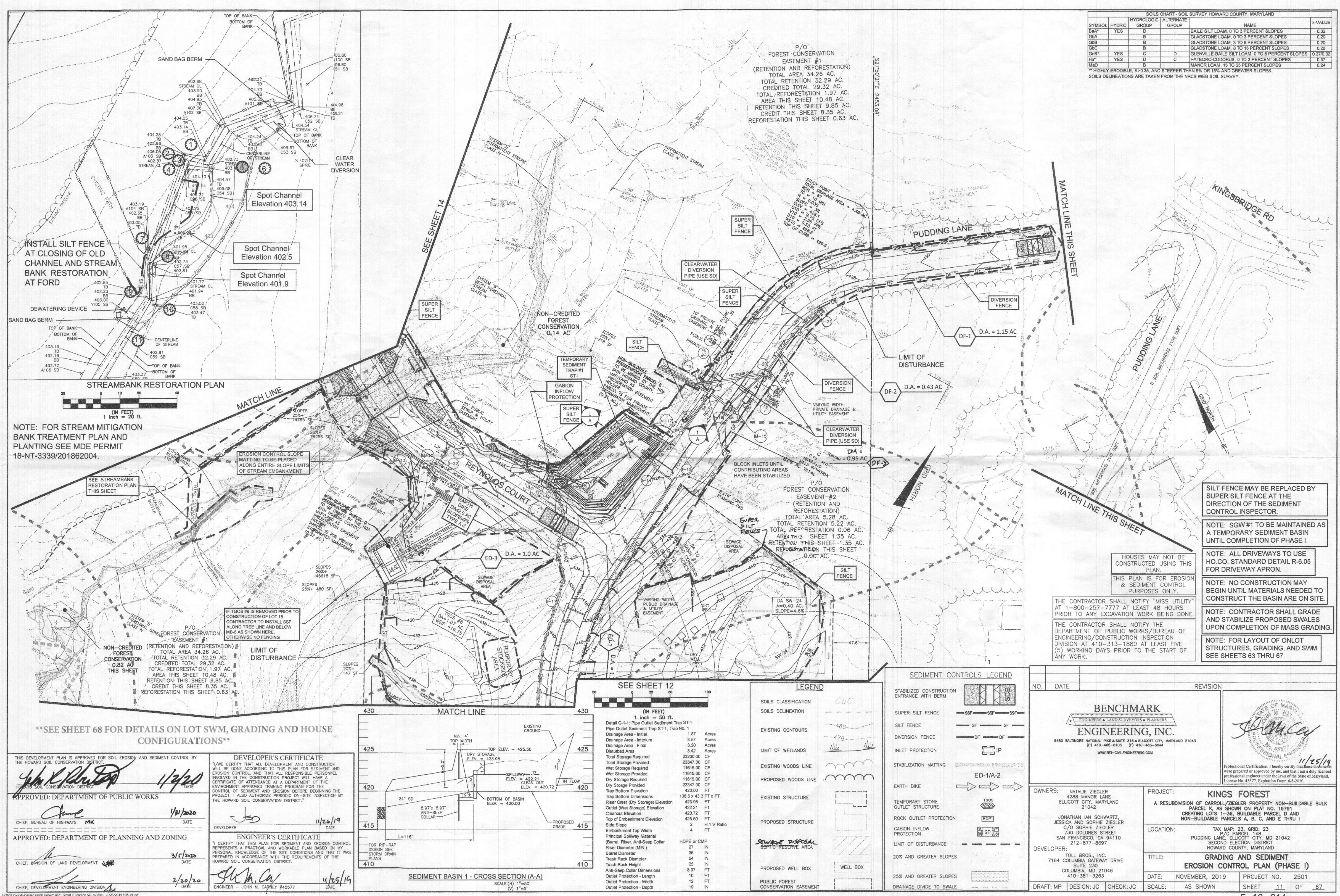




SOILS CHART - SOIL SURVEY HOWARD COUNTY, MARYLAND					
SYMBOL	HYDRIC	HYDROLOGIC GROUP	ALTERNATE GROUP	NAME	K-VALUE
BaA*	YES	D		BALE SILT LOAM, 0 TO 3 PERCENT SLOPES	0.32
GbA*		B		GLADSTONE LOAM, 0 TO 3 PERCENT SLOPES	0.20
GbB		B		GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	0.20
GbC		B		GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES	0.20
GbD*	YES	C	D	GLENVILLE-BALE SILT LOAM, 0 TO 8 PERCENT SLOPES	0.370/32
Hb*	YES	D	C	HATBORO-CODORUS, 0 TO 3 PERCENT SLOPES	0.37
MbD		B		MANOR LOAM, 15 TO 25 PERCENT SLOPES	0.24

* HIGHLY ERODIBLE, K=0.35, AND STEEPER THAN 5% OR 15% AND GREATER SLOPES.
SOILS DELINEATIONS ARE TAKEN FROM THE NRCS WEB SOIL SURVEY.

NOTE: FOR STREAMBANK BANK TREATMENT PLAN AND PLANTING SEE MDE PERMIT 18-NT-3339/201862004.

SILT FENCE MAY BE REPLACED BY SUPER SILT FENCE AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

NOTE: SGW #1 TO BE MAINTAINED AS A TEMPORARY SEDIMENT BASIN UNTIL COMPLETION OF PHASE I.

NOTE: ALL DRIVEWAYS TO USE HO.CO. STANDARD DETAIL R-6.05 FOR DRIVEWAY APRON.

NOTE: NO CONSTRUCTION MAY BEGIN UNTIL MATERIALS NEEDED TO CONSTRUCT THE BASIN ARE ON SITE.

NOTE: CONTRACTOR SHALL GRADE AND STABILIZE PROPOSED SWALES UPON COMPLETION OF MASS GRADING.

NOTE: FOR LAYOUT OF ONLOT STRUCTURES, GRADING, AND SWM SEE SHEETS 63 THRU 67.

