

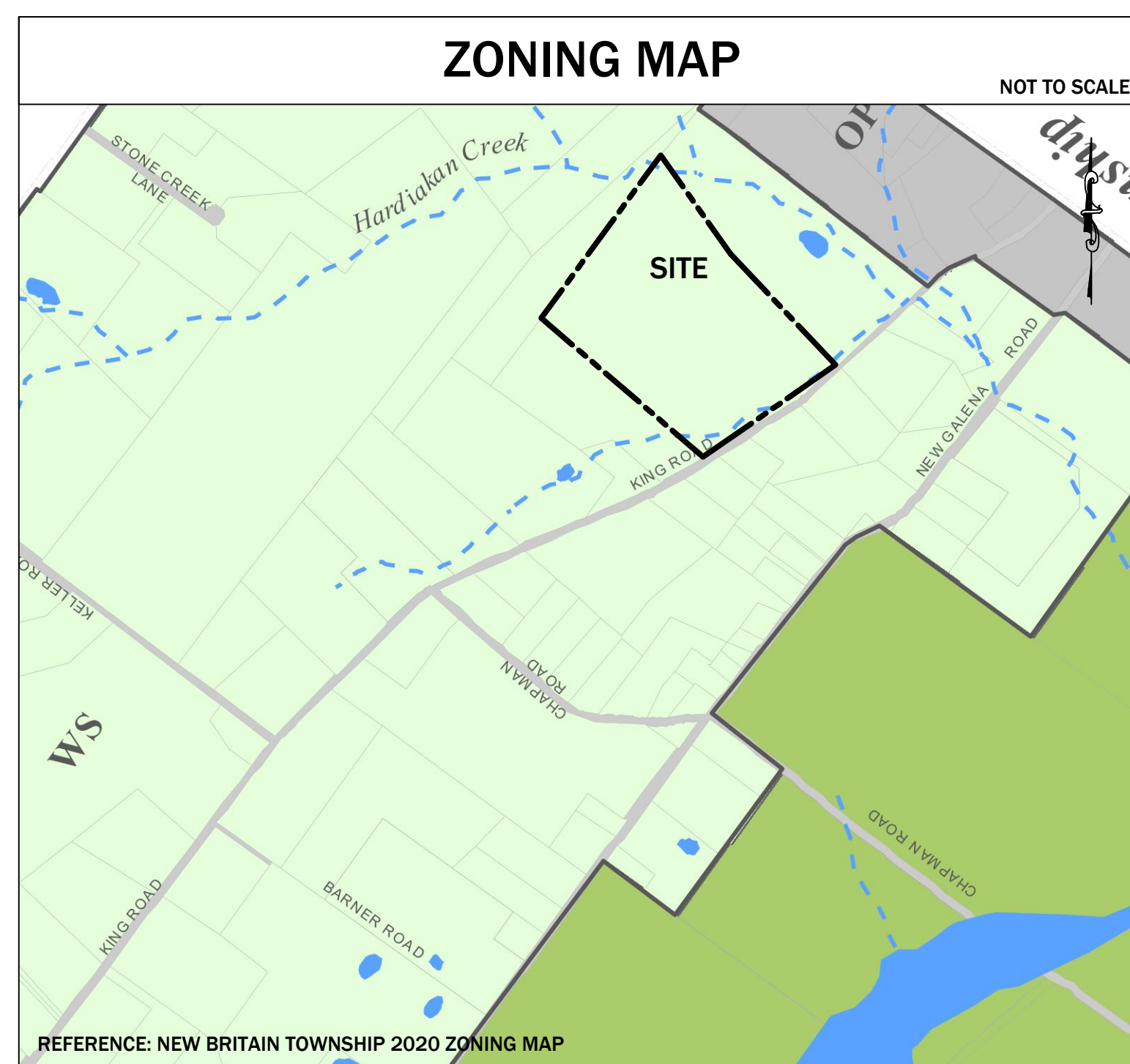
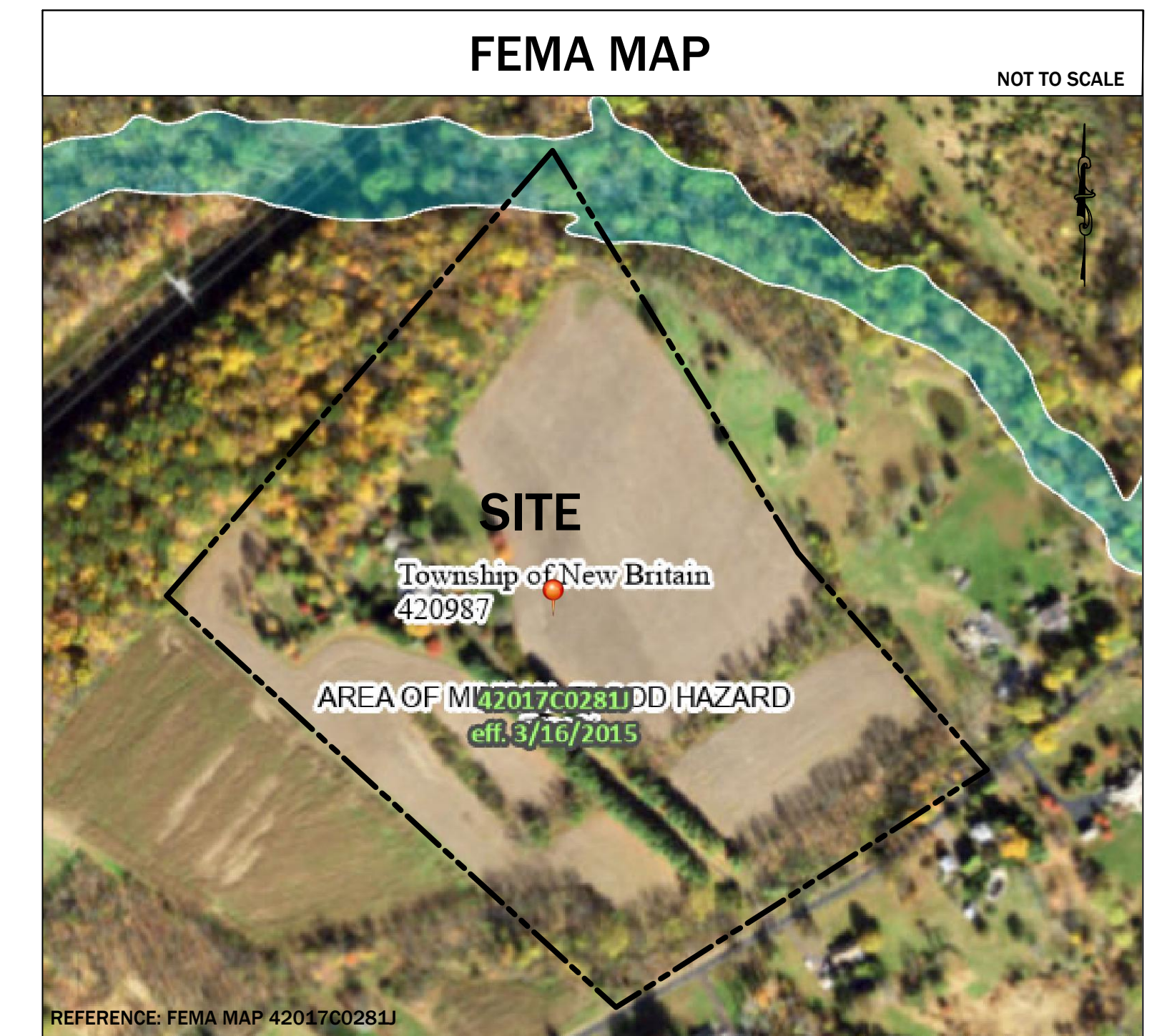
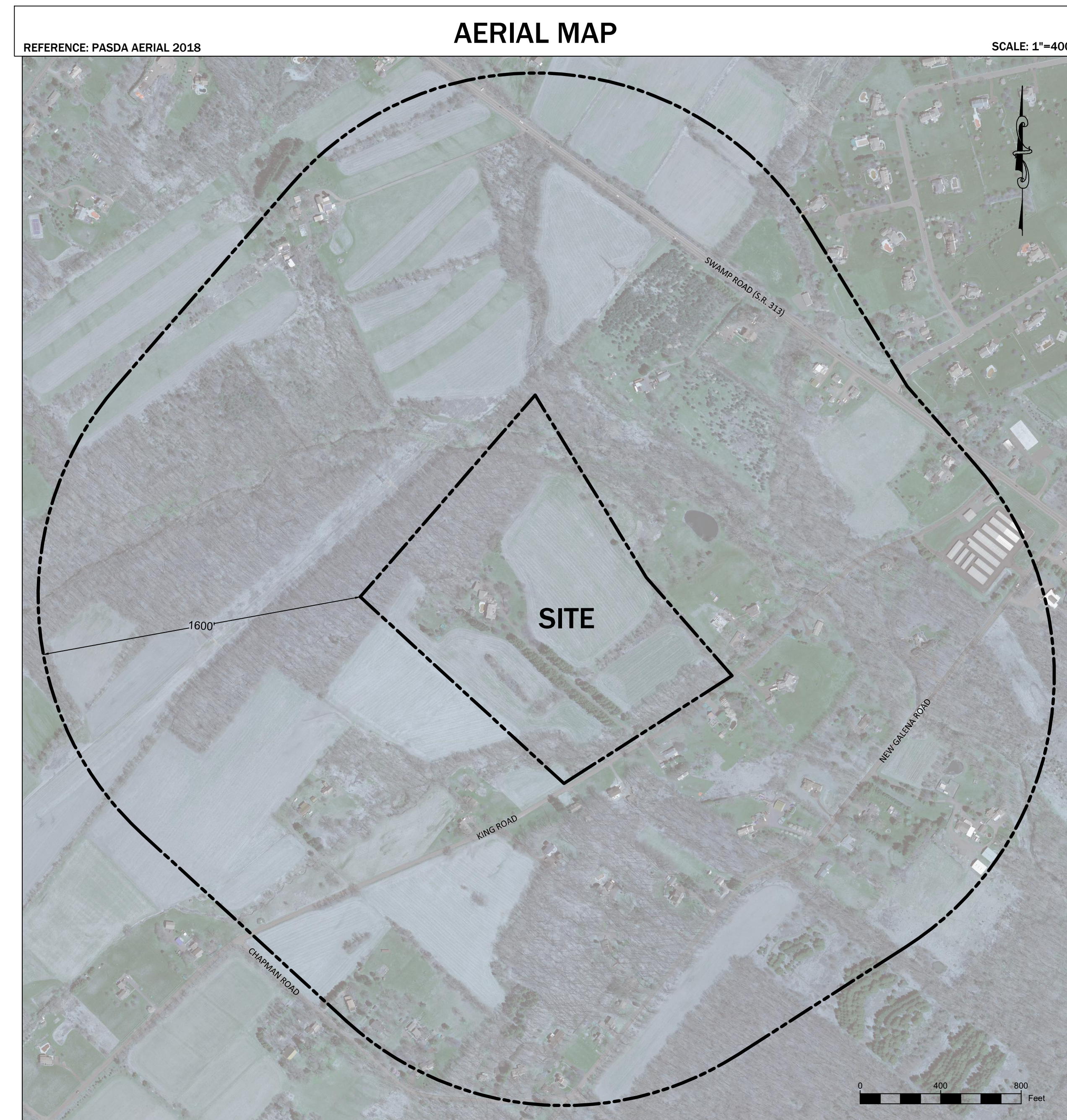
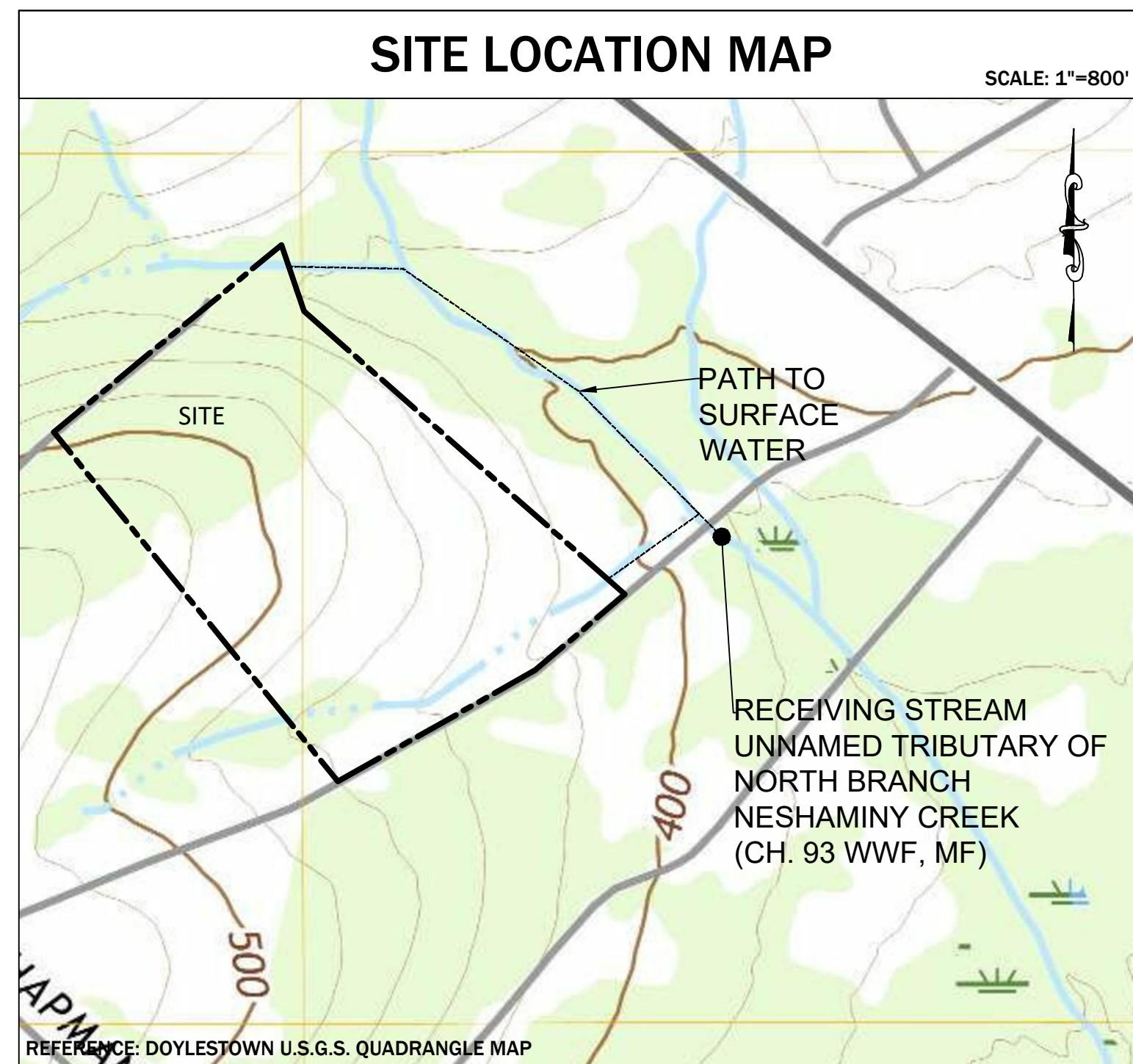
PRELIMINARY AND FINAL LAND DEVELOPMENT AND MAJOR SUBDIVISION PLANS

FOR

THE ESTATES AT HILL TOP

TMP # 26-004-030

NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PA



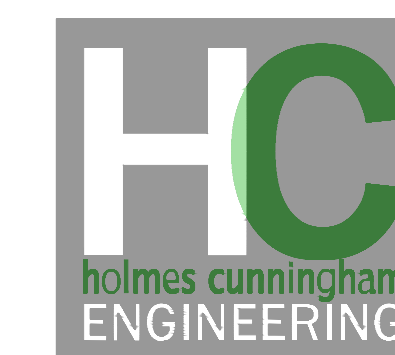
DRAWING LIST			
SHEET NUMBER	DRAWING NUMBER	DRAWING TITLE	LAST REVISED DATE
1	C0.0	COVER SHEET	12/15/2023
2	C0.1	EXISTING CONDITIONS PLAN	12/15/2023
3	C0.2	AERIAL MAP	12/15/2023
4	C0.3	EXISTING RESOURCE AND SITE ANALYSIS PLAN	12/15/2023
5*	C1.0	RECORD SITE PLAN	12/15/2023
6	C2.0	GRADING, DRAINAGE AND UTILITY PLAN	12/15/2023
7	C2.1	CONSTRUCTION DETAILS	12/15/2023
8	C3.0	EROSION AND SEDIMENT CONTROL PLAN	12/15/2023
9	C3.1	EROSION AND SEDIMENT CONTROL DETAILS	12/15/2023
10	C3.2	EROSION AND SEDIMENT CONTROL DETAILS	12/15/2023
11*	C4.0	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN	12/15/2023
12	C4.1	POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS	12/15/2023
13	C5.0	TRUCK TURN & PROFILE PLAN	12/15/2023
14	C6.0	LANDSCAPING PLAN	12/15/2023
15	C6.1	LANDSCAPING DETAILS	12/15/2023

* DENOTES PLAN TO BE RECORDED

APPLICANT/ EQUITABLE OWNER

CASADONTI HOMES, INC.
P.O. BOX 5,
CHALFONT, PA 18914

PREPARED BY:



HOLMES CUNNINGHAM LLC
409 EAST BUTLER AVENUE
UNIT 5
DOYLESTOWN, PA 18901
(215) 586-3330

CONTACTS

TOWNSHIP
NEW BRITAIN TOWNSHIP
207 PARK AVENUE
CHALFONT, Pa 18914
PHONE: (215)-822-1391

TOWNSHIP ENGINEER
GILMORE & ASSOCIATES, Inc
65 EAST BUTLER AVENUE, SUITE 100
NEW BRITAIN, PA 18901
PHONE: 215 345 4330

TOWNSHIP PUBLIC WORKS DEPARTMENT
207 PARK AVENUE
CHALFONT, PA 18914
PHONE: (215)-822-1391

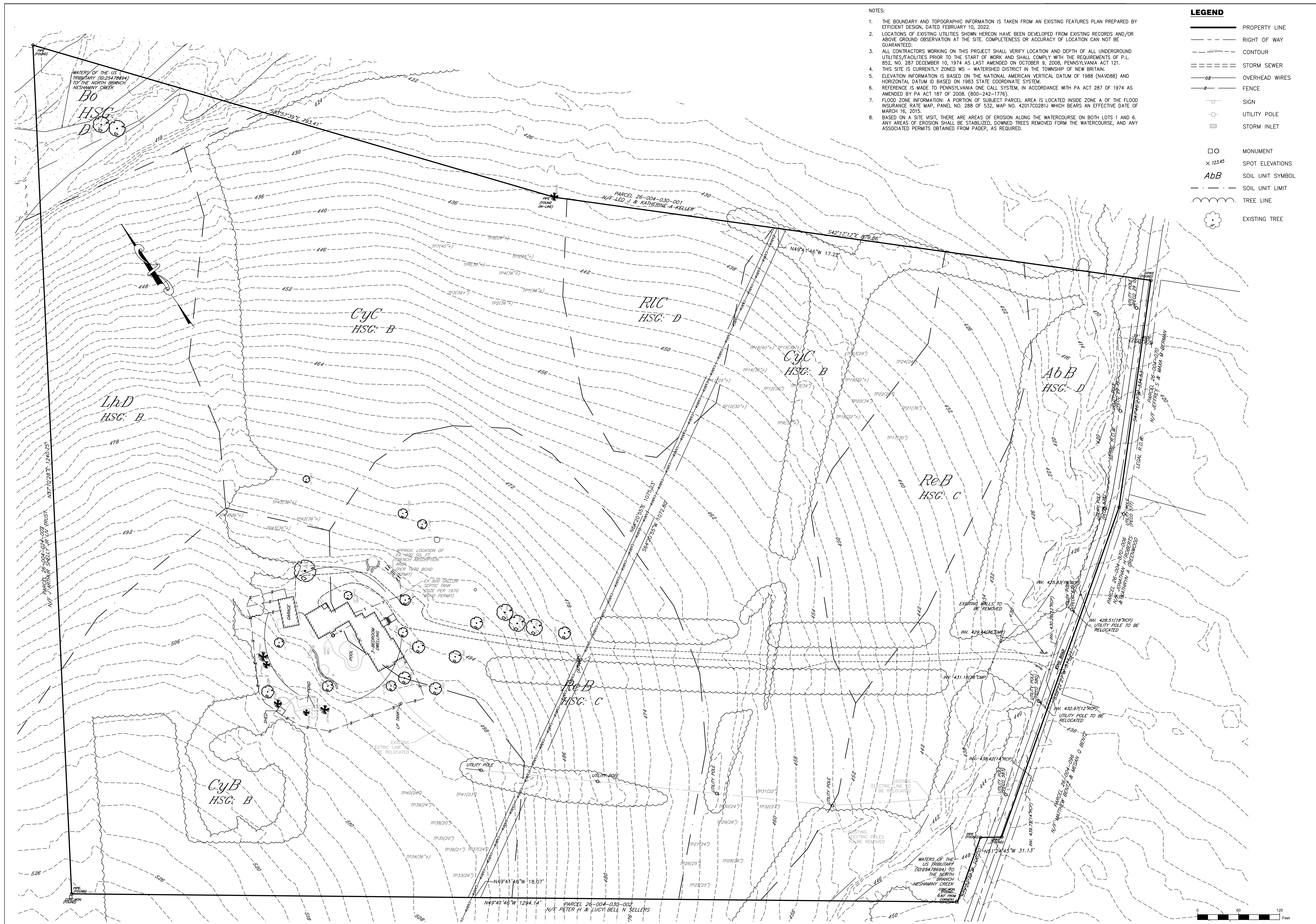
COUNTY PLANNING COMMISSION
BUCKS COUNTY PLANNING COMMISSION
THE ALMHOUSE NESHAMINY MANOR CENTER
1260 ALMHOUSE ROAD
DOYLESTOWN, PA 18901
PHONE: 215-345-3400

ELECTRIC AND GAS
PHILDELPHIA ELECTRIC COMPANY
BUCKS/MONT REGION CONTRACTOR AND
BUILDER SERVICES
400 PARK AVENUE
WARMINSTER, PA 18974
PHONE: (215) 956-3270
FAX: (215) 956-3240

PECO
WARMINSTER SERVICE BUILDING
400 PARK AVE.,
WARMINSTER, PA 18974
ELECTRIC PHONE: (215) 956-3270
NEW ELECTRIC PHONE: (215) 956-3010
ELECTRIC EMERGENCY: (800) 841-4141
GAS PHONE: (800) 454-4100
NEW GAS PHONE: (800) 454-4100
GAS EMERGENCY: (800) 841-4141
GAS EMERGENCY(ALT): (844) 841-4151

COUNTY CONSERVATION DISTRICT
BUCKS COUNTY CONSERVATION
DISTRICT
1456 FERRY ROAD, SUITE 704
DOYLESTOWN, PA 18901
PHONE: 215-345-7577

REVISED:	12/15/2023
REVISED:	09/01/2023
REVISED:	06/08/2023
REVISED:	02/08/2023
DATE:	09/14/2022
PROJECT #	1734
DRAWING #	C0.0
SHEET	1 OF 15



- NOTES:
1. THE BOUNDARY AND TOPOGRAPHIC INFORMATION IS TAKEN FROM AN EXISTING FEATURES PLAN PREPARED BY EFFICIENT DESIGN, DATED FEBRUARY 10, 2022.
 2. LOCATIONS OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM EXISTING RECORDS AND/OR ABOVE GROUND OBSERVATION AT THE SITE. COMPLETENESS OR ACCURACY OF LOCATION CAN NOT BE GUARANTEED.
 3. ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO THE START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON OCTOBER 9, 2008, PENNSYLVANIA ACT 121.
 4. THIS SITE IS CURRENTLY ZONED WS - WATERSHED DISTRICT IN THE TOWNSHIP OF NEW BRITAIN.
 5. ELEVATION INFORMATION IS BASED ON THE NATIONAL AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AND HORIZONTAL DATUM ID BASED ON 1983 STATE COORDINATE SYSTEM.
 6. REFERENCE IS MADE TO PENNSYLVANIA ONE CALL SYSTEM, IN ACCORDANCE WITH PA ACT 287 OF 1974 AS AMENDED BY PA ACT 187 OF 2008. (800-242-1776).
 7. FLOOD ZONE INFORMATION: A PORTION OF SUBJECT PARCEL AREA IS LOCATED INSIDE ZONE A OF THE FLOOD INSURANCE RATE MAP, PANEL NO. 288 OF 532, MAP NO. 42017C0281J WHICH BEARS AN EFFECTIVE DATE OF MARCH 16, 2015.
 8. BASED ON A SITE VISIT, THERE ARE AREAS OF EROSION ALONG THE WATERCOURSE ON BOTH LOTS 1 AND 6. ANY AREAS OF EROSION SHALL BE STABILIZED, DOWNED TREES REMOVED FORM THE WATERCOURSE, AND ANY ASSOCIATED PERMITS OBTAINED FROM PADEP, AS REQUIRED.

LEGEND

	PROPERTY LINE
	RIGHT OF WAY
	CONTOUR
	STORM SEWER
	OVERHEAD WIRES
	FENCE
	SIGN
	UTILITY POLE
	STORM INLET
	MONUMENT
	SPOT ELEVATIONS
	SOIL UNIT SYMBOL
	SOIL UNIT LIMIT
	TREE LINE
	EXISTING TREE

Holmes Cunningham LLC
 409 E. Butler Ave., Unit 5
 Doylestown, PA 18901
 (215) 586-3330
 www.hcengineering.net

REVISIONS	Date	Description
	02/08/2023	Revised Per Township Engineer Review
	06/09/2023	Revised Per Township Engineer Review
	09/01/2023	Revised Per BCCD Review
	12/15/2023	Revised for Final Plans

CALL BEFORE YOU DIG!!
 THIS IS A PRELIMINARY PLAN AND NOT A FINAL ENGINEERING PLAN.
 IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITIES AND CONDITIONS PRIOR TO ANY EXCAVATION.

THE ESTATES AT HILL TOP
 396 KING ROAD
 TWP # 26-004-030
 NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PA

EXISTING CONDITIONS PLAN

ROBERT J. CUNNINGHAM, P.E.
 PROFESSIONAL ENGINEER
 STATE OF PENNSYLVANIA
 No. 1000000000

File No.	1734_CO.1 EXISTING CONDITIONS.DWG
HCE Job	1734
Date	09/14/2022
Scale	1"=60'
Designed	RC
Sheet	2 of 15
Drawing No.	C0.1



THE ESTATES AT HILL TOP
 396 KING ROAD
 TWP # 26-004-030
 NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PA
 AERIAL MAP

Holmes Cunningham LLC
 409 E. Butler Ave., Unit 5
 Doylestown, PA 18901
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 www.hcengineering.net

HC ENGINEERING

REVISIONS	Date	Description
	02/08/2023	Revised Per Township Engineer Review
	06/09/2023	Revised Per Township Engineer Review
	09/01/2023	Revised Per BCCD Review
	12/15/2023	Revised for Final Plans

CALL BEFORE YOU DIG !!
 STOP & CALL
 1-800-4-A-DIG
 PENNSYLVANIA ONE
 CALL SYSTEM, INC.
 1-800-442-1176

UTILITY LOCATIONS AS SHOWN ON THIS DRAWING ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL CONTACT UTILITY COMPANIES PRIOR TO ANY EXCAVATION.

