCTION OUT DEBRIS/DON CLEAN SCREENS WITH SPRAY WAND OR BRUSH.
REPLACE FILTRATION BOX INTO INLET, REPLACE SKIMMER TRAY INTO FILTRATION BOX AND REPLACE GRATE.

INSPECTION: CLEAR THE ANTI-SIPHON TUBE AS NECESSARY AND RE-ATTACH OR RE-ALIGN THE HOOD UNIT IF IT HAS SHIFTED. OPERATION AND MAINTENANCE SHALL BE PER MAINTENANCE SPECIFICATIONS. IF ANY BARE SPOTS AND/OR EROSION ARE IDENTIFIED IN THE CONTRIBUTING DRAINAGE AREAS, THEY SHALL BE REVEGETATED AND REPAIRED.

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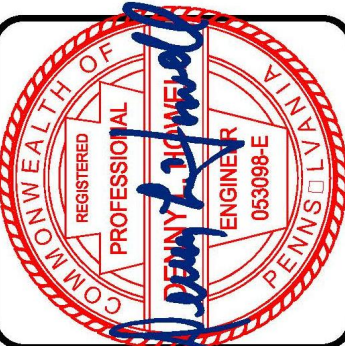
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INSPECTION: CLEAR THE ANTI-SIPHON TUBE AS NECESSARY AND RE-ATTACH OR RE-ALIGN THE HOOD UNIT IF IT HAS SHIFTED. OPERATION AND MAINTENANCE

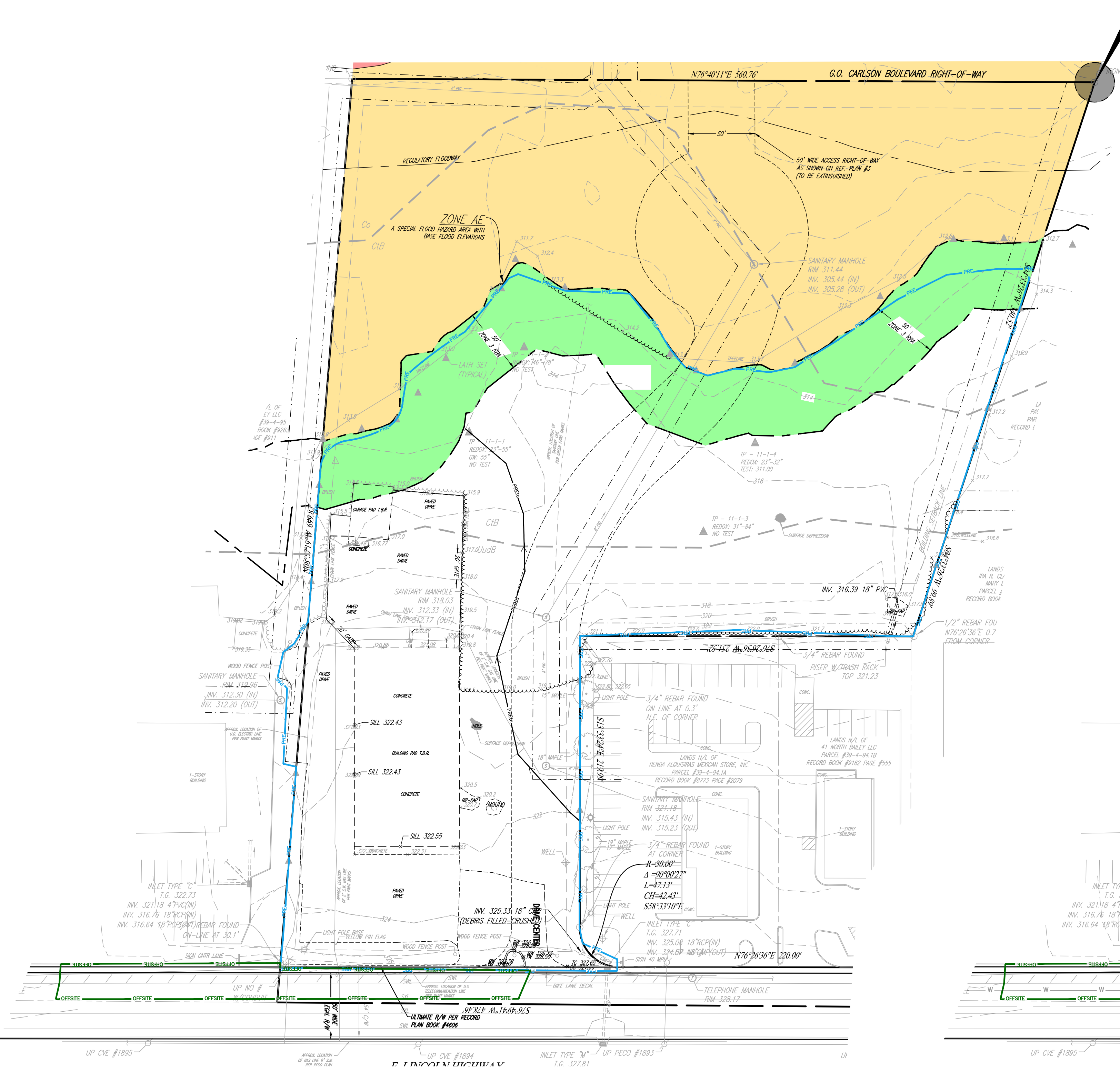


REV.	DATE	DESCRIPTION
1	10/09/2023	REV. PER TWP. REVIEW COMMENTS
2	12/18/23	REVISED SITE LAYOUT PER VIA LEASING
3		
4		
5		
6		
7		
8		

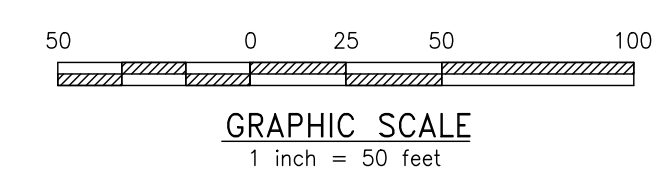
PRELIMINARY DRAINAGE AREA PLAN

CLIENT: JIM SIPALA C/O SIPALA KIA
PROJECT: KIA AUTO LEASING
LOCATION: 2751 E. LINCOLN HIGHWAY
CALN TOWNSHIP, CHESTER COUNTY, PA

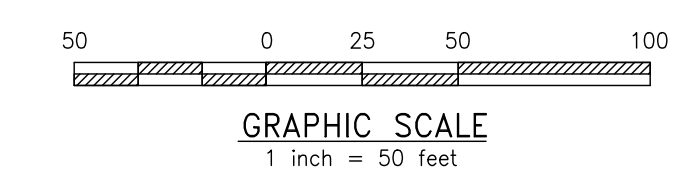
DATE:	04/07/23
SCALE:	1"=50'
DRAWN BY:	ACB
CHECKED BY:	JSR
PROJECT NO.:	4536
CAD FILE:	OF DRAINAGE AREA PLAN.dwg
PLOTTED:	12/18/23
DRAWING NO.:	C04.5
SHEET:	09 of 18



PRE-DEVELOPED DRAINAGE AREA PLAN
SCALE: 1"=50'



POST-DEVELOPED DRAINAGE AREA PLAN
SCALE: 1"=50'



EROSION AND SEDIMENT CONTROL NARRATIVE – 102.4(b)(4)

THE PURPOSE OF THIS NARRATIVE AND THE EROSION CONTROL ASPECTS OF THE PLANS ARE TO PREVENT THE ACCELERATED EROSION OF EXPOSED SITE SOILS DURING CONSTRUCTION AND TO RETAIN ON SITE ALL SEDIMENT PRODUCED BY CONSTRUCTION ACTIVITIES. THIS WILL BE ACCOMPLISHED BY STRICT ADHERENCE TO THE FOLLOWING NOTES, SEQUENCE OF CONSTRUCTION, AND EROSION AND SEDIMENT CONTROL DETAILS SHOWN ON THE PLAN. THIS PLAN WILL FURTHER ACT TO PROVIDE THE FOLLOWING:

- MINIMIZE EXTENT AND DURATION OF EARTH DISTURBANCE
- MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION
- MINIMIZE SOIL COMPACTION
- UTILIZE OTHER MEASURES OR CONTROLS THAT PREVENT OR MINIMIZE GENERATION OF INCREASED STORMWATER RUNOFF

THERMAL IMPACTS NOTE: – 102.4(b)(5)(xiii)

THERMAL IMPACTS ARE BEING MITIGATED DURING CONSTRUCTION PHASE BY ROUTING CONSTRUCTION RUNOFF THROUGH PERIMETER EROSION CONTROL MEASURES, IE COMPOST FILTER SOCK BEFORE ENTERING SURFACE WATERS.

GEOLOGIC FORMATION NOTE – 102.4(B)(5)(xii)

BEDROCK GEOLOGY	
MAP SYMBOL	NAME
Ce	Elbrook Formation
Lc	Ledger Formation

LOCATION OF GEOLOGIC FORMATIONS TAKEN FROM PENNSYLVANIA DEP #460PA, "BEDROCK GEOLOGY" DEVELOPED BY THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, GEOSPATIAL DATA CENTER, DATED: DECEMBER 2004.

RECEIVING SURFACE WATERS – 102.4(b)(5)(v)

*THE PENNSYLVANIA TITLE 25, CHAPTER 93 CLASSIFICATION FOR THE RECEIVING WATERS OF THE COMMONWEALTH

VALLEY RUN IN THE EAST BRANCH BRANDYWINE CREEK WATERSHED: A COLD WATER FISHES (LWT) AND MIGRATORY FISHES (MF) WATER COURSE

PROJECT WASTE NOTE: – 102.4(b)(5)(xi)

THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIAL AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 260.1 ET SEQ., 271.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE. ANY OFF-SITE WASTE AND BORROW AREA MUST HAVE AN E&S PLAN REVIEWED AND APPROVED BY THE CONSERVATION DISTRICT PRIOR TO BEING ACTIVATED.

MAINTENANCE – 102.4(b)(5)(x)

MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL DEVICES WILL CONSIST OF WEEKLY INSPECTIONS OF EACH DEVICE TO DETERMINE HOW WELL THE SLOPE STABILIZATION MEASURES USED ARE WORKING. ALL FACILITIES WILL BE INSPECTED AFTER EVERY STORM TO DETERMINE THEIR DURABILITY TO WITHSTAND DRIVING RAIN AND EROSION. ALL LOCAL REGULATIONS SHALL BE COMPLIED WITH. ALL DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION EQUIPMENT SHALL BE REPAIRED BEFORE THE END OF EACH WORKING DAY.

A WRITTEN REPORT DOCUMENTING ALL INSPECTIONS AND REPAIRS MUST BE KEPT ON-SITE AT ALL TIMES. INSPECTIONS SHALL BE LOGGED ONTO DEP FORM 3150-FM-B#0003 DATED 2/2012 AND KEPT ON SITE AT ALL TIMES.

THE FOLLOWING MAINTENANCE PROCEDURES SHALL APPLY:

1. ANY SEEDED OR SOODED AREAS THAT HAVE BECOME STRIPPED OF VEGETATION SHALL BE REESTABLISHED WITH APPROPRIATE STABILIZATION MATERIALS. THIS PROCEDURE SHALL BE REPEATED AFTER EVERY SIZEABLE STORM (2"+) UNTIL NO MORE SIGNS OF EROSION ARE EVIDENT.
2. AT WEEKLY INSPECTIONS AND AFTER EACH RAIN EVENT NECESSARY CLEANING WILL BE PERFORMED.
3. ANY FILTER FABRIC FENCE, WHICH HAS BEEN UNDERMINED OR OVER TOPPED, MUST BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTFLET.
4. ANY SEDIMENT REMOVED FROM Bmps DURING CONSTRUCTION WILL BE RETURNED TO UPLAND AREAS ON SITE AND INCORPORATED INTO THE SITE GRADING.

RECYCLING OR DISPOSAL OF MATERIALS – 102.4(b)(5)(xi)

ANY OFF-SITE WASTE AND BORROW AREA MUST HAVE AN E&S PLAN REVIEWED AND APPROVED BY THE CDD PRIOR TO BEING ACTIVATED.

SWM DURING EARTH DISTURBANCE ACTIVITIES – 102.4(b)(5)(xiv)

THE PROPOSED RUNOFF GENERATED DURING CONSTRUCTION WILL BE MANAGED USING ABACT Bmps THAT INCLUDE COMPOST FILTER SOCK AND A SEDIMENT TRAP.

CONSTRUCTION SEQUENCE NOTES:

1. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE.
2. AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENTATION CONTROL PLAN PREPARED, AND A REPRESENTATIVE OF THE CHESTER COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION MEETING.
3. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIAL AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 260.1 ET SEQ. THE CONTRACTOR SHALL NOT BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE.
4. A WEEKLY INSPECTION LOG SHALL BE FORWARDED TO THE MUNICIPALITY'S ADMINISTRATIVE OFFICE DURING CONSTRUCTION.
5. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED 4 DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION. HYDROSEED IS NOT CONSIDERED STABILIZATION UNTIL IT GERMINATES.
6. 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 THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
7. AS SOON AS SLOPES, CHANNELS, DITCHES, AND OTHER DISTURBED AREAS REACH FINAL GRADE, THEY MUST BE STABILIZED IMMEDIATELY.
8. IN NO CASE SHOULD AN AREA EXCEEDING 15,000 S.F., WHICH IS TO BE STABILIZED BY VEGETATION, REACH FINAL GRADE WITHOUT BEING SEEDED AND MULCHED.

SOIL TYPE(S)

Uoab – URBAN LAND-UDORHENTIS, LIMESTONE COMPLEX, 0 TO 8 PERCENT SLOPES

Co – CONESTOGA SALT LOAM, 3 TO 8 PERCENT SLOPES

Cb – CODORUS SILT CLAY

SOIL USE LIMITATIONS AND RESOLUTIONS

ACID SOIL TYPES: pHs LOWER THAN 5.5

SOIL TESTS SHOULD BE TAKEN TO DETERMINE THE ACTUAL SOIL pH REACTION. A pH OF 5.5 SHOULD BE ACHIEVED. TO RESOLVE THIS LIMITATION THE SOIL pH SHOULD BE ADJUSTED BY APPLYING LIME RATES IN ACCORDANCE WITH THE PENN STATE AGRONOMY GUIDE AND THE RECOMMENDATIONS FROM A REPUTABLE LABORATORY.

NET SOIL TYPES

TO RESOLVE THIS LIMITATION VEGETATIVE SPECIES THAT ARE TOLERANT TO WET CONDITIONS SHOULD BE SELECTED FOR LANDSCAPING.

FOUR TOPSOIL

SOIL SHOULD BE IMPORTED FROM OTHER AREAS ON SITE. THE CHESTER COUNTY CONSERVATION DISTRICT MUST APPROVE ANY DEVIATION FROM THE E&S DOCUMENT.