SEE SHEET 68 FOR DETAILS ON LOT SWM, GRADING AND HOUSE CONFIGURATIONS

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT

CHIEF, DEVELOPMENT ENGINEERING DIVISION

DEVELOPER'S CERTIFICATE

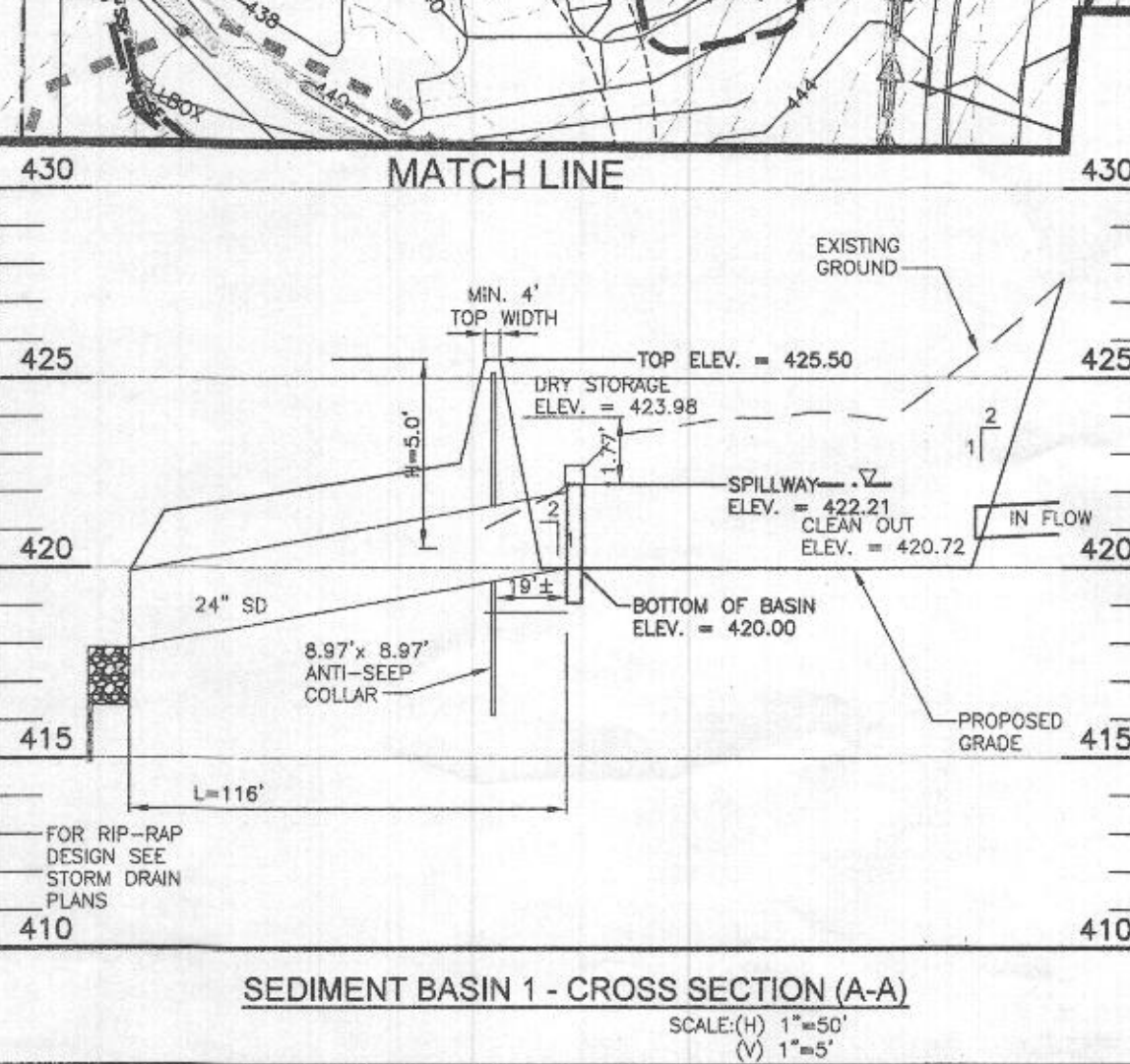
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