File No.
 1734_CO.2 AERIAL MAP.DWG

HCE Job: 1734
 Date: 09/14/2022
 Scale: 1"=80'
 Designed: RC
 Sheet: 3 of 15

NOTES:
 1. THE BOUNDARY AND TOPOGRAPHIC INFORMATION IS TAKEN FROM AN EXISTING FEATURES PLAN PREPARED BY EFFICIENT DESIGN, DATED FEBRUARY 10, 2022.
 2. AERIAL PHOTOGRAPHY TAKEN FROM PASDA AERIAL PHOTOGRAPHS 2018.

Drawing No.
C0.2

REGISTERED PROFESSIONAL ENGINEER
 ROBERT THOMAS CUNNINGHAM
 PA # 0076424
 ROBERT CUNNINGHAM, P.E.
 PA # 076424

RESOURCE PROTECTION STANDARDS					
Resource	Min. Required Protection Ratio	Total Area of Land in Resource (Ac.)	Required Resource Protection Land (Ac.)	Actual Resource Protection Land (Ac.)	Actual Protection Ratio
Watercourses	100%	3.052	3.052	0.000	N/A
Floodplains	100%	0.569	0.569	0.000	100%
Floodplain (Alluvial) Soils	100%	0.933	0.933	0.933	100%
Wetlands	100%	0.000	0.000	0.000	N/A
Wetlands Margin	80%	0.000	0.000	0.000	N/A
Riparian Buffer	100%	3.154	3.154	3.154	100%
Lakes and Ponds	100%	0.000	0.000	0.000	N/A
Woodlands (CR, WS, SR-1, SR-2, and RR Zoning Districts)	80%	11.729	9.383	11.099	95%
Agricultural Soils	50%	31.614	15.807	20.794	66%
Steep Slopes 8%-15%	60%	18.272	10.963	13.419	73%
Steep Slopes 15%-25%	70%	2.132	1.492	1.996	94%
Steep Slopes 25%+	85%	0.460	0.391	0.443	96%

Type	Name	Depth to Bedrock	Depth to Seasonal High Water Table	HSC	Hydric Soil
AbB	Abbotstown silt loam, 3 to 8 percent slopes	40'-60"	6'-18"	D	No
Bs	Bowmansville-Knaulers silt loams, 0 to 3 percent slopes	72'-99"	0'-18"	C/D	No
CyB	Culleoka-Weikert channely silt loams, 3 to 8 percent slopes	20'-40"	>80"	B	No
CyC	Culleoka-Weikert channely silt loams, 8 to 15 percent slopes	20'-40"	>80"	B	No
LhD	Lansdale loam, 8 to 25 percent slopes, extremely stony	42'-72"	>80"	B	No
ReB	Readington silt loam, 3 to 8 percent slopes	40'-60"	18'-36"	C	No
RiC	Roadside channely silt loam, 8 to 15 percent slopes	20'-40"	6'-36"	D	No

Limitations and Resolutions: The soils found within the project limits have varying limitations including possible shallow depth to groundwater and possible shallow depth to bedrock. In order to resolve the groundwater limitation, any standing water should be pumped through a sediment filter bag. To resolve the bedrock limitation, the contractor shall determine whether rock is ripplable. If rock is not ripplable, blasting will be required. All blasting shall meet all local, county, state and federal regulations.

- NOTES:
- THE BOUNDARY AND TOPOGRAPHIC INFORMATION IS TAKEN FROM BOUNDARY & TOPOGRAPHIC PLAN PREPARED BY EFFICIENT DESIGN, DATED FEBRUARY 10, 2022.
 - AERIAL PHOTOGRAPHY TAKEN FROM PASDA AERIAL PHOTOGRAPHS 2018.
 - THE PROPOSED DEVELOPMENT IS TO BE SERVED BY ON-LOT WELL AND SEPTIC SYSTEMS.
 - THE PROPERTY IS PARTIALLY WITHIN ZONE A FLOOD HAZARD AS PER FEMA PANEL 42017C0281J REWSED MARCH 15, 2015.
 - TOPOGRAPHICAL INFORMATION IS BASED UPON VERTICAL DATUM NAVD 88 AND HORIZONTAL DATUM PAB3-S.

Site Capacity Calculations		
	Area (SF)	Area (AC)
Gross Site Area Determined by Actual On-site Survey	1,495,537	34.333
Existing Streets Ultimate Rights-of-Way	22,837	0.524
Existing Utility Rights-of-Way or Easements	17,721	0.407
Existing Preservation Easements	0	0.000
Land Not Contiguous	0	0.000
Land Shown on Previous Subdivision Reserved for Open Space, Protection, etc.	0	0.000
Land in a Different Zoning District from Primary Use	0	0.000
Base Site Area	1,454,979	33.402

Resource Protection Land				
Natural Resource	Protection Ratio	Acres of Land in Resources	Resource Protection Land (Ac)	Proposed Resource Protection Land (Ac)
Watercourses	1.00	1.05	1.05	1.05
Riparian Buffer	1.00	1.53	1.53	1.53
Floodplain	1.00	0.57	0.57	0.57
Floodplain (Alluvial) Soils	1.00	0.03	0.03	0.03
Wetlands	1.00	0.00	0.00	0.00
Lakes and Ponds	1.00	0.00	0.00	0.00
Steep Slopes 25%+	0.85	0.42	0.36	0.44
Woodlands	0.80	8.15	6.52	6.52
Steep Slopes 15-20%	0.70	0.30	0.21	2.00
Steep Slopes 8-15%	0.60	12.18	7.31	13.42

Total Land with Resource Restrictions	24.24
Total Land with 1.00 Protection Ratio Restrictions	3.18
Total Resource Protection Land Required	17.58
Total Resource Protection Land Provided	19.54
Total Disturbed Resources	4.70

Open Space Calculations	
Base Site Area	33.40 Ac.
Multiply by Minimum Open Space Ratio	0.00
Standard Minimum Open Space	0.00 Ac.
Required Open Space (Greater of 100% Protection Land or Min Open Space)	3.18 Ac.

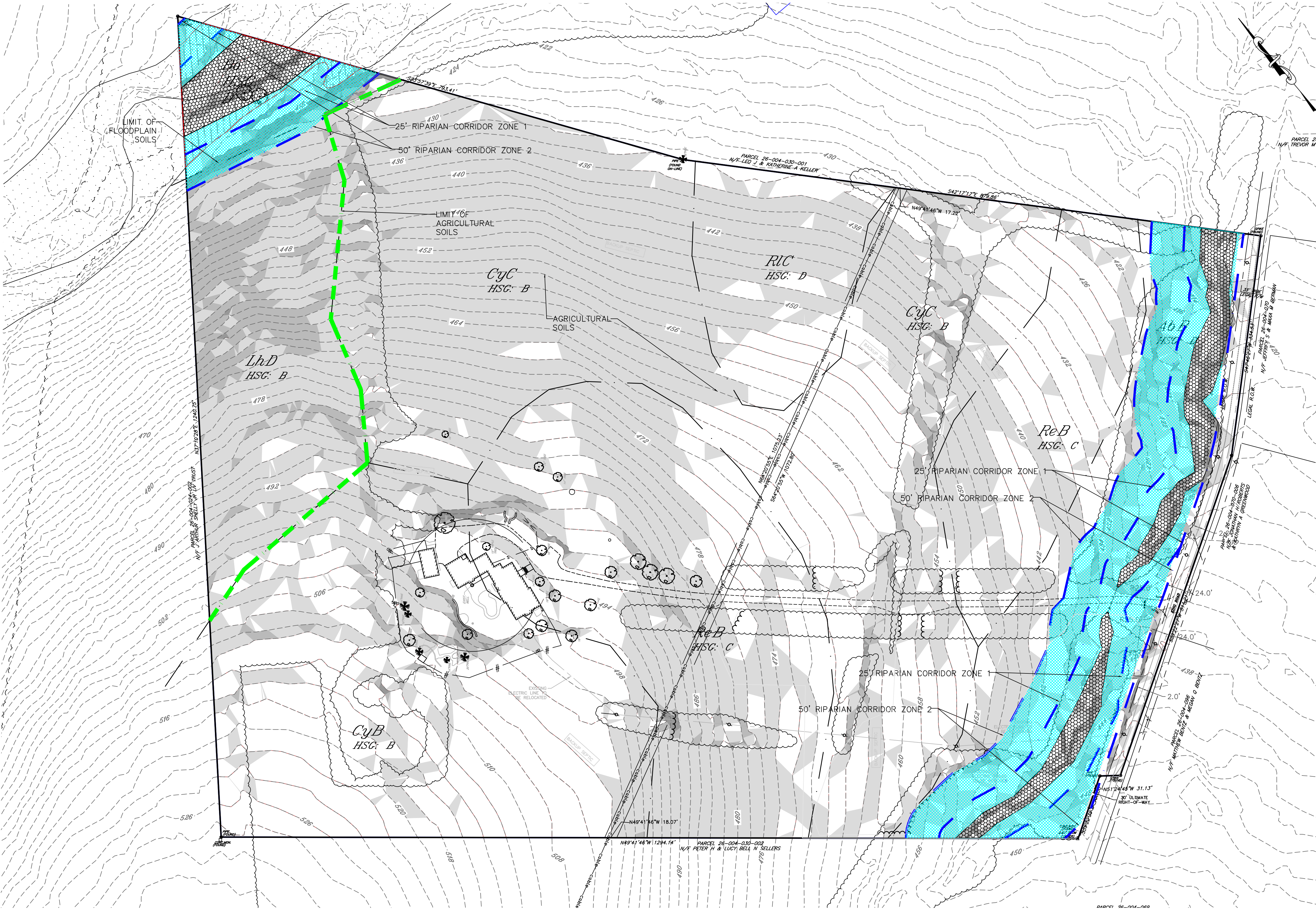
Net Buildable Site Area Calculations	
Base Site Area	33.40 Ac.
Subtract Required Open Space	3.18 Ac.
Net Buildable Site Area	30.22 Ac.

Density Calculations	
Net Buildable Site Area	30.22 Ac.
Multiply by Maximum Density	N/A
Number of Dwelling Units Permitted	N/A

Impervious Surface Calculations	
Base Site Area	33.40 Ac.
Multiply by Maximum Impervious Surface Ratio	0.20
Maximum Permitted Site Impervious Surface	6.68 Ac.

LEGEND

- PROPERTY LINE
- EXISTING CONTOUR
- DISTURBANCE LINE
- ULTIMATE RIGHT-OF-WAY
- STREAM/ WATERCOURSE
- FLOODPLAIN
- WOODLANDS
- RIPARIAN CORRIDOR BUFFER
- STEEP SLOPES 8%-15%
- STEEP SLOPES 15%-25%
- STEEP SLOPES 25%+
- SOIL TYPE
- AGRICULTURAL SOILS



Hoimes Cunningham LLC
 409 E. Butler Ave., Unit 5
 Doylestown, PA 18901
 (215) 586-3330
 www.hcengineering.net

HOIMES CUNNINGHAM ENGINEERING

REVISIONS	Date	Description
02/08/2023	Revised Per Township Engineer Review	
06/06/2023	Revised Per Township Engineer Review	
09/01/2023	Revised Per BCCD Review	
12/15/2023	Revised for Final Plans	

THE ESTATES AT HILL TOP
 396 KING ROAD
 TMP # 26-004-030
 NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PA
 EXISTING RESOURCE AND SITE ANALYSIS PLAN

ROBERT THOMAS CUNNINGHAM, P.E.
 REGISTERED PROFESSIONAL ENGINEER
 PA PEO7624

File No.	1734_C0.2 ERSAP.DWG
HCE Job	1734
Date	09/14/2022
Scale	1"=80'
Designed	EC
Sheet	4 of 15

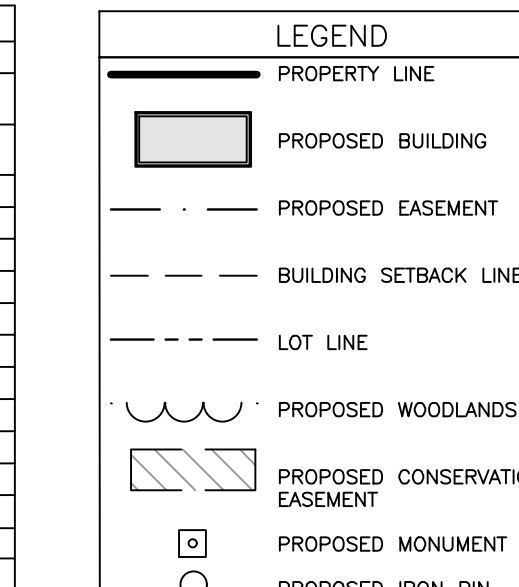
Drawing No. C0.3

LOT #	LOT WIDTH (FEET)	LOT DEPTH (FEET)
1	448	564
2	269	599
3	248	564
4	273	605
5	407	386
6	490	346

LOT AREA AND COVERAGE TABLE												
Lot	Gross Lot Area	Right-of-Way Area	Utility Easement Area	100% Natural Resource Protection	Ratio Base Site Area	Building Area	Building Ratio	On-lot Impervious Excluding Building Area	Impervious Ratio	Future Impervious		
#	(SF)	(SF)	(SF)	(SF)	%	(SF)	%	(SF)	%	(SF)		
1	249,335	0	0	66,557	182.778	4,046	2.2%	4,196	4.5%	13,691		
2	198,742	0	9,749	0	188,893	4,046	2.1%	3,542	4.0%	15,091		
3	345,070	0	0	43,548	301,522	4,046	1.3%	4,278	2.8%	27,559		
4	291,744	0	0	291,744	6,654	2.3%	10,857	6.0%	0*			
5	236,836	0	5,034	0	231,802	4,046	1.7%	3,159	3.1%	20,812		
6	159,877	0	0	81,894	97,843	4,046	4.1%	3,748	5.9%	8,923		

Note: Additional stormwater management facilities are required for any future impervious areas added to Lot 4.

NEW BRITAIN TOWNSHIP ZONING DATA TABLE						
ZONING DISTRICT: WS - WATERSHED DISTRICT						
ITEM	REQUIRED / PERMITTED	PROPOSED LOT 1	PROPOSED LOT 2	PROPOSED LOT 3	PROPOSED LOT 4	PROPOSED LOT 5
Use: Zoning 27-501.a			B1: Single Family Detached Dwelling			
Max. Building Height	35 FT	< 35 FT	< 35 FT	< 35 FT	< 35 FT	< 35 FT
Min. Lot Size	80,000 SF	5,724 AC	4,562 AC	7,922 AC	6,697 AC	5,437 AC
Min. Lot Width	175 FT	445.2 FT	269.8 FT	248.3 FT	278.6 FT	407.5 FT
Min. Front Yard Setback	100 FT	135.2 FT	131.4 FT	224.2 FT	104.4 FT	102.4 FT
Min. Side Yard Setback	30 FT	118.5 FT	50.3 FT	87.2 FT	75.1 FT	84.3 FT
Min. Rear Yard Setback	60 FT	335.2 FT	390.5 FT	316.0 FT	320.6 FT	101.4 FT
Min. Building Envelope	10,000 SF	132,934 SF	118,273 SF	226,413 SF	201,839 SF	118,187 SF
Max. Building Coverage (Developer)*	6%	2.21%	2.14%	1.34%	2.28%	1.75%
Max. Impervious Surface Coverage (Developer)**	10%	4.51%	4.01%	2.76%	6.00%	5.93%
Max. Porch Projection into Yard Areas	4 FT	0 FT	0 FT	0 FT	0 FT	0 FT
Min. Off-Street Parking Spaces	3 spaces / DU (+ bedrooms)	3 spaces	3 spaces	3 spaces	3 spaces	3 spaces



OWNER SIGNATURE, BLOCK & ACKNOWLEDGEMENT
 TO ALL WHOM THESE PRESENTS MAY COME, KNOW YE THAT I, ROBERT FERRALL, HAS LAID OUT UPON MY LAND SITUATED IN THE TOWNSHIP OF NEW BRITAIN, COUNTY OF BUCKS, COMMONWEALTH OF PENNSYLVANIA, CERTAIN LOTS ACCORDING TO THIS PLAN WHICH IS INTENDED TO BE FORTHWITH RECORDED. WITNESS OUR HAND AND SEAL THIS _____ DAY OF _____, 2024.

BY: _____
 NAME: ROBERT FERRALL

ON THIS, _____ DAY OF _____, 2024, BEFORE ME, A NOTARY PUBLIC, PERSONALLY APPEARED RICHARD R. CARROLL, III, WHO ACKNOWLEDGED HIMSELF TO BE THE OWNER TO EXECUTE THE WITHIN INSTRUMENT FOR THE PURPOSES THEREIN CONTAINED.

IN WITNESS WHEREOF, I HERELY SET MY HAND AND OFFICIAL SEAL.

SEAL _____ NOTARY PUBLIC

COMMISSION EXPIRATION DATE _____

TOWNSHIP ENGINEER ACKNOWLEDGEMENT
 THIS PLAN HAS BEEN REVIEWED BY THE TOWNSHIP ENGINEER ON THIS _____ DAY OF _____, 20____.

ENGINEER: _____

PLANNING COMMISSION ACKNOWLEDGEMENT
 BUCKS COUNTY PLANNING COMMISSION NOTATION BOPC NO. 12800 PROCESSED AND REVIEWED. REPORT PREPARED BY THE BUCKS COUNTY PLANNING COMMISSION IN ACCORDANCE WITH THE MUNICIPALITIES PLANNING CODE.

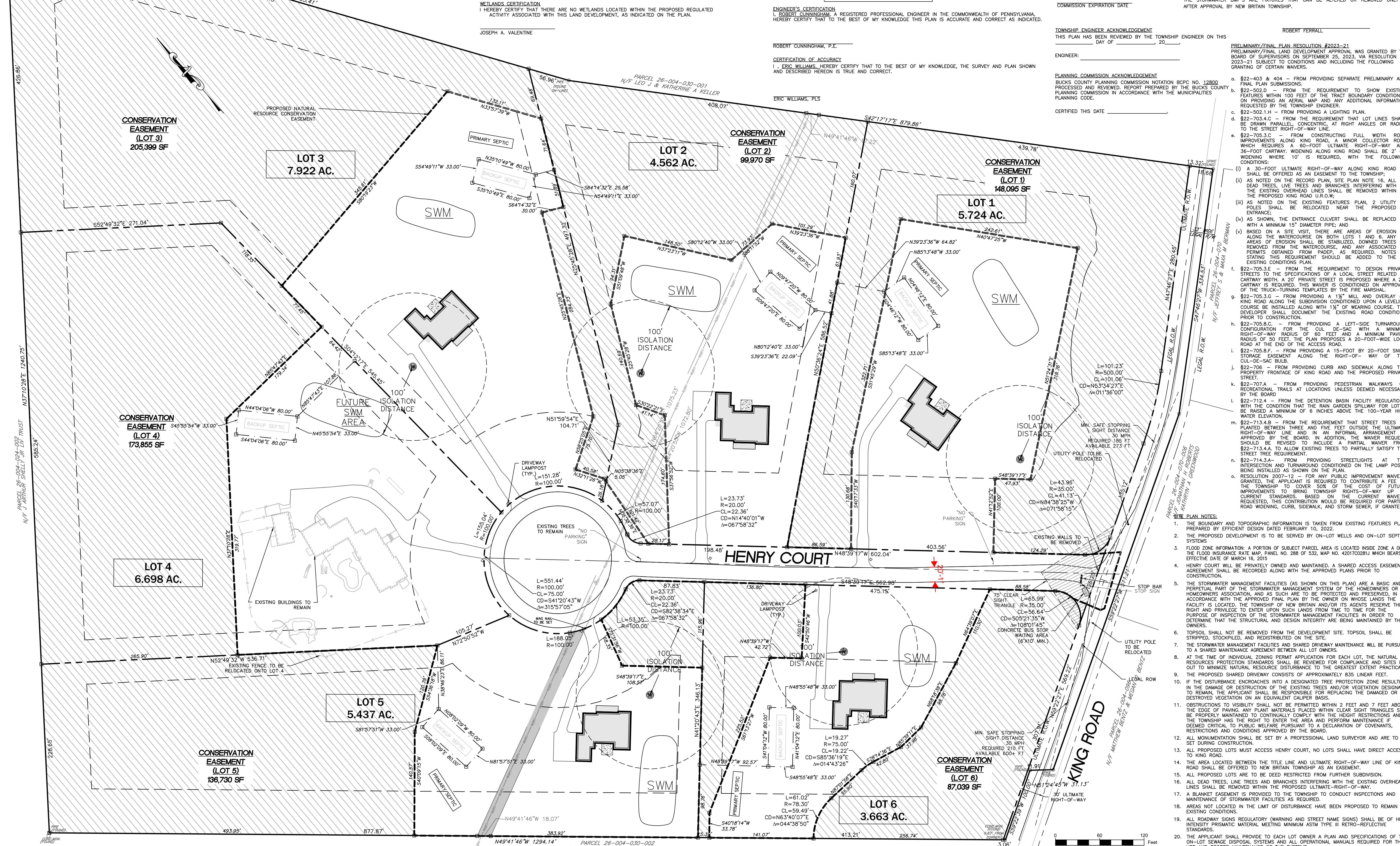
CERTIFIED THIS DATE _____

RECORDER OF DEEDS ACKNOWLEDGEMENT
 RECORDED IN THE OFFICE FOR THE RECORDING OF DEEDS, ETC. IN AND FOR THE COUNTY OF BUCKS, AT DOYLESTONE, PENNSYLVANIA IN PLAN BOOK _____ PAGE _____ ON THIS _____ DAY OF _____, 20____.

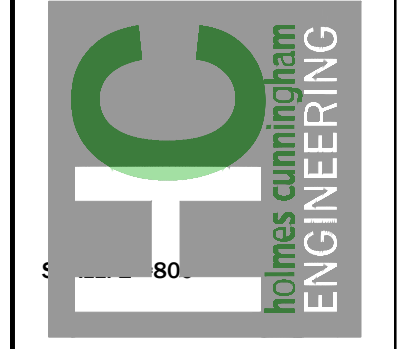
BUCKS COUNTY RECORDER OF DEEDS

BOARD OF SUPERVISORS ACKNOWLEDGEMENT
 THIS PLAN APPROVED BY THE BOARD OF SUPERVISORS OF NEW BRITAIN TOWNSHIP THIS _____ DAY OF _____, 20____.

OWNER CERTIFICATION FOR STORMWATER BMP'S
 THE STORMWATER BMP'S ARE FEATURES THAT CAN BE ALTERED OR REMOVED ONLY AFTER APPROVAL BY NEW BRITAIN TOWNSHIP.



Johns Cunningham LLC
 409 E. Butler Ave. Unit 5
 Doylestown, PA 18901
 (215) 586-3330
 www.hcengineering.net



REVISIONS			
Date	Description	Revised Per Township Engineer Review	Revised Per BCCD Review
02/08/2023	CONSTRUCTION NOTES		
06/09/2023	CONSTRUCTION NOTES		
09/01/2023	CONSTRUCTION NOTES		
12/15/2023	CONSTRUCTION NOTES		

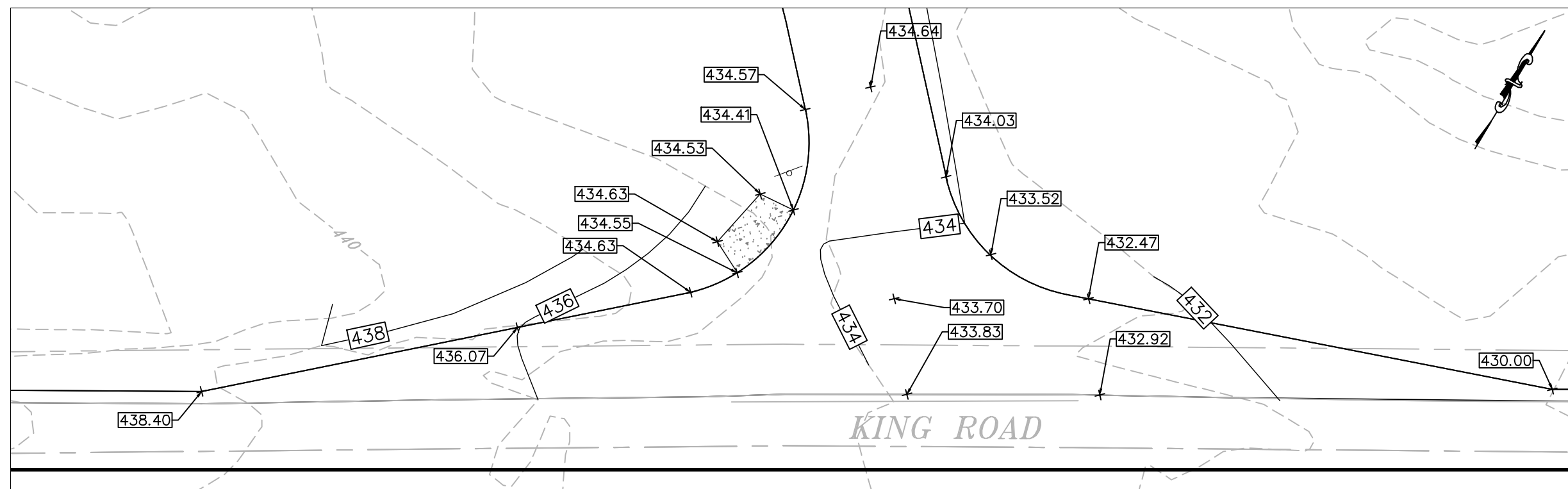
THE ESTATES AT HILL TOP
 396 KING ROAD
 TWP # 26-004-030
 NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PA

RECORD SITE PLAN

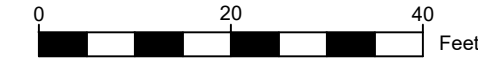
SITE PLAN NOTES:

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- THE PROPOSED DEVELOPMENT IS TO BE SERVED BY ON-LOT WELLS AND ON-LOT SEPTIC SYSTEMS.
- FLOOD ZONE INFORMATION: A PORTION OF SUBJECT PARCEL AREA IS LOCATED INSIDE ZONE A OF THE FLOOD INSURANCE RATE MAP, PANEL NO. 288 OF 532, MAP NO. 4207020281 WHICH BEARS AN EFFECTIVE DATE OF MARCH 16, 2015
- HENRY COURT WILL BE PRIVATELY OWNED AND MAINTAINED. A SHARED EASEMENT AGREEMENT SHALL BE RECORDED ALONG WITH THE APPROVED PLAN PRIOR TO CONSTRUCTION.
- THE STORMWATER MANAGEMENT FACILITIES (AS SHOWN ON THIS PLAN) ARE A BASIC AND NECESSARY PART OF THE STORMWATER MANAGEMENT SYSTEM OF THE HOMEOWNERS OR HOMEOWNERS ASSOCIATION AND AS SUCH ARE TO BE PROTECTED AND PRESERVED. IN ACCORDANCE WITH THE APPROVED FINAL PLAN BY THE OWNER ON WHOSE LANDS THE FACILITY IS LOCATED, THE TOWNSHIP OF NEW BRITAIN AND/OR ITS AGENTS RESERVE THE RIGHT AND PRIVILEGE TO ENTER UPON SUCH LANDS FROM TIME TO TIME FOR THE PURPOSE OF INSPECTION OF THE STORMWATER MANAGEMENT FACILITIES IN ORDER TO DETERMINE THAT THE STRUCTURE AND DESIGN INTEND TO BE MAINTAINED BY THE OWNERS.
- TOPSOIL SHALL NOT BE REMOVED FROM THE DEVELOPMENT SITE. TOPSOIL SHALL BE STRIPPED, STOCKPILED AND REDISTRIBUTED ON THE SITE.
- THE STORMWATER FACILITIES AND SHARED DRIVEWAY MAINTENANCE WILL BE PURSUANT TO A SHARED MAINTENANCE AGREEMENT BETWEEN ALL LOT OWNERS.
- AT THE TIME OF INDIVIDUAL ZONING PERMIT APPLICATION FOR EACH LOT, THE NATURAL RESOURCES PROTECTION STANDARDS SHALL BE REVIEWED FOR COMPLIANCE AND SHOWN OUT TO MINIMIZE NATURAL RESOURCE DISTURBANCE TO THE GREATEST EXTENT PRACTICABLE.
- THE PROPOSED SHARED DRIVEWAY CONSISTS OF APPROXIMATELY 835 LINEAR FEET.
- IF THE DISTURBANCE ENCOMERES INTO A DESIGNATED TREE PROTECTION ZONE RESULTING IN THE DAMAGE OR DESTRUCTION OF THE EXISTING TREES AND/OR VEGETATION DESIGNATED TO REMAIN, THE APPLICANT SHALL BE RESPONSIBLE FOR REPLACING THE DAMAGED OR DESTROYED VEGETATION ON AN EQUIVALENT CALIBER BASIS.
- OBSTRUCTIONS TO VISIBILITY SHALL NOT BE PERMITTED WITHIN 2 FEET AND 7 FEET ABOVE THE EDGE OF PAVING. ANY PLANT MATERIALS PLACED WITHIN CLEAR SIGHT TRIANGLES SHALL BE PROPERLY MAINTAINED TO CONTINUALLY COMPLY WITH THE HEIGHT RESTRICTIONS AND THE TOWNSHIP HAS THE RIGHT TO ENTER THE AREA AND PERFORM MAINTENANCE IF DEEMED CRITICAL TO PUBLIC WELFARE PURSUANT TO A DECLARATION OF COVENANTS, RESTRICTIONS AND CONDITIONS APPROVED BY THE BOARD.
- ALL MONUMENTATION SHALL BE SET BY A PROFESSIONAL LAND SURVEYOR AND ARE TO BE SET DURING CONSTRUCTION.
- ALL PROPOSED LOTS MUST ACCESS HENRY COURT. NO LOTS SHALL HAVE DIRECT ACCESS TO KING ROAD.
- THE AREA LOCATED BETWEEN THE TITLE LINE AND ULTIMATE RIGHT-OF-WAY LINE OF KING ROAD SHALL BE OFFERED TO NEW BRITAIN TOWNSHIP AS AN EASEMENT.
- ALL PROPOSED LOTS ARE TO BE DEED RESTRICTED FROM FURTHER SUBDIVISION.
- ALL DEAD TREES, LIVE TREES AND BRANCHES INTERFERING WITH THE EXISTING OVERHEAD LINES SHALL BE REMOVED WITHIN THE PROPOSED ULTIMATE RIGHT-OF-WAY.
- A BLANKET EASEMENT IS PROVIDED TO THE TOWNSHIP TO CONDUCT INSPECTIONS AND MAINTENANCE OF STORMWATER FACILITIES AS REQUIRED.
- ALL ROADWAY SIGNS REGULATORY (WARNING AND STREET NAME SIGNS) SHALL BE OF HIGH INTENSITY PRISMATIC MATERIAL MEETING MINIMUM ASTM TYPE III RETRO-REFLECTIVE STANDARDS.
- THE APPLICANT SHALL PROVIDE TO EACH LOT OWNER A PLAN AND SPECIFICATIONS FOR THE ON-LOT SEWAGE DISPOSAL SYSTEMS AND ALL OPERATIONAL MANUALS REQUIRED FOR THE USE AND PROPER MAINTENANCE OF THE SYSTEMS.

File No. 1734-C1.0 RECORD.DWG
 Date 09/14/2022
 Scale 1"=60'
 Designed RC
 Sheet 5 of 15
 Drawing No. C1.0

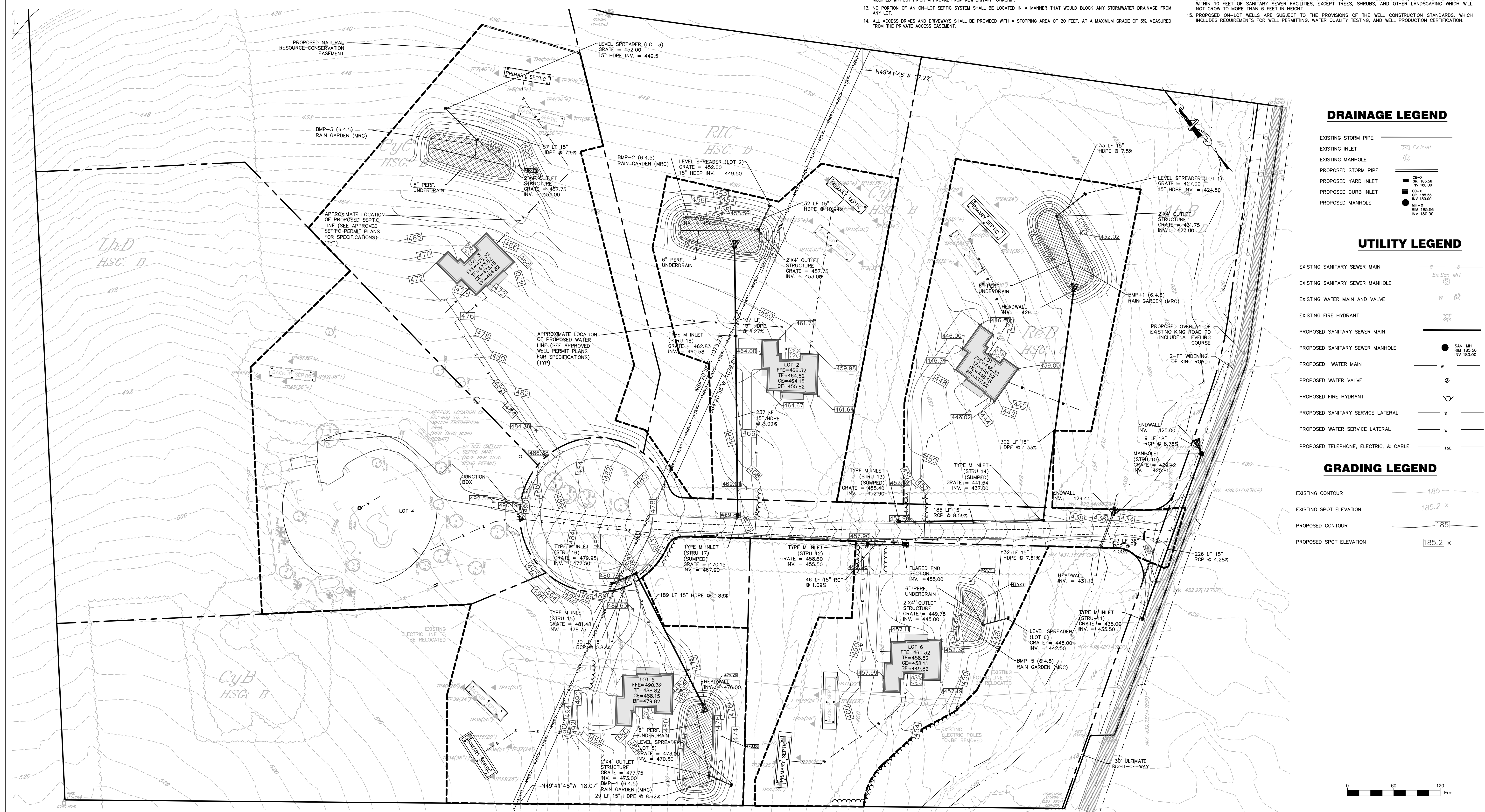


KING ROAD INTERSECTION DETAIL

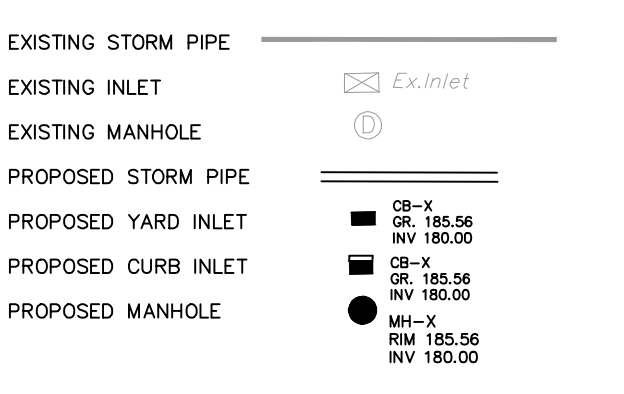


- GRADING AND DRAINAGE NOTES**
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES, WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS IN A MANNER WHICH WILL NOT NEGATIVELY AFFECT ANY EXISTING USERS OF THESE UTILITIES.
 - CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS OF ALL UTILITY ENTRANCES TO INCLUDE SANITARY SEWER, LATERALS, DOMESTIC WATER SERVICE, ELECTRICAL, TELEPHONE AND GAS SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND TO ENSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE UTILITY COMPANIES AS TO LOCATION AND SCHEDULING OF CONNECTIONS TO THEIR FACILITIES.
 - CONTRACTOR SHALL PROVIDE A WRITTEN REQUEST FOR INFORMATION TO THE OWNER AND OWNER'S ENGINEER PRIOR TO THE CONSTRUCTION OF ANY SPECIFIC NETWORK ITEM DEPICTED ON THE PLANS, FOR ADDITIONAL INFORMATION REQUIRED FOR CONSTRUCTION NOT RELATED TO MEANS AND METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SPECIFIC NETWORK ITEMS INSTALLED DIFFERENTLY THAN INTENDED AS DEPICTED ON THE PLANS IN THE ABSENCE OF SUBMITTING AND ADDRESSING WRITTEN REQUESTS FOR INFORMATION.
 - SITE GRADING SHALL NOT PROCEED UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
 - PVC = POLYVINYLCHLORIDE PIPE, HDPE = HIGH DENSITY POLYETHYLENE PIPE, RCP = REINFORCED CONCRETE PIPE
 - STORM DRAINAGE PIPING TO UTILIZE WATER TIGHT JOINTS.
 - COMPACTION CRITERIA FOR FILL PLACEMENT IN THE FOLLOWING AREAS SHALL MEET OR EXCEED THE FOLLOWING MINIMUM PERCENTAGE OF MAXIMUM MOIST PROCTOR DRY DENSITY AS DETERMINED BY ASTM D-1557 USED ON REPRESENTATIVE SOIL SAMPLES, UNLESS MORE STRINGENT CRITERIA GIVEN ELSEWHERE.

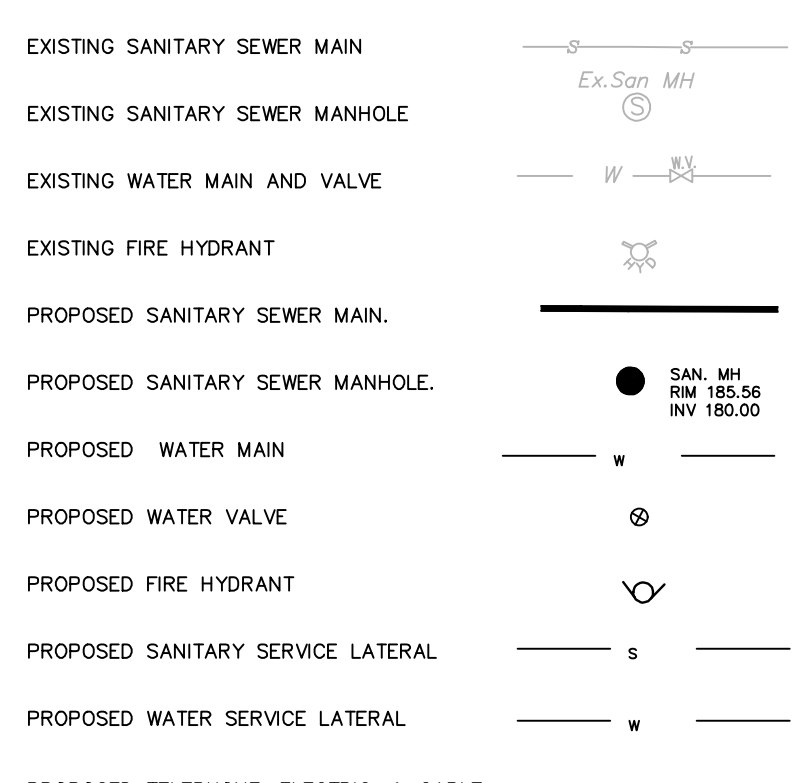
FILL AREA	PERCENT OF MAXIMUM MOIST PROCTOR DRY DENSITY
BUILDING FOOTPRINT	95%
PAVEMENT AND ROADWAYS	95%
SIDEWALKS	95%
LANDSCAPE AREAS	93%
TRENCH BACKFILL	SAME AS SURROUNDING AREA
 - PROTECT SUBGRADE FROM EXCESSIVE WHEEL LOADING DURING CONSTRUCTION, INCLUDING CONCRETE TRUCKS AND DUMP TRUCKS.
 - REMOVE AREAS OF FINISHED SUBGRADE FOUND TO HAVE INSUFFICIENT COMPACTION DENSITY TO DEPTH NECESSARY AND REPLACE IN A MANNER THAT WILL COMPLY WITH COMPACTION REQUIREMENTS BY USE OF MATERIAL EQUAL TO OR BETTER THEN BEST SUBGRADE MATERIAL ON-SITE. SURFACE OF SUBGRADE AFTER COMPACTION SHALL BE HARD, UNIFORM, SMOOTH, STABLE, AND TRUE TO GRADE AND CROSS SECTION.
 - ALL CONCRETE, UNLESS OTHERWISE NOTED OR SPECIFIED BY REGULATORY AUTHORITIES, SHALL BE A MINIMUM OF 4,000 PSI.
 - NEW BRITAIN TOWNSHIP SHALL HAVE THE RIGHT TO ENTER PRIVATE PROPERTY TO INSPECT AND REPAIR, IF NECESSARY, ANY STORMWATER MANAGEMENT FACILITY.
 - ALL STORMWATER MANAGEMENT FACILITIES ARE A PERMANENT PART OF THE DEVELOPMENT AND SHALL NOT BE REMOVED, ALTERED OR MODIFIED WITHOUT PRIOR APPROVAL FROM NEW BRITAIN TOWNSHIP.
 - NO PORTION OF AN ON-LOT SEPTIC SYSTEM SHALL BE LOCATED IN A MANNER THAT WOULD BLOCK ANY STORMWATER DRAINAGE FROM ANY LOT.
 - ALL ACCESS DRIVES AND DRIVEWAYS SHALL BE PROVIDED WITH A STOPPING AREA OF 20 FEET, AT A MAXIMUM GRADE OF 3%, MEASURED FROM THE PRIVATE ACCESS EASEMENT.
- UTILITY NOTES**
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS IN A MANNER WHICH WILL NOT NEGATIVELY AFFECT ANY EXISTING USERS OF THESE UTILITIES.
 - CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS OF ALL UTILITY ENTRANCES TO INCLUDE SANITARY SEWER, LATERALS, DOMESTIC WATER SERVICE, ELECTRICAL, TELEPHONE AND GAS SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND TO ENSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE UTILITY COMPANIES AS TO LOCATION AND SCHEDULING OF CONNECTIONS TO THEIR FACILITIES.
 - ANY EXISTING FEATURES DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY THE OWNER, AT NO COST TO THE TOWNSHIP.
 - THE CONTRACTOR IS RESPONSIBLE FOR LOCATING THE EXISTING UTILITY SERVICE (WATER, SEWER, GAS AND ELECTRIC) TO THE PROPERTY AND ENSURE THAT THEY ARE PROPERLY DISCONNECTED FROM THE EXISTING UTILITIES AND RECONNECTED TO THE NEW SERVICES PROVIDED.
 - THE LOCATION OF THE EXISTING GAS MAINS ARE APPROXIMATE. THE CONTRACTOR SHOULD CONSULT LOCAL UTILITY COMPANIES FOR ADDITIONAL INFORMATION.
 - THE LOCATION OF EXISTING ELECTRIC LINES ARE APPROXIMATE. THE CONTRACTOR SHOULD CONSULT LOCAL UTILITY COMPANIES FOR ADDITIONAL INFORMATION.
 - ALL GAS WORK AND OTHER ASSOCIATED APPURTENANCES WILL BE IN CONFORMANCE WITH APPLICABLE LOCAL COUNTY, STATE AND FEDERAL GUIDELINES AND REQUIREMENTS.
 - ALL ELECTRICAL WORK, TRANSFORMER PADS, AND ASSOCIATED APPURTENANCES WILL BE IN CONFORMANCE WITH APPLICABLE LOCAL COUNTY, STATE AND FEDERAL GUIDELINES AND REQUIREMENTS. MIN. DEPTH OF COVER OVER ELECTRIC, GAS, AND CABLE SHALL BE 2 FT.
 - THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS, UTILITY LOCATIONS, CATHODIC PROTECTION AND INVERTS PRIOR TO CONSTRUCTION. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ANY DISAPPOINTMENTS TO EXISTING UTILITIES SERVICES, ANY CONDITIONS FOUND TO DIFFER FROM THOSE SHOWN BY THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
 - EIGHTEEN (18) INCHES VERTICAL CLEARANCE SHOULD BE PROVIDED AT ALL UTILITY CROSSINGS.
 - ALL FIRE HYDRANTS AND VALVES SHALL OPEN RIGHT (CLOCKWISE).
 - THE OWNER IS RESPONSIBLE FOR REPLACEMENT OF LANDSCAPING SHOULD DISTURBANCE BE REQUIRED FOR UTILITY REPAIRS.
 - 18 INCHES OF VERTICAL CLEARANCE OR 10 FEET OF HORIZONTAL CLEARANCE SHALL BE PROVIDED BETWEEN THE SANITARY SEWER AND ALL OTHER UTILITIES. OTHERWISE, CONCRETE ENCASEMENT OF THE SANITARY SEWER SHALL BE PROVIDED.
 - THERE SHALL NOT BE BUILT, INSTALLED, CONSTRUCTED, PLANTED OR LOCATED ANY TEMPORARY OR PERMANENT BUILDINGS OR STRUCTURES INCLUDING INFILTRATION BASINS, OR ANY TREES, SHRUBS, OR OTHER LANDSCAPING WITHIN 10 FEET OF SANITARY SEWER FACILITIES, EXCEPT TREES, SHRUBS, AND OTHER LANDSCAPING WHICH WILL NOT GROW TO MORE THAN 6 FEET IN HEIGHT.
 - PROPOSED ON-LOT WELLS ARE SUBJECT TO THE PROVISIONS OF THE WELL CONSTRUCTION STANDARDS, WHICH INCLUDES REQUIREMENTS FOR WELL PERMITTING, WATER QUALITY TESTING, AND WELL PRODUCTION CERTIFICATION.



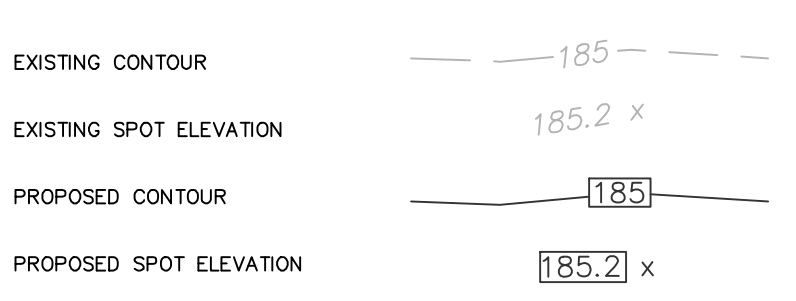
DRAINAGE LEGEND



UTILITY LEGEND



GRADING LEGEND



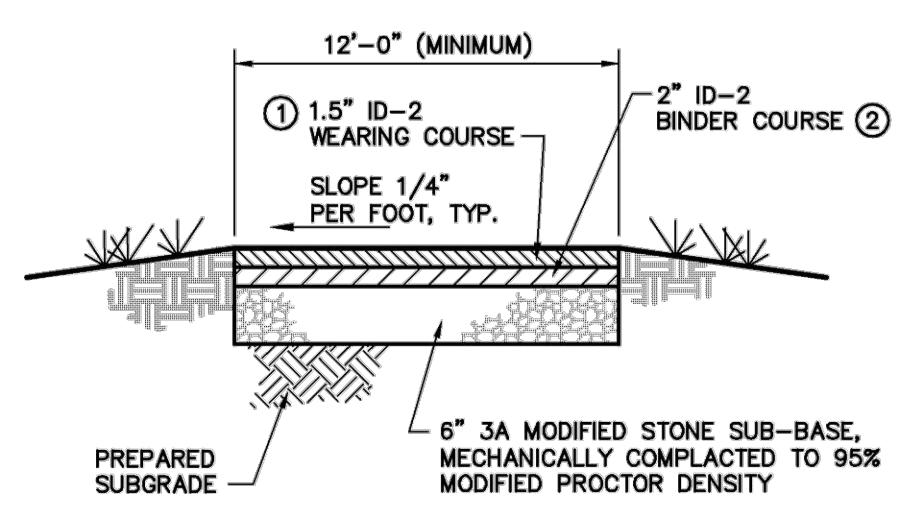
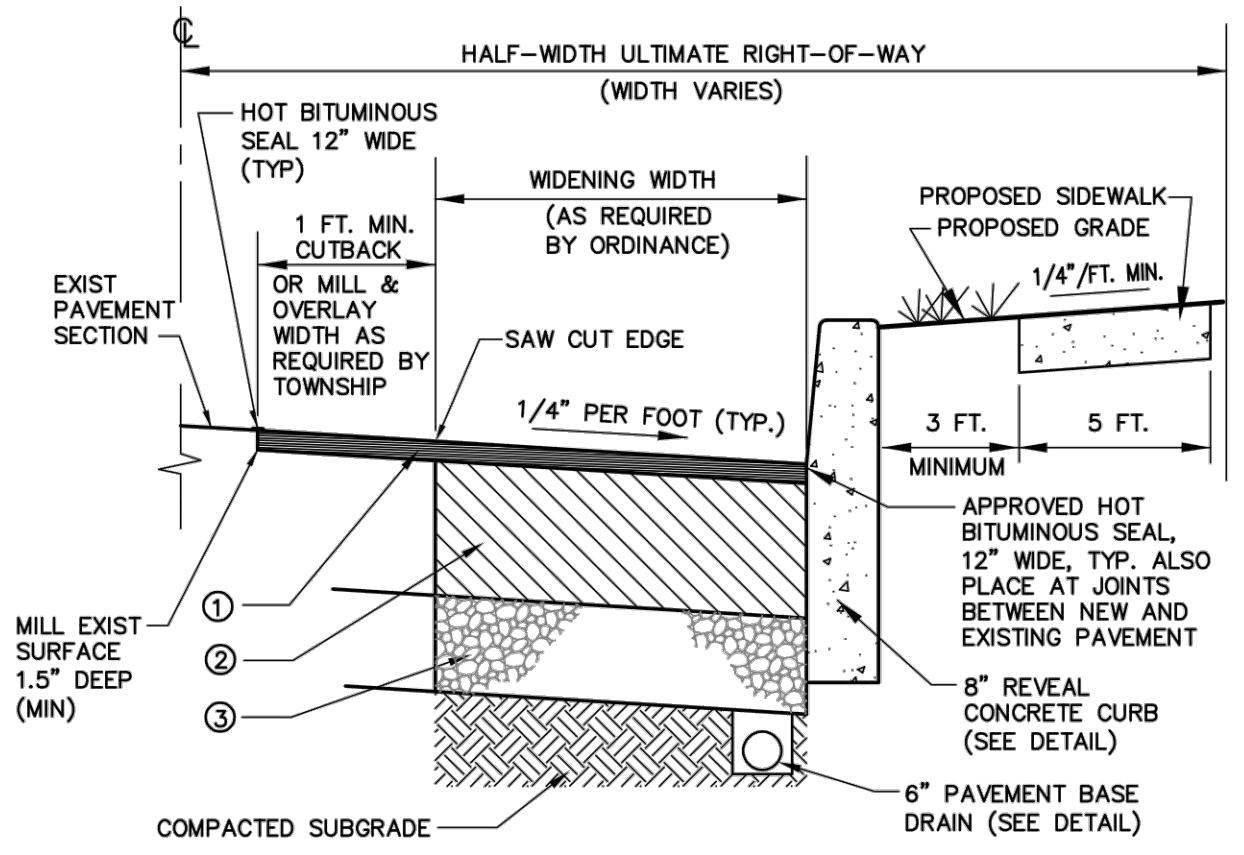
Holmes Cunningham LLC
 409 E. Butler Ave., Unit 5
 Doylestown, PA 18901
 (215) 586-3330
 www.hcengr.com

REVISIONS	Description	Date
02/08/2023	Revised Per Township Engineer Review	
06/09/2023	Revised Per Township Engineer Review	
09/01/2023	Revised Per BCCD Review	
12/15/2023	Revised Per Final Plans	

THE ESTATES AT HILL TOP
 396 KING ROAD
 TWP # 26-004-030
 NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PA

GRADING, DRAINAGE AND UTILITY PLAN

File No. 1734_C2.0 GRADING.DWG
 HCE Job 1734
 Date 09/14/2022
 Scale 1"=60'
 Designed RC
 Sheet 6 of 15
 Drawing No. C2.0