NET SOIL TYPES / HIGH WATER TABLE DURING EXCAVATION ACTIVITIES

WATER TO BE PUMPED TO A DEMATERING STRUCTURE, SEE DETAIL

FOUR SUITABILITY FOR WINTER GRADING / FROST ACTION

ADEQUATE COMPACTION OF SOIL IS REQUIRED FOR THE EMBANKMENTS, PIPE BACKFILL, ROAD CONSTRUCTION AND THE BUILDING PADS. ADEQUATE COMPACTION CANNOT BE ACHIEVED DUE TO FROST ACTION OR WET SOIL TYPE. OTHER SOIL SHOULD BE IMPORTED FROM OTHER AREAS ON SITE OR CONSTRUCTION OF THESE FACILITIES SHOULD NOT BE WORKED ON DURING PERIODS PRONE TO FROST. THE CHESTER COUNTY CONSERVATION DISTRICT MUST APPROVE ANY DEVIATION FROM THE E&S DOCUMENT.

PERMEABLE SOIL FOR EMBANKMENT CONSTRUCTION

SOIL SHOULD BE IMPORTED FROM OTHER AREAS ON SITE. THE CHESTER COUNTY CONSERVATION DISTRICT MUST APPROVE ANY DEVIATION FROM THE E&S DOCUMENT.

POORLY SUITED AS SOURCES OF TOPSOIL

IDENTIFYING AND RESOLVING CHARACTERISTICS, THAT RENDER SOIL TYPES POORLY SUITED AS TOPSOIL.

FERROUS SOIL

TYPES EXHIBITING K VALUES GREATER THAN 0.36 OR PLASTICITY INDEX VALUES LOWER THAN 10; LIMIT VEGETATIVE STABILIZATION OF CHANNELS, RESOLUTIONS: TEMPORARY CHANNEL LININGS, PROVIDING PERMANENT CHANNEL LINING, DECREASING CHANNEL GRADE, INCREASING CHANNEL WIDTH, SELECTION VEGETATIVE WITH GREATER RETARDANCE, SELECTING PERMANENT LININGS OTHER THAN GRASSES, AND IMPLEMENTING COMBINATION OF THESE AND OTHER METHODS.

SOILS SUSCEPTIBLE TO SINGLEHOLE FORMATION

LOCATING FACILITIES, SUCH AS SEDIMENT BASINS OR TRAPS OR STORMWATER DETENTION OR RETENTION BASINS, ON OTHER SOIL TYPES LIVING RESERVOIR AREAS WITH IMPERMEABLE LININGS, LIMITING STANDING WATER DEPTHS, LIMITING RETENTION TIMES AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS.

BMP GENERAL NOTE:

UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION Bmps MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION Bmps AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL SITE INSPECTIONS WILL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE. THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION, THE INSPECTION LOG WILL BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADE, REMULCHING, RESEEDING, AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENTATION Bmps FAIL TO PERFORM AS EXPECTED, REPLACEMENT Bmps OR MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED. WHERE Bmps ARE FOUND TO FAIL TO ALLEVIATE EROSION OR SEDIMENTATION POLLUTION THE PERMITTEE OR CO-PERMITTEE SHALL INCLUDE THE FOLLOWING INFORMATION:

- A. THE LOCATION AND SEVERITY OF THE Bmps FAILURE AND ANY POLLUTION EVENTS
- B. ALL STEPS TAKEN TO REDUCE, ELIMINATE AND PREVENT THE RECURRENCE OF THE NON-COMPLIANCE
- C. THE TIME FRAME TO CORRECT THE NON-COMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.

TABLE 11.1
Cubic Yards of Topsoil Required for Application to Various Depths

Depth (in)	Per 1,000 Square Feet	Per Acre
1	3.1	134
2	6.2	268
3	9.3	403
4	12.4	537
5	15.5	672
6	18.6	806
7	21.7	940
8	24.8	1,074

Adapted from VA DSWC

PERMANENT SEEDING SPECIFICATIONS

MATERIALS:

- * LIMESTONE – RAW, GROUND AGRICULTURAL LIMESTONE CONTAINING MORE THAN 90% CARBONATES. – USE 800 LBS. PER 1,000 S.F.
- * COMMERCIAL FERTILIZER (10–20–20) OR SLOW-RELEASE NITROGEN FERTILIZER (38–0–0) – USE 140 LBS. PER 1,000 S.F. MIXED INTO THE SEEDED PLOT TO SEEDING.
- * MULCH – CLEAN OUT OR STRAW SHALL BE FREE FROM MATURE SEED-BEARING STALKS OR ROOTS OF PROHIBITED OR NOXIOUS WEEDS. APPLY AT A RATE OF 3.0 TONS PER ACRE. THE MULCH SHOULD BE STABILIZED UNTIL THE VEGETATIVE COVER IS ESTABLISHED. SPREAD MULCH UNIFORMLY IN A LOOSE LAYER 1/2" TO 1" DEEP. MULCH ANCHORING (MULCH NETTING, PEG AND TWINE, LIQUID MULCH BINDER) SHALL BE ACCOMPLISHED IMMEDIATELY AFTER MULCH PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER.
- * SEED MIXTURE – SHALL BEAR A GUARANTEED STATEMENT OF ANALYSIS.

PERMANENT SEEDING SPECIFICATIONS

LAWN AND MOWED AREAS:

	(PLS = PURE LIVE SEED PERCENTAGE)	MIN. GERMINATION %'S	
A. KENTUCKY BLUEGRASS	30 PLS (LBS/ACRE)	12 OZ. PER 1,000 S.F.	75%
PERENNIAL RYEGRASS	20 PLS (LBS/ACRE)	8 OZ. PER 1,000 S.F.	85%
REDTOP	3 PLS (LBS/ACRE)	2 OZ. PER 1,000 S.F.	80%
B. PENN. LAWN-TINE FESCUE	40 PLS (LBS/ACRE)	16 OZ. PER 1,000 S.F.	85%
PERENNIAL RYEGRASS	20 PLS (LBS/ACRE)	8 OZ. PER 1,000 S.F.	85%
REDTOP	3 PLS (LBS/ACRE)	2 OZ. PER 1,000 S.F.	80%

SLOPES OR UN-MOWED AREAS:

C. CROWMEATH	25 PLS (LBS/ACRE)	10 OZ. PER 1,000 S.F.	85%
PERENNIAL RYEGRASS	25 PLS (LBS/ACRE)	10 OZ. PER 1,000 S.F.	85%

AREAS TO BE STABILIZED MUST BE SEEDED/PLANTED IN SUFFICIENT TIME TO GERMINATE, AT LEAST 4 TO 6 WEEKS OF GROWTH PRIOR TO HARD FROSTS. AFTER SEEDING IS COMPLETE, MULCH THE SEEDED AREAS WITH UNROOTED SMALL GRASS STRAW AT A RATE OF 3 TONS PER ACRE.

PERMANENT SEEDING SHALL ONLY OCCUR DURING THE DATES LISTED ABOVE. IF AREAS ARE PREPARED FOR SEEDING AT OTHER TIMES, THEN THE PREPARED SEEDED SHALL BE HEAVILY MULCHED WITH CLEAN UNROOTED SMALL GRASS STRAW OR SALT HAY AT A RATE OF 3 TONS PER ACRES. THE MULCH SHALL REMAIN IN PLACE UNTIL SEEDING DATES ARE APPROPRIATE. THE MULCH SHALL BE REMOVED; THE AREA SHALL BE DRESSED, SEEDED AND REMULCHED AS DESCRIBED ABOVE.

ALL DISTURBED AREAS REQUIRING FINAL STABILIZATION MUST BE ADDRESSED IMMEDIATELY.

MAINTENANCE

MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL DEVICES WILL CONSIST OF WEEKLY INSPECTIONS OF EACH DEVICE TO DETERMINE HOW WELL THE SLOPE STABILIZATION MEASURES USED ARE WORKING. ALL FACILITIES WILL BE INSPECTED AFTER EVERY STORM TO DETERMINE THEIR DURABILITY TO WITHSTAND DRIVING RAIN AND EROSION. ALL LOCAL REGULATIONS SHALL BE COMPLIED WITH. ALL DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION EQUIPMENT SHALL BE REPAIRED BEFORE THE END OF EACH WORKING DAY.

THE FOLLOWING MAINTENANCE PROCEDURES SHALL APPLY:

1. ANY SEEDED OR SOODED AREAS THAT HAVE BECOME STRIPPED OF VEGETATION SHALL BE REESTABLISHED WITH APPROPRIATE STABILIZATION MATERIALS. THIS PROCEDURE SHALL BE REPEATED AFTER EVERY SIZEABLE STORM (2"+) UNTIL NO MORE SIGNS OF EROSION ARE EVIDENT.
2. AT WEEKLY INSPECTIONS AND AFTER EACH RAIN EVENT NECESSARY CLEANING WILL BE PERFORMED. INSPECTIONS MUST BE LOGGED ONTO DEP FORM 3150-FM-B#0003 DATED 02/2012 AND KEPT ON SITE AT ALL TIMES.
3. ANY FILTER FABRIC FENCE, WHICH HAS BEEN UNDERMINED OR OVER TOPPED, MUST BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTFLET.
4. ANY SEDIMENT REMOVED FROM Bmps DURING CONSTRUCTION WILL BE RETURNED TO UPLAND AREAS ON SITE AND INCORPORATED INTO THE SITE GRADING.

SEEDING, MULCHING AND SODDING

ALL SEEDING, MULCHING AND SODDING SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE CHESTER COUNTY CONSERVATION DISTRICT. ALL SLOPES STEEPER THAN 5H:1V SHALL BE STABILIZED WITH EITHER SOIL OR PERMANENT SEEDING AND MULCH AND ANCHORED IN PLACE WITH JUTE NETTING. NO SLOPES SHALL BE STEEPER THAN 2H:1V. TEMPORARY AND PERMANENT SEEDING SHALL BE IN ACCORDANCE WITH THE PENN STATE AGRONOMY GUIDE OR AS RECOMMENDED BELDS DURING NON-GERMINATING PERIODS AFTER MULCH AT THE RATES RECOMMENDED BELOW. IF THE SITE IS TO REMAIN INACTIVE FOR OVER 6 MONTHS OR AT THE COMPLETION OF FINAL GRADING APPLY PERMANENT SEED AND MULCH AS RECOMMENDED BELOW.

SHOULD UNFORESEEN EROSION CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT/DOWN GRADIENT PROPERTIES AS A RESULT OF INCREASED SEDIMENT DISPLACEMENT. STOCKPILES OF WOOD CHIPS, HAY BALES, CRUSHED STONE AND/OR MULCHES SHALL BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION.

TEMPORARY SEEDING SPECIFICATIONS

WHERE IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA IMMEDIATELY AFTER THE FINAL EARTH MOVING HAS BEEN COMPLETED, TEMPORARY SEEDING SHALL BE DONE IN ACCORDANCE TO THE CHESTER COUNTY CONSERVATION DISTRICT, THE E&S MANUAL AND/OR THE PENN STATE AGRONOMY GUIDE.

AREAS TO BE STABILIZED MUST BE SEEDED/PLANTED IN SUFFICIENT TIME TO GERMINATE, AT LEAST 4 TO 6 WEEKS OF GROWTH PRIOR TO HARD FROSTS. AFTER SEEDING IS COMPLETE, MULCH THE SEEDED AREAS WITH UNROOTED SMALL GRASS STRAW AT A RATE OF 3 TONS PER ACRE. STRAW AND HAY MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION TO PREVENT BEING WINDBLOWN. A TRACTOR-DRAWN CRAMP-DISC SHALL BE USED TO ANCHOR THE STRAW OR HAY INTO THE SOIL.

SITE PREPARATION: APPLY AGRICULTURAL GRADE LIMESTONE AT A RATE OF 800 LBS. PER 1000 S.F. PLUS 10–20–20 FERTILIZER AT A RATE OF 140 LBS. PER 1,000 S.F. AND WORK IN WHERE POSSIBLE. SECURE A SOIL TEST BEFORE MAKING A PERMANENT SEEDING. AFTER SEEDING, MULCH WITH STRAW AT A RATE OF 3.0 TONS PER ACRE.

TEMPORARY SEED MIXTURE: APPLY ANNUAL RYE GRASS AT 40 LBS. PER ACRE (EQUIVALENT TO 1 LBS. PER 1000 S.F.)

TOPSOIL APPLICATION SPECIFICATIONS

GRADED AREAS SHOULD BE SCARIFIED OR OTHERWISE LOOSENEED TO A DEPTH OF 3 TO 5 INCHES TO PERMIT BONDING OF THE TOPSOIL TO THE SURFACE AREAS AND TO PROVIDE A ROUGHENED SURFACE TO PREVENT TOPSOIL FROM SLIDING DOWN SLOPE.

TOPSOIL SHOULD BE UNIFORMLY DISTRIBUTED ACROSS THE DISTURBED AREA TO A DEPTH OF 4 TO 8 INCHES MINIMUM (SEE TABLE 11.1) 2 INCHES ON FILL OUTLINES. SPREADING SHOULD BE DONE IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL PREPARATION OR TILLAGE. IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOIL PLACEMENT SHOULD BE CORRECTED IN ORDER TO PREVENT FORMATION OF DEPRESSIONS UNLESS SUCH DEPRESSIONS ARE PART OF THE PCSM PLAN.

TOPSOIL SHOULD NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDED PREPARATION. COMPLETED SOILS SHOULD BE SCARIFIED 6 TO 12 INCHES ALONG CONTOUR WHEREVER POSSIBLE PRIOR TO SEEDING.