ENGINEER - JOHN M. CASPARY #45577

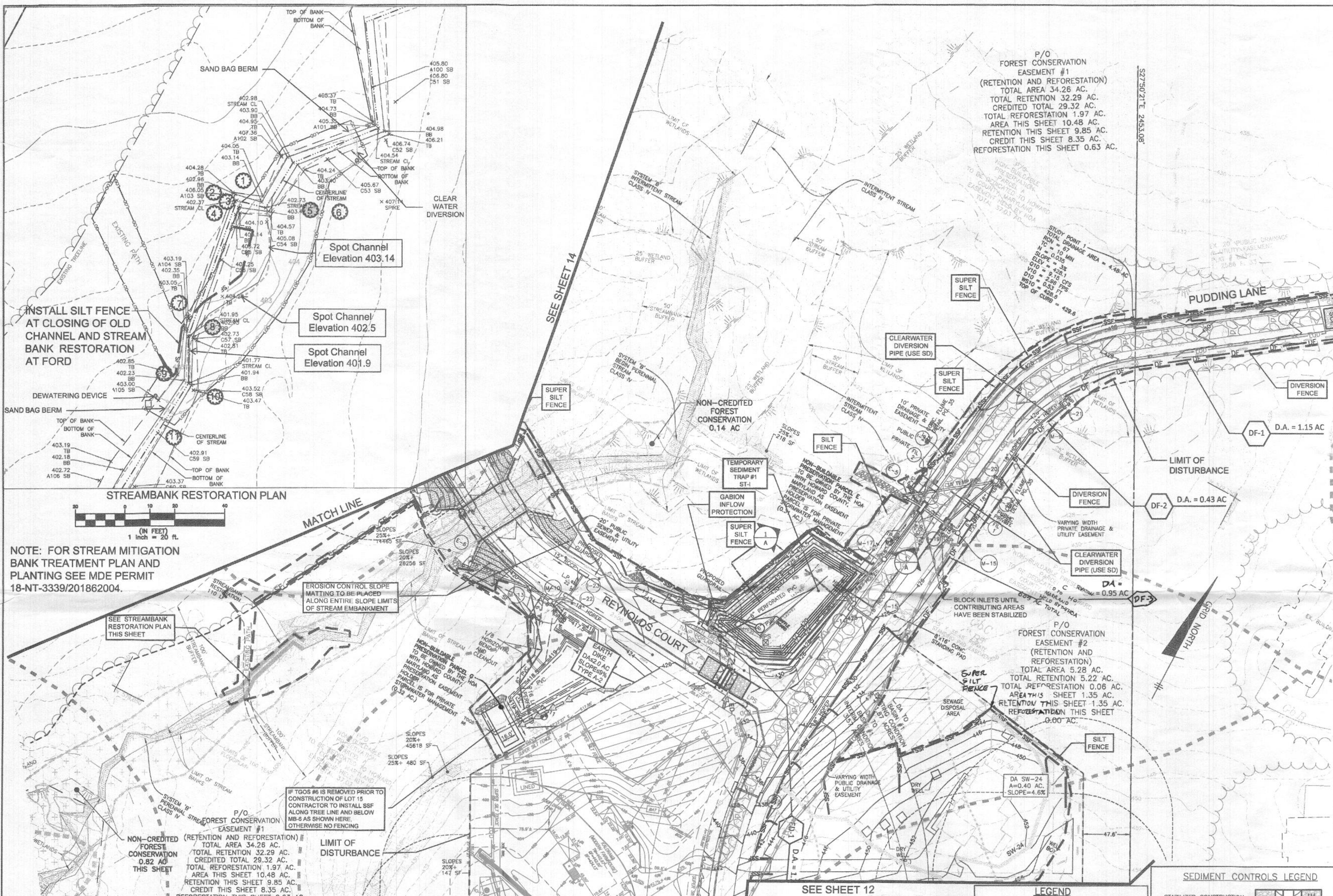


SEE SHEET 12			
(IN FEET)			
1 inch = 50 ft.			
Detail G-1-1: Pipe Outlet Sediment Trap ST-1			
Drainage Area - Initial	1.87	Acres	
Drainage Area - Interim	3.57	Acres	
Drainage Area - Final	3.20	Acres	
Disturbed Area	3.42	Acres	
Total Storage Required	22337.00	CF	
Total Storage Provided	23347.00	CF	
Wet Storage Required	11615.00	CF	
Wet Storage Provided	11615.00	CF	
Dry Storage Required	11615.00	CF	
Dry Storage Provided	23347.00	CF	
Trap Bottom Elevation	420.00	FT	
Trap Bottom Dimensions	106.5 x 43.3	FT x FT	
Riser Crest (Dry Storage) Elevation	423.98	FT	
Outlet (Wet Storage) Elevation	422.21	FT	
Cleanout Elevation	420.72	FT	
Top of Embankment Elevation	425.50	FT	
Side Slope	2	H:1 V Ratio	
Embankment Top Width	4	FT	
Principal Spillway Material	HDPE or CMP		
Riser, Riser, Anti-Seep Collar	27	IN	
Barnel Diameter (MIN.)	38	IN	
Trask Rack Diameter	54	IN	
Trask Rack Height	25	IN	
Anti-Seep Collar Dimensions	8.97	FT	
Outlet Protection - Length	10	FT	
Outlet Protection - Width	12	FT	
Outlet Protection - Depth	19	IN	

LEGEND	
SOILS CLASSIFICATION	GbC
SOILS DELINEATION	
EXISTING CONTOURS	480, 478
LIMIT OF WETLANDS	
EXISTING WOODS LINE	
PROPOSED WOODS LINE	
EXISTING STRUCTURE	
PROPOSED STRUCTURE	
SEWAGE DISPOSAL SEPTIC RESERVE AREA	
PROPOSED WELL BOX	
PUBLIC FOREST CONSERVATION EASEMENT	

SEDIMENT CONTROLS LEGEND	
STABILIZED CONSTRUCTION ENTRANCE WITH BERM	
SUPER SILT FENCE	SSF
SILT FENCE	SF
DIVERSION FENCE	DF
INLET PROTECTION	IP
STABILIZATION MATTING	
EARTH DIKE	ED-1/A-2
TEMPORARY STONE OUTLET STRUCTURE	
ROCK OUTLET PROTECTION	
GABION INFLOW PROTECTION	
LIMIT OF DISTURBANCE	
20% AND GREATER SLOPES	
25% AND GREATER SLOPES	
DRAINAGE DIVIDE TO SWALE	

NO.	DATE	REVISION
BENCHMARK ENGINEERING, INC. 8480 BALTIMORE NATIONAL PIKE SUITE 315 A ELICOTT CITY, MARYLAND 21043 (P) 410-465-8105 (F) 410-465-6844 WWW.BEI-CIVILENGINEERING.COM		
KINGS FOREST A RESUBDIVISION OF CARROLL/ZIEGLER PROPERTY NON-BUILDABLE BULK PARCEL K, AS SHOWN ON PLAT NO. 19791 CREATING LOTS 1-36, BUILDABLE PARCEL D AND NON-BUILDABLE PARCELS A, B, C, AND E THRU I		
TAX MAP: 23, GRID: 23 P/O PARCEL 148 PUDDING LANE, ELICOTT CITY, MD 21042 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TITLE: GRADING AND SEDIMENT EROSION CONTROL PLAN (PHASE I)		
DATE: NOVEMBER, 2019	PROJECT NO. 2501	
SCALE: AS SHOWN	SHEET 11 OF 67	
DRAFT: MP	DESIGN: JC	CHECK: JC



SOILS CHART - SOIL SURVEY HOWARD COUNTY, MARYLAND					
SYMBOL	HYDRIC	HYDROLOGIC	ALTERNATE	NAME	K-VALUE
BaA*	YES	D		BAILE SILT LOAM, 0 TO 3 PERCENT SLOPES	0.32
GdA		B		GLADSTONE LOAM, 0 TO 3 PERCENT SLOPES	0.20
GdB		B		GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	0.20
GdC		B		GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES	0.20
GdC*	YES	C	D	GLENVILLE-BAILE SILT LOAM, 0 TO 8 PERCENT SLOPES	0.37/0.32
Hs*	YES	D	C	HATBORO-CODORUS, 0 TO 3 PERCENT SLOPES	0.37
MaD		B		MANOR LOAM, 15 TO 25 PERCENT SLOPES	0.24

*HIGHLY ERODIBLE, K=0.35, AND STEEPER THAN 5% OR 15% AND GREATER SLOPES.
SOILS DELINEATIONS ARE TAKEN FROM THE NRCS WEB SOIL SURVEY.

REVISIONS			DATE
NO.	DESCRIPTION		
1	LOT 15 REVISIONS		03/16/21

APPROVED: DEPARTMENT OF PLANNING AND ZONING
DATE: _____
CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DATE: _____
CHIEF, DEPARTMENT OF PUBLIC WORKS