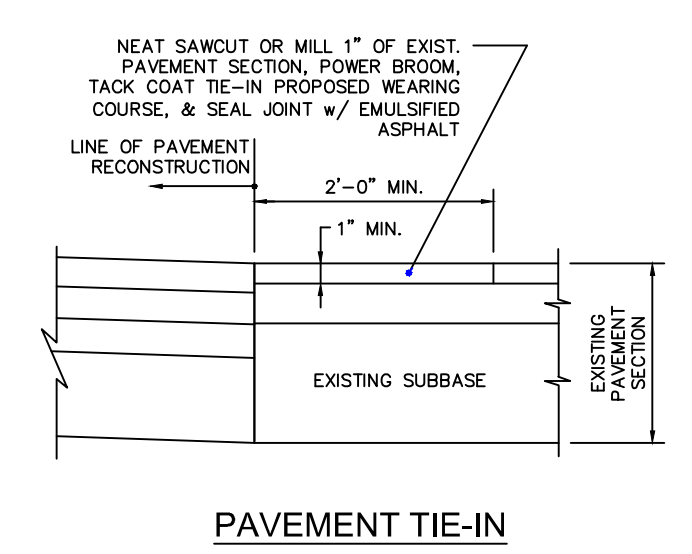
ALTERNATE SPECIFICATION
 1.5" SUPERPAVE ASPHALT MIXTURE DESIGN, 9.5 mm MIX, PG 64-22, HMA WEARING COURSE, 0.3 TO 3 MILLION ESALS, SRL-M
 2.0" SUPERPAVE ASPHALT MIXTURE DESIGN, 19mm MIX, PG 64-22, HMA BINDER COURSE, 0.3 TO 3 MILLION ESALS

- ① 1.5" SUPERPAVE ASPHALT MIXTURE DESIGN, 9.5 mm MIX, PG 64-22, HMA WEARING COURSE, 3.0 TO 10.0 MILLION ESALS, SRL-M
- ② 4.5" SUPERPAVE ASPHALT MIXTURE DESIGN, 25 mm MIX, PG 64-22, HMA BASE COURSE, 3.0 TO 10.0 MILLION ESALS
- ③ 6" 2A MODIFIED STONE SUBBASE (MATCH EXISTING IF GREATER)

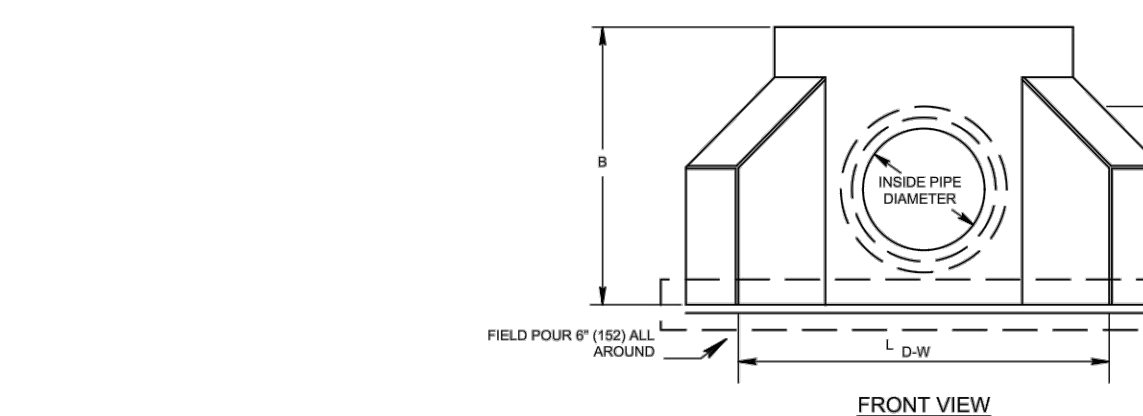
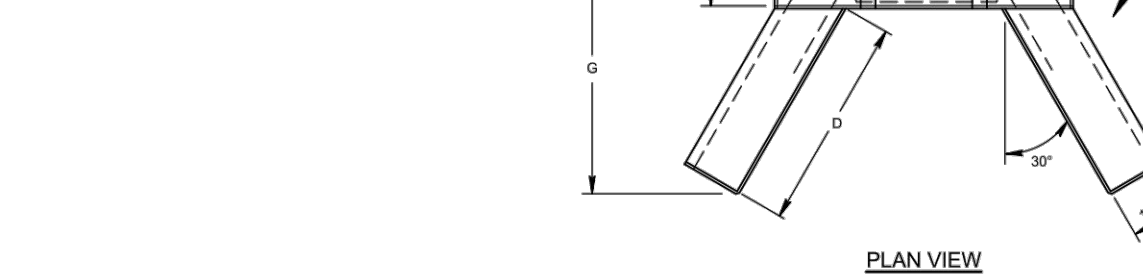
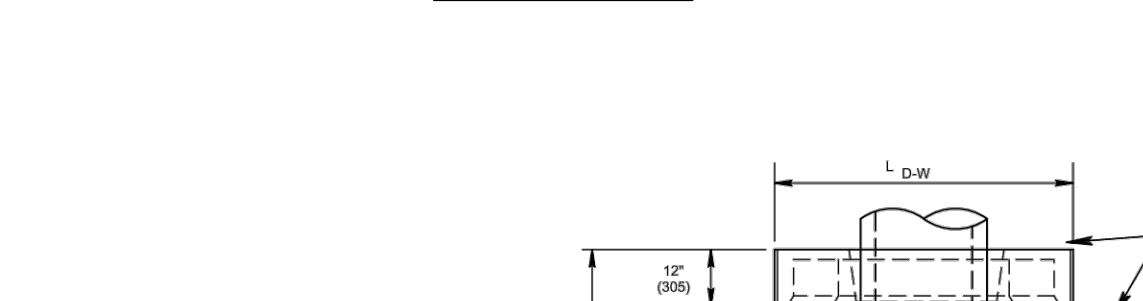
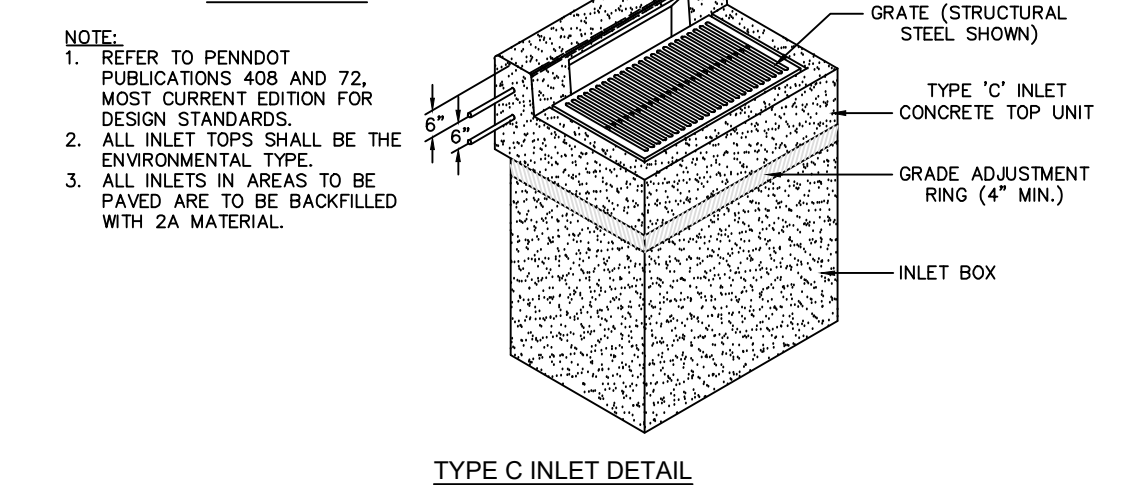
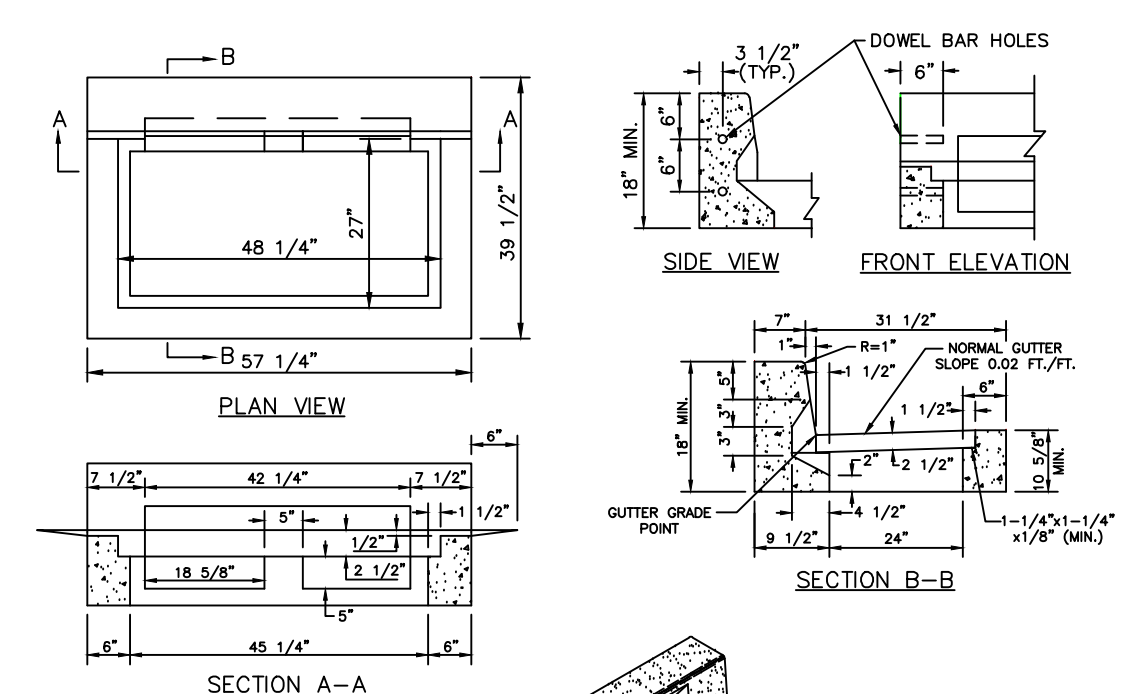
NOTE: NEW ROADS SHALL COMPLY WITH THE ABOVE SPECIFICATION

TYPICAL ROADWAY WIDENING SECTION DETAIL FOR RESIDENTIAL AND LOCAL ROADS
 NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

GILMORE & ASSOCIATES, INC
 ENGINEERING & CONSULTING SERVICES



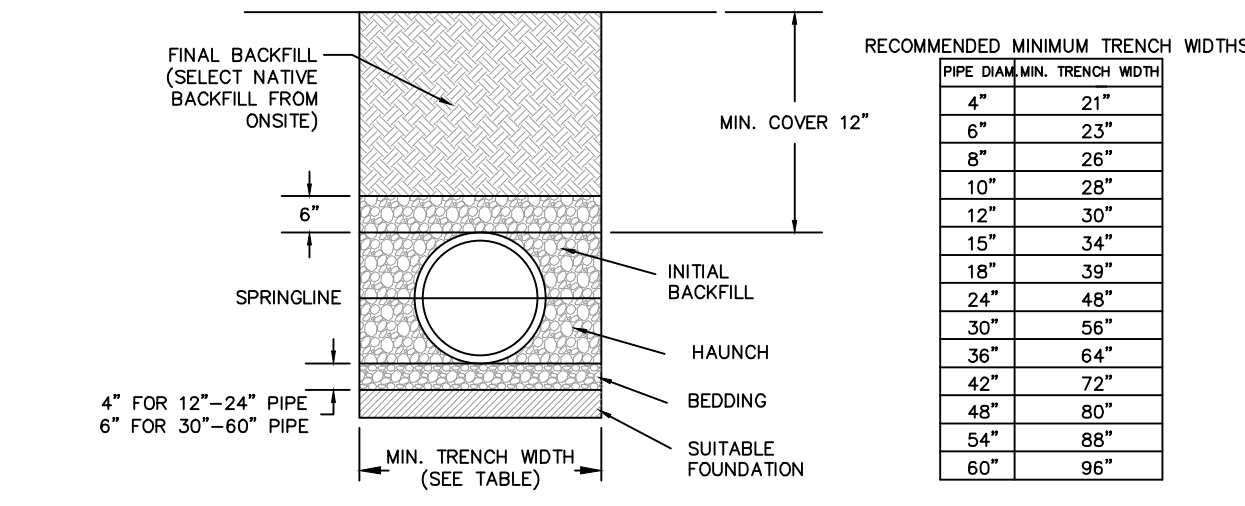
RESIDENTIAL DRIVEWAY PAVING SECTION DETAIL
 NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



- NOTES**
- AS SHOWN ON SHEET C1.0, THE FULL WIDTH OF KING ROAD ALONG THE PROJECT FRONTAGE IS PROPOSED TO BE OVERLAID.
 - KING ROAD IS PROPOSED TO BE WIDENED BY 2 FEET.
 - NO CURBING OR PAVEMENT BASE DRAIN IS PROPOSED.

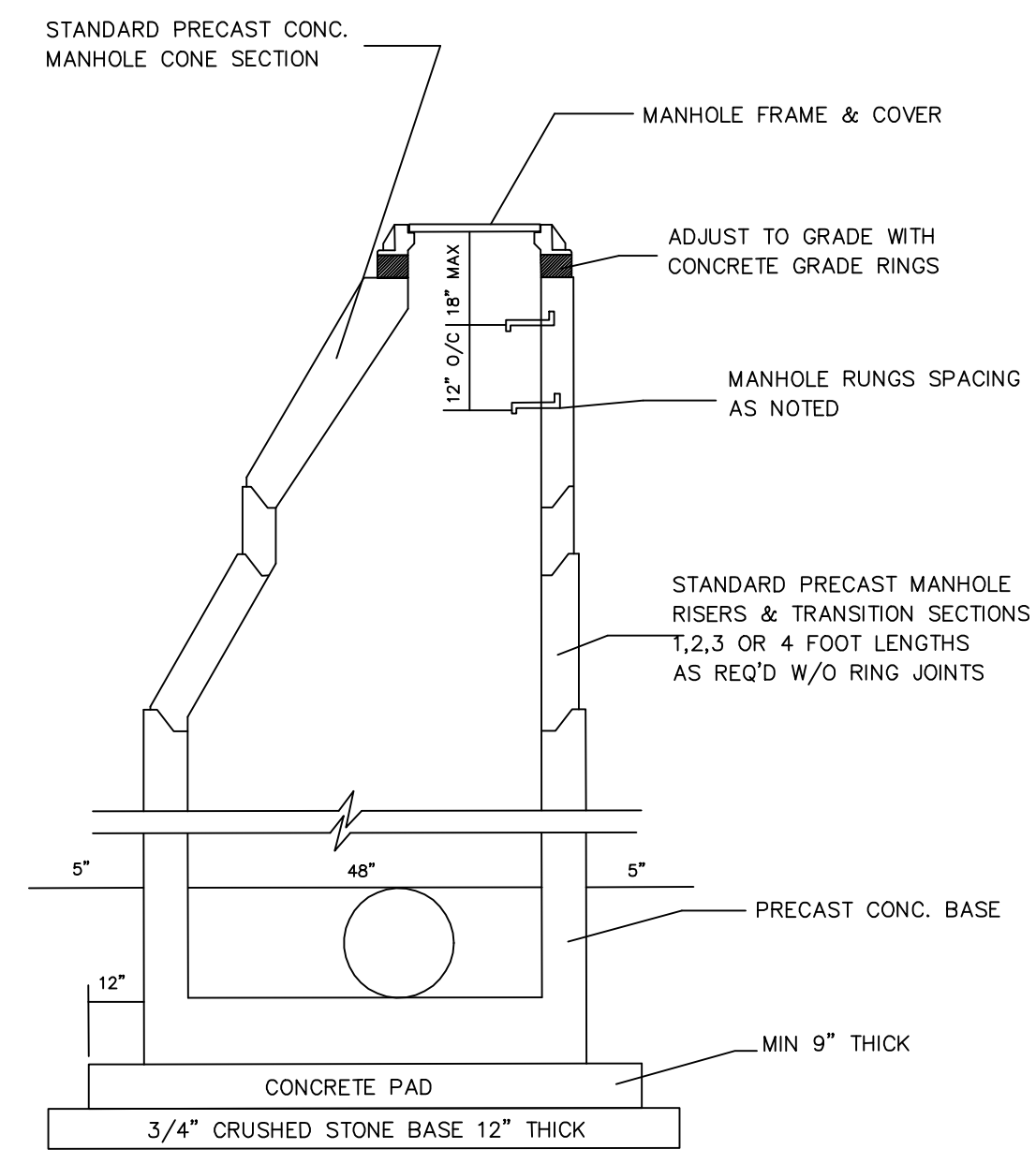
TYPE	MINOR PIPE DIA.	MINOR L.R./DIA.	# 1/2" DIA.	# 3/4" DIA.	# 1" DIA.	# 1 1/4" DIA.	# 1 1/2" DIA.	# 1 3/4" DIA.	# 2" DIA.	# 2 1/2" DIA.	# 3" DIA.
1	12-18 (120-240)	2400 (240)	48 (120)	36 (90)	24 (60)	18 (45)	12 (30)	9 (22.5)	6 (15)	4 (10)	3 (7.5)
2	18-24 (180-360)	4800 (480)	48 (120)	36 (90)	24 (60)	18 (45)	12 (30)	9 (22.5)	6 (15)	4 (10)	3 (7.5)
3	24-30 (240-360)	6000 (600)	48 (120)	36 (90)	24 (60)	18 (45)	12 (30)	9 (22.5)	6 (15)	4 (10)	3 (7.5)
4	30-36 (300-420)	7200 (720)	48 (120)	36 (90)	24 (60)	18 (45)	12 (30)	9 (22.5)	6 (15)	4 (10)	3 (7.5)
5	36-42 (360-540)	8400 (840)	48 (120)	36 (90)	24 (60)	18 (45)	12 (30)	9 (22.5)	6 (15)	4 (10)	3 (7.5)
6	42-48 (420-600)	9600 (960)	48 (120)	36 (90)	24 (60)	18 (45)	12 (30)	9 (22.5)	6 (15)	4 (10)	3 (7.5)
7	48-54 (480-720)	10800 (1080)	48 (120)	36 (90)	24 (60)	18 (45)	12 (30)	9 (22.5)	6 (15)	4 (10)	3 (7.5)
8	54-60 (540-840)	12000 (1200)	48 (120)	36 (90)	24 (60)	18 (45)	12 (30)	9 (22.5)	6 (15)	4 (10)	3 (7.5)
9	60-66 (600-960)	13200 (1320)	48 (120)	36 (90)	24 (60)	18 (45)	12 (30)	9 (22.5)	6 (15)	4 (10)	3 (7.5)
10	66-72 (660-1080)	14400 (1440)	48 (120)	36 (90)	24 (60)	18 (45)	12 (30)	9 (22.5)	6 (15)	4 (10)	3 (7.5)

CONCRETE END WALLS
 2001 FT-29
NOTES:
 1. REFER TO "COMMON WEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, BUREAU OF HIGHWAY DESIGN, STANDARDS FOR ROADWAY CONSTRUCTION" PUBLICATION 72M.



- NOTES:**
- ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
 - MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE PINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
 - FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER, AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
 - BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER, UNLESS OTHERWISE NOTED BY THE ENGINEER. MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-900mm).
 - INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
 - MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOODING. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

HDPE PIPE DETAIL

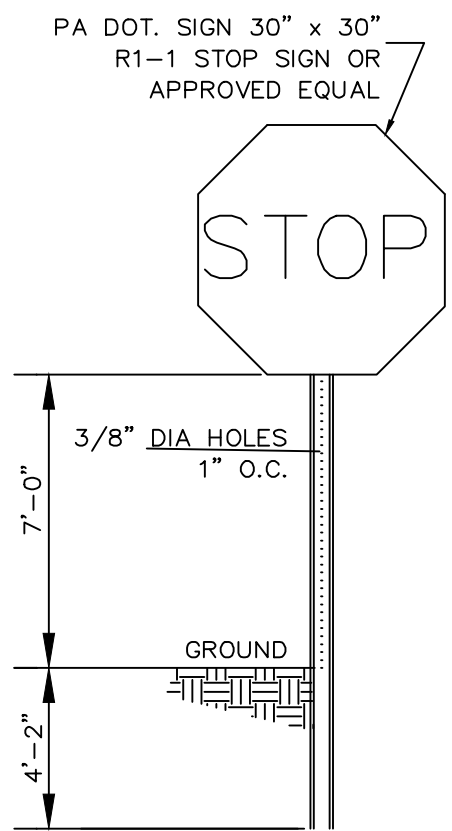


PRECAST CONCRETE STORM MANHOLE

- NOTES:**
- PRECAST CONCRETE MANHOLES SHALL BE AS DETAILED IN PENNDOT STANDARDS FOR ROADWAY CONSTRUCTION, CURRENT EDITION (PDT PUB #72M) RC-39M, STANDARD MANHOLES, PRECAST MANHOLES AND MANHOLE STEPS.
 - STEPS SHALL BE PROVIDED WHENEVER STRUCTURE EXCEEDS 4 FEET IN DEPTH.
 - STEP DIMENSIONS AND CONFIGURATION SHALL BE IN ACCORDANCE WITH PENNDOT STANDARDS FOR ROADWAY CONSTRUCTION, CURRENT EDITION (PDT PUB 172M), RC-39M.
 - STEP AND STEP INSTALLATION SHALL MEET ALL REQUIREMENTS OF ASTM C 478 AND C 497 FOR DIMENSIONS, LOAD RATING AND PULLOUT RESISTANCE.
 - PROVIDE FRAME AND GRATE AS DETAILED IN PENNDOT STANDARDS FOR ROADWAY CONSTRUCTION, CURRENT EDITION (PDT PUB 1172M) RC-39M, STANDARD MANHOLES COVERS, FRAMES AND ADJUSTMENT RISERS.
 - THE CONTRACTOR SHALL PROVIDE CUT SHEETS TO ENGINEER TO REVIEW PRIOR TO CONSTRUCTION.
 - STORM MANHOLE COVERS SHALL HAVE THE WORD "STORM" ON THE COVER IN 2-INCH HIGH LETTERS.
 - STORM MANHOLES SHALL BE THE ENVIRONMENT TYPE.



RB-3 NO PARKING SIGN OR APPROVED EQUAL (12" X 18")



- NOTES:**
- ALL POSTS SHALL BE BREAKAWAY POSTS AND OF ADEQUATE LENGTH TO MEET THE REQUIREMENTS FOR ERECTION AS STATED IN THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS".
 - ALL POSTS SHALL BE EMBEDDED 4"-2" MINIMUM BELOW GRADE.
 - ALL STEEL POSTS AND BRACKETS SHALL BE CUT, BENT, AND HOLES PUNCHED AND DRILLED BEFORE GALVANIZING. GALVANIZING SHALL BE IN CONFORMANCE WITH CURRENT A.S.T.M. SPECIFICATION A123-78 (OR LATEST REVISED).
 - POSTS MAY BE STEEL, ALUMINUM, OR TWO-PIECE U-POST.
 - SIGN PANEL SIZES SHALL DETERMINE POST TYPE AND NUMBERS AS SHOWN ON THIS DETAIL AND DIRECTIONAL SIGN SHEET.
 - BOLTS SHALL NOT PROTRUDE MORE THAN 3/4" BEYOND THE NUT WHEN TIGHT BUT SHALL ENGAGE ALL THREADS IN THE NUT.
 - ALL TRAFFIC AND PEDESTRIAN SIGNAGE AND LOCATION SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND ALL CURRENT AMENDMENTS.

STOP SIGN

Holmes Cunningham LLC
 409 E. Butler Ave., Unit 5
 Doylestown, PA 18901
 (215) 586-3330
 www.hcengineering.net

REVISIONS	Description	Date
02/08/2023	Revised Per Township Engineer Review	02/08/2023
06/09/2023	Revised Per Township Engineer Review	06/09/2023
09/01/2023	Revised Per BCCO Review	09/01/2023
12/15/2023	Revised For Final Plans	12/15/2023

THE ESTATES AT HILL TOP
 396 KING ROAD
 TWP # 26-04-030
 NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PA

CONSTRUCTION DETAILS

File No. 1734
 Date 09/14/2022
 Scale N.T.S.
 Designed RC
 Sheet 7 of 15
 Drawing No. C2.1

LIMIT OF DISTURBANCE = 11.01 ACRES

PROJECT SITE BOUNDARY = 36.17 ACRES

GENERAL NOTES

- 1. THE BOUNDARY AND TOPOGRAPHIC INFORMATION IS TAKEN FROM AN EXISTING FEATURES PLAN PREPARED BY EFFICIENT DESIGN, DATED FEBRUARY 10, 2022.
2. UNDER PENNSYLVANIA LAW, THE CONTRACTOR IS REQUIRED TO NOTIFY THE PENNSYLVANIA ONE-CALL SYSTEM AT 1-800-242-1776 PRIOR TO THE START OF HIS WORK, SO THAT ALL THE VARIOUS UNDERGROUND UTILITY OPERATORS WILL BE ABLE TO LOCATE THEIR OWN UTILITIES.
3. THERE ARE NO HQ OR CV WATERSHEDS LOCATED WITHIN THE PROJECT AREA.
4. THERE ARE NO RIPARIAN BUFFERS EXISTING OR PROPOSED AS PART OF THIS PROJECT (WITHIN OR OUTSIDE THE LIMIT OF DISTURBANCE). ADDITIONALLY, RIPARIAN BUFFER OFFSETS ARE NOT NECESSARY.
5. THERE ARE NO WETLANDS WITHIN THE PROJECT AREA.
6. THERE ARE NO INFILTRATION BMPs LOCATED OUTSIDE PROPOSED GRADING AREAS.
7. THE EXISTING SITE IS NOT UNDERLAIN BY ANY NATURALLY OCCURRING GEOLOGIC FORMATIONS OR SOIL CONDITIONS WHICH COULD CAUSE POLLUTION DURING EARTH DISTURBANCE. THEREFORE, NO LOCATIONS ARE IDENTIFIED ON THIS PLAN AND NO DETAILS ARE PROVIDED FOR DISPOSAL OF SUCH MATERIAL.
8. IF ANY MUD OR STONE IS TRACKED ONTO KING ROAD, A FULL CONSTRUCTION ENTRANCE SHALL BE REQUIRED.
9. A WRITTEN INSPECTION REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIR OR REPLACEMENT AND MAINTENANCE MUST BE COMPLETED.
10. TEMPORARY STABILIZATION SHALL BE COMPLETED UPON CESSATION OF WORK OF 4 DAYS OR MORE.
11. THE STREAM CROSSING SHALL BE CONDUCTED IN ACCORDANCE WITH THE CONSTRUCTION SEQUENCE AND APPROVED GENERAL PERMIT PLANS.