UTILITY LINE TRENCH EXCAVATION NOTES:

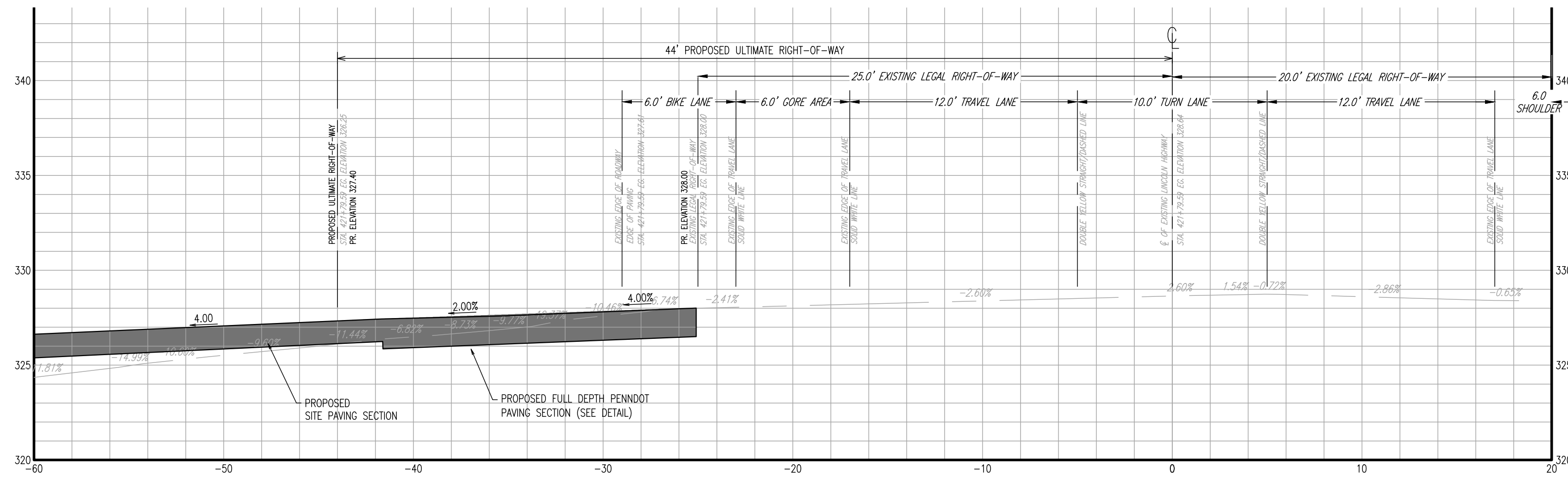
1. LIMIT ADVANCED CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIME THE LENGTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY.
2. WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, FILL CONSTRUCTION AND BACKFILLING WILL BE SELF CONTAINED AND SEPARATE FROM CLEARING AND GRUBBING AND SITE RESTORATION AND STABILIZATION OPERATIONS.
3. ALL SOIL EXCAVATED FROM THE TRENCH WILL BE PLACED ON THE UPHILL SIDE OF THE TRENCH.
4. LIMIT ONLY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY.
5. WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING BEFORE PIPE PLACEMENT AND/OR BACKFILLING BEGINS. WATER REMOVED FROM THE TRENCH SHALL BE PUMPED THROUGH A FILTRATION DEVICE.
6. ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND IMMEDIATELY STABILIZED.

EROSION AND SEDIMENTATION CONTROL NARRATIVE

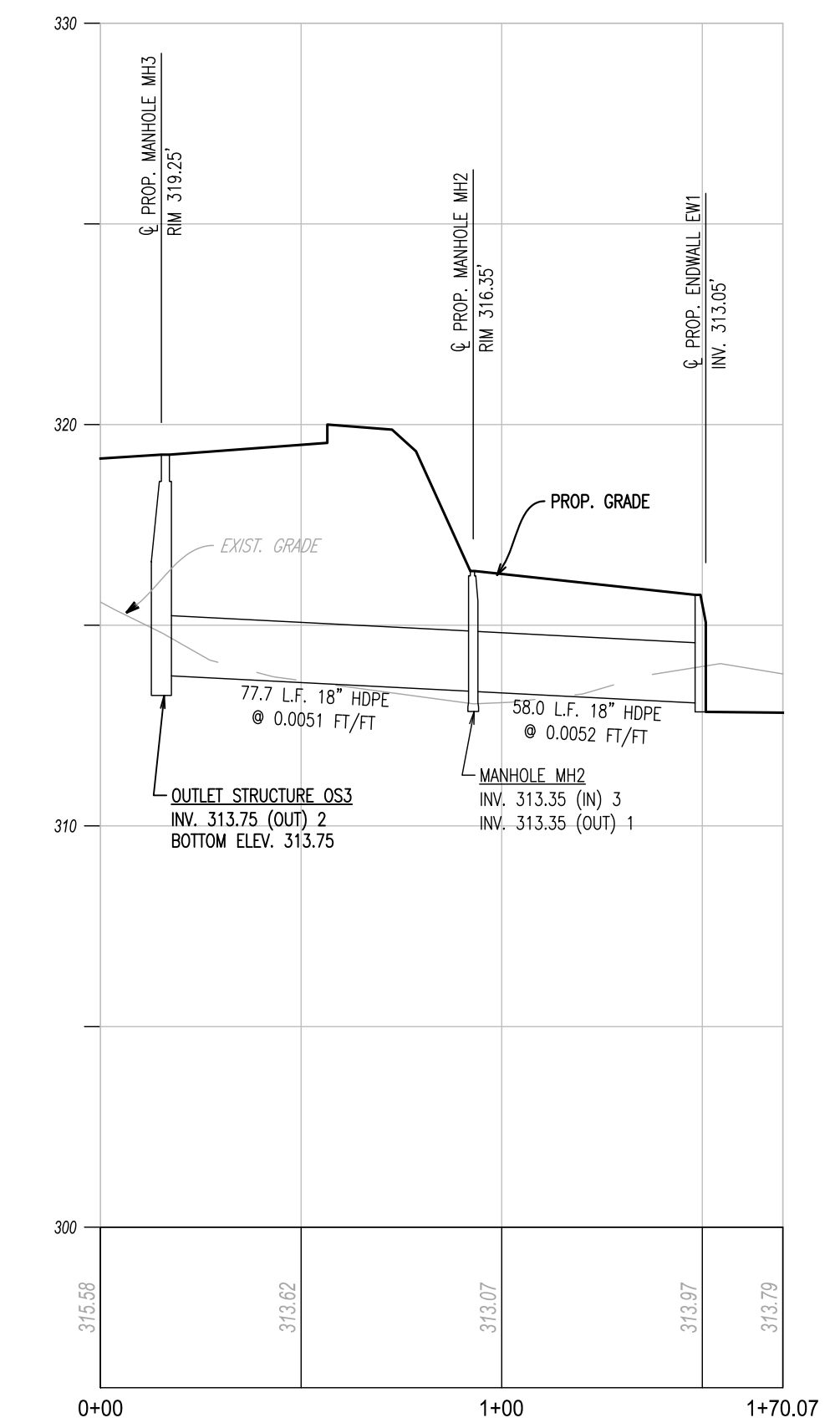
THE PURPOSE OF THIS NARRATIVE AND THE EROSION CONTROL ASPECTS OF THE PLANS ARE TO PREVENT THE ACCELERATED EROSION OF EXPOSED SITE SOILS DURING CONSTRUCTION AND TO RETAIN ON SITE ALL SEDIMENT PRODUCED BY CONSTRUCTION ACTIVITIES. THIS WILL BE ACCOMPLISHED BY STRICT ADHERENCE TO THE FOLLOWING NOTES, SEQUENCE OF CONSTRUCTION, AND EROSION AND SEDIMENT CONTROL DETAILS SHOWN ON THE PLAN. THE EROSION CONTROLS PROVIDED WILL MAXIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE, SOIL COMPACTION, AND MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION. THE DESIGN FURTHER UTILIZES OTHER MEASURES AND CONTROLS TO PREVENT OR MINIMIZE GENERATION OF INCREASED STORMWATER RUNOFF.

EROSION AND SEDIMENTATION CONTROL GENERAL NOTES

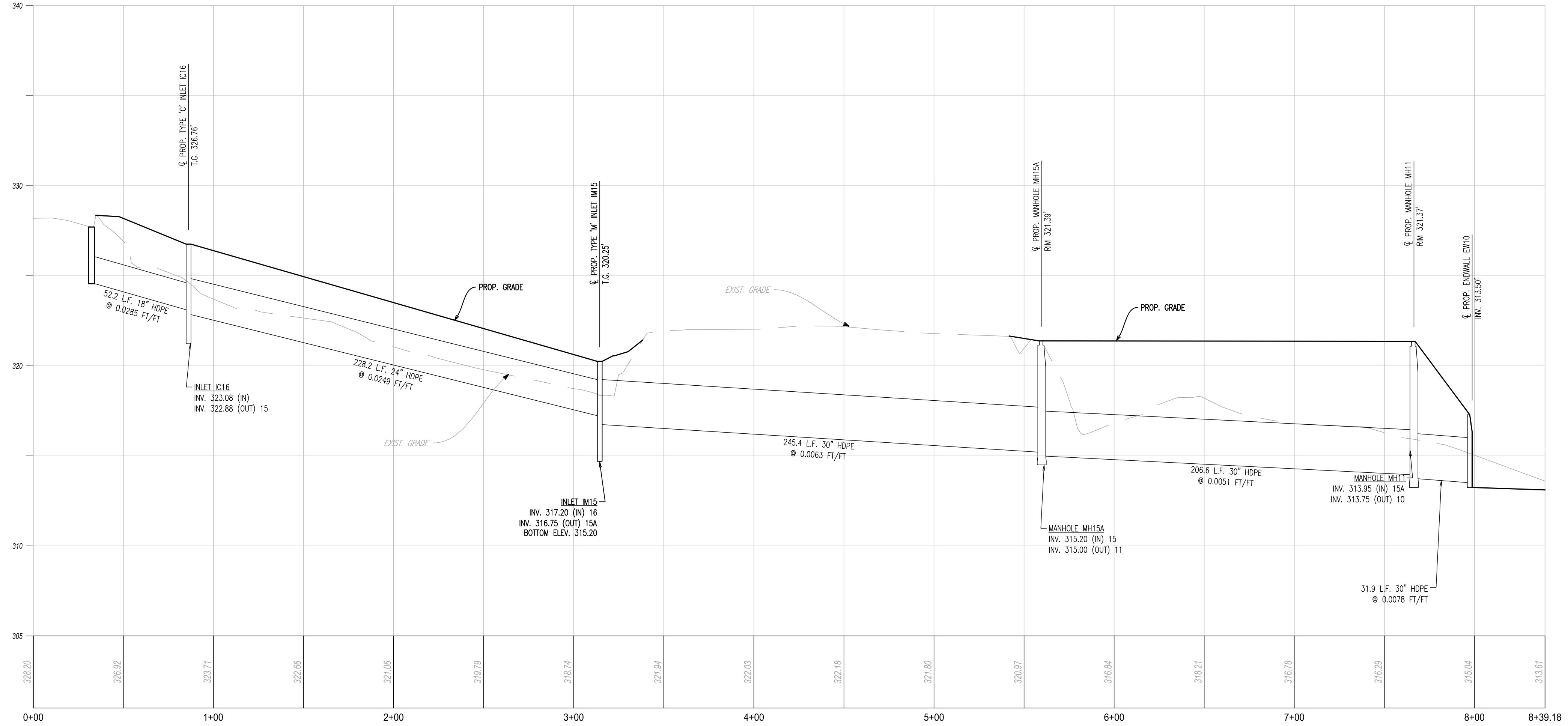
1. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. ADDITIONALLY, THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, AND HAS BEEN APPROVED BY THE CHESTER COUNTY CONSERVATION DISTRICT AND/OR LOCAL MUNICIPALITY IN COMPLIANCE WITH CHAPTER 102 RULES & REGULATIONS, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL OFF SITE SOIL AND/OR ROCK SPOIL AND/OR BORROW AREAS.
2. IF ANY SIGNIFICANT CHANGES ARE TO BE MADE TO THE LIMITS OF DISTURBANCE OR TO THE EROSION AND SEDIMENTATION CONTROL PLAN, THE CONTRACTOR OR LAND OWNER MUST CONTACT THE CHESTER COUNTY CONSERVATION DISTRICT AT 610-925-4920 FOR ADEQUACY OF THESE CHANGES.
3. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIAL AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 260.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE.
4. SHOULD UNFORESEEN EROSION CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR MUST TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AS A RESULT OF INCREASED RUNOFF AND/OR SEDIMENT DISPLACEMENT. STOCKPILES OF WOOD CHIPS, HAY BALES, CRUSHED STONE AND OTHER MULCHES SHOULD BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION.
5. SHOULD ANY MEASURES CONTAINED WITHIN THIS PLAN PROVE INCAPABLE OF ADEQUATELY REMOVING SEDIMENT FROM ON-SITE FLOWS PRIOR TO DISCHARGE OR OF STABILIZING THE SURFACES INVOLVED, ADDITIONAL MEASURES MUST BE IMMEDIATELY IMPLEMENTED BY THE CONTRACTOR TO ELIMINATE SUCH PROBLEMS.
6. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISION OF APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL RESOURCES, SUB-PART C, PROTECTION OF NATURAL RESOURCES, ARTICLE 6, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
7. THE CONTRACTOR MUST DEVELOP AND HAVE APPROVED BY THE CHESTER COUNTY CONSERVATION DISTRICT, A SEPARATE EROSION AND SEDIMENTATION CONTROL PLAN FOR EACH SPOIL, BORROW OR OTHER WORK AREA NOT DETAILED IN THE APPROVED PLAN, WHETHER LOCATED WITHIN OR OUTSIDE THE CONSTRUCTION LIMITS.
8. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG OR EQUIVALENT SEDIMENT REMOVAL FACILITY, OVER UNDISTURBED VEGETATED AREAS.
9. LIMITS OF DISTURBANCE MUST BE CLEARLY MARKED IN THE FIELD PRIOR TO ANY DISTURBANCE. ANY CHANGE OR ENCROACHMENT ONTO THESE AREAS WITHOUT CONSERVATION DISTRICT REVIEW AND APPROVAL MAY REQUIRE THE CONTRACTOR TO CEASE DISTURBANCE AND OBTAIN AN EARTH DISTURBANCE PERMIT.
10. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION CONTROLS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROLS AFTER EACH WORKING EVENT AND ON A WEEKLY BASIS. ALL SITE INSPECTIONS WILL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADE, REMULCHING, RESEEDING, AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENTATION Bmps FAIL TO PERFORM AS EXPECTED, REPLACEMENT Bmps OR MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED. WHERE Bmps ARE FOUND TO FAIL TO ALLEVIATE EROSION OR SEDIMENT POLLUTION THE PERMITTEE OR CO-PERMITTEE SHALL INCLUDE THE FOLLOWING INFORMATION:
 - A. THE LOCATION & SEVERITY OF THE Bmps FAILURE & ANY POLLUTION EVENTS.
 - B. ALL STEPS TAKEN TO REDUCE, ELIMINATE & PREVENT THE RECURRENCE OF THE NON-COMPLIANCE.
 - C. THE TIME FRAME TO CORRECT THE NON-COMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.
11. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF, THE PROJECT SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION. ALL AREAS OF DISTURBANCE SHALL BE STABILIZED AND THERE ARE NO FUTURE SIGNS OF EROSION PRESENT AND UPON FINAL APPROVAL BY THE CHESTER COUNTY SOIL CONSERVATION DISTRICT, REMOVE ALL TEMPORARY EROSION CONTROL STRUCTURES.
12. THE DESIGN ENGINEER SHALL INSPECT ALL PCSM Bmps TO ENSURE THAT THEY HAVE NOT BEEN IMPACTED BY CONSTRUCTION ACTIVITIES. THIS IS A CRITICAL STAGE WHERE A LICENSED PROFESSIONAL MUST BE CONTACTED AT LEAST 48 HOURS IN ADVANCE TO PROVIDE CONSTRUCTION OVERSIGHT.
13. NOTICE OF TERMINATION & FINANCIAL SECURITY: A NOTICE OF TERMINATION (NOT) WILL BE REQUIRED TO BE SUBMITTED FOLLOWING THE APPROVAL OF THE FINAL AS-BUILT PLANS (SEE POST CONSTRUCTION STORMWATER FACILITIES OPERATIONS AND MAINTENANCE PROCEDURES – THIS PLAN) ANY PERFORMANCE AND/OR FINANCIAL SECURITY ESTABLISHED FOR THE PROJECT SHALL INCLUDE REQUIREMENTS FOR SUBMITTAL OF AS-BUILT PLANS AND ENGINEERING CONSTRUCTION OVERSIGHT.
14. EROSION AND SEDIMENTATION CONTROL INSPECTIONS SHALL BE PERFORMED ON A WEEKLY BASIS AND AFTER EVERY RAIN EVENT.
15. ALL SLOPES STEEPER THAN 3:1 MUST UTILIZE EROSION CONTROL BLANKET (CURLX BLANKET OR APPROVED EQUAL).
16. IF UNSUITABLE MATERIAL IS ENCOUNTERED DURING CONSTRUCTION, A GEOTECHNICAL ENGINEER SHOULD BE ON-SITE FOR RESOLUTIONS TO THE UNSUITABLE SOIL.
17. TEMPORARY TOPSOIL STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET, AND SLOPES MUST BE 2:1 OR FLATTER.
18. BEFORE INITIATING ANY REVISION TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE CHESTER COUNTY CONSERVATION DISTRICT. THE OPERATOR SHALL ASSURE THAT ANY APPROVED EROSION AND SEDIMENT CONTROL PLAN REVISIONS ARE PROPERLY IMPLEMENTED. 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 ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
19. ALL PUMPING OF SEDIMENT LADEN WATER OR POTENTIALLY SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER NON-DISTURBED AREAS.
20. THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE CHESTER COUNTY CONSERVATION DISTRICT, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPOIL AND BORROW AREAS, REGARDLESS OF THEIR LOCATIONS.
21. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER 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. IMMEDIATELY AFTER DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITIES. DURING NON-GERMINATING PERIODS, MULCH WILL BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN A YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATION STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
22. SEDIMENT TRAPS MUST BE PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES.
23. IF THE CONTRACTOR ENCOUNTERS HIGH WATER TABLE, SHALLOW BEDROCK, OR SOIL INSTABILITY DURING SITE CONSTRUCTION, THE DESIGN ENGINEER OR THE ON-SITE GEOTECHNICAL ENGINEER MUST BE CONTACTED IMMEDIATELY FOR CORRECTIVE MEASURES.
24. IF THE SITE CONSTRUCTION VIBRATES A NET OUT RESULTING IN EXCESS SOIL BEING REMOVED FROM THE SITE THE SOIL MUST BE REPLACED TO A SITE WITH A WILD MESS PERM.
25. AS-BUILT PLANS OF THE STORMWATER Bmps SHALL BE PROVIDED WITHIN SIX MONTHS FOLLOWING THE COMPLETION OF EACH PHASE. THE AS-BUILT PLANS SHALL BE SIGNED AND SEALED BY A PA REGISTERED PROFESSIONAL ENGINEER.
26. A NOTICE OF TERMINATION (N.O.T.) WILL BE REQUIRED TO BE SUBMITTED FOLLOWING APPROVAL OF THE FINAL AS-BUILT PLANS. PRIOR TO ACCEPTING THE N.O.T., THE DEPARTMENT AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION TO ENSURE SITE STABILIZATION AND VERIFY ADEQUATE INSTALLATION AND FUNCTION OF STORMWATER Bmps.
27. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO USE CLEAN FILL AND TO PERFORM ENVIRONMENTAL DUE DILIGENCE AS REQUIRED BY THE DISTRICT, TO DETERMINE THAT ALL FILL IMPORTED TO THE SITE MEETS THE DEP'S DEFINITION OF CLEAN FILL. SEE DEFINITIONS OF CLEAN FILL AND ENVIRONMENTAL DUE DILIGENCE THIS SHEET.
28. AN EROSION CONTROL BLANKET WILL BE INSTALLED ON ALL DISTURBED SLOPES STEEPER THAN 3:1. ALL AREAS OF CONCENTRATED FLOWS, AND DISTURBED AREAS WITHIN 50' OF WATERS OF THE COMMONWEALTH.
29. CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREGGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT 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 TERM "USED ASPHALT" DOES NOT INCLUDE MILDED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE).
30. ANY PLACEMENT OF CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM PP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM PP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL.
31. SEDIMENT TRACKED ONTO ANY ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORKDAY AND DISPOSED AS A MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOULDERED OR SWEEP INTO ANY ROAD SIDE DITCH, STORM SEWER OR SURFACE WATER.
32. ENVIRONMENTAL DUE DILIGENCE MUST BE PERFORMED TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USER 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 A 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 CLEAN FILL".
33. AREAS WHICH ARE TO BE TOP-SOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES (6 TO 12 INCHES ON COMPACTED SITES PRIOR TO PLACEMENT OF TOPSOIL). AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. L.E. VARDI.