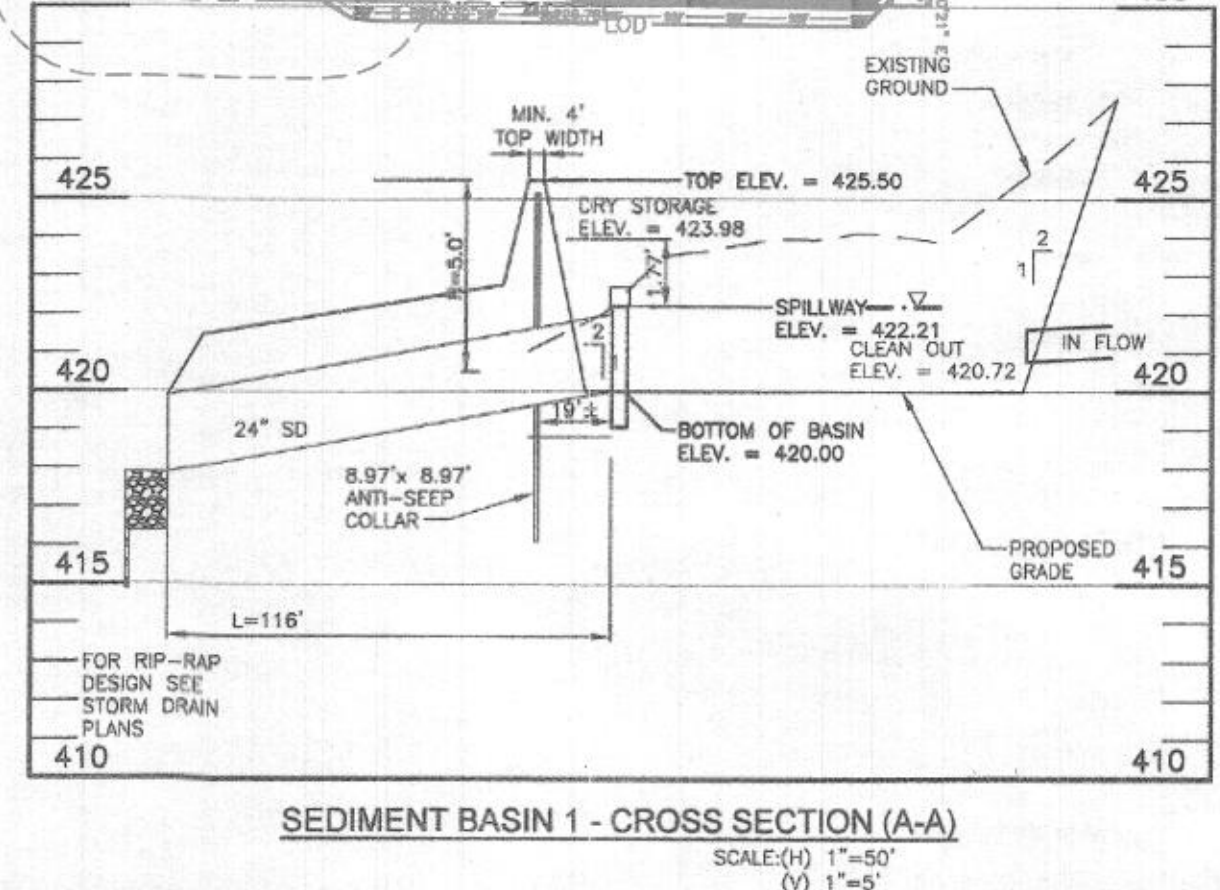
APPROVED: HOWARD SOIL CONSERVATION DISTRICT
DATE: _____
CHIEF, BUREAU OF HIGHWAYS

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR IN THE STATE OF MARYLAND, LICENSE NO. 21328, EXPIRATION DATE 1/8/23.

03/16/21

LOT 15
DISCONNECTION OF ROOFTOP RUNOFF (IN-1)
TO TOTAL

MICRO BIO-RETENTION (M-B)
5 ROOF DRAINS PIPED TO BIO
5 ROOF DRAINS SHEET FLOW TO BIO
20' (L) X 22'50' (W) X 1' (D)
TOTAL STORAGE 916 CF.



SEE SHEET 12		
(IN FEET)		
1 inch = 50 ft.		
Detail G-1-1: Pipe Outlet Sediment Trap ST-1		
Drainage Area - Initial	1.87	Acres
Drainage Area - Interim	3.37	Acres
Drainage Area - Final	3.20	Acres
Disturbed Area	3.42	Acres
Total Storage Required	23230.00	CF
Total Storage Provided	23347.00	CF
Wet Storage Required	11816.00	CF
Wet Storage Provided	11816.00	CF
Dry Storage Required	11414.00	CF
Dry Storage Provided	11531.00	CF
Trap Bottom Elevation	420.00	FT
Trap Bottom Dimensions	106.5 x 43.3 FT	FT
Riser Crest (Dry Storage) Elevation	423.98	FT
Outlet (Wet Storage) Elevation	422.21	FT
Clearance Elevation	420.72	FT
Top of Embankment Elevation	425.50	FT
Side Slope	2 H:1 V	
Embankment Top Width	4	FT
Principal Spillway Material	HDPE or CMP	
Barrel, Riser, Anti-Seep Collar	27	IN
Riser Diameter (MIN.)	36	IN
Barrel Diameter	36	IN
Trunk Rack Diameter	25	IN
Trunk Rack Height	8.97	FT
Anti-Seep Collar Dimensions	10	FT
Outlet Protection - Length	12	FT
Outlet Protection - Width	19	IN
Outlet Protection - Depth		

LEGEND	
SOILS CLASSIFICATION	CBC
SOILS DELINEATION	
EXISTING CONTOURS	480, 478
LIMIT OF WETLANDS	
EXISTING WOODS LINE	
PROPOSED WOODS LINE	
EXISTING STRUCTURE	
PROPOSED STRUCTURE	
SEWAGE DISPOSAL	
SEPTIC RESERVE AREA	
PROPOSED WELL BOX	WELL BOX
PUBLIC FOREST CONSERVATION EASEMENT	

SEDIMENT CONTROLS LEGEND	
STABILIZED CONSTRUCTION ENTRANCE WITH BERM	
SUPER SILT FENCE	SSF
SILT FENCE	SF
DIVERSION FENCE	DF
INLET PROTECTION	IP
STABILIZATION MATTING	ED-1/A-2
EARTH DIKE	
TEMPORARY STONE OUTLET STRUCTURE	TSOS
ROCK OUTLET PROTECTION	ROP
CARBON INFLOW PROTECTION	GP
LIMIT OF DISTURBANCE	
20% AND GREATER SLOPES	
25% AND GREATER SLOPES	
DRAINAGE DIVIDE TO SWALE	



PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF MARYLAND, LICENSE NO. 21328, EXPIRATION DATE 1/8/23.

I HEREBY CERTIFY ITEMS SHOWN ONLY FOR THE LOTS LISTED IN THE REVISIONS BLOCK; THESE ITEMS ARE REVISIONS FROM THE PREVIOUSLY APPROVED PLANS.