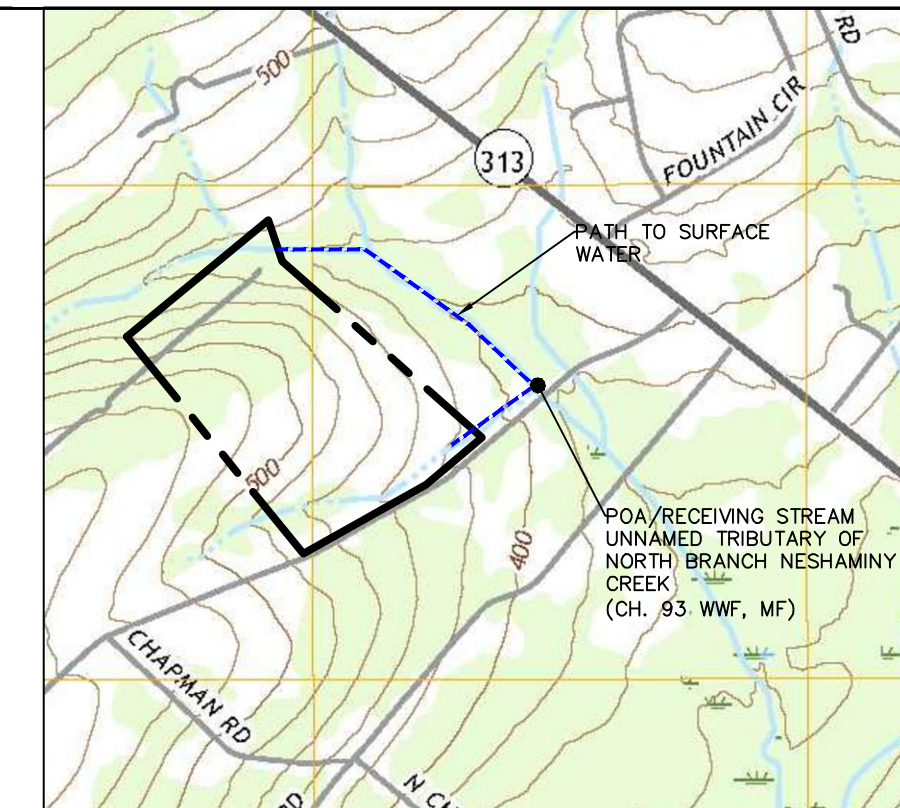
RECYCLING/ DISPOSAL OF MATERIALS
THE CONSTRUCTION WASTES ANTICIPATED INCLUDE DEMOLITION MATERIALS FROM THE BUILDING AND SITE DEMOLITION AND EXCESS BUILDING MATERIAL SUCH AS CONCRETE, WOOD, ETC.

ALL BUILDING MATERIAL AND WASTES MUST BE REMOVED FROM THE SITE AND RECYCLED IN ACCORDANCE WITH DEP'S SOLID WASTE REGULATIONS (25 PA CODE 2601 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ.), AND/OR ANY ADDITIONAL LOCAL, STATE OR FEDERAL REGULATIONS. NO BUILDING MATERIALS (USED OR UNUSED) OR WASTE MATERIALS SHALL BE BURNED, BURIED, DUMPED OR DISCHARGED AT THE SITE.

Soils Legend table with columns: Type, Name, Depth to Bedrock, Depth to Seasonal High Water Table, HSG, Hydric Soil, Agricultural Soil. Rows include Abbotsown silt loam, Bowmansville-Kraussers silt loams, Culleoka-Weikert channelry silt loams, Lansdale loam, Reading silt loam, and Reaville channelry silt loam.

Limitations and Resolutions: The soils found within the project limits have varying limitations including possible shallow depth to groundwater and possible shallow depth to bedrock. In order to resolve the groundwater limitation, any standing water should be pumped through a sediment filter bag. To resolve the bedrock limitation, the contractor shall determine whether rock is ripplable. If rock is not ripplable, blasting will be required. All blasting shall meet all local, county, state and federal regulations.

CRITICAL STAGES OF PCSM PLAN IMPLEMENTATION
THE INSTALLATION AND/OR CONVERSION OF EROSION CONTROL FACILITIES TO STORMWATER FACILITIES, INCLUDING THE INFILTRATION BASIN WITH MRC, SHALL BE OVERSEEN BY A LICENSED PROFESSIONAL ENGINEER OR THEIR DESIGNEE.



LOCATION MAP
REFERENCE: DOYLESTOWN U.S.G.S. QUADRANGLE MAP

SEQUENCE OF CONSTRUCTION

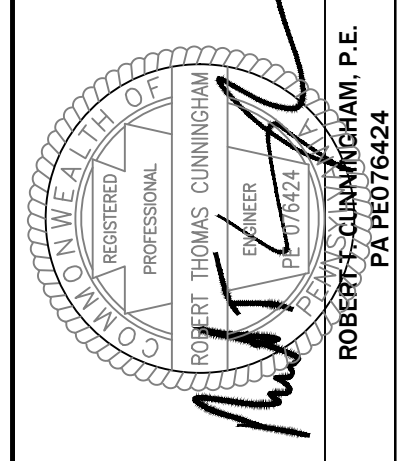
NOTES:
• SITE DEVELOPMENT OPERATIONS SHOULD BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING GENERAL SEQUENCE OF OPERATIONS. THE CONTRACTOR MAY DEVIATE FROM THE STAGING OF PERMANENT SITE IMPROVEMENT CONSTRUCTION ITEMS, WITH APPROVAL OF THE CONSERVATION DISTRICT INSPECTOR. DEVIATION FROM THE RELATIVE ORDER OF EROSION AND SEDIMENT CONTROL MEASURES SHOULD NOT OCCUR WITHOUT APPROVAL OF THE CONSERVATION DISTRICT INSPECTOR AND SITE ENGINEER. NO VERTICAL CONSTRUCTION MAY OCCUR UNTIL SUBGRADE IS SET.

- 1. CONTACT THE BUCKS COUNTY CONSERVATION DISTRICT (215-345-7577), NEW BRITAIN TOWNSHIP, AND THE TOWNSHIP ENGINEER AT LEAST THREE (3) WORKING DAYS PRIOR TO SITE DISTURBANCE.
2. EACH STAGE OF THE SEQUENCE OF CONSTRUCTION MUST BE COMPLETED PRIOR TO INITIATION OF THE NEXT STAGE OF THE SEQUENCE OF CONSTRUCTION. CONSTRUCTION MAY OVERLAP INTO A SUBSEQUENT PHASE AS LONG AS ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED IN THE PREVIOUS PHASE.
3. INSTALL CONSTRUCTION ENTRANCE AT SITE ACCESS, STOCKPILE, COMPOST FILTER SOCK AND TREE PROTECTION FENCE WHERE SHOWN ON THE PLAN. INSTALL PROTECTION FENCE AROUND FUTURE BMPs.
4. STRIP TOPSOIL AND STOCKPILE WHERE SHOWN ON PLAN. ALL STRIPPED TOPSOIL STOCKPILES SHALL HAVE TEMPORARY SEEDING INSTALLED. ROUGH GRADE SITE, DRIVEWAY/PARKING AND BUILDING PADS. INSTALL TEMPORARY EROSION CONTROL BLANKETS.
5. COMPLETE STREAM CROSSING IN ACCORDANCE WITH THE APPROVED PLANS AND DETAILS ASSOCIATED WITH THE GENERAL PERMIT AUTHORIZING THE WORK. SEE DETAILED CONSTRUCTION DETAILS AND SEQUENCING FOR STREAM CROSSING ON SHEET 3.2.
6. PRIOR TO VERTICAL CONSTRUCTION, A STABLE BASE WILL BE ESTABLISHED AND MAINTAINED, TO AVOID ACCELERATED EROSION.
7. BEGIN CONSTRUCTION OF BUILDING FOUNDATIONS. BUILDING CONSTRUCTION MAY COINCIDE WITH ADDITIONAL SITE WORK, INCLUDING UTILITY AND STREET CONSTRUCTION, THAT IS LISTED IN THIS SEQUENCE OF CONSTRUCTION. PRIOR TO VERTICAL CONSTRUCTION, SUBGRADE IS TO BE SET, INCLUDING BUT NOT LIMITED TO FOUNDATION WORK, STABLE SUBGRADE/SUBBASE, SUBSURFACE UTILITY WORK, AND DRIVEWAY/PARKING SUBGRADE.
8. INSTALL WATER, SEPTIC, AND STORM SEWER SYSTEM STARTING AT THE DOWNSTREAM ENDS AND WORKING UPSTREAM. ALL TRENCHES SHALL BE BACKFILLED AT THE END OF EACH DAY. MAKE OFFSITE UTILITY CONNECTIONS AND INSTALL OFFSITE WATER AND SANITARY SEWER. INSTALL CURB, SUBBASE AND BASE COURSE FOR THE DRIVEWAY/PARKING.
9. INSTALL RAIN GARDENS, STORM SEWERS, OUTLET STRUCTURES, LEVEL SPREADERS, AND UNDERDRAINS IN ACCORDANCE WITH THE APPROVED PLANS. ALL RAIN GARDEN CONSTRUCTION SHALL BE CONSTRUCTED WITH OVERSIGHT BY A LICENSED PROFESSIONAL INCLUDING EXCAVATION OF COMPLETION OF SUBGRADE WORK AND INSTALLATION OF PLANTING SOIL. INSTALL EROSION CONTROL MEASURES UP-SLOPE OF INSTALLED RAIN GARDENS TO PREVENT SEDIMENT FROM ENTERING THE BMPs. REINSTALL CONSTRUCTION FENCING TO PROTECT THE RAIN GARDENS FROM COMPACTION DURING THE REMAINING SITE CONSTRUCTION.
10. COMPLETE FINAL GRADING. AFTER FINAL GRADING IS COMPLETED, APPLY PERMANENT SEEDING MIXTURE AND INSTALL ALL REQUIRED PLANTINGS, FENCING, AND LIGHTING. LIGHTING AND HENRY COURT BINDER COURSE SHALL BE INSTALLED PRIOR TO THE ISSUANCE OF ANY USE AND OCCUPANCY PERMITS. ONCE ALL BUILDINGS ARE COMPLETED, FLUSH ALL AFFECTED STORM DRAINAGE PIPES OF ACCUMULATED SILT.
11. 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 STORM EVENT OR ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN-OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING, MUST BE PERFORMED IMMEDIATELY.
12. UPON COMPLETE STABILIZATION OF SITE, REMOVE EROSION CONTROL DEVICES AND REMOVE TEMPORARY BRIDGE PLATES AND CONVERT SEDIMENT TRAP TO PERMANENT STORMWATER BASIN BMPs PER THE CONSTRUCTION SEQUENCES AND DETAILS FOUND ON THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN. THE SITE SHALL BE CONSIDERED STABILIZED WHEN THE PERMANENT VEGETATION HAS PROVIDED A 70% GROUND COVER.
13. AFTER CONSTRUCTION IS COMPLETED, INSTALL WEARING COURSE FOR THE DRIVEWAY, REPAIR ANY DAMAGED STORM SEWER STRUCTURES, SANITARY SEWER STRUCTURES, LANDSCAPING, LIGHTING, SIDEWALKS, DRIVEWAYS, AND/OR ANY OTHER AMENITIES FROM INSTALLATION OF WEARING COURSE.
14. UPON PERMANENT STABILIZATION AND PRIOR TO THE NPDES PERMIT EXPIRATION, A NOTICE OF TERMINATION SHALL BE SUBMITTED TO BCCD IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE NPDES PERMIT.

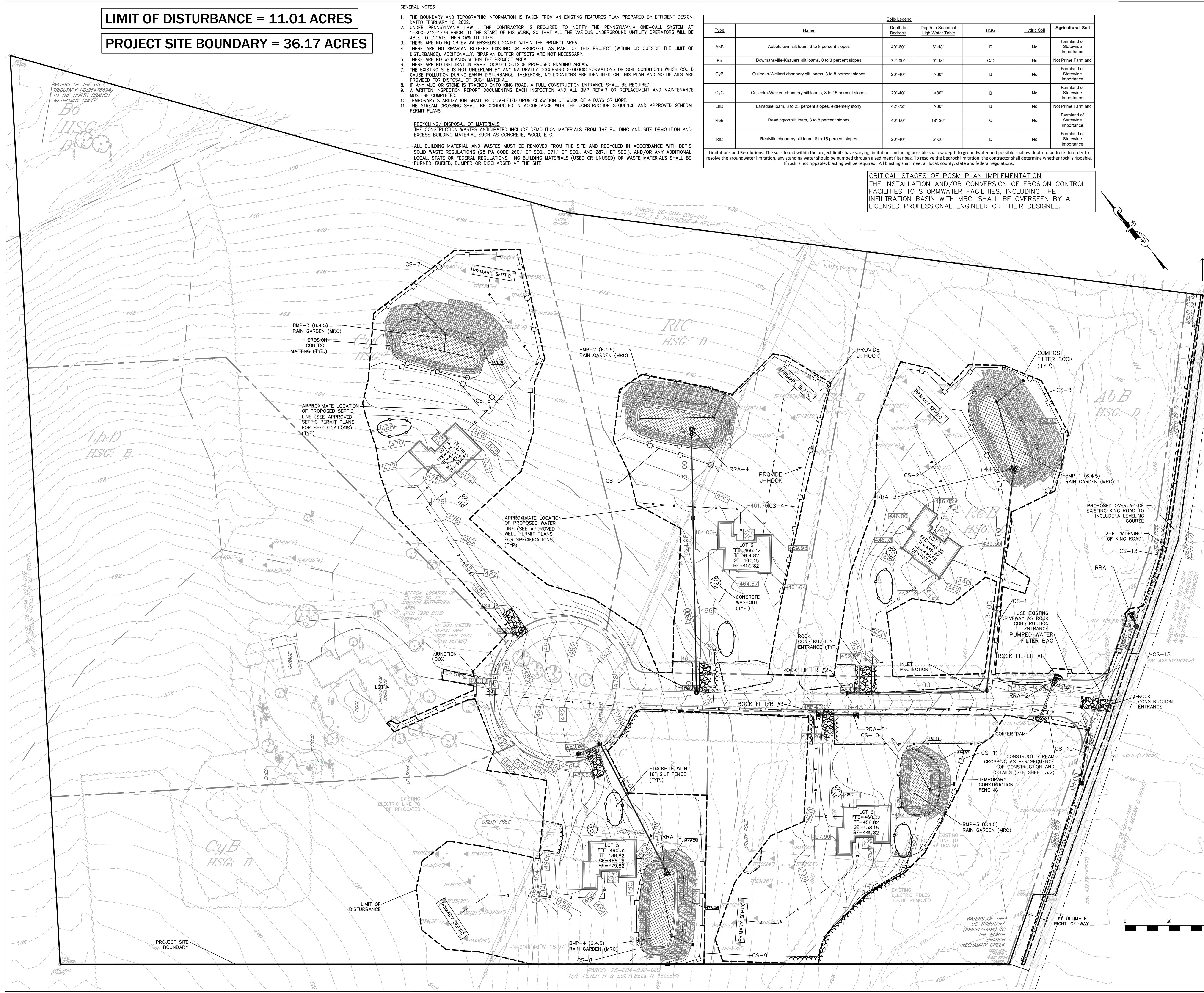
Holmes Cunningham LLC
409 E. Butler Ave., Unit 5
Doylestown, PA 18901
(215) 586-3330
www.hcengineering.net

REVISIONS table with columns: Date, Description, Revised Per Township Engineer Review, Revised Per Township Engineer Review, Revised Per BCCD Review, Revised Per Final Plans.

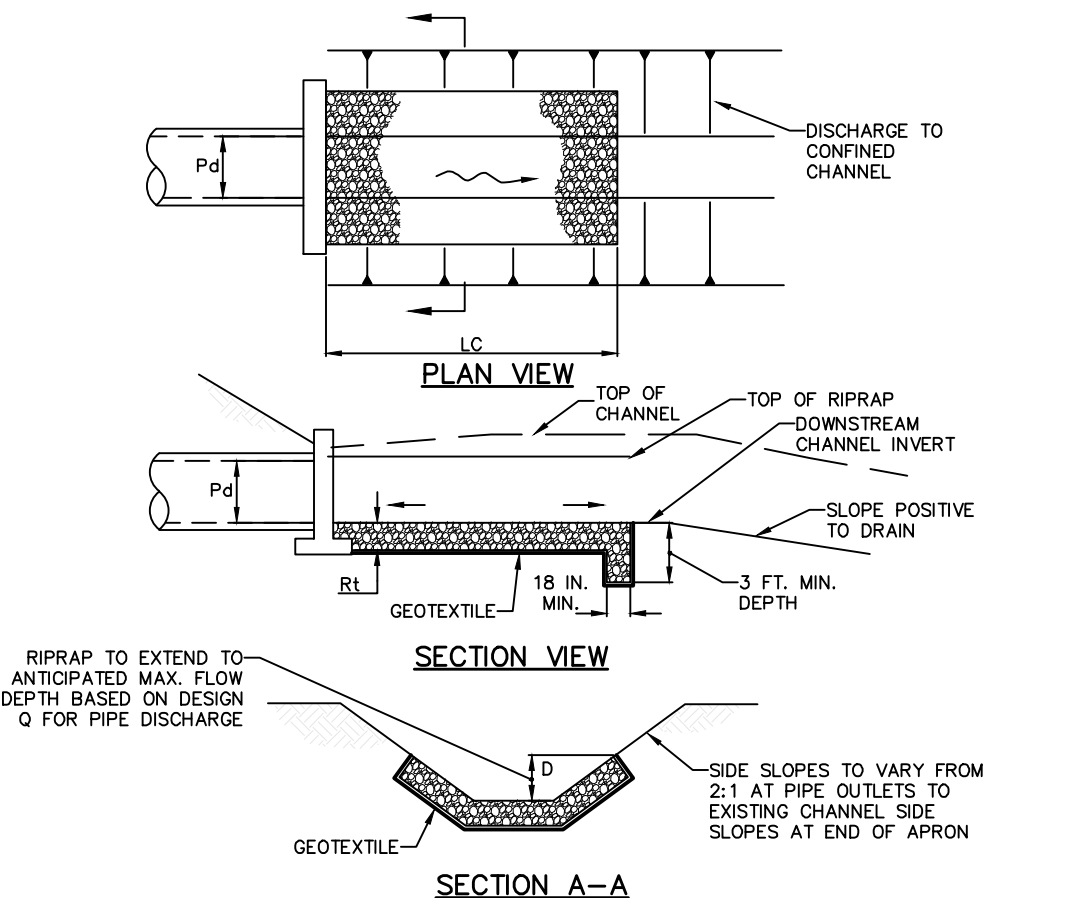
THE ESTATES AT HILL TOP
396 KING ROAD
TWP # 26-004-030
NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PA
EROSION AND SEDIMENT CONTROL PLAN



File No. 1734_C3.0 E&S.DWG
HCE Job 1734
Date 09/14/2022
Scale 1"=60'
Designed RC
Sheet 8 of 15
Drawing No. C3.0

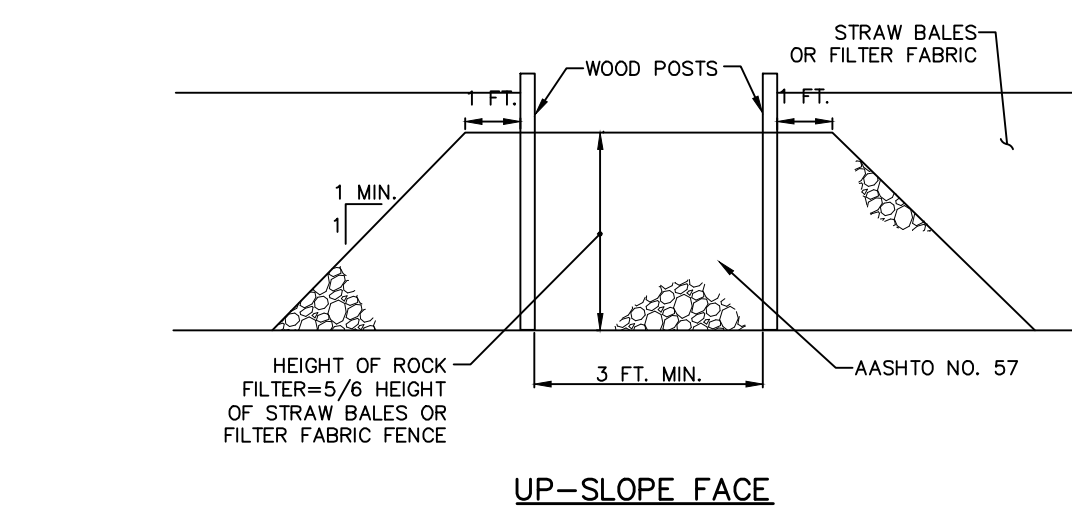
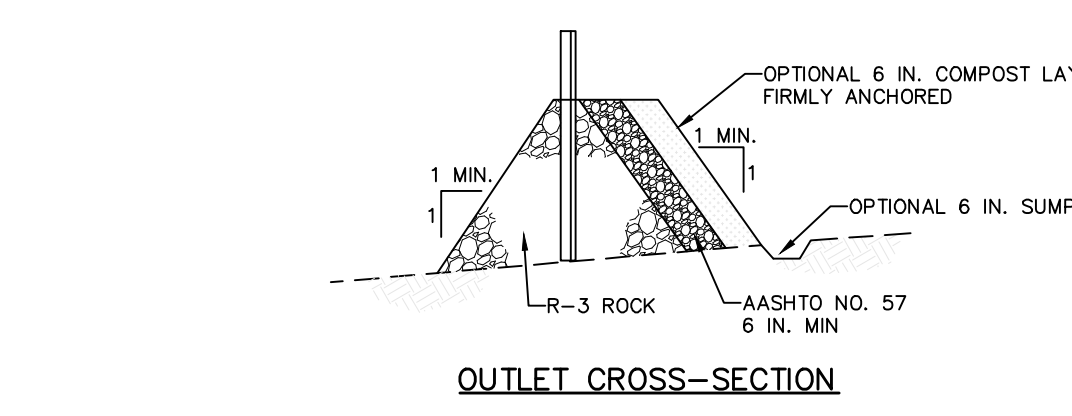


LEGEND
PROPERTY LINE
PROPOSED BUILDING
EXISTING CONTOUR
PROPOSED CONTOUR
DOWNSPOUT LOCATION
COMPOST FILTER SOCK
LIMIT OF DISTURBANCE
PROJECT SITE BOUNDARY
SOILS LINE
SOILS TYPE
CONSTRUCTION FENCE
COMPOST SILT SOCK
EROSION CONTROL MATTING

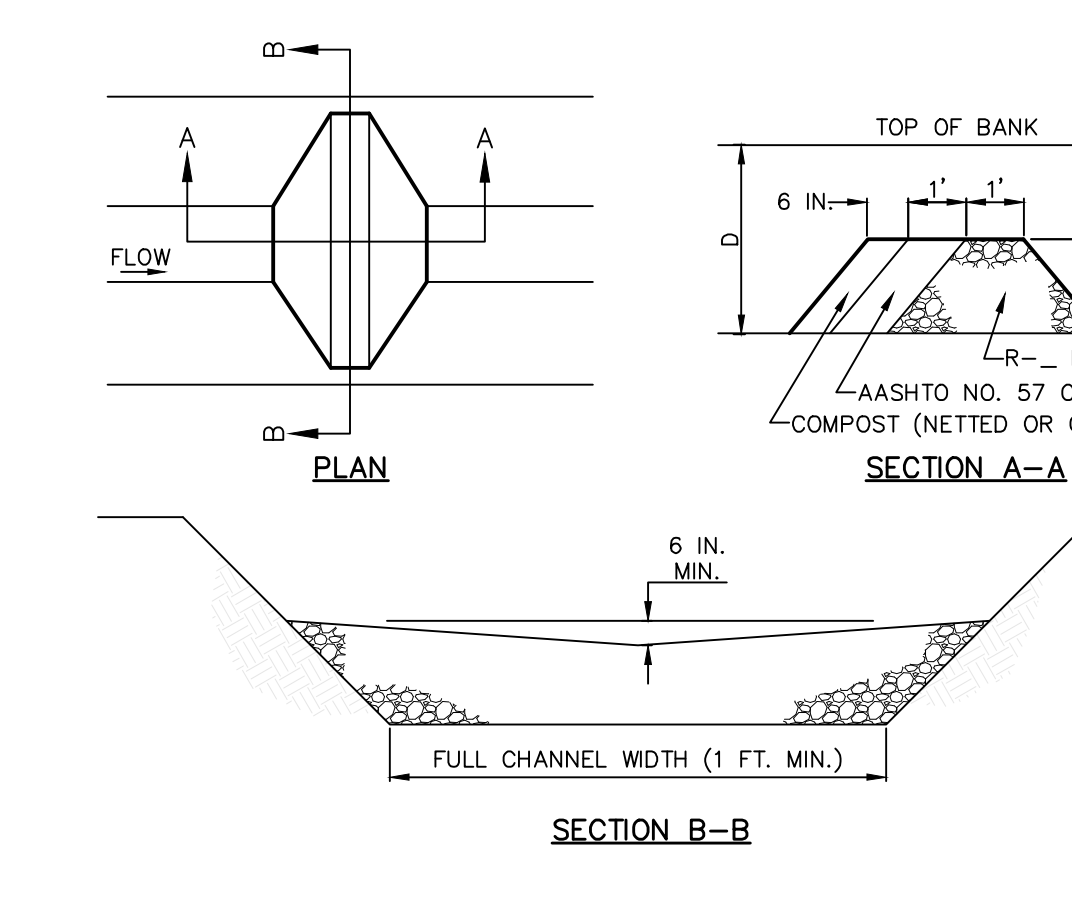


OUTLET NO.	PIPE DIA. (IN)	RIPRAP SIZE (IN)	RIPRAP THICK. (IN)	RIPRAP LENGTH (FT)	APRON INITIAL WIDTH (AT ENDWALL) (FT)	APRON END WIDTH (AT ENDWALL) (FT)	APRON END TOP WIDTH (FT)	SIDE SLOPES H:V
RRA-2	36	5	18	20	5	11.67	9	18.67 : 3:1

NOTES:
 ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.
 ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.
**STANDARD CONSTRUCTION DETAIL #9-3
 RIPRAP APRON AT PIPE OUTLET TO AN EXISTING CHANNEL**