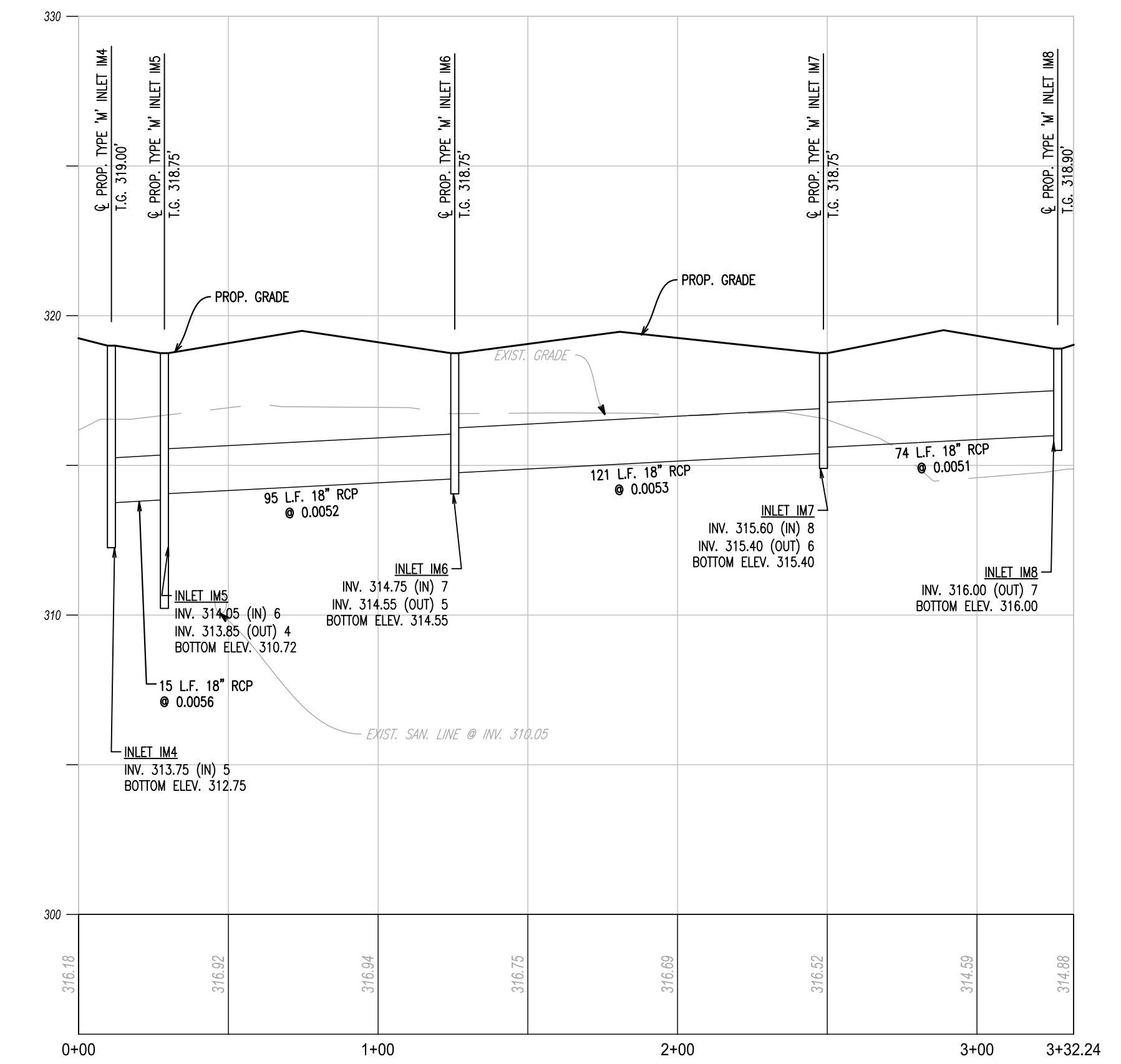
DRIVE CENTER PROPOSED DRIVEWAY CENTERLINE PROFILE
 SCALE: 1"=5' HORIZ.
 1"=5' VERT.



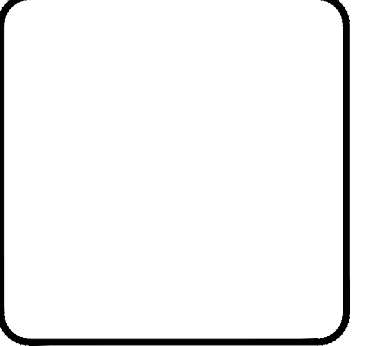
OS3 TO EW1 PROFILE
 HORIZ SCALE: 1"=40'
 VERT SCALE: 1"=4'



EX TO EW10 PROFILE
 HORIZ SCALE: 1"=40'
 VERT SCALE: 1"=4'



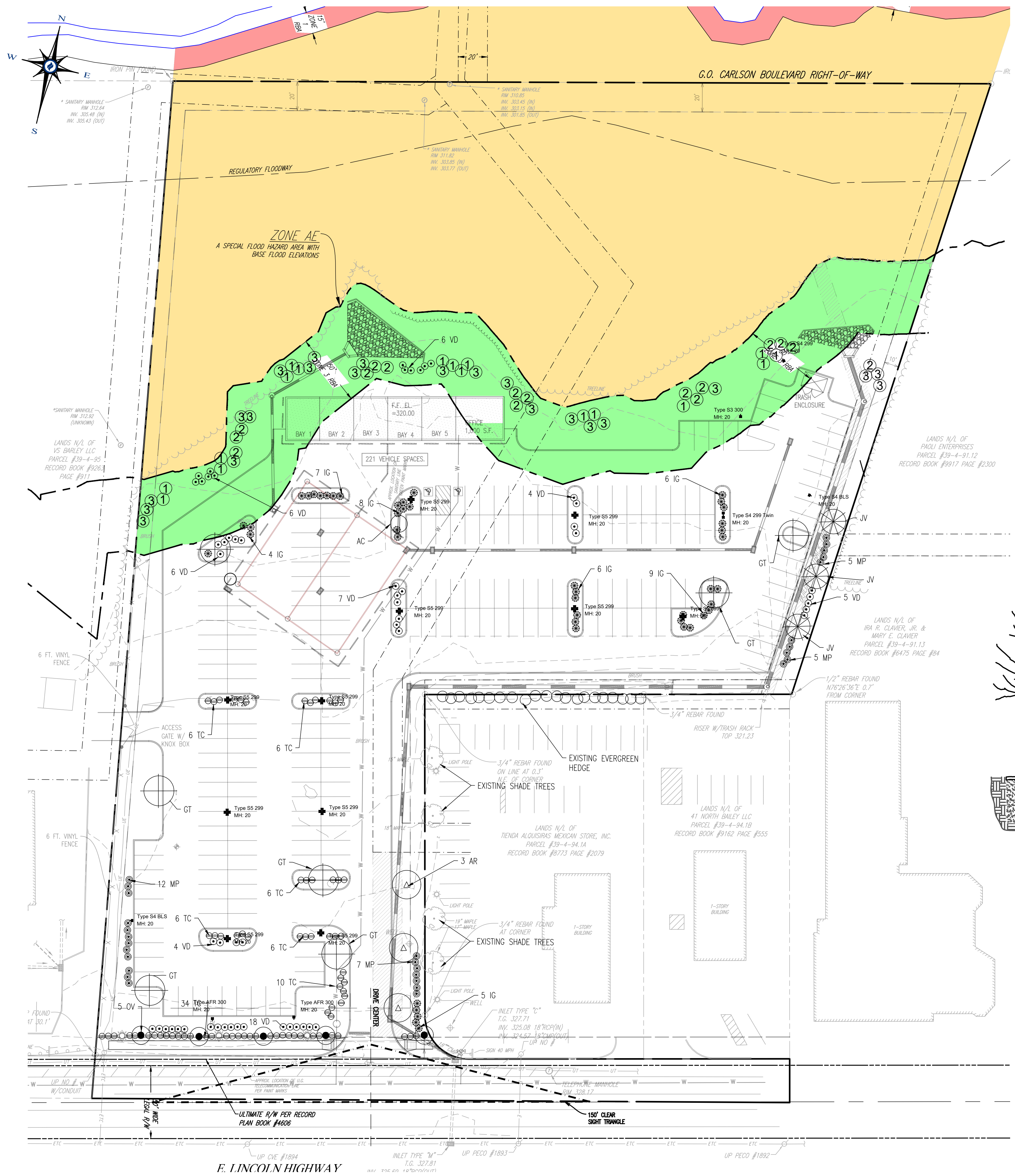
IM8 TO IM4 PROFILE
 HORIZ SCALE: 1"=40'
 VERT SCALE: 1"=4'



REV.	DATE	DESCRIPTION
1	10/09/2023	REVISED SITE LAYOUT PER KIA LEASING
2	12/18/23	REV. PER TWP. REVIEW COMMENTS
3		
4		
5		
6		
7		
8		

PRELIMINARY PROFILES
 CLIENT: JIM SIPALA C/O SIPALA KIA
 PROJECT: KIA AUTO LEASING HIGHWAY
 LOCATION: 2751 E. LINCOLN HIGHWAY
 CALN TOWNSHIP, CHESTER COUNTY, PA

DATE:	04/07/23
SCALE:	AS SHOWN
DRAWN BY:	ACB
CHECKED BY:	JSR
PROJECT NO.:	4536
CAD FILE:	13 PROFILES.dwg
PLOTTER:	12/18/23
DRAWING NO.:	C06.1
SHEET:	13 OF 18



LANDSCAPE REQUIREMENTS

137-50
Shade trees.
B. Where required by this chapter or Chapter 155, shade trees shall be planted with a minimum caliper of three inches at forty-foot intervals, or as otherwise specified by the Township Engineer.

ROUTE 30: 226 LF/40= 5.2 SHADE

W. Off-street parking areas shall be suitably landscaped in order to enhance or buffer the surrounding area. The following landscaping requirements shall be provided for all off-street parking areas containing 10 off-street parking spaces:

(3) The perimeter of the off-street parking area shall be suitably landscaped to provide a visual buffer or to enhance the aesthetics of the area adjacent to the off-street parking area.