ESE CONSULTANTS
ENGINEERING • PLANNING • SURVEYING • ENVIRONMENTAL

ESE Consultants, Inc.
7164 Columbia Gateway Drive • Suite 230 • Columbia, MD 21046
Tel: 410-872-9105 • Fax: 410-872-4870

NEW SHEET *REVISED*

KINGS FOREST
A RESUBDIVISION OF CARROLL/ZIEGLER PROPERTY NON-BUILDABLE BULK PARCEL K, AS SHOWN ON PLAT NO. 10791
CREATING LOTS 1-35, BUILDABLE PARCEL D AND NON-BUILDABLE PARCELS A, B, C, AND E THRU I

OWNERS: NATALIE ZIEGLER
4288 MANOR LANE
ELICOTT CITY, MARYLAND 21042

DEVELOPER: TOLL BROS., INC.
7164 COLUMBIA GATEWAY DRIVE
SUITE 230
COLUMBIA, MD 21046
410-381-3263

PROJECT: GRADING AND SEDIMENT EROSION CONTROL PLAN (PHASE I)

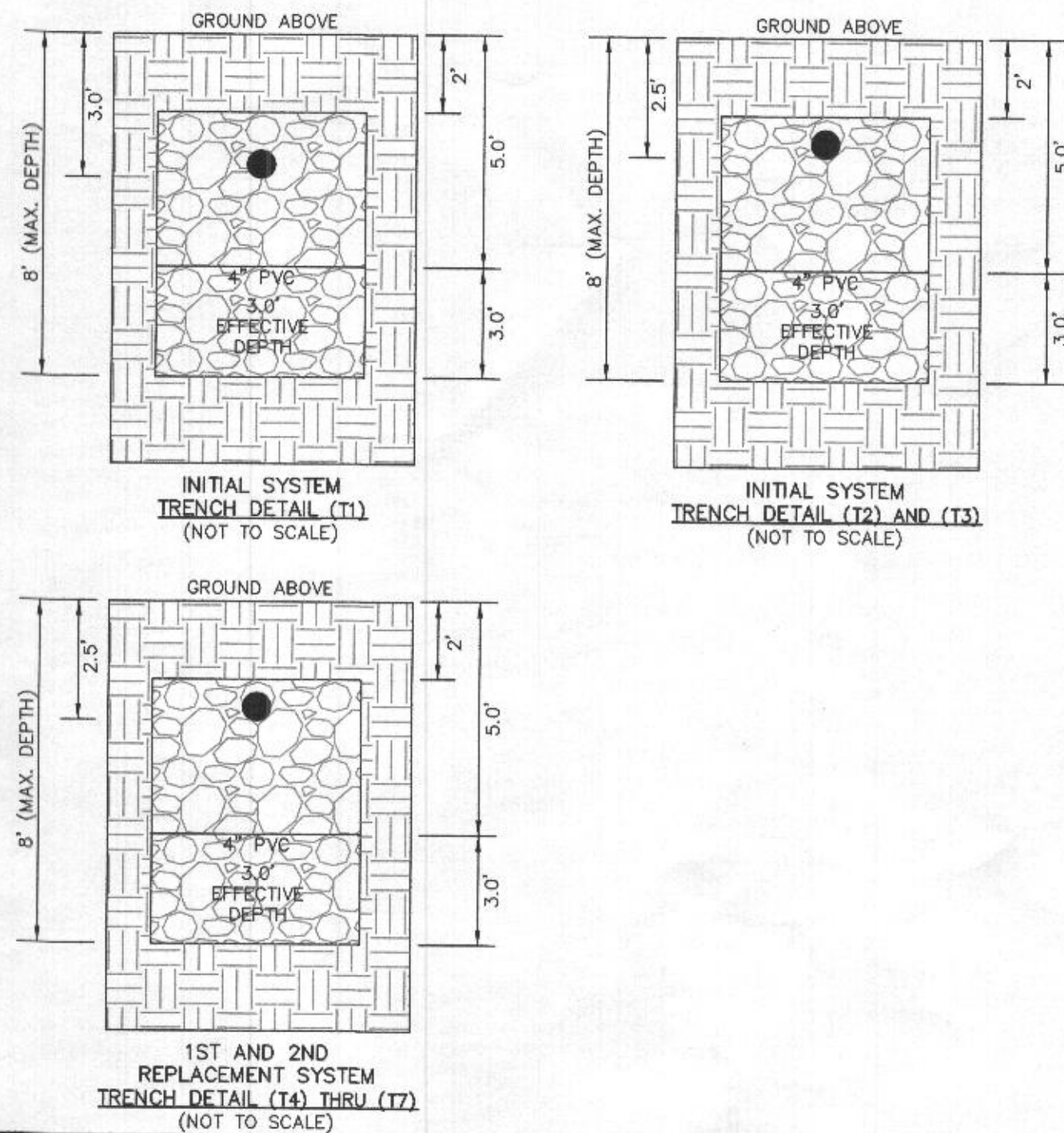
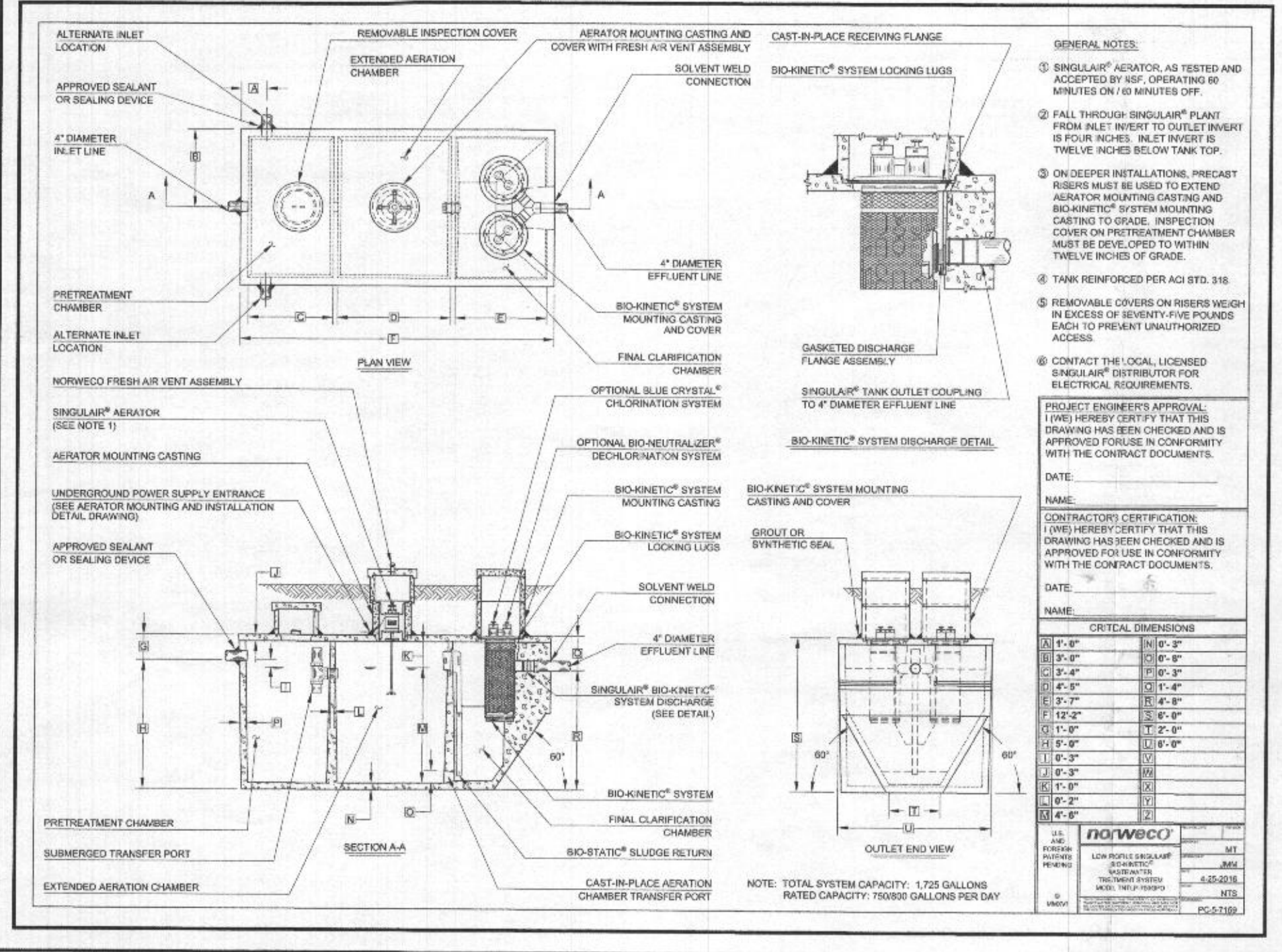
LOCATION: TAX MAP: 23, GRID: 23
P/O PARCEL 148
PUDDING LANE, ELICOTT CITY, MD 21042
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: GRADING AND SEDIMENT EROSION CONTROL PLAN (PHASE I)