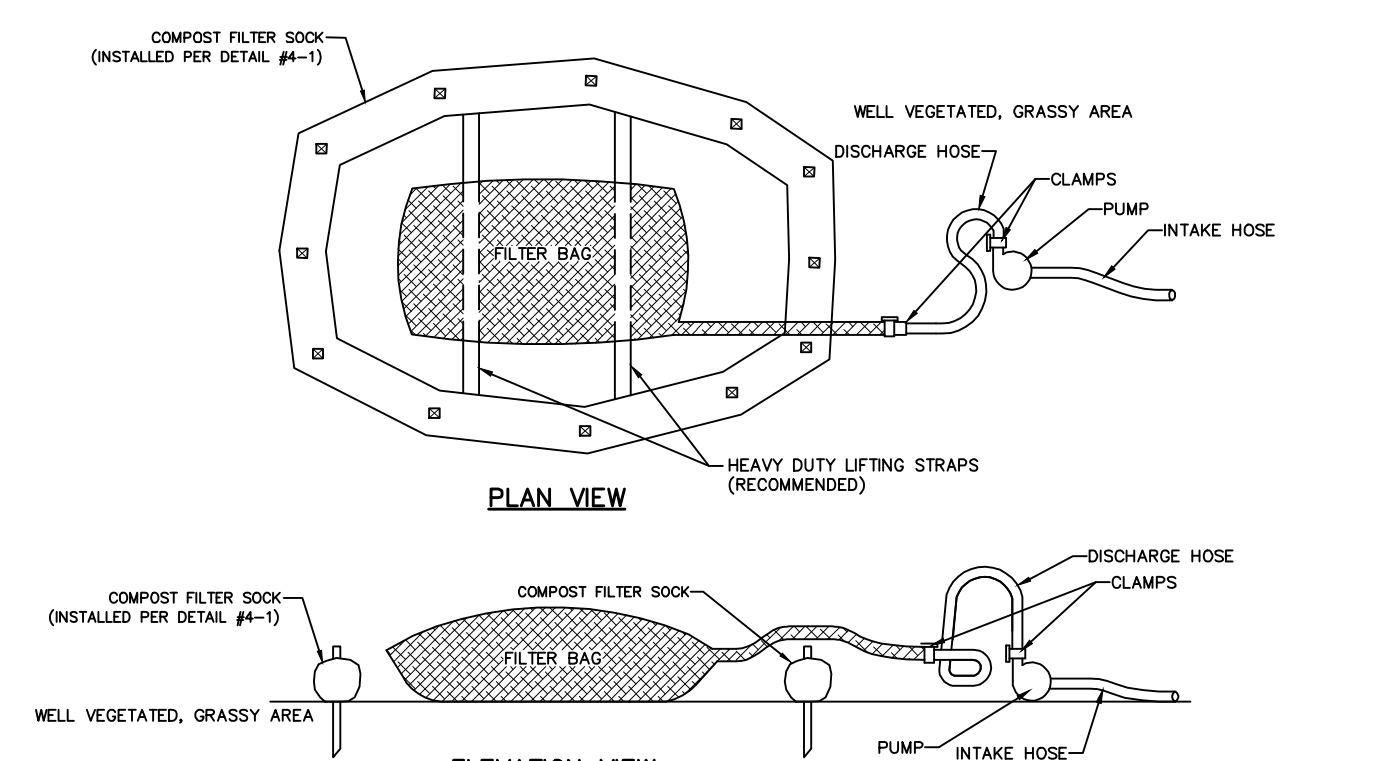


NOTES:
 A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE IN HIGH AND VULNERABLE AREAS.
 SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.
**STANDARD CONSTRUCTION DETAIL #4-6
 ROCK FILTER OUTLET**



ROCK FILTER NO.	LOCATION	D (FT)	RIPRAP SIZE (R-)
1	STREAM CROSSING	3.5	4
2	LOT 1 DRIVEWAY	2	3
3	LOT 6 DRIVEWAY	2	3

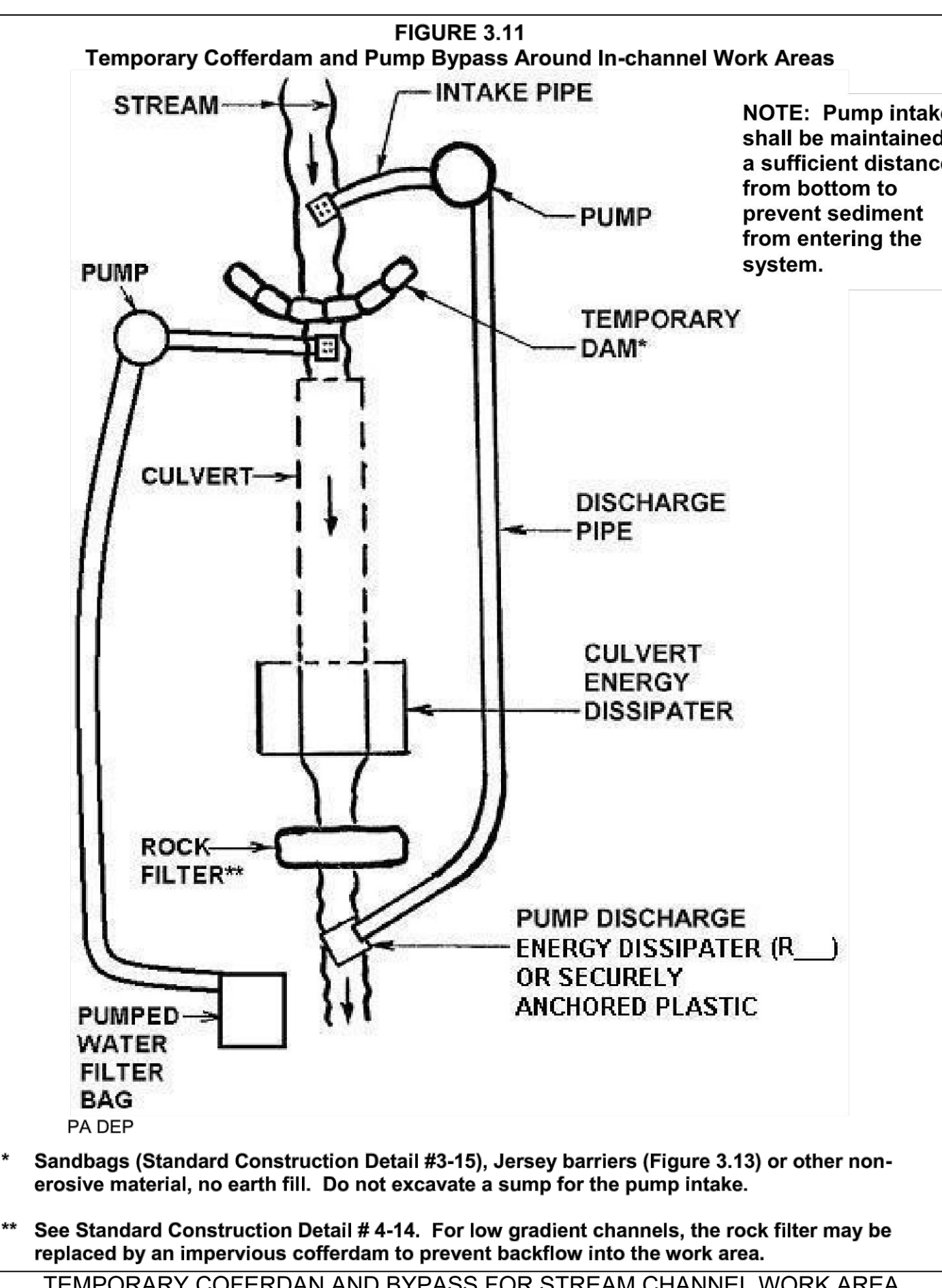
NOTES:
 SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE HEIGHT OF THE FILTERS.
 IMMEDIATELY UPON STABILIZATION OF EACH CHANNEL, REMOVE ACCUMULATED SEDIMENT, REMOVE ROCK FILTER, AND STABILIZE DISTURBED AREAS.
**STANDARD CONSTRUCTION DETAIL #4-14
 ROCK FILTER**



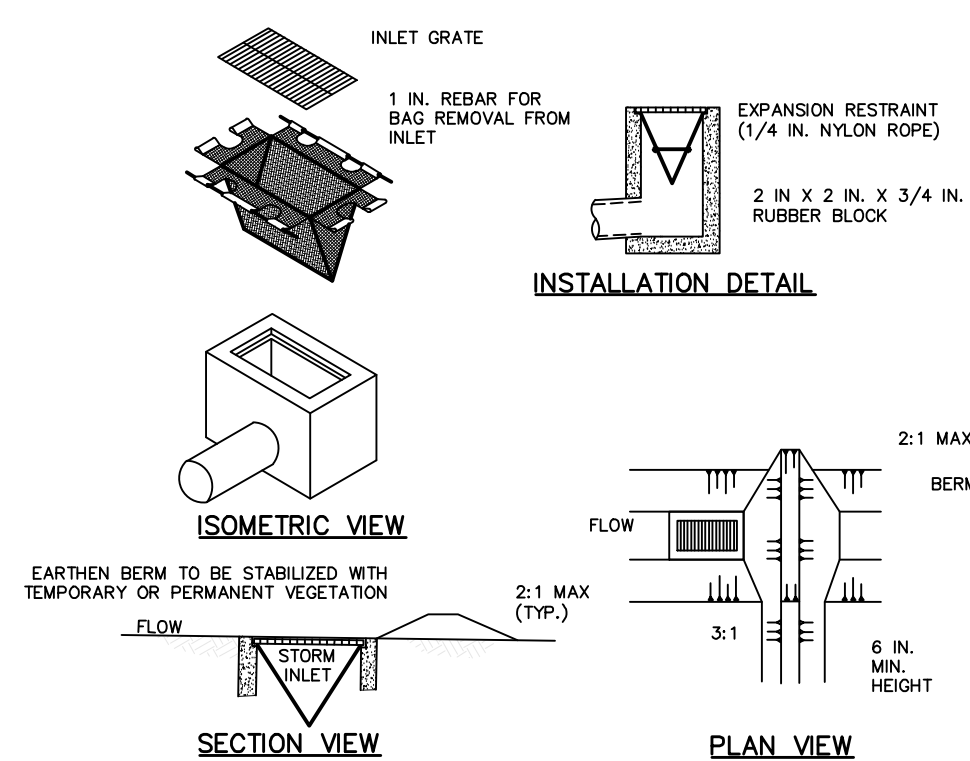
NOTES:
 LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED, "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLIN BURST	ASTM D-5786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
50% RETAINED	ASTM D-4751	80% SIEVE

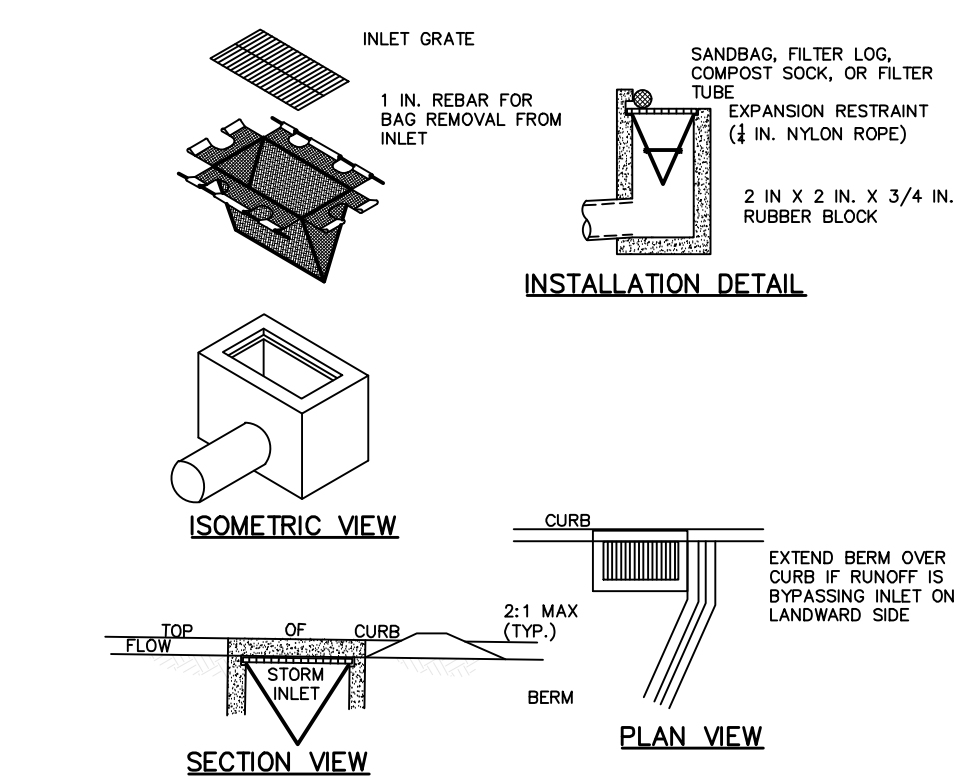
 A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRIPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.
 BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5% FOR SLOPES EXCEEDING 5%. CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.
 NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HIGH OR VERY WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.
 THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.
 THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.
 FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.
**STANDARD CONSTRUCTION DETAIL #3-15
 JERSEY BARRIERS**



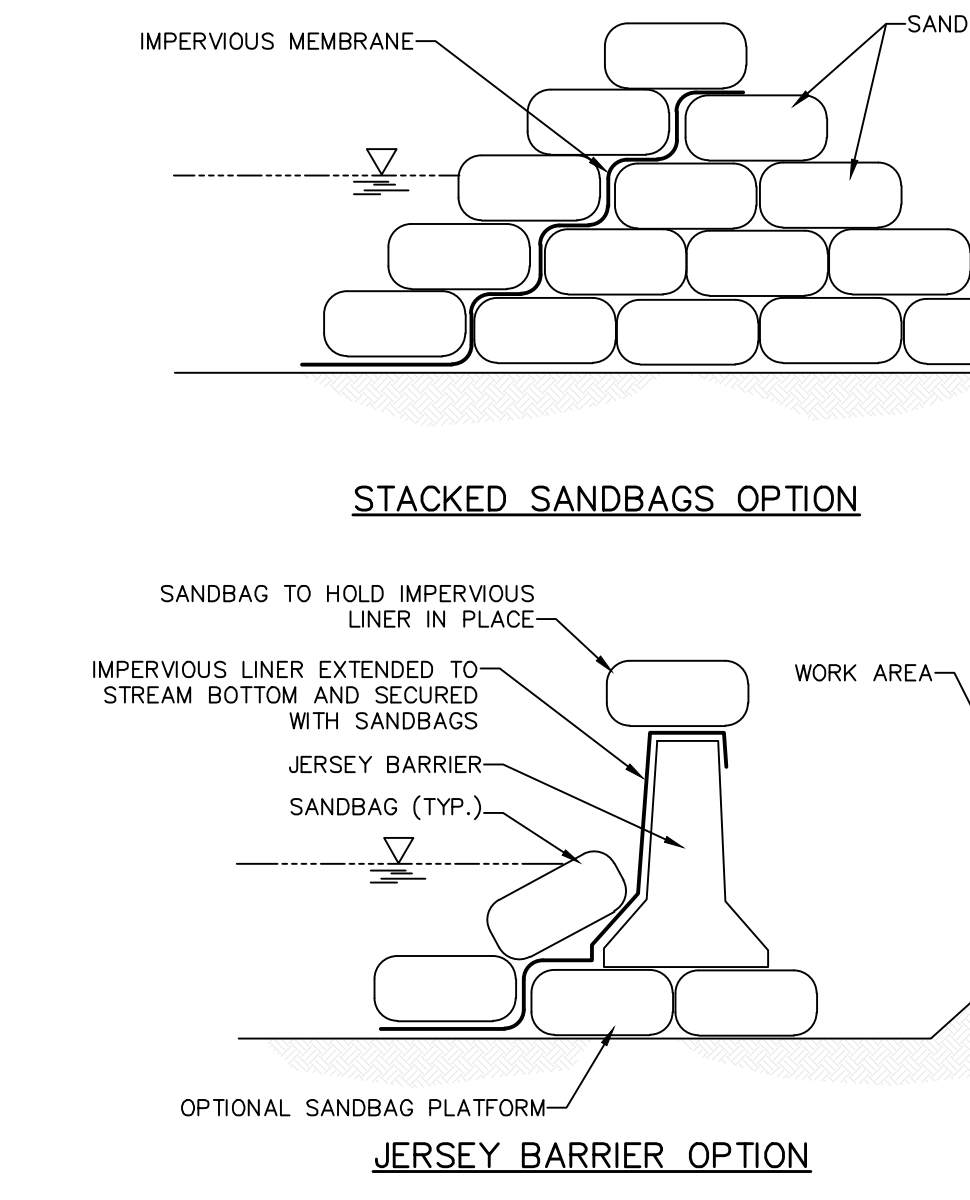
NOTE: Pump intake shall be maintained a sufficient distance from bottom to prevent sediment from entering the system.
 * Sandbags (Standard Construction Detail #3-15), Jersey barriers (Figure 3.13) or other non-erosive material, no earth fill. Do not excavate a sump for the pump intake.
 ** See Standard Construction Detail #4-14. For low gradient channels, the rock filter may be replaced by an impervious cofferdam to prevent backflow into the work area.
TEMPORARY COFFERDAM AND BYPASS FOR STREAM CHANNEL WORK AREA



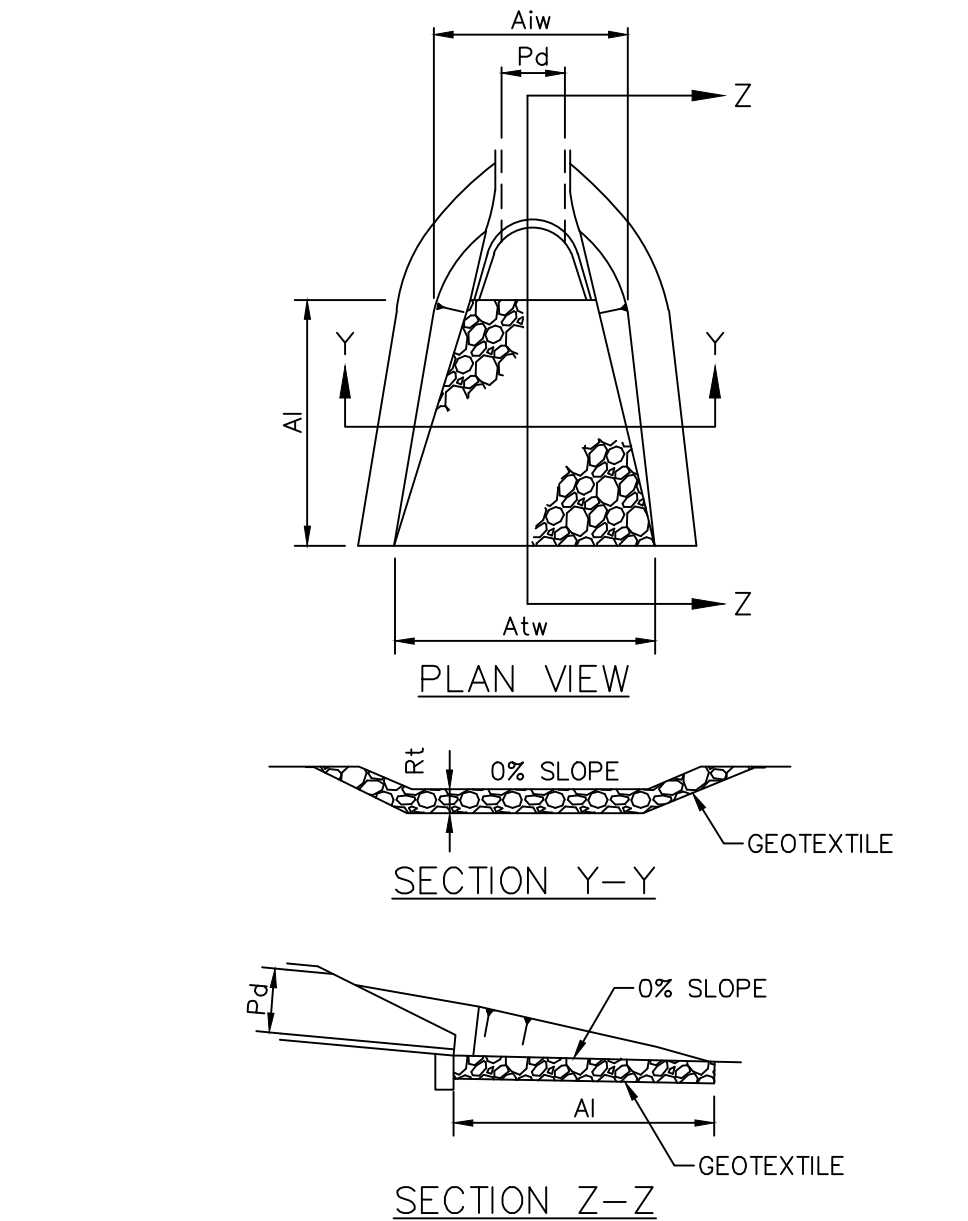
NOTES:
 MAXIMUM DRAINAGE AREA = 1/2 ACRE.
 INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.
 ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.
 AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.
 INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINGED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.
 DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.
**STANDARD CONSTRUCTION DETAIL #4-16
 FILTER BAG INLET PROTECTION - TYPE M INLET**



NOTES:
 MAXIMUM DRAINAGE AREA = 1/2 ACRE.
 INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.
 ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.
 AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.
 INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINGED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.
 DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.
**STANDARD CONSTRUCTION DETAIL #4-15
 FILTER BAG INLET PROTECTION - TYPE C INLET**



**STANDARD CONSTRUCTION DETAIL #3-15
 SANDBAG DIVERSION DAM OR COFFERDAM**



OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP			APRON	
		SIZE R-	THICK. Rt (IN)	LENGTH Ai (FT)	INITIAL WIDTH Aiw (FT)	TERMINAL WIDTH Atw (FT)
RRA-1	18	4	18	8	4.5	12.00
RRA-2	36	5	18	20	9.00	29.00
RRA-3	15	4	18	8	3.75	11.75
RRA-4	15	4	18	8	3.75	11.75
RRA-5	15	4	18	8	3.75	11.75
RRA-6	15	4	18	8	3.75	11.75

NOTES:
 REFER TO E&S STANDARD WORKSHEET 20 FOR RIP-RAP APRON SIZING INFORMATION.
 ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.
 ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

**STANDARD CONSTRUCTION DETAIL #9-1
 RIPRAP APRON AT PIPE OUTLET WITH FLARED END SECTION OR ENDWALL**

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 Doylestown, PA 18901
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 www.hcengineering.net

REVISIONS	Date	Description
02/08/2023	Revised Per Township Engineer Review	
06/08/2023	Revised Per Township Engineer Review	
09/01/2023	Revised Per BCCD Review	
12/15/2023	Revised For Final Plans	

CALL BEFORE YOU DIG IT
 PENNSYLVANIA WATER SERVICES
 CONSTRUCTION PHASE AND
 10 WORKING HOURS
 -STOPS & CALL
 Pennsylvania One
 Call System, Inc.
 1-800-942-1976

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL CONTACT UTILITY COMPANIES PRIOR TO ANY EXCAVATION.

THE ESTATES AT HILL TOP
 396 KING ROAD
 TWP # 26-004-030
 NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PA

EROSION AND SEDIMENT CONTROL DETAILS

File No.
 1734_C3.0 E&S.DWG

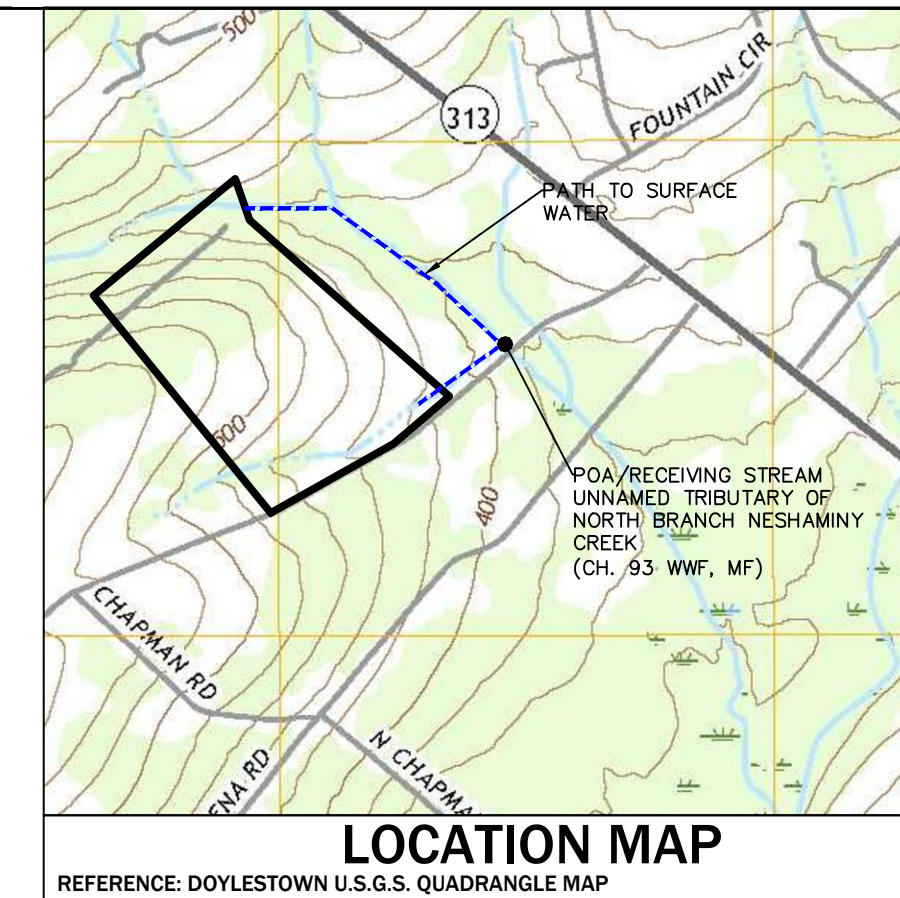
HCE Job # 1734
 Date 09/14/2022
 Scale N.T.S.
 Designed RC
 Sheet 10 of 15

Drawing No.
C3.2

APPLICANT'S ACKNOWLEDGEMENT
 I, the undersigned, acknowledge that stormwater facilities and BMPs are fixtures that can only be altered and removed after approval by the Municipality and submission of a revised E&S plan to the Conservation District.

Soils Legend						
Type	Name	Depth to Bedrock	Depth to Seasonal High Water Table	HSG	Hydric Soil	Agricultural Soil
AbB	Abbotstown silt loam, 3 to 8 percent slopes	40"-60"	0'-18"	D	No	Farmland of Statewide Importance
Bo	Bowmansville-Knaurs silt loams, 0 to 3 percent slopes	72"-99"	0'-18"	C/D	No	Not Prime Farmland
CyB	Culleoka-Weikert channery silt loams, 3 to 8 percent slopes	20"-40"	>80"	B	No	Farmland of Statewide Importance
CyC	Culleoka-Weikert channery silt loams, 8 to 15 percent slopes	20"-40"	>80"	B	No	Farmland of Statewide Importance
LHD	Lansdale loam, 8 to 25 percent slopes, extremely stony	42"-72"	>80"	B	No	Not Prime Farmland
ReB	Readington silt loam, 3 to 8 percent slopes	40"-60"	18"-36"	C	No	Farmland of Statewide Importance
RIC	Reahville channery silt loam, 8 to 15 percent slopes	20"-40"	6"-36"	D	No	Farmland of Statewide Importance

Limitations and Resolutions: The soils found within the project limits have varying limitations including possible shallow depth to groundwater and possible shallow depth to bedrock. In order to resolve the groundwater limitation, any standing water should be pumped through a sediment filter bag. To resolve the bedrock limitation, the contractor shall determine whether rock is ripiable. If rock is not ripiable, blasting will be required. All blasting shall meet all local, county, state and federal regulations.