155-119
C. Where landscaping plans are required, the following provisions shall be incorporated as part of the design:
(1) The plant materials utilized shall be selected from the approved list specified under § 155-119 of this chapter.
(2) The landscaping plan shall show the type, size and arrangement of all species selected.
(3) Nonresidential developments shall provide a minimum of three selected canopy, flowering and/or evergreen trees per gross acre.

LOT 1: 3.08 x 3=9 shade.

5

(5) SHADE

9

(12) SHADE

9

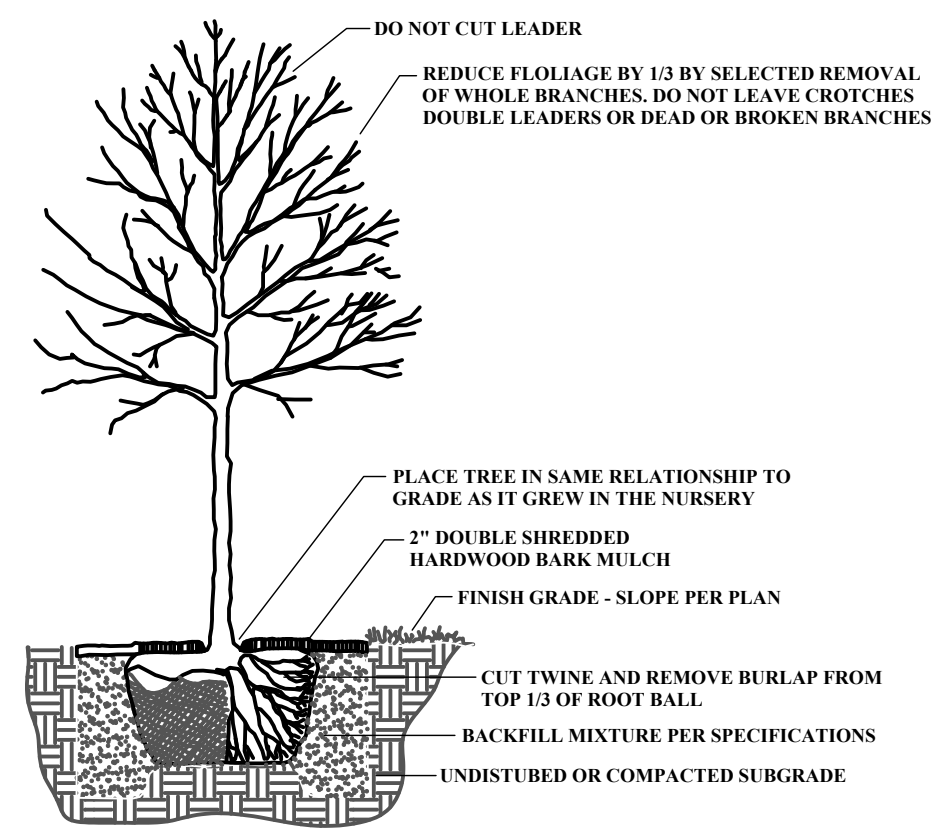
(12) SHADE

GENERAL SPECIFICATIONS

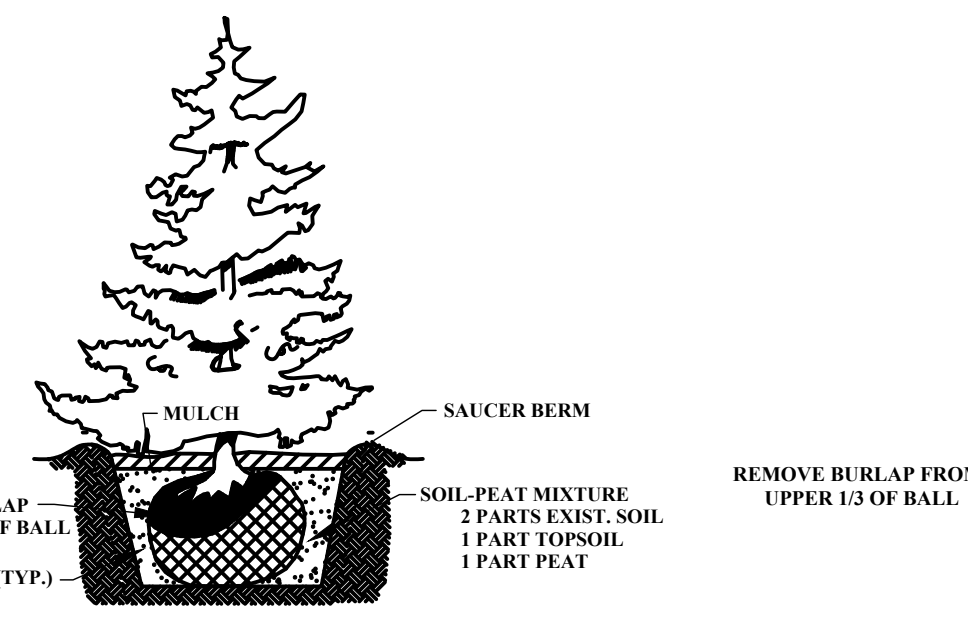
- THE EXECUTION OF THIS PLAN INCLUDES THE FURNISHING OF PLANT MATERIALS AS SPECIFIED, ACCURATE LAYOUT, SUFFICIENT TOPSOIL, NUTRIENT ADDITIVES, PEAT MOSS, PLANTING, PRUNING, STAKING, WATERING, LABOR, CLEAN-UP AND ALL OTHER NECESSARY SERVICES TO EXECUTE THE PLANTINGS PROPERLY AND IN FULL ACCORDANCE WITH THESE SPECIFICATIONS AND DETAILS.
- ALL PLANT MATERIALS ARE TO BE NURSERY GROWN, OF EXCELLENT LANDSCAPE QUALITY AND FREE FROM INSECTS AND DISEASES. FURTHERMORE, PLANTS SHALL HAVE BEEN GROWN FOR AT LEAST TWO YEARS IN THE SAME HARDINESS ZONE AS THE SITE.
- INSTALLATION TO BE IN ACCORDANCE WITH AMERICAN ASSOCIATION OF NURSERYMAN STANDARDS.
- PLANT SIZES SHALL BE A FAIR AVERAGE BETWEEN THE SIZE RANGE INDICATED. CALIPER SHALL BE MEASURED AT 4" ABOVE GROUND.
- TREES IN PAVED AREAS SHALL BE UNIFORM IN SHAPE, SIZE AND CHARACTER. LOWEST BRANCHES SHALL BE AT LEAST 7' FROM GROUND.
- IF TREES CANNOT BE LOCATED WHERE SHOWN DUE TO UTILITIES OR OTHER OBSTRUCTIONS, EXISTING OR PROPOSED, TREES SHALL BE RELOCATED IN THE FIELD AS APPROVED BY THE OWNER'S REPRESENTATIVE.
- NO SUBSTITUTIONS ARE ACCEPTABLE UNLESS APPROVED BY THE OWNER'S REPRESENTATIVE AND THE MUNICIPALITY.
- LANDSCAPE CONTRACTOR TO GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF 18 MONTHS FROM THE DAY OF FINAL INSPECTION OF THE LANDSCAPE INSTALLATION BY THE MUNICIPALITY.
- BACKFILL MIXTURE SHALL BE A MIXTURE BY VOLUME OF 3/4 TOPSOIL (TO BE PROVIDED ON SITE) AND 1/4 PEAT MOSS.
- ALL SHRUBS AND GROUND COVER SHALL BE PLACED IN CONTINUOUS BEDS AS DELINEATED ON THE PLANS.
- MULCH TO BE SHREDDED OAK BARK OR APPROVED EQUAL AND SPREAD TO A MINIMUM DEPTH OF 2 INCHES.
- A PRE-EMERGENT HERBICIDE SUCH AS "TREPLAN" SHALL BE APPLIED TO ALL PLANTING BEDS ACCORDING TO MANUFACTURER'S RECOMMENDATION (PRIOR TO PLACEMENT OF MULCH). A SECOND APPLICATION OF PRE-EMERGENT HERBICIDE SHALL BE INCLUDED AS A PART OF THIS WORK.
- THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE TO SELECT ALL PLANT MATERIAL AT THE NURSERY AND APPROVE STAKING OF ALL PLANT MATERIAL LOCATIONS AT THE SITE BEFORE DELIVERY.
- LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR WATERING IN SUFFICIENTLY AT TIME OF PLANTING AND UNTIL JOB IS COMPLETED AND TURNED OVER TO OWNER.

SEEDING SPECIFICATIONS:

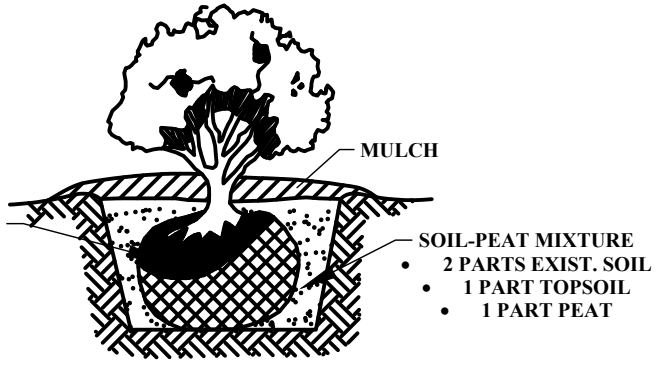
- ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE SEED.
- SEEDING SHALL COMMENCE BETWEEN AUGUST 15 AND SEPTEMBER 30, OR BETWEEN MARCH 15 AND APRIL 30, AS WEATHER PERMITS AND/OR AS APPROVED BY THE OWNER'S REPRESENTATIVE.
- TOPSOIL USED FOR SEEDING IS STOCKPILED ON SITE. TOPSOIL SHALL BE SPREAD TO A DEPTH OF 6" AND FINE GRADED, REMOVING ALL DEBRIS AND STONES LARGER THAN 1". REMOVE FROM THE SITE ALL DEBRIS AND STONES.
- INCORPORATE BY DISCING INTO THE TOP 2" OF THE TOPSOIL THE FOLLOWING:
A) AGRICULTURAL LIMESTONE AT 50 LBS./1000 S.F.
B) FERTILIZER (5-10-5) AT 30 LBS./1000 S.F.
- SEEDING MIX: APPLY GRASS SEED COMPOSED OF THE FOLLOWING VARIETIES WHICH SHALL BE MIXED IN THE PROPORTIONS AND SHALL TEST THE MINIMUM PERCENTAGES OF PURITY AND GERMINATION SPECIFIED.
MIXTURE A: (SEED RATE @ 4-1/2 LBS./1,000 S.F. OR 200 LB./ACRE)
PROF. BY WT. MIN. % MIN. % MAX. % GERMINATION PURE SEED WEED SEED
30% HYBRID KY BLUEGRASS 80 95 0.02
30% HYBRID TURF TYPE TALL FESCUE 80 95 0.02
40% HYBRID PERENNIAL RYE 80 95 0.02
- FIRM SEED BED WITH ROLLER AND MULCH WITH SALT HAY AND ASPHALTIC TACK COAT OR HYDRO MULCH AT THE RATE OF 1,500 LBS. PER ACRE.
- ALL LAWN WORK INCLUDING THE REPAIR OF WASHBETS, GULLIES, ETC., SHALL BE GUARANTEED FOR ONE CALENDAR YEAR FROM THE DATE OF COMPLETION OF INSTALLATION.
SOD (IF REQUIRED) SHALL BE SAME AS SEED MIX AND INSTALLED IN ACCORDANCE WITH AMERICAN ASSOCIATION OF SOD PRODUCERS' STANDARDS.



TYPICAL DECIDUOUS TREE PLANTING DETAIL
(NOT TO SCALE)



TYPICAL EVERGREEN TREE PLANTING DETAIL
(NOT TO SCALE)



TYPICAL SHRUB PLANTING DETAIL
(NOT TO SCALE)

LEGEND

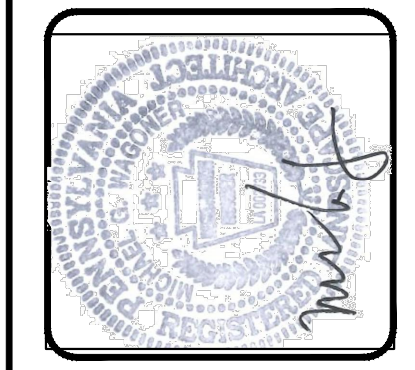
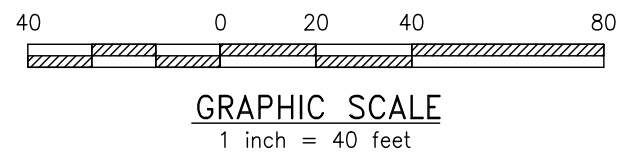
- RED MAPLE (AR)
- RED CEDAR (RC)
- BAYBERRY (MP)
- INKBERRY HOLLY (IG)
- ARROW WOOD VIBURNUM (VD)
- COMPACT YEW (TC)
- RED MAPLE WHIP
- SYCAMORE WHIP
- WILLOW WHIP
- HONEY LOCUST (GT)
- HORNBEAM (CC)
- SERVICE BERRY (AW)
- EXISTING TREES

PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME	QTY.	CAL.	ROOT	REMARKS
SHADE TREE						
AR	Acer rubrum/October Glory	OCTOBER GLORY RED MAPLE	3	3" MIN.	B&B	Matched Specimens
GT	Gleditsia triacanthos inermis	THORNLESS HONEYLOCUT	8	3" MIN.	B&B	Matched Specimens
EVERGREEN TREE						
JV	Juniperus virginiana	EASTERN RED CEDAR	3	6" MIN.	B&B	Full branched
FLOWERING TREE						
OV	Ostrya virginiana	AMERICAN HOPHORNBEAM	5	10" MIN.	B&B	SINGLE STEM
AC	Amelanchier canadensis	SERVICEBERRY	1	10" MIN.	B&B	MULTI-STEM
SHRUBS						
MP	Myrica pennsylvanica	NORTHERN BAYBERRY	29	36" MIN.	B&B	
VD	Viburnum dentatum	ARROW WOOD VIBURNUM	55	36" MIN.	B&B	
IG	Ilex glabra	INKBERRY HOLLY	45	36" MIN.	B&B	
TC	Taxus cuspidata 'nana'	DWARF JAPANESE YEW	74	36" MIN.	B&B	
Restoration Whips						
①	Acer rubrum	RED MAPLE	17	1/2" MIN.	CONT.	
②	Platanus occidentalis	SYCAMORE	16	1/2" MIN.	CONT.	
③	Salix nigra	BLACK WILLOW	22	1/2" MIN.	CONT.	