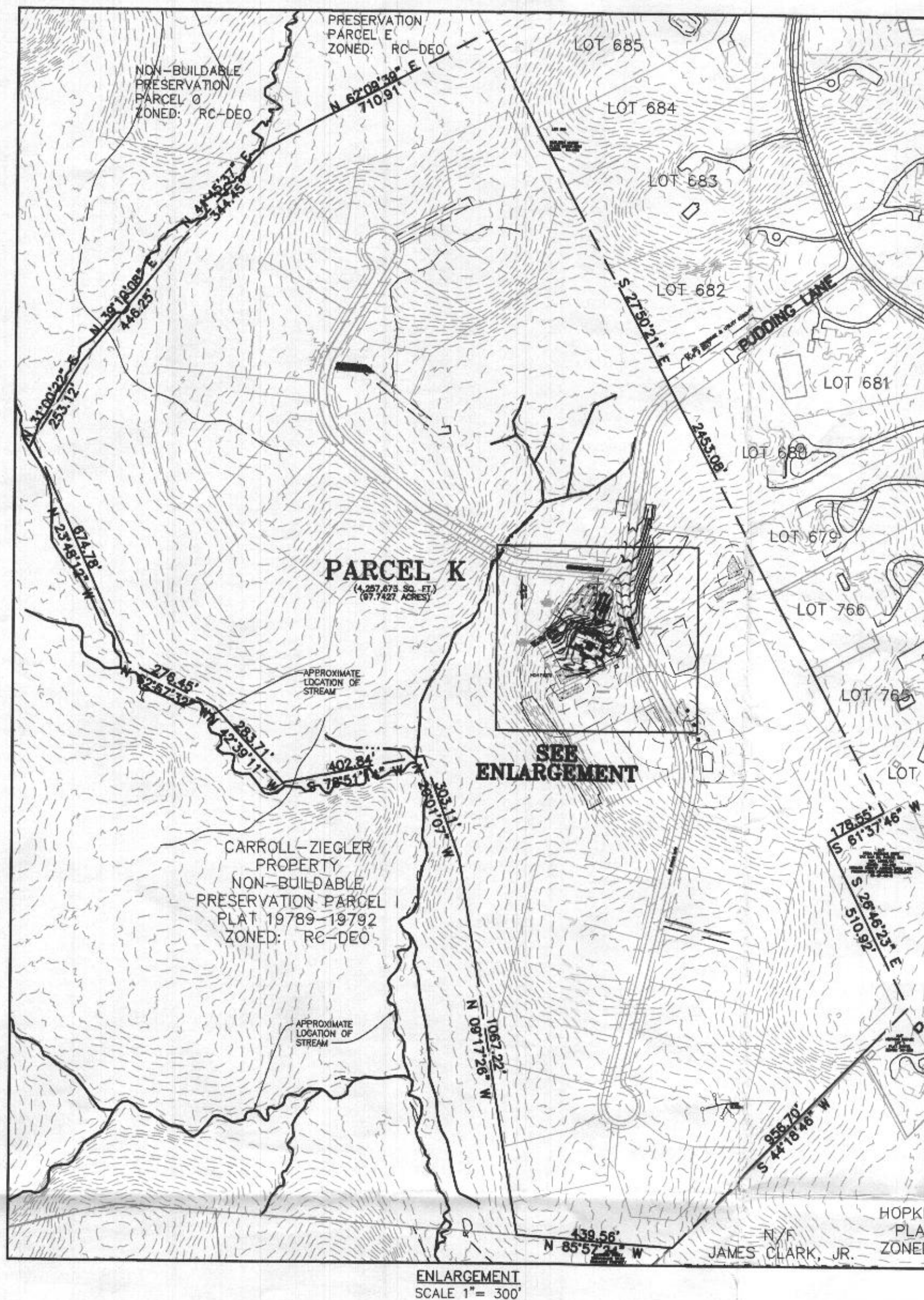
DATE: NOVEMBER, 2019 PROJECT NO. 2501

SCALE: AS SHOWN SHEET 88 OF 88