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ENGINEERING

REVISIONS	Date	Description
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06/09/2023	Revised Per Township Engineer Review	
09/01/2023	Revised Per BCCD Review	
12/15/2023	Revised for Final Plans	



- GENERAL NOTES**
- THE BOUNDARY AND TOPOGRAPHIC INFORMATION IS TAKEN FROM AN EXISTING FEATURES PLAN PREPARED BY EFFICIENT DESIGN, DATED FEBRUARY 10, 2022.
 - UNDER PENNSYLVANIA LAW, THE CONTRACTOR IS REQUIRED TO NOTIFY THE PENNSYLVANIA ONE-CALL SYSTEM AT 1-800-242-1776 PRIOR TO THE START OF HIS WORK, SO THAT ALL THE VARIOUS UNDERGROUND UTILITY OPERATORS WILL BE ABLE TO LOCATE THEIR OWN UTILITIES.
 - THERE ARE NO HO OR EV WATERSHEDS LOCATED WITHIN THE PROJECT AREA.
 - THERE ARE NO RIPARIAN BUFFERS EXISTING OR PROPOSED AS PART OF THIS PROJECT (WITHIN OR OUTSIDE THE LIMIT OF DISTURBANCE). ADDITIONALLY, RIPARIAN BUFFER OFFSETS ARE NOT NECESSARY.
 - THERE ARE NO WETLANDS WITHIN THE PROJECT AREA.
 - THERE ARE NO INFILTRATION BMPs LOCATED OUTSIDE PROPOSED GRADING AREAS.
 - THE EXISTING SITE IS NOT UNDERLAIN BY ANY NATURALLY OCCURRING GEOLOGIC FORMATIONS OR SOIL CONDITIONS WHICH COULD CAUSE POLLUTION DURING EARTH DISTURBANCE. THEREFORE, NO LOCATIONS ARE IDENTIFIED ON THIS PLAN AND NO DETAILS ARE PROVIDED FOR DISPOSAL OF SUCH MATERIAL.

MINIMIZE IMPERVIOUS AREAS
 THE PROJECT HAS LIMITED IMPERVIOUS AREAS PROPOSED TO THE MAXIMUM EXTENT POSSIBLE. THE SITE PLAN HAS CLUSTERED THE DEVELOPMENT TO REDUCE THE EXTENT OF PROPOSED ROADWAYS AND THE DRIVEWAYS ARE THE MINIMUM ACCEPTABLE LENGTH.

PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION
 THE LIMIT OF DISTURBANCE IS MINIMIZED TO REDUCE THE DISTURBANCE TO THE EXISTING FEATURES. THE EXISTING VEGETATION AROUND THE PERIMETER OF THE SITE IS TO REMAIN TO THE MAXIMUM EXTENT POSSIBLE. THERE IS NO PROPOSED DISTURBANCE TO DRAINAGE FEATURES.

MINIMIZE LAND CLEARING
 THE PROJECT HAS LIMITED THE SOIL DISTURBANCE AREA TO THE MAXIMUM EXTENT POSSIBLE AND LAND CLEARING IS LIMITED TO THE AREAS SHOWN ON THE PLAN.

STRUCTURAL AND NON-STRUCTURAL BMPs TO DECREASE STORMWATER RUNOFF
 RE-VEGETATE DISTURBED AREAS. ALL DISTURBED AREAS WILL BE PERMANENTLY SEEDED OR LANDSCAPED. ADDITIONALLY, NEW TREES WILL BE PLANTED THROUGHOUT THE SITE TO REDUCE THE THERMAL IMPACTS OF IMPERVIOUS SURFACES AND REDUCE RUNOFF VOLUME THROUGH TRANSPARATION.

RECYCLING/ DISPOSAL OF MATERIALS
 THE CONSTRUCTION WASTES ANTICIPATED INCLUDE DEMOLITION MATERIALS FROM THE BUILDING AND SITE DEMOLITION AND EXCESS BUILDING MATERIAL SUCH AS CONCRETE, WOOD, ETC.

ALL BUILDING MATERIAL AND WASTES MUST BE REMOVED FROM THE SITE AND RECYCLED IN ACCORDANCE WITH DEP'S SOLID WASTE REGULATIONS (25 PA CODE 26.01 ET SEQ., 27.11 ET SEQ., AND 28.11 ET SEQ.), AND/OR ANY ADDITIONAL LOCAL, STATE OR FEDERAL REGULATIONS. NO BUILDING MATERIALS (USED OR UNUSED) OR WASTE MATERIALS SHALL BE BURNED, BURIED, DUMPED OR DISCHARGED AT THE SITE.

LEGEND

- PROPERTY LINE
- PROPOSED BUILDING
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROJECT SITE BOUNDARY
- LIMIT OF DISTURBANCE
- PROPOSED RAIN GARDEN
- DRAINAGE AREA

LIMIT OF DISTURBANCE = 11.01 ACRES
PROJECT SITE BOUNDARY = 36.17 ACRES

CRITICAL STAGES OF PCSM PLAN IMPLEMENTATION
 THE INSTALLATION AND/OR CONVERSION OF EROSION CONTROL FACILITIES TO STORMWATER FACILITIES, INCLUDING THE INFILTRATION BASIN WITH MRC, SHALL BE OVERSEEN BY A LICENSED PROFESSIONAL ENGINEER OR THEIR DESIGNEE.

THE ESTATES AT HILL TOP
 396 KING ROAD
 TWP # 26-004-030
 NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PA

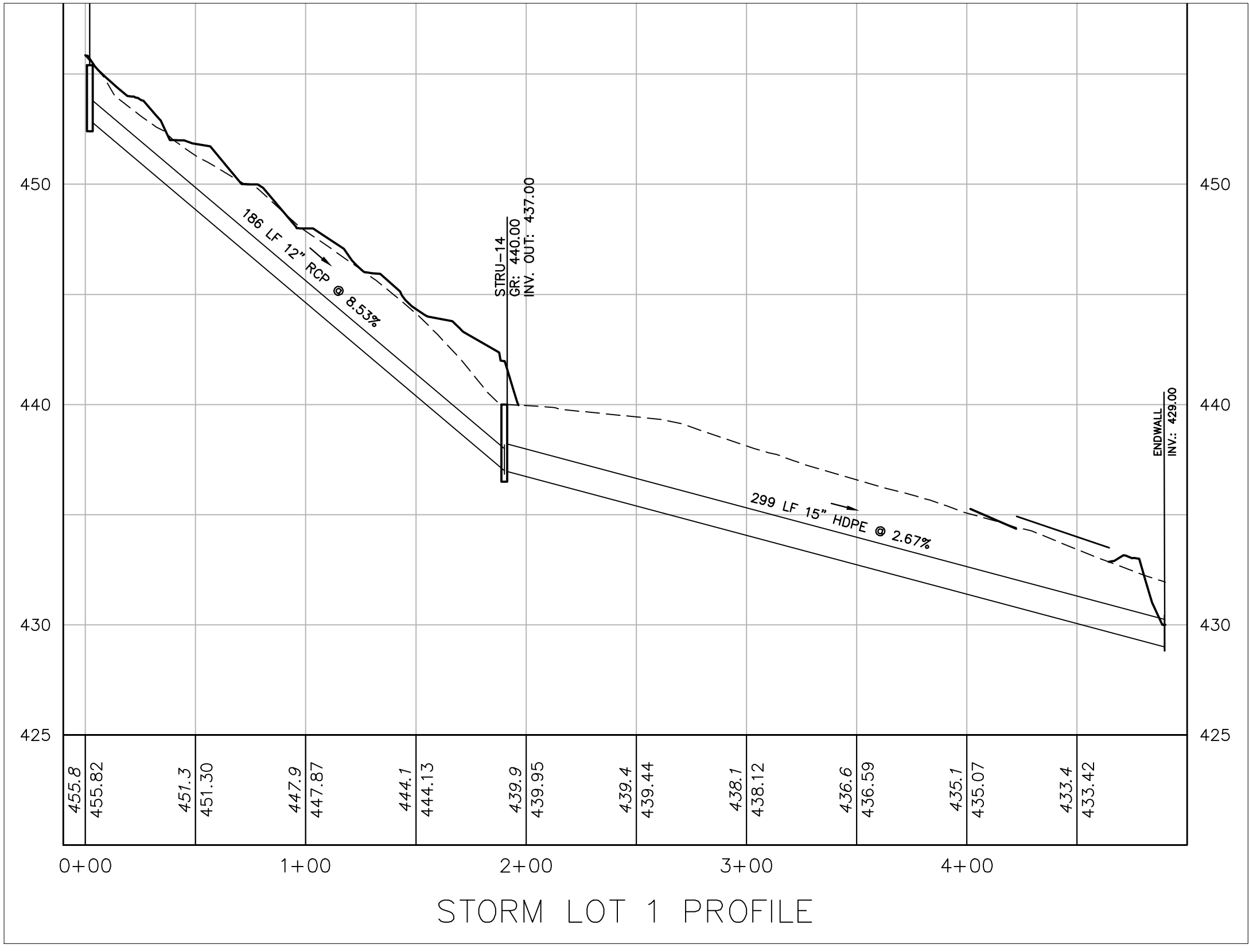
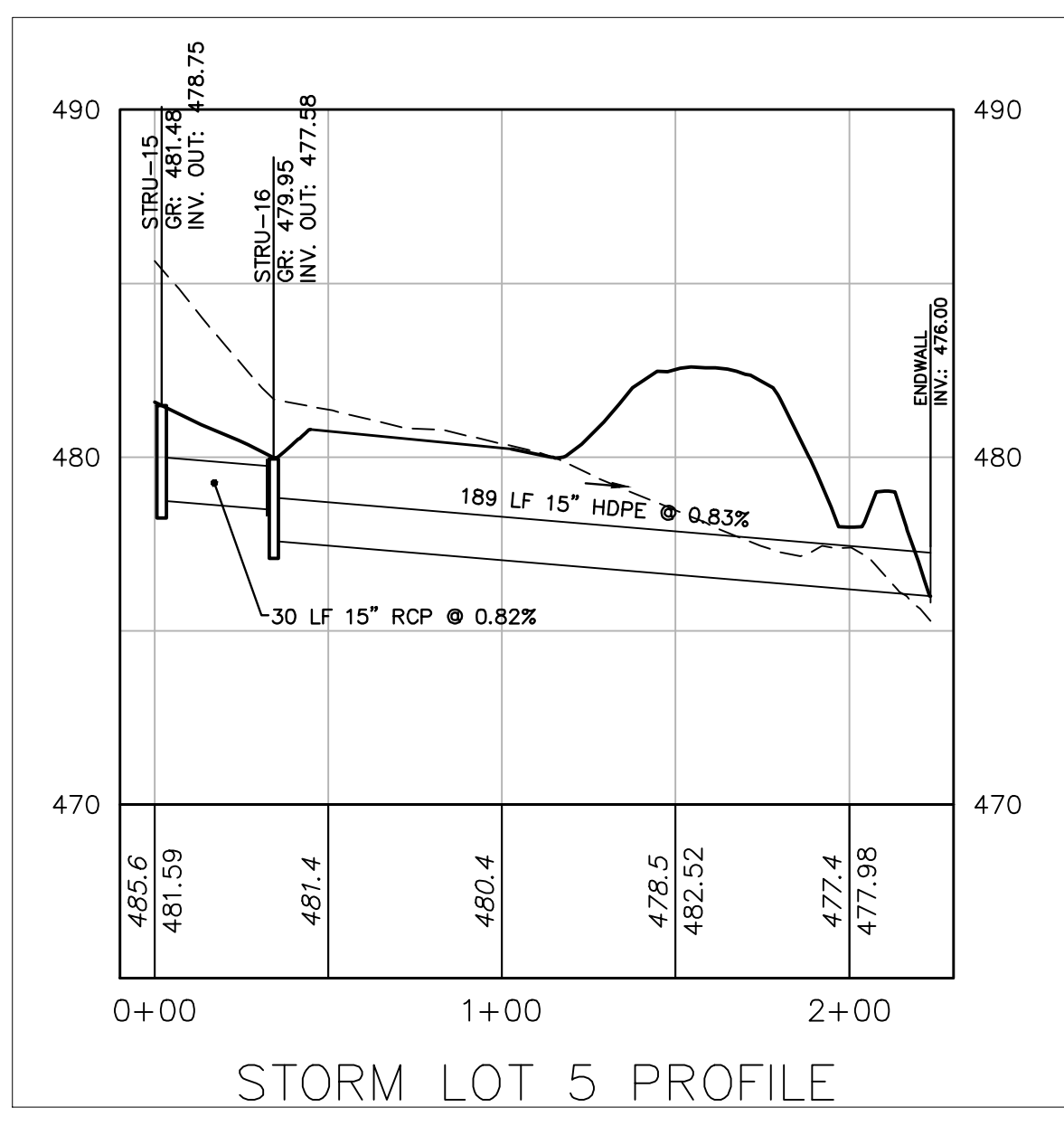
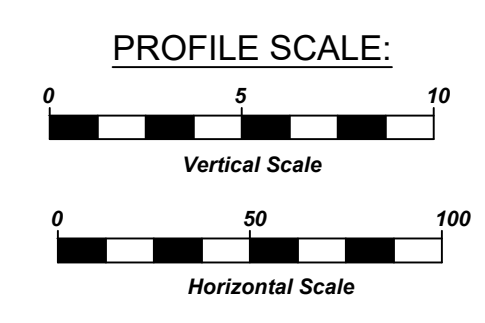
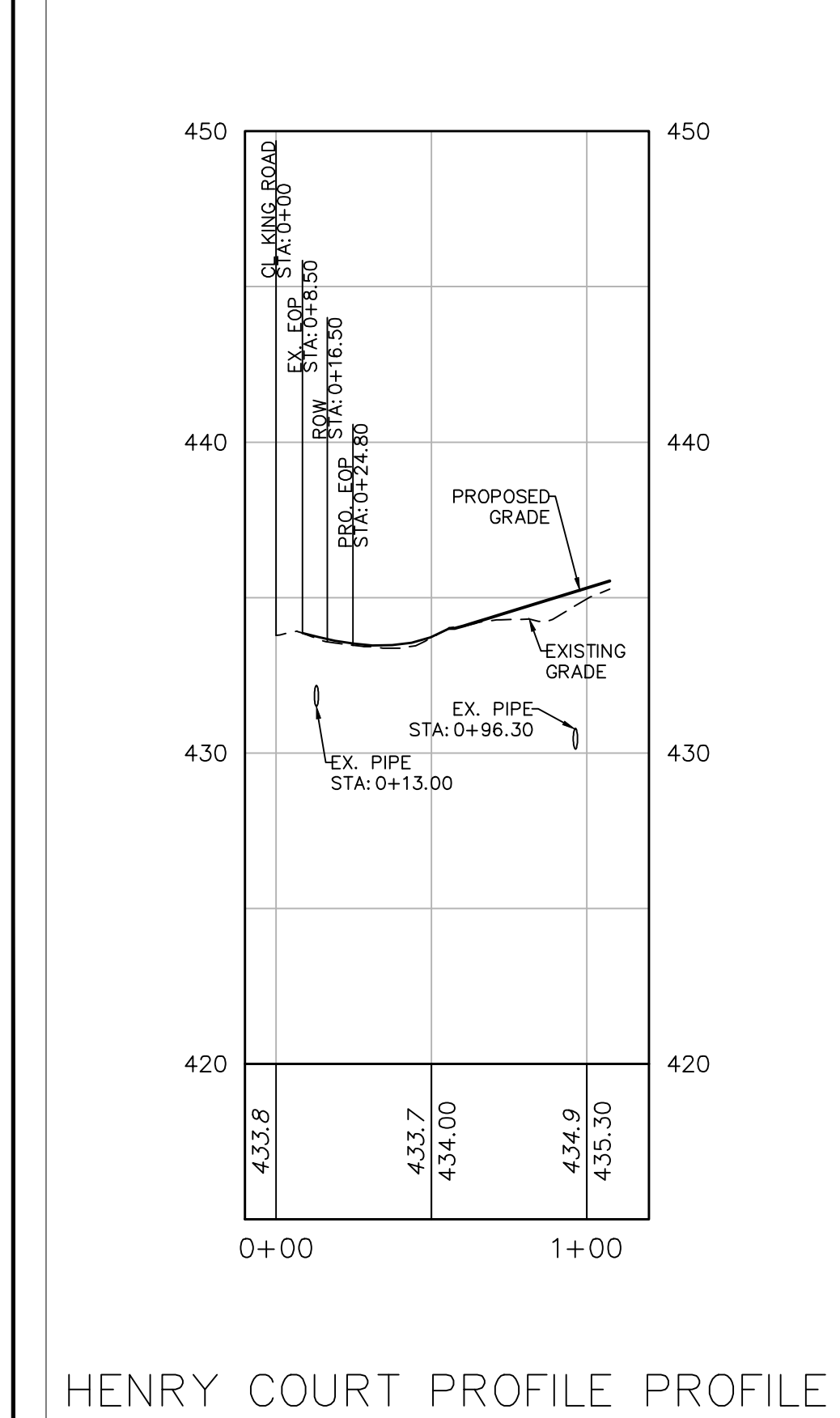
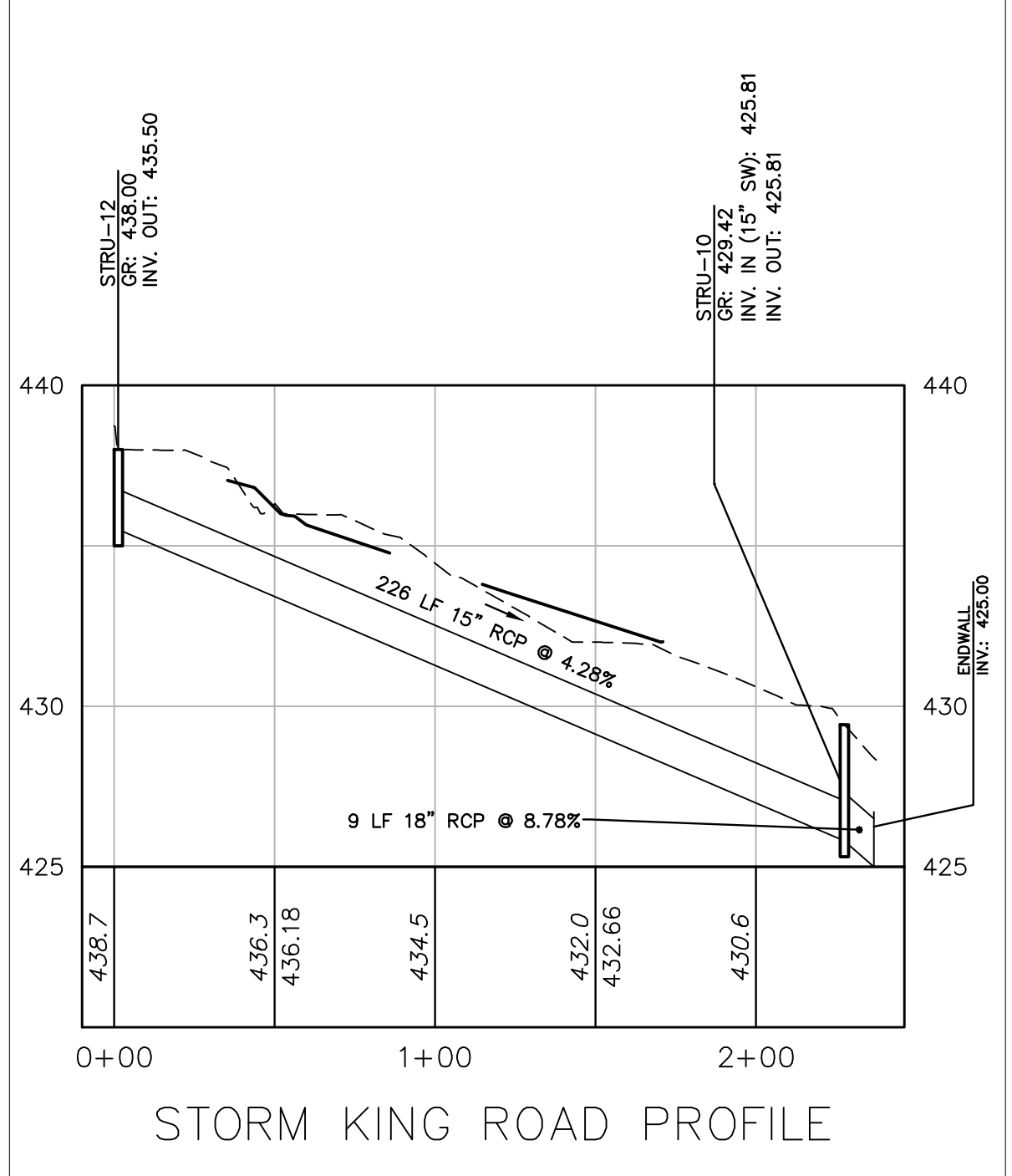
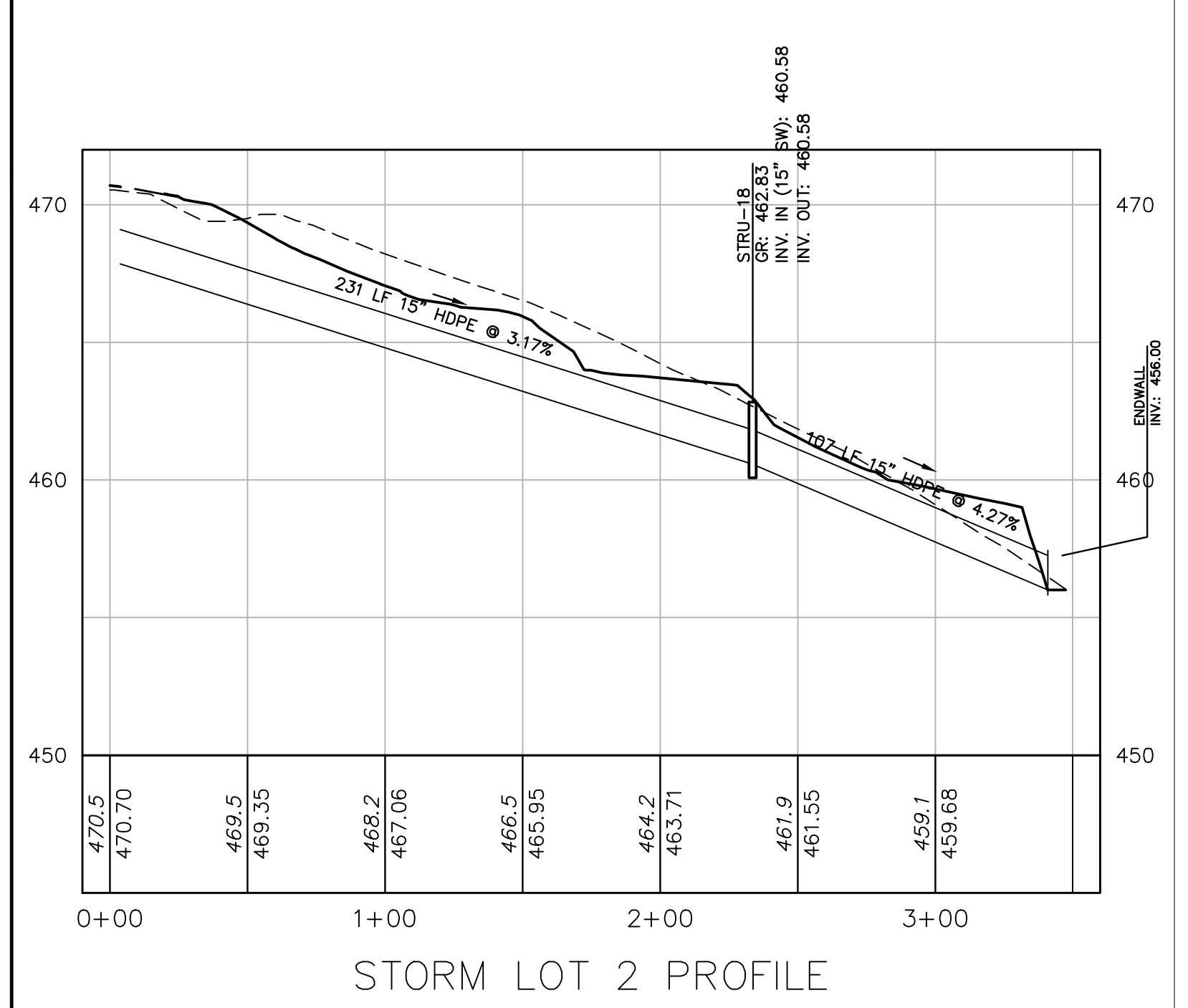
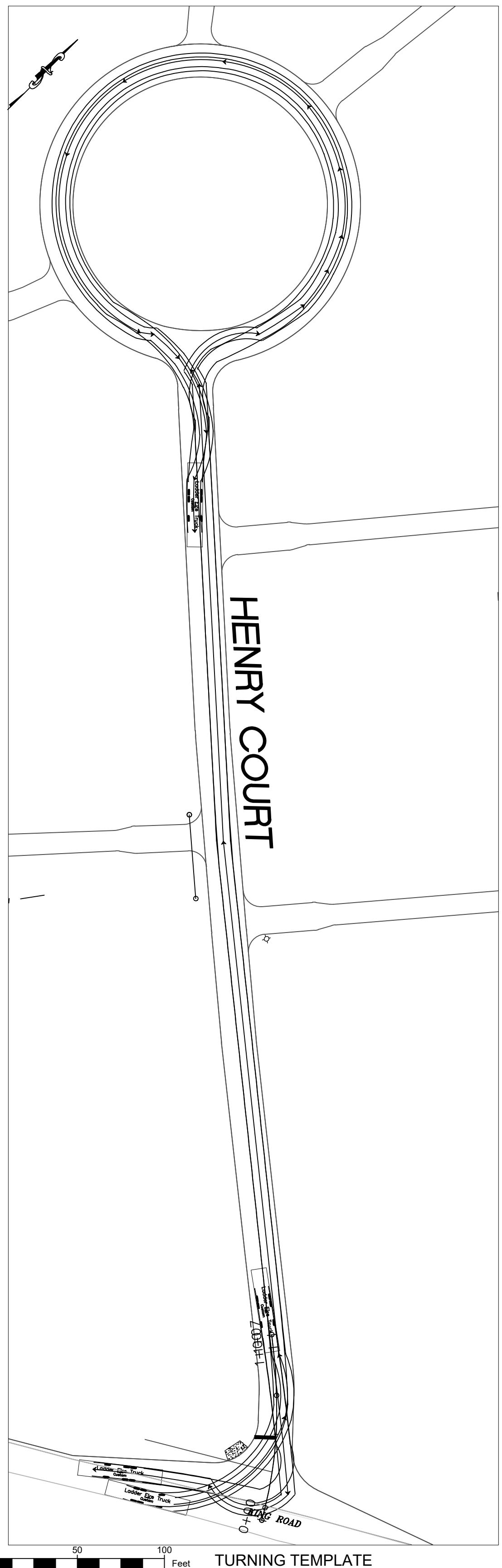
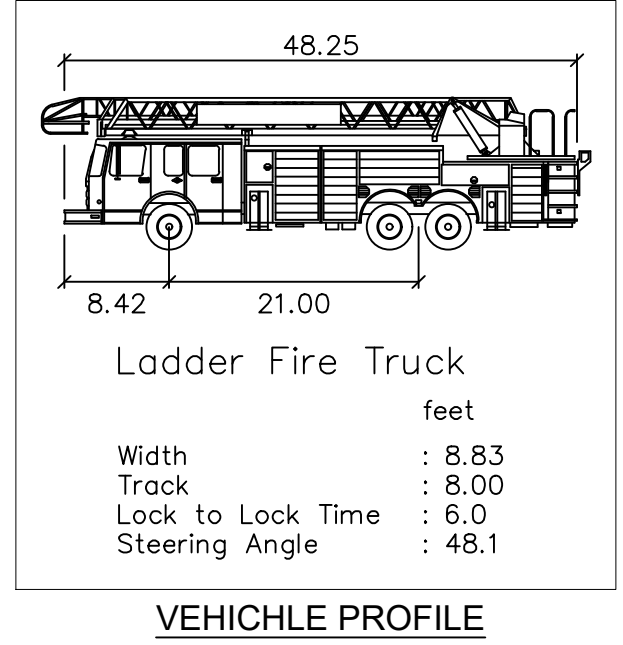
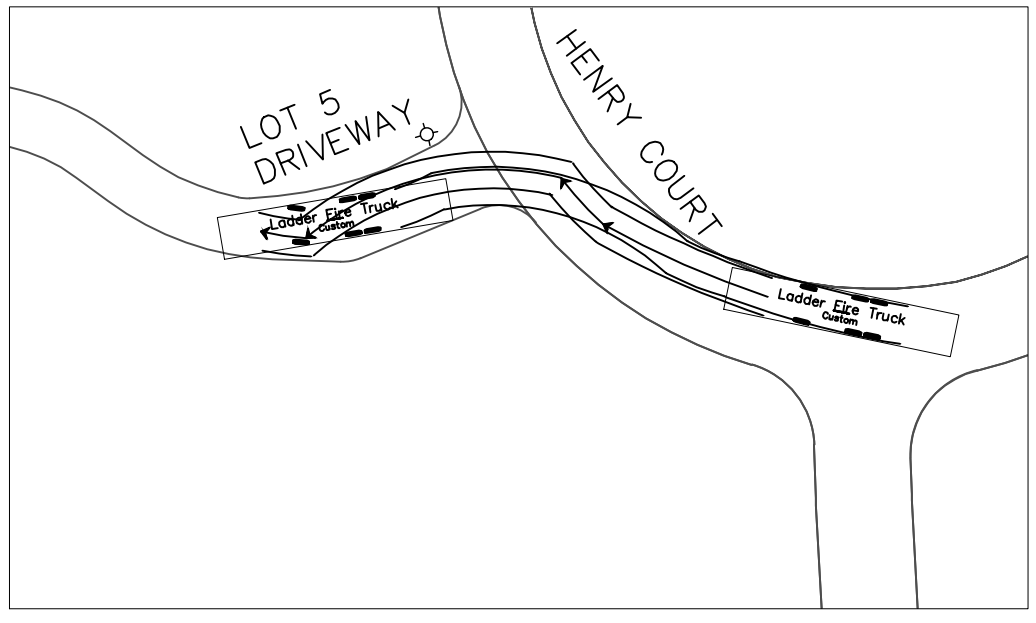
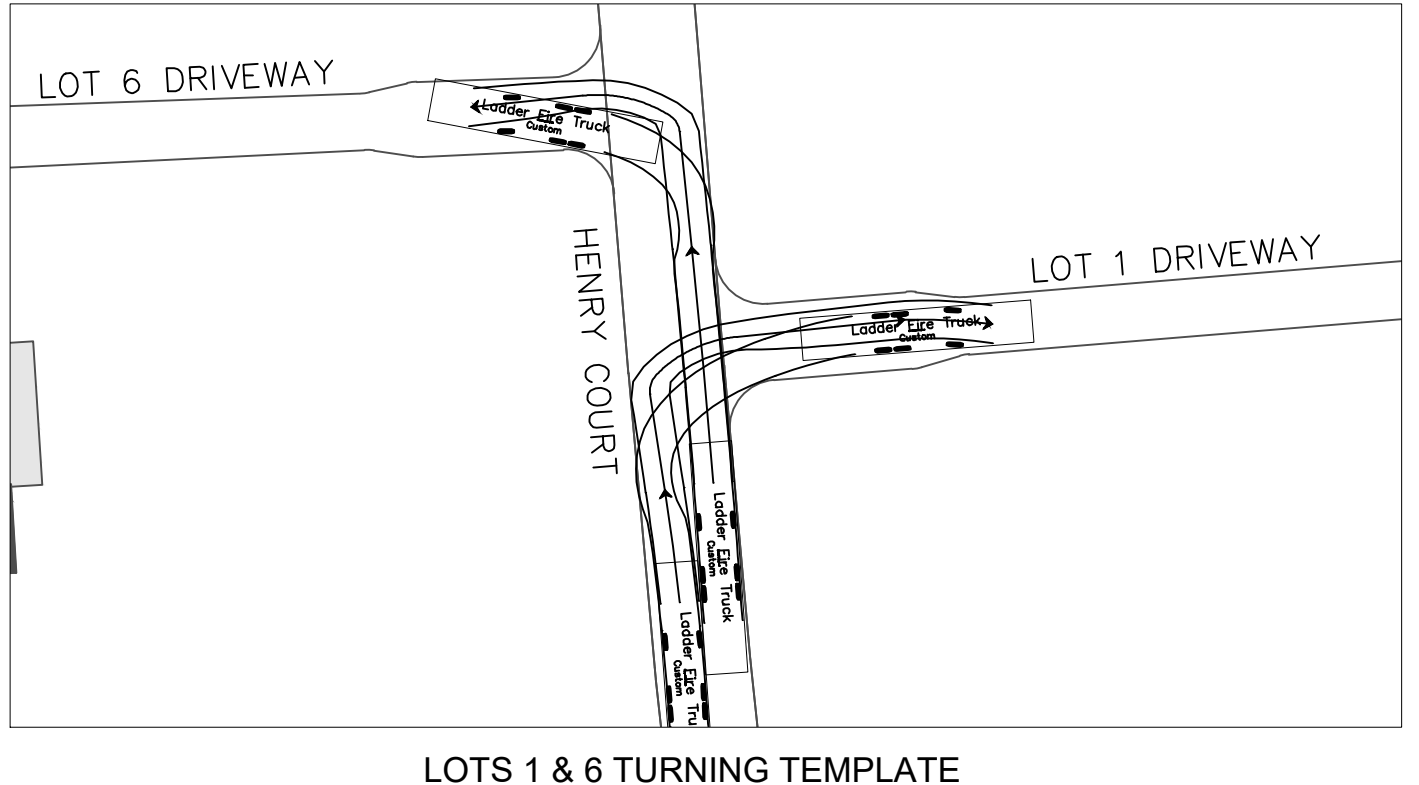
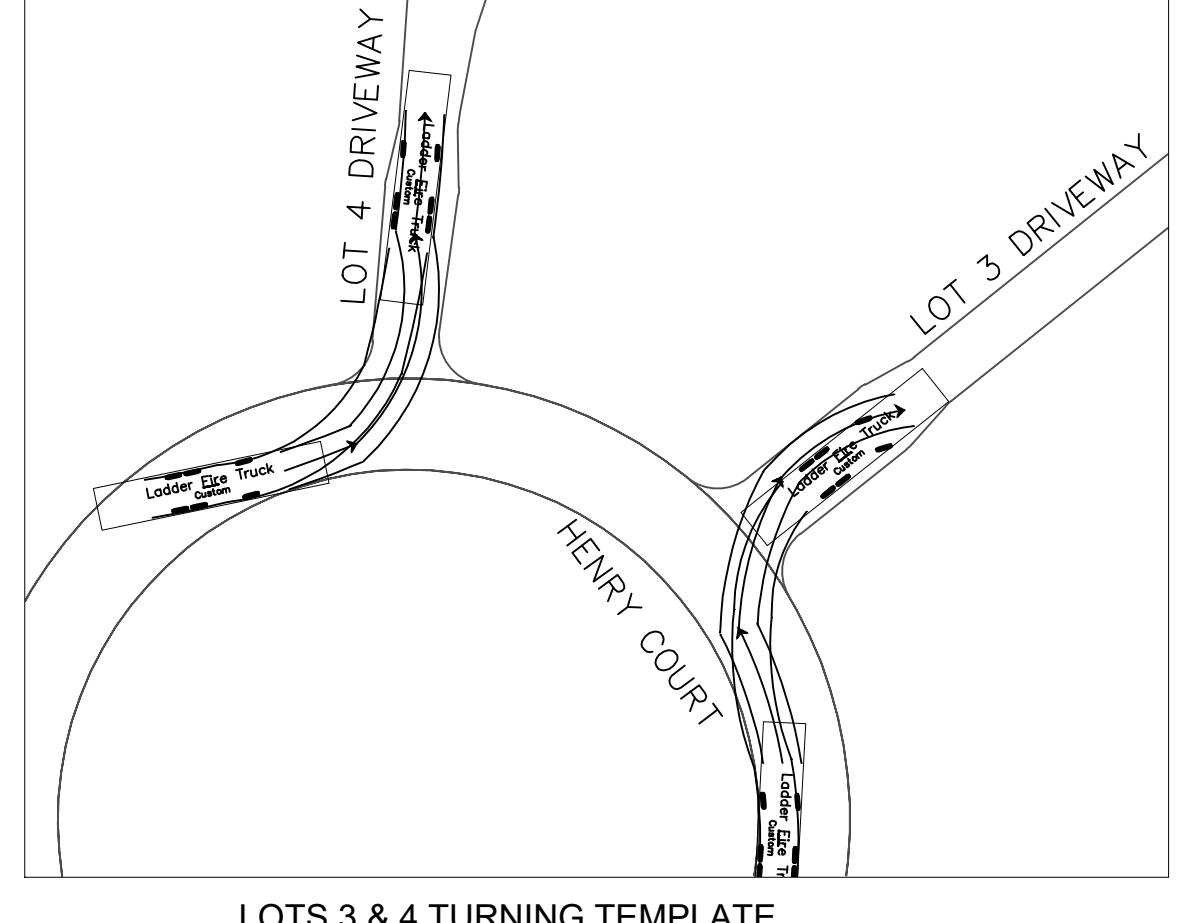
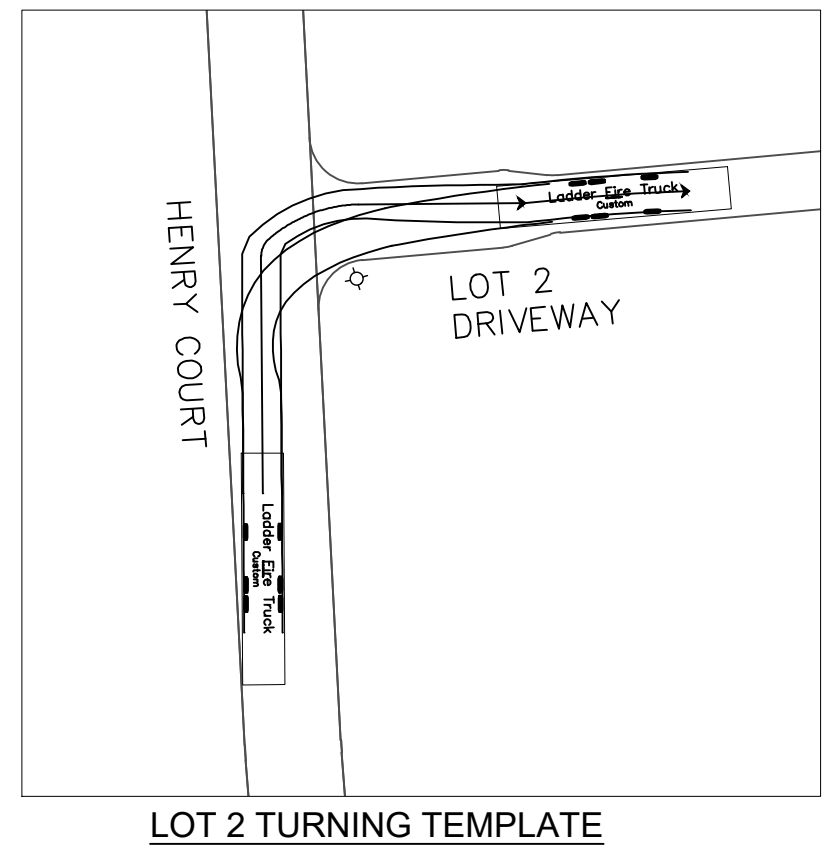
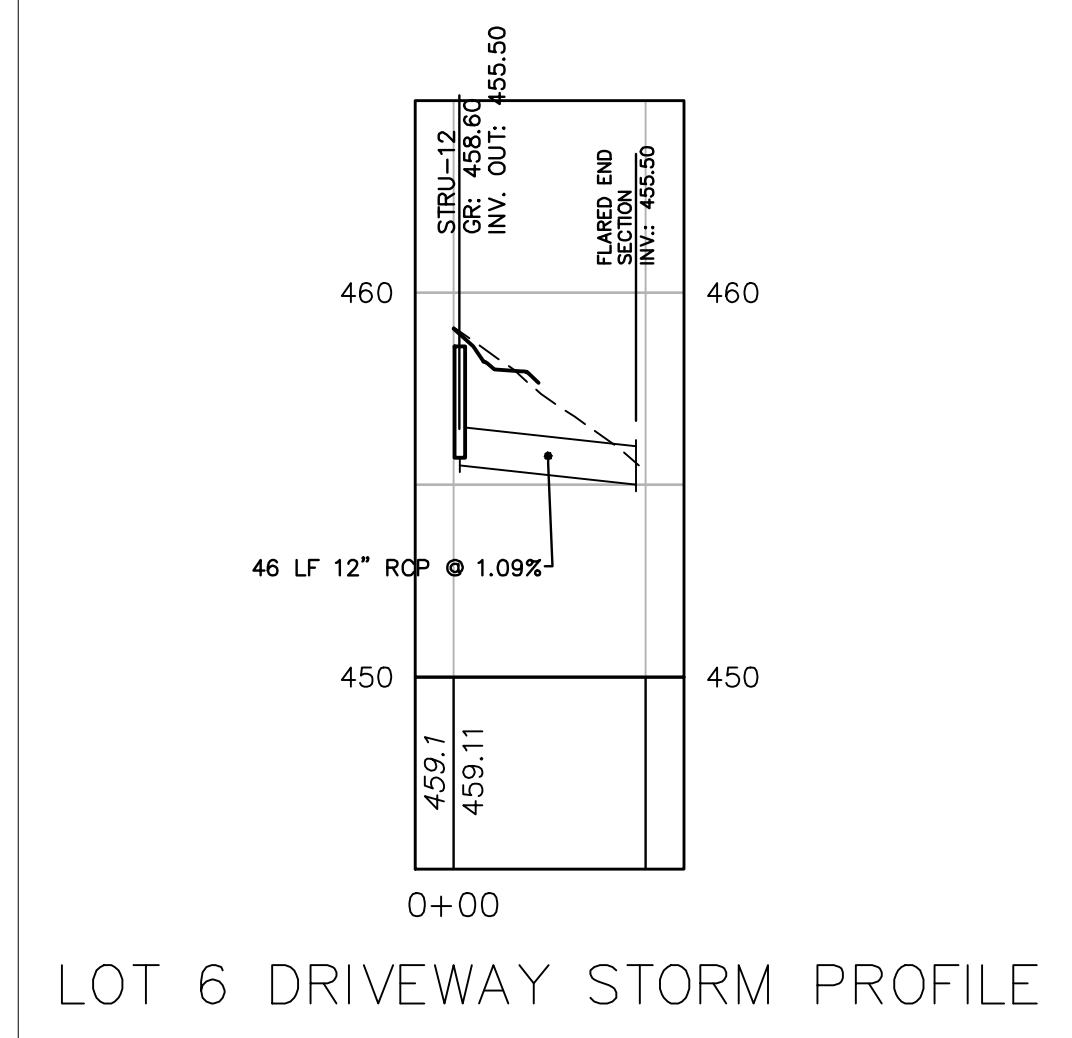
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