LANDSCAPE PLAN

SCALE: 1" = 40'

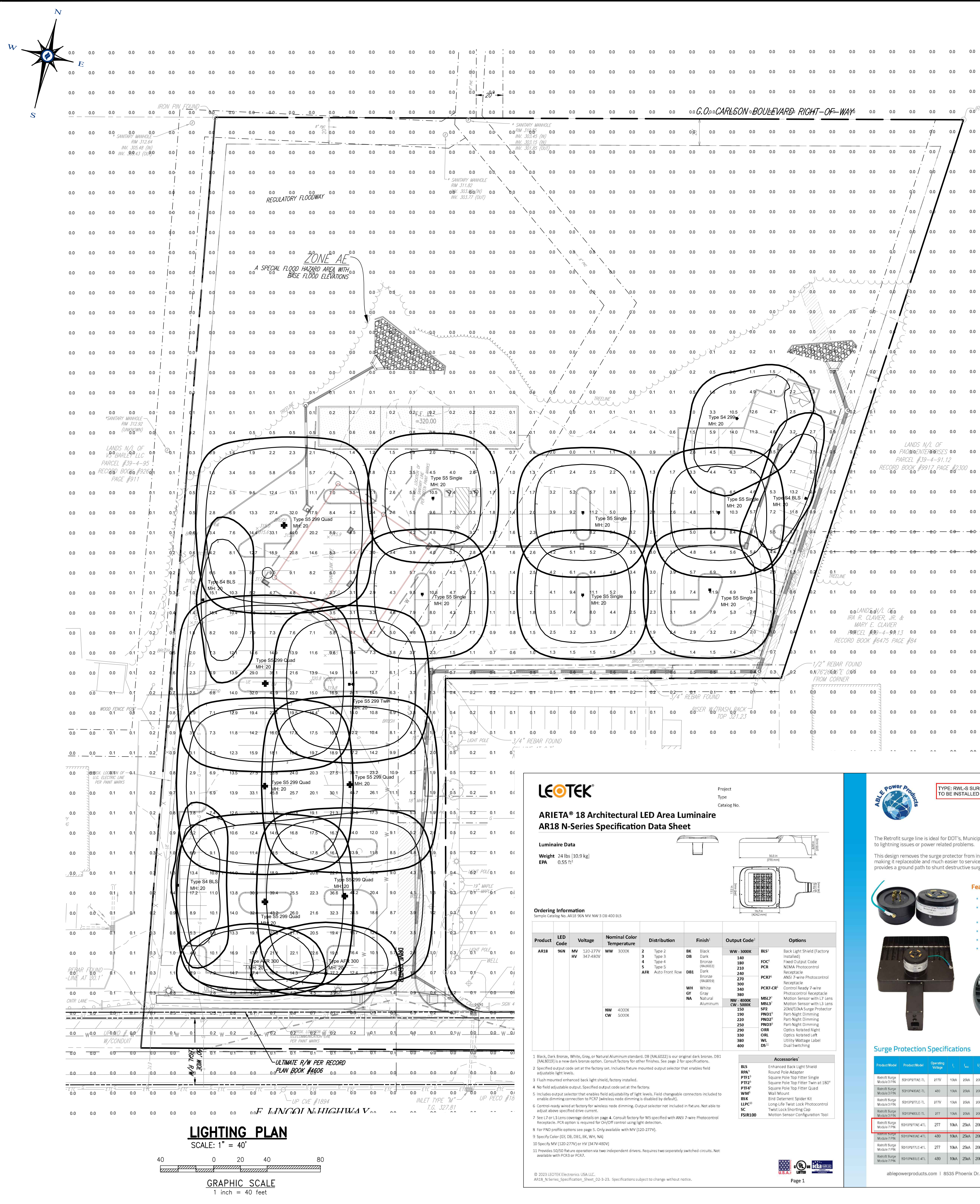


8	REV.	DATE	DESCRIPTION
7			
6			
5			
4			
3			
2	12/18/23	REVISED SITE LAYOUT PER KLA LEASING	
1	10/07/2023	REV. PER TWP. REVIEW COMMENTS	

PRELIMINARY LANDSCAPE PLAN

CLIENT: JIM SIPALA C/O SIPALA KIA
PROJECT: KIA AUTO LEASING
LOCATION: 2751 E. LINCOLN HIGHWAY
CALN TOWNSHIP, CHESTER COUNTY, PA

DATE: 04/07/23
SCALE: 1"=40'
DRAWN BY: ACB
CHECKED BY: JSR
PROJECT NO.: 4536
CAD FILE: LANDSCAPE PLAN.dwg
PLOTTED: 12/18/23
DRAWING NO.: C09.1
SHEET 17 OF 18



Symbol	Qty	Label	[MANUFAC]	Description	Arrangement	LLD	LDD	UDF	LLF
[Symbol]	2	Type AFR 300	Leetek Electronics USA LLC	AR18-90N-MV-WW-5-BK-380-PCRT-CRRWL-SRME-XBP	SINGLE	0.900	0.900	1.000	0.810
[Symbol]	1	Type S4 299	Leetek Electronics USA LLC	AR18-90N-MV-WW-4-BK-380-PCRT-CRRWL-SRME-XBP	SINGLE	0.900	0.900	1.000	0.810
[Symbol]	3	Type S4 BLS	Leetek Electronics USA LLC	AR18-90N-MV-WW-4-BK-380-BLS-PCRT-CRRWL-SRME-XBP	SINGLE	0.900	0.900	1.000	1.231
[Symbol]	6	Type SS 299 Quad	Leetek Electronics USA LLC	AR18-90N-MV-WW-5-BK-380-PCRT-CRRWL-SRME-XBP	4 @ 90 DEGREE	0.900	0.900	1.000	0.810
[Symbol]	1	Type SS 299 Twin	Leetek Electronics USA LLC	AR18-90N-MV-WW-5-BK-380-PCRT-CRRWL-SRME-XBP	BACK-BACK	0.900	0.900	1.000	0.810
[Symbol]	6	Type SS Single	Leetek Electronics USA LLC	AR18-90N-MV-WW-5-BK-380-PCRT-CRRWL-SRME-XBP	SINGLE	0.900	0.900	1.000	0.810

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	LVRatio	Grid Z
Auto Front Row	Illuminance	Fc	19.12	27.1	0.2	2.08	2.95	N.A.	0
Leaving Lot	Illuminance	Fc	13.78	48.7	1.6	8.61	29.19	N.A.	0
Main Entrance	Illuminance	Fc	1.24	3.3	0.3	4.13	11.00	N.A.	0
Rear Parking	Illuminance	Fc	3.92	12.1	0.6	6.53	20.17	N.A.	0

THIS LIGHTING PLAN DEPICTS PROPOSED SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURERS.

ANY SUBSTITUTION REQUESTS MUST BE SUBMITTED 15 DAYS PRIOR TO THE BID AND MUST BE ACCOMPANIED BY A HORIZONTAL PHOTOMETRIC STUDY DEMONSTRATING THAT THE FIXTURES IN QUESTION WILL MEET THE DESIGN INTENT OF THIS PLAN.

ALL EXTERIOR LIGHTING PLANS SHALL BE SUBMITTED 15 DAYS PRIOR TO THE BID TO THE LOCAL LIGHTING AUTHORITY TO DETERMINE IF ALL OF THE LOCAL LIGHTING REQUIREMENTS HAVE BEEN MET.

- RETAIL (AUTOMOTIVE SALES)
SALES LOT (EXTERIOR) ZONE 2 (SUBURBAN) 15 FC AVERAGE
- INSTALLATION NOTES:
- 1) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FIELD VERIFICATION OF ALL EXISTING UNDERGROUND STRUCTURES AND UTILITIES, SUCH AS WATER MAINS, SANITARY AND STORM SEWERS, TELEPHONE AND ELECTRIC CONDUITS, AND GAS LINES, ETC. AND ABOVE GROUND UTILITIES WHICH MAY BE ENCOUNTERED DURING CONSTRUCTION OPERATIONS.
 - 2) DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ALL ELEVATIONS, INVERTS, AND DIMENSIONS IN THE FIELD PRIOR TO THE COMMENCEMENT OF WORK.
 - 3) THE PENNSYLVANIA ONE CALL NUMBER IS 1-800-242-1776. THE CONTRACTOR IS REQUIRED TO SUBMIT VERIFICATION TO THE MUNICIPALITY THAT A ONE-CALL HAS BEEN PLACED PRIOR TO THE START OF DEMOLITION WORK.
 - 4) THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS FROM THE MUNICIPALITY RELATIVE TO THE PROPOSED PROJECT.
 - 5) THE CONTRACTOR SHALL REPAIR ALL UTILITY TRENCHING WORK LOCATED WITHIN EXISTING PAVED STREETS.
 - 6) THE CONTRACTOR SHALL COMPLY WITH ALL CITY, STATE, AND FEDERAL REGULATIONS IN EFFECT AT THE TIME OF CONSTRUCTION.
 - 7) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL.
 - 8) THE CONTRACTOR SHALL REMOVE ALL TEMPORARY FENCING, GATES, COVERED PEDESTRIAN WALKWAYS, TRAFFIC BARRIERS, AND SIGNAGE AT THE COMPLETION OF THE PROJECT. ALL AREAS DISTURBED AS A RESULT OF THE INSTALLATION OF THESE TEMPORARY CONTROLS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.
 - 9) THE LIGHT LEVELS DEPICTED ON THIS PLAN WERE CALCULATED BASED ON THE LFF SHOWN IN THE LUMINAIRE SCHEDULE.
 - 10) THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ANALYZED ON A HORIZONTAL, GEOMETRIC PLANE AT GROUND LEVEL UNLESS OTHERWISE NOTED.
 - 11) ILLUMINATION LEVELS ARE SHOWN IN FOOT-CANDELS (FC).
 - 12) THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO ENSURE THAT SHIELDING AND OR ROTATED OPTICS ARE INSTALLED AS INDICATED ON THE PLAN IN ORDER TO ACHIEVE THE LIGHTING LEVELS THE REVIEWING AGENCY APPROVED.

CALCULATION NOTES:
THE LIGHT LOSS FACTOR IS A PRODUCT OF MANY VARIABLES. IT IS UP TO THE FINAL REVIEWING AGENCY TO DETERMINE THE APPROPRIATE LIGHT LOSS FACTOR.

ILLUMINATION VALUES SHOWN (IN FOOT-CANDELS) ARE THE PREDICTED RESULTS FOR PLANES OF THE CALCULATION EITHER HORIZONTAL, VERTICAL, OR INCLINED AS DESIGNATED IN THE CALCULATION SUMMARY.

LIGHTING CONTROLS AND SURGE PROTECTION: ALL NEW FIXTURES ARE TO BE EQUIPPED WITH DIMONOFF RME-XBP PHOTOCELLS AND ANGLE PROTECTORS WITH SURGE DEVICES. FIXTURES MUST BE EQUIPPED WITH ALL-MODE PROTECTION (A-N, L-G, N-G). SURGE PROTECTION INHERENT TO THE PHOTOCELL SHOULD HAVE 3 MODES OF PROTECTION: LINE-TO-NEUTRAL, LINE-TO-GROUND AND NEUTRAL-TO-GROUND. THE MINIMUM SURGE PROTECTION SPECIFICATIONS SHOULD BE 10KA IN 25KA IMAX AND 20KV UIC.

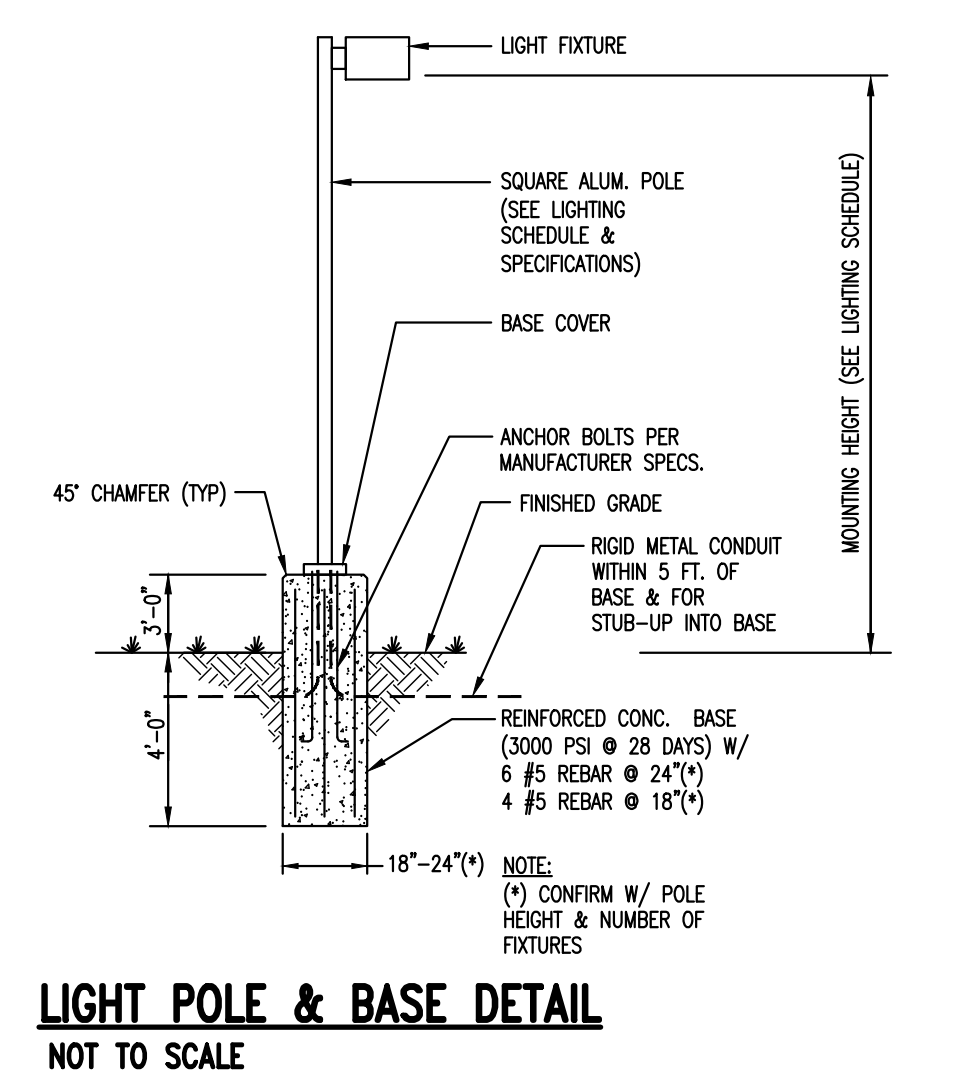
SET ONE SMART PHOTOCELL TO CONTROL ALL OTHER SITE LIGHTING FIXTURES (DIMONOFF #RME-XBP).

WITH THE EXCEPTION OF ALL SECURITY LIGHTING, ALL EXTERIOR LIGHTING FOR ANY COMMERCIAL, INDUSTRIAL, INSTITUTIONAL, AND RECREATIONAL USE SHALL BE REDUCED BY 50% BETWEEN THE HOURS OF 10:00 P.M. AND 6:00 A.M.