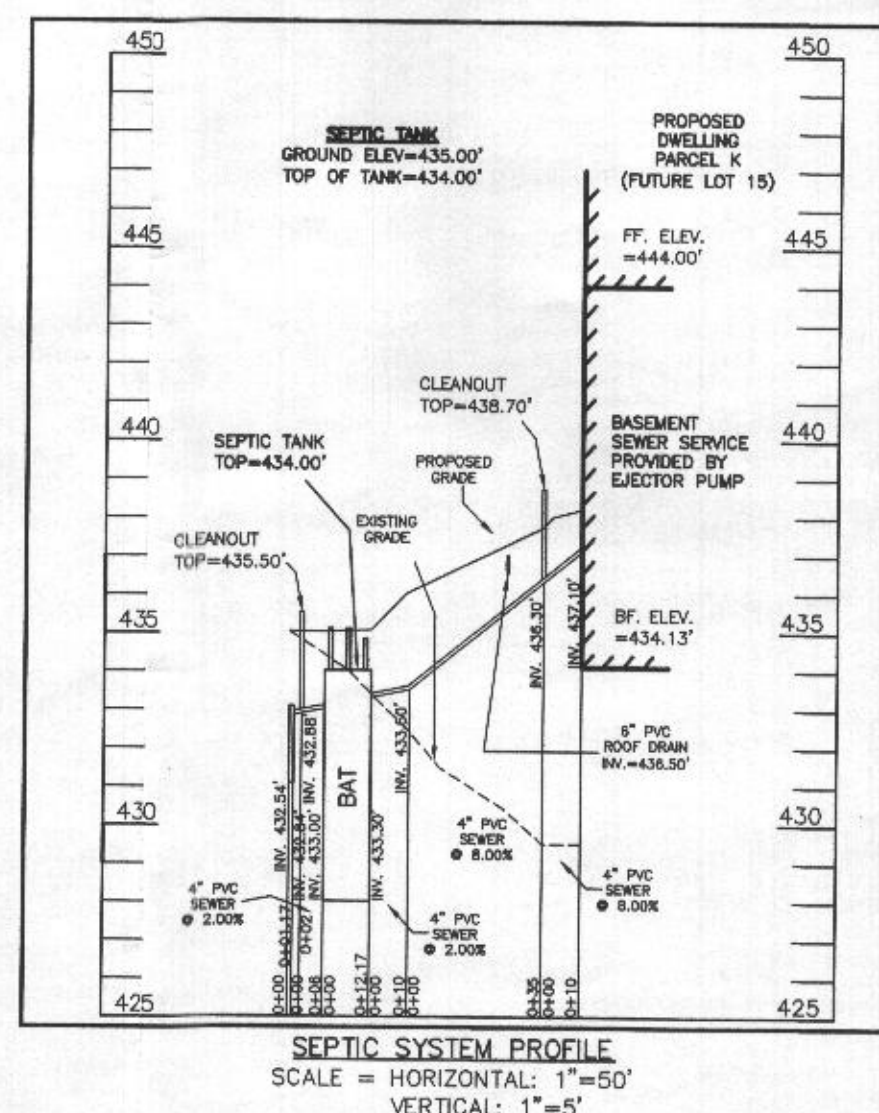
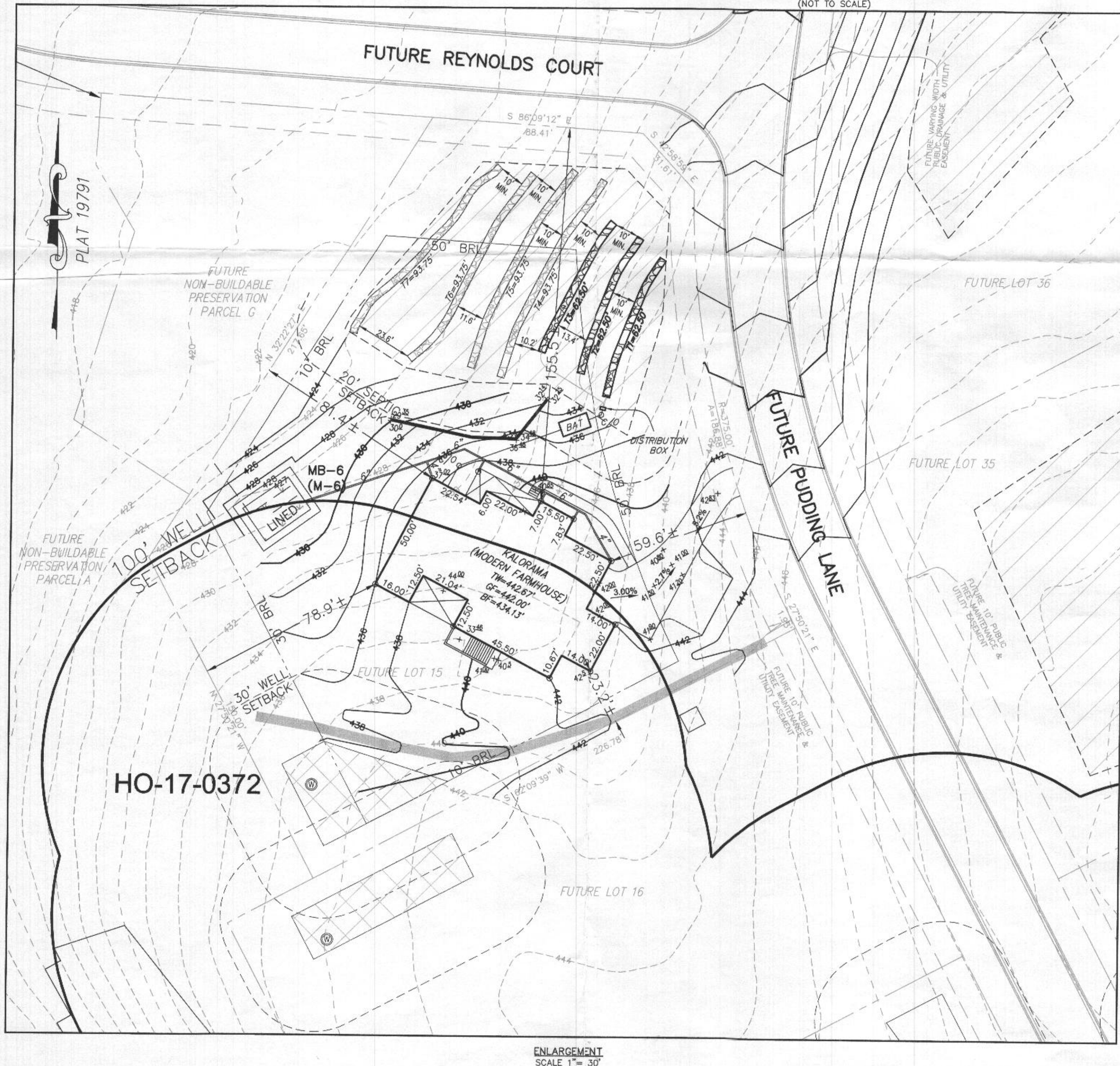
DRAFT: MP DESIGN: JC CHECK: JC