ROBERT J. CUNNINGHAM, P.E.
 PA PEO7624

File No. 1734_C4.0 PCSM.DWG

HCE Job	1734	Date	09/14/2022	Scale	1"=60'	Designed	RC	Sheet	11 of 15
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Drawing No. **C4.0**



Holmes Cunningham LLC
409 E. Butler Ave., Unit 5
Doylestown, PA 18901
(215) 586-3330
www.hcengineering.net

REVISIONS	Date	Description
	02/08/2023	Revised Per Township Engineer Review
	06/09/2023	Revised Per Township Engineer Review
	09/01/2023	Revised Per BCCD Review
	12/15/2023	Revised for Final Plans

CALL BEFORE YOU DIG IN PENNSYLVANIA
3 WORKING DAYS NOTICE FOR STOP & CALL
Pennsylvania One Call System, Inc. 1-800-4-A-DIG
THIS PLAN IS APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO ANY EXCAVATION.

THE ESTATES AT HILL TOP
396 KING ROAD
TMP # 26-004-030
NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PA
TRUCK TURN & PROFILE PLAN

ROBERT CUNNINGHAM, P.E.
PA PE07624

HCE Job	1734
Date	09/14/2022
Scale	AS SHOWN
Designed	RC
Sheet	13 of 15
File No.	
Drawing No.	C5.0

GENERAL LANDSCAPE NOTES:

1. THE TOWNSHIP ENGINEER SHALL INSPECT AND APPROVE THE TREE PROTECTION FENCE INSTALLATION PRIOR TO ANY CLEARING OR EARTHMOVING ACTIVITIES.
2. IN THE OPINION OF THE TOWNSHIP ENGINEER'S REPRESENTATIVE OR CERTIFIED ARBORIST, ANY TREES DISTURBED, DAMAGED OR KILLED DURING A RESULT OF CONSTRUCTION SHALL BE REPLACED AT A ONE CALIPER INCH FOR ONE CALIPER INCH.
3. ALL PROPOSED STREET TREES ALONG HENRY COURT BE INSTALLED IN THE FIELD AND REVIEWED BY THE TOWNSHIP ENGINEER PRIOR TO INSTALLATION.
4. IF THE EXISTING TREES LOCATED IN THE AREA OF THE PROPOSED TRAFFIC CIRCLE DIE AS A RESULT OF CONSTRUCTION, THEY WILL BE REQUIRED TO BE REPLACED PRIOR TO THE END OF THE MAINTENANCE PERIOD.

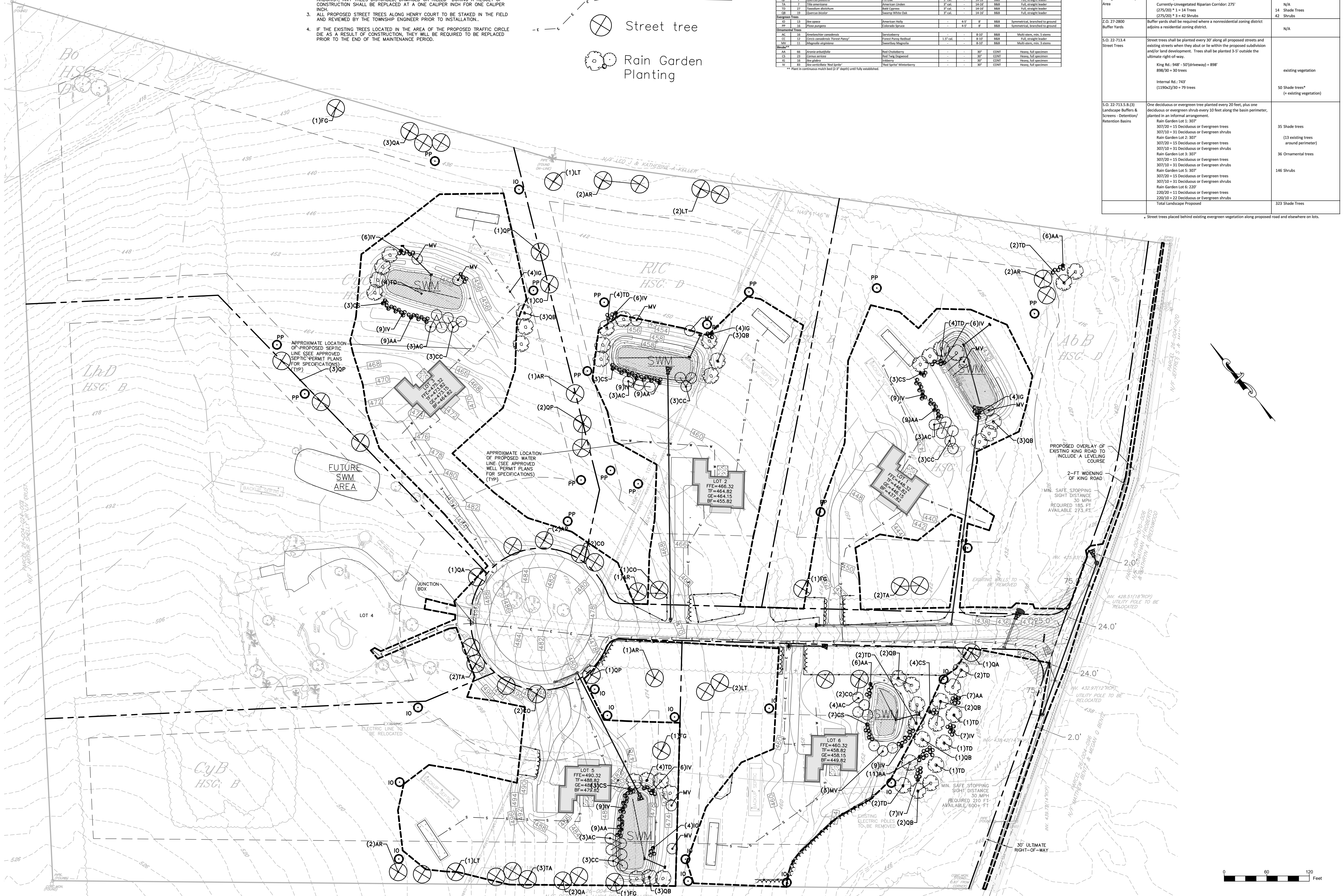
LANDSCAPE LEGEND

- ⊗ Street tree
- ⊗ Rain Garden Planting

Plant Symbol	Quantity	Botanical Name	Common Name	Min. Planting Depth	Min. Planting Height	Min. Planting Spread	Remarks	Comments
AR	11	Aster vulpinus 'Violetta d'or'	Violetta d'or' Aster	1' cill.	14-18"	8-8"		Full, upright habit
CO	4	Cornus florida	Flowering Dogwood	1' cill.	14-18"	8-8"		Full, upright habit
FR	4	Fragaria virginiana	American Strawberry	1' cill.	14-18"	8-8"		Full, upright habit
LI	6	Liriodendron tulipifera	Tulip Tree	1' cill.	14-18"	8-8"		Full, upright habit
MA	7	Malva sylvestris	Flower Mallow	1' cill.	14-18"	8-8"		Full, upright habit
OP	7	Onoclea sensibilis	Wet Quill	1' cill.	14-18"	8-8"		Full, upright habit
TA	7	Thalictrum flavum	Black Cohosh	1' cill.	14-18"	8-8"		Full, upright habit
TR	27	Trifolium pratense	Red Clover	1' cill.	14-18"	8-8"		Full, upright habit
UB	19	Urtica dioica	Stinging Nettle	1' cill.	14-18"	8-8"		Full, upright habit
Evergreen Trees								
IO	11	Ilex opaca	American Holly	4.0'	4.0'	8-8"	Symmetrical, branched to ground	
PP	16	Photinia paniculata	Chinese Spirea	4.0'	4.0'	8-8"	Symmetrical, branched to ground	
Deciduous Trees								
AC	18	Acer canadense	Sweetgum	-	8.0'	8-8"	Multi-stem, min. 5 stems	
CE	14	Cornus canadensis	Spicebush	1.5' cill.	-	8.0'	Multi-stem, min. 3 stems	
MA	11	Malva sylvestris	American Mallow	-	8.0'	8-8"	Multi-stem, min. 3 stems	
Shrubs								
AA	66	Aster multiflorus	Star Anemone	-	30"	CONT.	Heavy, full specimen	
CS	23	Cornus amomum	Red Yew Dogwood	-	30"	CONT.	Heavy, full specimen	
IG	16	Iris germanica	Beacon Iris	-	30"	CONT.	Heavy, full specimen	
IV	48	Iris versicolor	Blue Flag Iris	-	30"	CONT.	Heavy, full specimen	

Subdivision Ordinance Item	Requirement	Plan Proposed	
Z.O. 27-2400	Natural Resources	No more than 20% woodland disturbance is permitted in the WS district. 20% of woodland disturbance is proposed. No replacement trees are required.	N/A
Z.O. 27-2400.4 (b)	Revegetation of Riparian Area	Plants shall be provided at a rate of at least one overstory tree and three shrubs for every 20 linear feet of waterway. Currently Unvegetated Riparian Corridor: 275' (275/20) = 14 Trees (275/20) = 3 = 42 Shrubs	14 Shade Trees 42 Shrubs
Z.O. 27-2800	Buffer Yards	Buffer yards shall be required where a nonresidential zoning district adjoins a residential zoning district.	N/A
S.O. 22-713.4	Street Trees	Street trees shall be planted every 30' along all proposed streets and existing streets when they abut or lie within the proposed subdivision and/or land development. Trees shall be planted 3'-5' outside the ultimate right-of-way. King Rd.: 948' - 50'(driveway) = 898' 898/30 = 30 trees Internal Rd.: 743' (1190+2)/30 = 79 trees	existing vegetation 50 Shade trees* (+ existing vegetation)
S.O. 22-713.5 B.(3)	Landscape Buffers & Retention Basins	One deciduous or evergreen tree planted every 20 feet, plus one deciduous or evergreen shrub every 10 feet along the basin perimeter, planted in an informal arrangement. Rain Garden Lot 1: 307' 307/20 = 15 Deciduous or Evergreen trees 307/10 = 31 Deciduous or Evergreen shrubs Rain Garden Lot 2: 307' 307/20 = 15 Deciduous or Evergreen trees 307/10 = 31 Deciduous or Evergreen shrubs Rain Garden Lot 3: 307' 307/20 = 15 Deciduous or Evergreen trees 307/10 = 31 Deciduous or Evergreen shrubs Rain Garden Lot 4: 307' 307/20 = 15 Deciduous or Evergreen trees 307/10 = 31 Deciduous or Evergreen shrubs Rain Garden Lot 5: 307' 307/20 = 15 Deciduous or Evergreen trees 307/10 = 31 Deciduous or Evergreen shrubs Rain Garden Lot 6: 220' 220/20 = 11 Deciduous or Evergreen trees 220/10 = 22 Deciduous or Evergreen shrubs Total Landscape Proposed	35 Shade trees (13 existing trees around perimeter) 36 Ornamental trees 146 Shrubs 323 Shade Trees

* Street trees placed behind existing evergreen vegetation along proposed road and elsewhere on lots.



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THE ESTATES AT HILL TOP
 396 KING ROAD
 TMP # 26-004-030
 NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PA

LANDSCAPING PLAN

ROBERT THOMAS CUNNINGHAM, P.E.
 PA PED 6242

HCE Job No.	1734
Date	09/14/2022
Scale	1"=60'
Designed	RC
Sheet	14 of 15
Drawing No.	C6.0