FOR PRICING AND COMMISSIONING, PLEASE CONTACT INDEPENDENCE LIGHTING.

INDEPENDENCE LIGHTING
KENT LAZOR
PHONE: 610-383-6271
EMAIL: KLAZOR@COMCAST.NET

- LIGHTING PLAN NOTES:
1. WITH THE EXCEPTION OF ALL SECURITY LIGHTING, ALL EXTERIOR LIGHTING FOR ANY COMMERCIAL, INDUSTRIAL, INSTITUTIONAL, AND RECREATIONAL USE SHALL BE REDUCED BY 50% BETWEEN THE HOURS OF 10:00 PM AND 6:00 AM.
 2. WITH THE EXCEPTION OF ALL-NIGHT OPERATIONS, LIGHTING FOR COMMERCIAL, INDUSTRIAL, MUNICIPAL, RECREATIONAL AND INSTITUTIONAL USES SHALL BE CONTROLLED BY AUTOMATIC SWITCHING DEVICES, SUCH AS TIME CLOCKS OR COMBINATION MOTION DETECTORS AND PHOTOCELLS, TO PERMIT THE REDUCTION OF EXTERIOR LIGHTING BY 50% BETWEEN THE HOURS OF 10:00 PM AND 6:00 AM IN ORDER TO MITIGATE NUISANCE GLARE AND SKY LIGHTING CONSEQUENCES.
 3. APPLICANT SHALL PROVIDE ENERGY EFFICIENT LIGHTING FIXTURES THAT MEET THE ILLUMINATING ENGINEERING SOCIETY ILLUMINATION STANDARDS FOR COMMERCIAL USES. THE IES STANDARD IN EFFECT AT THE TIME OF FINAL PLAN APPROVAL SHALL APPLY.



LIGHT POLE & BASE DETAIL
NOT TO SCALE

- LIGHTING PLAN MAINTENANCE:
1. THE CONNECTION BETWEEN THE POLE AND BASE SHOULD BE INSPECTED YEARLY. ANY EXCESSIVE DAMAGE OR CORROSION TO THE MOUNTING HARDWARE OR POLE SHOULD BE REPAIRED OR REPLACED WHEN FOUND.
 2. VISUALLY INSPECT THE LIGHT FIXTURES FOR ANY SIGNS OF DAMAGE AFTER ANY EXTREME WEATHER EVENTS.
 3. SHOULD THE LIGHT FIXTURES NEED TO BE ADJUSTED OR REMOVED FOR ANY REASON, THE POWER MUST BE DISCONNECTED PRIOR TO ANY WORK TO PREVENT ELECTROCUTION OF THE SERVICER OR DAMAGE TO THE FIXTURE.
 4. ALL WORK ON THE LIGHTS ARE TO BE DONE BY A QUALIFIED INDIVIDUAL.

LEOTEK

ARIETA® 18 Architectural LED Area Luminaire
AR18 N-Series Specification Data Sheet

Luminaire Data
Weight: 24 lbs. (10.9 kg)
EPA: 0.55 ft²

Product	LED Code	Voltage	Nominal Color Temperature	Distribution	Finish	Output Code	Options
AR18	SN	NV	3000K	2	BK	150	Back Light Shield (Factory Installed)
				3	DR	180	Fixed Output Code
				4	WH	210	NEMA Photocell
				5	AFR	240	ANSI Photo Photocell
					WH	300	ANSI Photo Photocell
					WH	360	ANSI Photo Photocell
					WH	420	ANSI Photo Photocell
					WH	480	ANSI Photo Photocell
					WH	540	ANSI Photo Photocell
					WH	600	ANSI Photo Photocell
					WH	660	ANSI Photo Photocell
					WH	720	ANSI Photo Photocell
					WH	780	ANSI Photo Photocell
					WH	840	ANSI Photo Photocell
					WH	900	ANSI Photo Photocell
					WH	960	ANSI Photo Photocell
					WH	1020	ANSI Photo Photocell
					WH	1080	ANSI Photo Photocell
					WH	1140	ANSI Photo Photocell
					WH	1200	ANSI Photo Photocell
					WH	1260	ANSI Photo Photocell
					WH	1320	ANSI Photo Photocell
					WH	1380	ANSI Photo Photocell
					WH	1440	ANSI Photo Photocell
					WH	1500	ANSI Photo Photocell
					WH	1560	ANSI Photo Photocell
					WH	1620	ANSI Photo Photocell
					WH	1680	ANSI Photo Photocell
					WH	1740	ANSI Photo Photocell
					WH	1800	ANSI Photo Photocell
					WH	1860	ANSI Photo Photocell
					WH	1920	ANSI Photo Photocell
					WH	1980	ANSI Photo Photocell
					WH	2040	ANSI Photo Photocell
					WH	2100	ANSI Photo Photocell
					WH	2160	ANSI Photo Photocell
					WH	2220	ANSI Photo Photocell
					WH	2280	ANSI Photo Photocell
					WH	2340	ANSI Photo Photocell
					WH	2400	ANSI Photo Photocell
					WH	2460	ANSI Photo Photocell
					WH	2520	ANSI Photo Photocell
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					WH	2820	ANSI Photo Photocell
					WH	2880	ANSI Photo Photocell
					WH	2940	ANSI Photo Photocell
					WH	3000	ANSI Photo Photocell
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					WH	8040	ANSI Photo Photocell
					WH	8100	ANSI Photo Photocell
					WH	8160	ANSI Photo Photocell
					WH	8220	ANSI Photo Photocell
					WH	8280	ANSI Photo Photocell
					WH	8340	ANSI Photo Photocell
					WH	8400	ANSI Photo Photocell
					WH	8460	ANSI Photo Photocell

VIA ELECTRONIC MAIL

January 18, 2024

Raymond Stackhouse, BCO
Caln Township
253 Municipal Drive
P.O. Box 72149
Thorndale, PA 19372

RE: Kia - 2751 Lincoln Highway
Preliminary Land Development Review 3
Caln Township
ARRO No.: 11243.51

Dear Raymond:

As requested, we have completed a review of the Land Development Application submitted for the proposed Kia Dealership. A portion of the property includes a building foundation and pavement associated with a recently demolished building. The remaining portion is undeveloped and consists of meadow/grass vegetation and woodlands along with a studied FEMA floodplain.

The Plan proposes a 4,500 S.F. automobile leasing building and associated improvements to the undeveloped portion of the property.

I. SUBMISSION

The following information was received by ARRO:

- Preliminary Land Development Plan of Kia Auto Leasing, consisting of eighteen (18) sheets, dated April 7, 2023, last revised December 18, 2023, and prepared by Howell Engineering. (Plan)
- Post Construction Stormwater Management Report, cover sheet dated January 4, 2024, and prepared by Howell Engineering. (Report)
- Land Development Review Response letter dated January 4, 2024, and prepared by Howell Engineering.
- Sanitary Sewer Plan Review Response letter dated January 4, 2024, and prepared by Howell Engineering.
- Traffic Review Response letter dated January 4, 2024, and prepared by Howell Engineering.
- Environmental Impact Study Report dated October 9, 2023, last revised January 4, 2024, and prepared by Howell Engineering.

Corporate Headquarters - 108 West Airport Road, Lititz, PA 17543
P: (717) 569-7021 | www.arroconsulting.com

- PennDOT transportation impact study determination and scoping meeting application, dated September 6, 2022.

II. APPLICABLE ORDINANCES

The plans and reports have been reviewed for compliance with Caln Township Code:

- Chapter 74 – Driveway Ordinance
- Chapter 88 – Grading, Erosion and Sediment Control
- Chapter 135 – Stormwater Management Ordinance
- Chapter 137 – Subdivision and Land Development Ordinance
- Chapter 155 – Zoning Ordinance

III. RELIEF REQUESTED

The Applicant is seeking relief from the following sections of the Caln Township Ordinances.

1. *§135-305.A: The Post-construction total runoff volume shall not exceed the Predevelopment total runoff volume for all storms equal to or less than the two (2) - year, twenty-four (24) - hour duration precipitation (design storm). The water quality and runoff volume to be managed shall consist of any runoff volume generated by the proposed Regulated Activity over and above the Predevelopment total runoff volume and shall be captured and permanently retained or infiltrated on the Site. Permanent retention options may include, but are not limited to, reuse, evaporation, transpiration, and infiltration.*

The Applicant has proposed a lined underground Managed Release Concept (MRC) stormwater facility to manage the proposed stormwater volume increase as an alternative to the required volume reduction. The previously provided waiver request letter is inconsistent with the Plan as to the type of stormwater facility which is proposed. The letter shall be revised accordingly. ARRO offers no objection to this waiver request provided that the related comments below are addressed.

2. *§135-306: Infiltration Requirements*
Providing for infiltration consistent with the natural hydrologic regime is required to compensate for the reduction in the recharge that occurs when the ground surface is disturbed, or Impervious Surface is created or expanded.

The Applicant has proposed a lined underground Managed Release Concept stormwater facility to manage the proposed stormwater volume increase as an alternative to the required infiltration. The previously provided waiver request letter

shall be revised to refer to §135-306 and to correct the type of stormwater facility which is proposed. The previously provided Geotechnical Report recommends against infiltration due to subsurface geology and karst conditions. ARRO offers no objection to this waiver provided related comments below are addressed.

3. *§135-311.C: Minimum grade, size, and cover. All storm drainpipes shall be designated to maintain a minimum grade of 1% unless otherwise approved by the Board of Commissioners. All storm pipes, other than those used for roof drains and street subbase underdrains, shall have a minimum inside diameter of 18 inches. All storm sewers shall have a minimum cover of 18 inches from the top of pipe to finished grade. The specifications for the pipe materials shall be determined by the Township Engineer based upon a schedule of acceptable pipe materials which shall be adopted by the Board of Commissioners by resolution, which may be amended from time to time. All pipe backfill details must be approved by the Township Engineer.*

The Applicant has requested the use of stormwater pipes at a slope of less than 1%. The pipes have been designed to convey runoff from the 100-year design storm. ARRO offers no objection to this waiver.

IV. REVIEW COMMENTS

We offer the following comments for your consideration.

A. Chapter 135 - Stormwater Management

1. *§135-302: Permit requirements by other governmental entities.*

Chester County Conservation District approval must be provided prior to final Plan approval.

§135-402: The SWM Site Plan shall consist of a general description of the project including items described in Section 304, calculations, maps, and plans. A note on the maps shall refer to the associated computations and Erosion and Sediment Control Plan by title and date. The cover sheet of the computations and Erosion and Sediment Control Plan shall refer to the associated maps by title and date.

The reference to the Plan on the Report cover is inconsistent with the latest revision date on the Plan. The cross-reference notes on both Plan and Report shall be updated with the final revision date prior to final approval.

2. *§135-402.A(2): A listing of all regulatory approvals required for the proposed project and the status of the review and approval process for each. Final approval or adequacy letters must be submitted to the municipality prior to (or as a condition of) the municipality's issuing final approval of the SWM site plan.*

Final approval/adequacy letters shall be provided for all required regulatory approvals including, but not limited to, the PADEP sewer planning, Chester County Conservation District & PADEP NPDES permit, and PennDOT highway occupancy permit.

3. *§135-702: The following information shall be included in the O&M plan and written in a manner consistent with the knowledge and understanding of the person who will be responsible for the maintenance activities...*

The Long term operation and maintenance schedule on sheet 6 includes a statement that “If the MRC BMP will manage flows in excess of the 2-year/24 hr. storm event, the system shall be inspected and maintained quarterly to ensure proper function.” This statement is not “consistent with the knowledge and understanding of the person who will be responsible for the maintenance activities” as required by the ordinance. The owner should not be expected to determine if the BMP will manage flows in excess of the 2-year storm. The required frequency of inspections should be determined by the responsible professional engineer and clearly stated for the owner. The inspection frequency in the “inspection” section is inconsistent with the above-referenced statement.

4. *§135-702(3): A description of actions necessary to operate, inspect, and maintain each BMP or conveyance, including but not limited to...*

Long term operation and maintenance schedule for inlet water quality filters is not clear as to the required frequency of inspections. The notes shall provide guidance as to what is required to be inspected and how to determine when maintenance or vacuuming is required.

5. *§135-703: Operation and Maintenance Agreements*

A stormwater management Operation and Maintenance Agreement for the BMP must be completed, executed, and submitted to the Township prior to the execution and recording of the Final Plans.

6. *§135-704: Easements and Deed Restrictions*

The drainage easement(s) for stormwater conveyance(s) from adjacent lot(s) across the subject parcel to the discharge into the stream easement must be twenty (20) feet wide as per §135-704A(2).

7. *§135-802: Prohibited connections*

The Plan shall include a note that no wash water or other non-stormwater may be discharged to a storm sewer system.

B. Managed Release Concept (MRC) Design Standards Comments

The following comments shall be addressed to demonstrate compliance with PADEP standards for MRC stormwater management facilities.

8. The equivalent impervious area draining to the MRC is inconsistent in item 2 on page 5 of the Report (1.26 ac vs 2.08 ac) and the numbers in the narrative are inconsistent with the MRC worksheet on page 99 of the Report. (2.02 ac).
9. The MRC ponding depths (Report page 100) should be measured from the bottom BMP elevations. The 2-yr storm ponding elevation is 315.58 ft (Report page 39) and the bottom of the BMP is 312.75 ft. The 100-yr storm ponding elevation is 317.58 ft (Report page 79). The ponding depths exceed PADEP maximums when measured from the bottom of the BMP.
10. The MRC media depth on page 100 of the Report is inconsistent with the Plan.
11. The MRC separation distance (> 2 ft on Report page 100) is inconsistent with shallow groundwater as the explanation for impermeable liner (on Report page 99).

C. Chapter 137 – Subdivision and Land Development

12. *§137-29.A: Utility easements shall be a minimum of 20 feet wide, except in the case where the utility easement is situated between two buildings in which case the width shall be a minimum of 30 feet wide. The utility easement shall to the fullest extent possible be centered on or be adjacent to rear or side lot lines. Local utility companies shall be consulted by the developer when locating easements.*

The Plan shows an existing gas line across the property connecting to the building on the adjacent parcel. The Plan shall show an easement for the existing gas line. The Applicant shall coordinate with the local utility company and/or adjoining property owner, as necessary.

13. *§137-29.B: Where a subdivision or land development is traversed by a watercourse, drainageway channel or stream, there shall be provided a drainage easement conforming substantially to the line of such watercourse, drainageway, channel or stream and of such width as will be adequate to preserve the unimpeded flow of natural drainage, or for the purpose of widening, deepening, relocating, improving or protecting such drainage facilities or for the purpose of installing a stormwater sewer.[1]*

A drainage easement shall be provided for the Valley Run drainageway across the property. The drainage easement shall include the regulatory floodway as a minimum. It is acceptable to add a note that a drainage easement as required by §137-29B is provided to the zone 2 riparian buffer line.

14. *§137-31: Public facilities and open space*

The Applicant has requested to pay fee in lieu of the required open space. ARRO offers no objection and defers to the Board of Commissioners regarding the Applicant's request.