INITIAL TRENCH DATA
BOTTOM MAX. DEPTH (8')
TRENCH 1 (T1): 82.50' L.F.
GROUND ABOVE = 435.20'
INV. IN = 432.20'
BOTTOM TRENCH = 427.20'
TRENCH 2 (T2): 82.50' L.F.
GROUND ABOVE = 433.25'
INV. IN = 430.75'
BOTTOM TRENCH = 425.25'
TRENCH 3 (T3): 82.50' L.F.
GROUND ABOVE = 431.30'
INV. IN = 428.80'
BOTTOM TRENCH = 423.30'



- GENERAL NOTES:**
- THESE AREAS DESIGNATE A PRIVATE SEWAGE AREA OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THESE AREAS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS UNTO THE PRIVATE SEWAGE AREA. REORDINATION OF A MODIFIED SEWAGE AREA SHALL NOT BE NECESSARY.
 - EXISTING WELLS, SEPTIC SYSTEMS, AND SEWAGE DISPOSAL AREAS WITHIN 100' OF THE PROPERTY AND THOSE WELLS WITHIN 200' DOWN GRADIENT OF EXISTING OR PROPOSED SEPTIC SYSTEMS OR SEWAGE DISPOSAL AREAS HAVE BEEN SHOWN.
 - ANY CHANGES TO A PRIVATE SEWAGE AREA SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
 - BUILDING SETBACKS (B.R.L.'s) SHOWN HEREON PER SITE DEVELOPMENT PLAN SETBACK DISTANCES SHOWN HEREON AS "±" HAVE AN ACCURACY OF ±0.1' FOOT.
 - ANY CHANGES TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
 - THE MAXIMUM EARTH COVER OVER THE TANK IS THREE (3) FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
 - THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP, WIDTH, AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
 - THE EXISTING TOPOGRAPHY SHOWN HEREON IS FROM HOWARD COUNTY GIS, 2' CONTOUR INTERVAL AND FIELD VERIFIED BY BENCHMARK ENGINEERING, INC., IN FEBRUARY 2014.
 - LOTS SHOWN HEREON ARE PER THE F-19-014 PLAN, APPROVED ON MARCH 5, 2020. RECORD PLATS ARE NOT RECORDED AT THIS TIME BUT ARE IN PROCESS THEREOF.



SEWAGE DISPOSAL SYSTEM DATA (6 BDRM)
PROPOSED INVERT AT FOUNDATION WALL: 436.14'
1. EX. GRADE OVER TANK: 434.00'
PROPOSED GRADE OVER TANK: 435.00'
INVERT IN: 433.30' INVERT OUT: 433.00'
2. DISTRIBUTION BOX
EXISTING GRADE OVER TANK: 435.00'
PROPOSED GRADE OVER TANK: 435.00'
INVERT IN: 432.84' INVERT OUT: 432.54'
3. INITIAL TRENCH DESIGN (6 BDRM x 150 GPD/BDRM = 900 GPD)
900 GPD ÷ 0.8 APP. RATE = 1,125 SF
USE 3' WIDE TRENCH WITH 60" GRAVEL BELOW PIPE
10' MIN. SPACING BETWEEN TRENCH EDGES
1,125 SF ÷ 3' WIDTH = 375 LF x 0.50 (SIDEWALL REDUCUTON) = 187.50 LF MIN.
USE 3 82.50' LONG TRENCHES = 187.50 LF
4. 1ST REPLACEMENT TRENCH DESIGN (6 BDRM x 150 GPD/BDRM = 900 GPD)
900 GPD ÷ 0.8 APP. RATE = 1,125 SF
USE 3' WIDE TRENCH WITH 60" GRAVEL BELOW PIPE
10' MIN. SPACING BETWEEN TRENCH EDGES
1,125 SF ÷ 3' WIDTH = 375 LF x 0.50 (SIDEWALL REDUCUTON) = 187.50 LF MIN.
USE 2 93.75' LONG TRENCHES = 187.50 LF
5. 2ND REPLACEMENT TRENCH DESIGN (6 BDRM x 150 GPD/BDRM = 900 GPD)
900 GPD ÷ 0.8 APP. RATE = 1,125 SF
USE 3' WIDE TRENCH WITH 60" GRAVEL BELOW PIPE
10' MIN. SPACING BETWEEN TRENCH EDGES
1,125 SF ÷ 3' WIDTH = 375 LF x 0.50 (SIDEWALL REDUCUTON) = 187.50 LF MIN.
USE 3 82.50' LONG TRENCHES = 187.50 LF

- HOUSE OPTIONS:**
HOUSE TYPE: KALORAMA (MODERN FARMHOUSE)
- | OPTION | DESCRIPTION |
|-------------------|--|
| OPTION No. 013 | FINISHED LOWER LEVEL |
| OPTION No. 018 | DAYLIGHT BASEMENT |
| OPTION No. 039 | FINISHED THIRD FLOOR LOFT |
| OPTION No. 061 | WET BAR FOR FINISHED LOWER LEVEL |
| OPTION No. 263075 | GRAND MULTI-GEN SUITE |
| OPTION No. 263075 | LUXURY OUTDOOR LIVING SPACE W/ FIREPLACE |
| OPTION No. 263075 | POWDER ROOM FOR FINISHED LOWER LEVEL |

WELL LOCATION CERTIFICATION:
THE EXISTING WELL SHOWN FOR FUTURE LOT 15 (TAG NO. HO-17-0372) HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN HEREON.

SITE PLAN FOR BAT INSTALLATION
PARCEL K (FUTURE LOT 15)
KINGS FOREST
LIBER 11372, FOLIO 431
PLAT NO. 19791
ELECTION DISTRICT No. 2
HOWARD COUNTY, MARYLAND
ADDRESS: 10500 PUDDING LANE
ELICOTT CITY, MARYLAND 21042

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ENGINEERING • PLANNING • SURVEYING • ENVIRONMENTAL
ESE Consultants, Inc.
7164 Columbia Gateway Drive • Suite 230 • Columbia, MD 21046
T: 410-872-9105

DATE: 06/03/2021 SCALE: 1"= SEE PLAN FILE: 05D5 FUTURE LOT 15
CHK'D: M.J.B. JOB NO: 3502 DRAWN: V.K.P.