D. Chapter 155 – Zoning

15. *§155-38.G: Unless otherwise exempted from the carbonate geological requirements of this Code, all persons or applicants seeking building, construction, subdivision and/or land development approval shall submit an environmental impact assessment (EIA) report to Caln Township for review and consideration.*

(1) Unless otherwise directed by Caln Township, the format and contents of the EIA report should be as follows:

- (a) Statement of purpose: This section shall indicate the design standards specified by this section of the Code have been addressed and whether the applicant is attempting to demonstrate compliance or justify noncompliance with those design standards.*
- (d) Proposed mitigation measures: This section shall describe all measures proposed by the applicant to control potential and adverse environmental impacts which may occur as a result of the proposed*

action and as identified by the Caln Township Engineer in his report on the application.

(e) List of professional and qualifications: The names, addresses, telephone numbers, resumes and qualifications of the persons directly responsible for preparing the EIA report shall be provided.

- a. The EIA report shall address the specific requirements of §155-38.G.(1) (a), (d) and (e).
- b. The EIA Report narrative (on page 2) is inconsistent with the Plan and the soils report (Appendix E) as to the soil types present on the property.
- c. The EIA Report narrative is inconsistent with the Plan as to stormwater management proposed on the site. The report should mention the proposed subsurface stormwater management BMP.
- d. EIA report should describe expected auto detailing/preparation activities and management of potential adverse effects including, but not limited to, cleaning products, paint, oils, grease, wash water, dust/filtration, etc.
- e. The EIA Report narrative (on page 5) is inconsistent with the Plan as to the number of lots proposed.
- f. The site plan attached to the EIA Report (Appendix D) is inconsistent with the latest land development plan.
- g. The EIA Report narrative appears incomplete and ends mid-sentence (on page 5).

16. *§155-38H: No structure, land area or water body shall be used or developed, and no structure shall be located, extended, converted or structurally altered within the Carbonate Geology Overlay District unless it conforms with the following standards and regulations:*

§155-38.H(6): No stormwater management basin or other associated facilities shall be placed in or over the following features: sinkholes, closed depression, fracture traces, lineament, ghost lake, springs or disappearing streams (places where surface drainage enters the ground). Where necessitated by proximity to such features, basins may be required to be lined or otherwise constructed to preclude the opening of sinkholes and depressions arising as a consequence of water infiltration into carbonate formations.

§155-38.H(7): Buildings and structures proposed to be constructed within the influence of a sinkhole, closed depression, lineament, fracture trace, spring, ghost lake or disappearing stream shall be designed so as to provide adequate control and dispersal of water in order to reduce the hazard of building damage due to collapse or subsidence. All measures proposed to be used by the applicant to control adverse impacts shall be subject to the approval of the Caln Township Engineer.

§155-38.H(8): All underground sewer and water utilities, roadbeds, curbs, sidewalks and culverts proposed to be constructed and installed in areas evidencing carbonate formations shall be adequately protected from collapse, leakage and other hazards that contribute to or arise from collapse or subsidence, as required by the Caln Township Engineer or other qualified consultant.

PaGEODE shows mapped surface depression(s) on the property. Some of the recommendations of the previously provided Geotechnical Investigation and Carbonate Rock Karst Site Assessment have been noted on the Plan. The Geotechnical Report also recommends that a geotechnical engineer be present during earthwork to recognize areas of concern. The Geotechnical Report also recommends further investigation of the potential sinkhole on the site. These recommendations shall be noted on the Plan. The proposed sinkhole investigation and potential remediation shall be described on the Plan.

17. §155-73: Automobile sales and automobile service stations

The Applicant shall explain how the project conforms with §155-73. The Applicant shall provide a detailed explanation of the specific activities proposed for this parcel and how the use will not constitute automobile sales or service as defined in §155-12:

- *AUTOMOBILE LEASING: Any building or land area devoted to leasing of vehicles. Such use shall not permit the retail sale of vehicles.*
- *AUTOMOBILE SALES: Any building or land area devoted to the sale of new or used vehicles, including customary service and repair facilities within an enclosed building.*
- *AUTOMOBILE SERVICE STATION: Any building or land area devoted to the repair, servicing, restoration, reconstruction and maintenance of vehicles, including the retail sale of gasoline, motor oil, car washes, batteries and other similar vehicular accessories.*

The Plan shall include notes to specify exactly what the proposed use will include and what auto sales/service activities will not be permitted on the property consistent with the ordinance.

18. §155-119C(7) All selected trees shall be planted a minimum of 10 feet outside of the legal right-of-way of all existing and proposed streets.

All trees shall be planted a minimum of 10 feet outside the proposed legal right of way.

19. §155-119.D: *The following is an approved list of selected trees, hedges and/or shrubs, which may be utilized to meet the standards and specifications for buffer yards and landscaping.*

Ostrya Virginiana, American Hophornbeam shall be identified as a canopy tree, not a flowering tree, and shall be minimum 3-inch caliper (not 10' height).

20. §155-124.C(2): *The lighting plan shall include a schematic layout of all proposed exterior fixture locations, ISO footcandle data and a plat demonstrating intensities and uniformities within the limitations established within this section of the Code, as well as the manufacturer's description of the equipment (catalog cuts), glare control devices, lamps, mounting heights and means, proposed hours of operation of the lighting and maintenance schedule. Illumination intensities shall be plotted on a ten-foot-by-ten-foot grid.*

The Plan shall include the mounting heights the detail refers to the schedule, but the schedule does not list the mounting heights.

Detail(s), description(s), and installation information for the proposed streetlights shall be included on the lighting plan. The intensities shown on the Plan shall include the proposed streetlights.

21. §155-124.D(4): *In no case shall illumination exceed 0.5 footcandle measured at the property lines, except at driveway entrances, provided the illumination at the cartway center line of the contiguous street shall not exceed 1.0 footcandle, unless a more stringent standard is ordered by the Board under the circumstances of each application.*

The lighting plan shows intensities exceeding 0.5 footcandle beyond the property line along the eastern side of the lot.

E. Department of Building and Life Safety Comments

22. Provide water modeling and fire flow information and data for consistency with requirements of Section 137- 47 A, B, C, D, and G, Appendix B Section B105.1 and Table B105.1 and Section 507 of the 2018 International Fire Code.

F. General Comments

23. All signature blocks within the Plan shall be signed, dated, sealed, and notarized as appropriate prior to recording.
24. All legal instruments, as determined necessary and appropriate by the Township Solicitor, should be submitted for review and approval by the Township Solicitor prior to recording. For each legal instrument requiring a legal description (and accompanying plat, if determined necessary by the Township Solicitor), such legal description (and accompanying plat, if appropriate) should be provided to the Township Engineer for review and approval prior to recording.
25. The Plan shows disturbance extending onto the adjacent properties. The Applicant shall provide a copy of agreement(s) with the adjoining landowner authorizing such work.
26. The MRC ponding times listed on page 126 of the Report show an inverse relationship between ponding time and rainfall. Ponding time should be longer for larger storms. An explanation must be provided.
27. There are several black boxes on the Plan which appear to be contour elevation labels (including but not necessarily limited to sheet C03.1 in the Northeast area of the site).
28. The typical trench detail is inconsistent as to the proposed backfill. The detail shows AASHTO #57 stone as backfill which is inconsistent with general note 2 on the same detail.
29. The proposed number of thornless honey locust trees appears to be inconsistent between the plan and plant list (on sheet 17).
30. The proposed number of arrow wood viburnum shrubs appears to be inconsistent between the plan and plant list (on sheet 17).
31. The receiving water (Schuylkill River), as identified in item 12 on page 4 of the Report narrative, is inconsistent with the site location.
32. The PADEP worksheet rate control page (Report page 115) is almost completely blank.

33. The inlet filter schedule on sheet 8 (C04.4) is inconsistent with the PCSM Plan (sheet 5, C04.1) as to where inlet filters will be required.

34. The proposed level spreaders shall be aligned with the existing contour lines.

V. ADDITIONAL REVIEWS

The comments contained in the following review letters must be addressed prior to final plan approval:

- Pennoni review letter, dated June 14, 2023.
- Gilmore & Associates, Inc, dated January 9, 2024.

This letter should not be considered as our all-inclusive comments; future reviews may provide additional comments as additional information is provided by the applicant.

Please do not hesitate to contact me via email at lowell.leaman@arroconsulting.com or by phone at our West Chester office with any questions.

Sincerely,



Lowell B. Leaman, P.E.
ARRO Consulting, Inc. – Township Engineer

LBL:law

- c: Kristin S. Camp – Township Solicitor
Elizabeth Nagy – Planning Commission Secretary
Michael W. Schneider – Township Traffic Engineer
DMS Realty LP c/o Jim Sipala (Applicant) – jsipala@jimsipalakia.com
Open Hand Realty, LLC (Owner of Record) – jsipala@jimsipalakia.com
Louis J. Colagreco Jr., Esquire (Project Attorney) – lou@rrhc.com
DL Howell & Associates, Inc. (Project Engineer) – jussella@knowhowell.com
Karl Schmit - ARRO



January 9, 2024

Scot Gill, Director of Wastewater Operations
Caln Township
253 Municipal Drive
Thorndale, PA 19372

**Reference: Preliminary Land Development Plan
Sipala Kia Auto Leasing (2751 Lincoln Highway)
Sanitary Sewer Plan Review (3)**
File No. 23-04040

Dear Scot:

In accordance with the Township's request, we have completed our review for the above-referenced project, relative to sanitary sewer service. The reviewed items consist of the following:

- Eighteen (18) sheet Preliminary Land Development Plan set dated 04/7/2023, last revised 12/18/23, prepared by D.L. Howell & Associates, Inc.

We offer the following review comments for your consideration:

1. *The applicant has indicated that "a copy of the finished inspection of the existing sewer system shall be provided when received". The various items listed in this comment have not yet been resolved, so the remainder of this comment has been duplicated from our previous review letter.* The existing sanitary sewer in the project area is a privately owned and operated system which we believe serves parcels 39-4-94.1, 39-4-94.1A, 39-4-94.1B, and 39-4-95. It is our understanding from previous projects that, since the system serves multiple properties, in order for this project to be approved by PADEP the sewer system must be publicly owned and operated. The applicant shall contact PADEP to obtain a written determination as to whether the existing sewer system serving multiple properties may remain privately owned and operated or if it must be operated by the Caln Township Municipal Authority, and provide that determination to CTMA. Even if the system were to remain privately owned, additional wastewater flows are proposed and at minimum the sewer line would need to be inspected by CCTV from the proposed lateral tap to the downstream end of the private sewer system to verify that it is in adequate condition to receive additional flows. If any issues are identified that would be exacerbated by additional flows, they will need to be corrected prior to receiving the additional flows. A copy of any agreements between the owners of the privately owned sewer system shall be submitted for review by the Authority Solicitor so that it can be verified that the applicant has the right to connect to the privately owned sewer system.

If PADEP determines that the system must be publicly owned and operated, then the following comments shall apply:

- a. The existing system from CTMA MH67 to the upstream end of the existing privately owned system shall be inspected via CCTV. The videos shall be submitted to CTMA for review.
- b. Any issues identified through review of the videos (or any other means) shall be corrected by the developer prior to CTMA taking acceptance of the existing system.

- c. The developer is responsible for obtaining any agreements that are needed from adjacent property owners that are served by the existing privately owned sewer system in order for the existing system to be offered for dedication to CTMA. Any such agreements shall be coordinated by the applicant's attorney with the Authority Solicitor.
 - d. Trees, shrubs, and brush shall be cleared from the existing sewer easement where it passes through the wooded area in the northern portion of the site.
2. Sheets 3-4 – The existing publicly owned sanitary sewer system should be updated so that it matches the actual existing system layout (refer to the attached exhibit). Per a dye test conducted by CTMA, it is the Authority's understanding that the sewer system from the Kia site connects to CTMA manhole 67.
3. Sheets 2 and 4 – The easement in favor of CTMA that was added from the Lincoln Highway right-of-way, along the site driveway, to connect the existing sewer pipe easement, should be labeled as "access and sanitary sewer easement in favor of CTMA".

Sewage Planning

Revised sewage planning documents were not submitted with the revised plans; therefore, the sewage planning comments below are duplicated from our previous review letter:

4. PADEP Act 537 sewage planning approval or exemption therefrom is required. The first step is to submit water use data and wastewater flow projections to the Authority Engineer for review. After the flow projections are acceptable to the Authority Engineer, the applicant must execute a sewer capacity reservation agreement with CTMA. Then, after that agreement is signed and prior to the exemption request form being signed by CTMA, the applicant shall obtain capacity approvals from both the Downingtown Area Regional Authority (DARA) and Pennsylvania American Water Company (PAWC). After those capacity certifications are provided to the Authority, the sewage planning exemption request can be signed by the Authority. The applicant is responsible for subsequently submitting the exemption request to PADEP. When PADEP planning approval or exemption therefrom is obtained, a note to that effect should be added to the plan (including the PADEP code / tracking number).
5. The submitted planning module exemption request package should be revised as follows:
 - a. On the mailer form and in the narrative, round all flows up to be equivalent to an integer number of EDUs, since the capacity reservation and purchase agreement will be based on an integer number of EDUs.
 - b. In Items #1 and #9 of the narrative, describe the existing sewer system as privately owned and operated but to be offered for dedication to CTMA.
 - c. In the Collection System section under Item #3, please note that MH68 is part of the Caln Interceptor and the text should be revised accordingly.
 - d. The narrative should describe in detail how the proposed building will be used, including whether any washing of cars will occur at the new building, and whether any customers will be visiting this building. Justify the number of employees.
6. A minimum of two years of water use data for a similar facility should be provided.

Other Necessary Approvals

7. Other necessary approvals:

- a. The applicant shall be responsible for preparing the necessary easement agreements, exhibits, and legal descriptions, which shall be provided for review by the Authority Solicitor prior to final plan approval.
- b. The applicant will need to enter into a sewer capacity reservation agreement and purchase CTMA sewer capacity for the project. The applicant will also need to enter into an improvements agreement for the sewers that are to be offered for dedication to CTMA.
- c. The developer will need to enter into a Financial Security Agreement for the proposed sewers. A construction cost estimate signed and sealed by a licensed professional engineer shall be submitted for review in advance of or concurrent with any requests for establishment of financial security.

The above comments are made with the understanding that all existing features and topography are accurately represented on the plans and that all designs, calculations, and surveys are accurate and have been prepared in accordance with current laws, regulations, and accepted Professional Land Surveying and Engineering practices.

Should you have any questions or need further information, please feel free to contact me at 610-489-4949 or rbickhart@gilmore-assoc.com.

Very truly yours,



Ross A. Bickhart, P.E.
Senior Project Manager
Gilmore & Associates, Inc.

Enclosures

cc: Caln Township / Consultants Group (via email)
D.L. Howell & Associates, Inc., Applicant's Engineer (via email)
Sipala Kia, Developer (via email)