

Bureau of Environmental Health
 8930 Stanford Boulevard, Columbia, MD 21045
 Main: 410-313-2640 | Fax: 410-313-2648
 TDD 410-313-2323 | Toll Free 1-866-313-6300
www.hchealth.org
 Facebook: www.facebook.com/hocohealth

Maura

J. Rossman, M.D., Health Officer

RECEIPT DATE: 2/9/23 **ONSITE SEWAGE DISPOSAL SYSTEM**

P 572777

INSTALLATION
 APPROVAL DATE: 8/4/2023

PERMIT

A _____

SEWER HOUSE CONNECTION

PROPERTY ADDRESS: 7009 COLT PLACE, DAYTON, MD 21036

SUBDIVISION: WILLOWSHIRE LOT: 27 TAX ID: 05-603011

CONTRACTOR: CHAVIS ENTERPRISES & SEPTIC SERVICES EMAIL: Ryan@chavisenterprisesllc.com

CONTRACTOR ADDRESS: 23 EAST ELLENDALE, BEL AIR, MD 21014 PHONE: (410)838-3007

PROPERTY OWNER: TOLL MID-ATLANTIC LP COMPANY, INC. EMAIL: nbrandenburg@tollbrothers.com

OWNER ADDRESS: 250 GIBRALTER ROAD, HORSHAM, PA 19044 PHONE: (410)872-9165

NUMBER OF BEDROOMS: 5 CONNECTED TO PUBLIC WATER: YES NO

LOCATION:	INSTALL 4" SEWER LINE PER APPROVED SITE PLAN.
NOTES:	INSTALL FIVE CLEANOUTS IN SHC PER APPROVED PLAN, INCLUDING ONE CLEANOUT AT GRINDER PIT CONNECTION.

ISSUED BY: R BRICKER 98 ISSUE DATE: 2/9/23 EXPIRATION DATE: 2/9/24

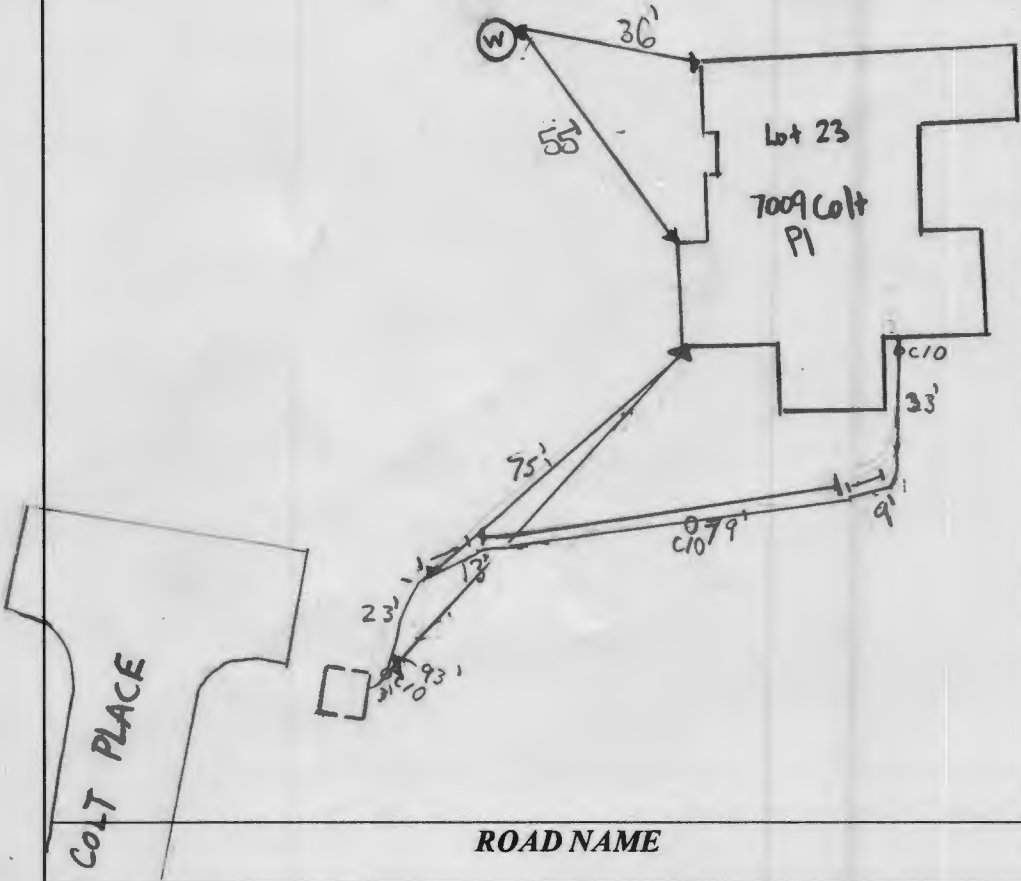
- NOTE: HOWARD COUNTY BUREAU OF UTILITIES APPROVAL OF GRINDER PUMP INSTALLATION IS REQUIRED PRIOR TO SEPTIC PERMIT APPROVAL
- NOTE: CONTRACTOR MUST SCHEDULE AN INSPECTION AND GAIN APPROVAL OF ALL COMPONENTS PRIOR TO COVERING
- NOTE: AN ELECTRICAL PERMIT IS REQUIRED FOR INSTALLATION OF ANY ELECTRICAL COMPONENTS OF THE SYSTEM

NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM. PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT. CALL 410-313-1771 FOR INSPECTION OF SEPTIC SYSTEM.

1"=40'

NOT TO SCALE

HO-18-0046



TRENCH/DRAINFIELD DATA

WIDTH INLET BOTTOM

NUMBER OF TRENCHES _____
 TOTAL LENGTH _____
 ABSORPTION AREA _____
 DISTRIBUTION BOX LEVEL _____
 DISTRIBUTION BOX BAFFLE _____
 DISTRIBUTION BOX PORT _____

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL _____
 MANUFACTURER _____
 CAPACITY _____ GAL
 SEAM LOC _____
 TANK LID DEPTH _____
 BAFFLES _____
 BAFFLE FILTER _____
 MANHOLE LOC _____
 6" PORT LOC _____
 WATERTIGHT TEST _____
 SLOTTED _____
 DATE ON LID _____

PUMP/SEPTIC TANK LEVEL

MANUFACTURER _____
 CAPACITY _____ GAL
 SEAM LOC _____
 TANK LID DEPTH _____
 BAFFLES _____
 BAFFLE FILTER _____
 MANHOLE LOC _____
 6" PORT LOC _____
 WATERTIGHT TEST _____
 SLOTTED _____
 DATE ON LID _____

PRE-CONSTRUCTION:

INSTALLATION: 2/13/2023 - saw connection made from house to

17" before pipe meets sewer. Reinspect to see C/O next to grinder pit & pipe coming into grinder pit. (SP)

2/14/2023 - conversation w/ contractor stating pipe will need to be taken out, 3' of stone added, & pipe reinstalled to meet grinder pit pipe location. (RN)

2/15/2023 - saw SHC. C/O new wall of house, halfway between house & grinder pit, & next to grinder pit. (SP/RN)

FINAL INSPECTOR

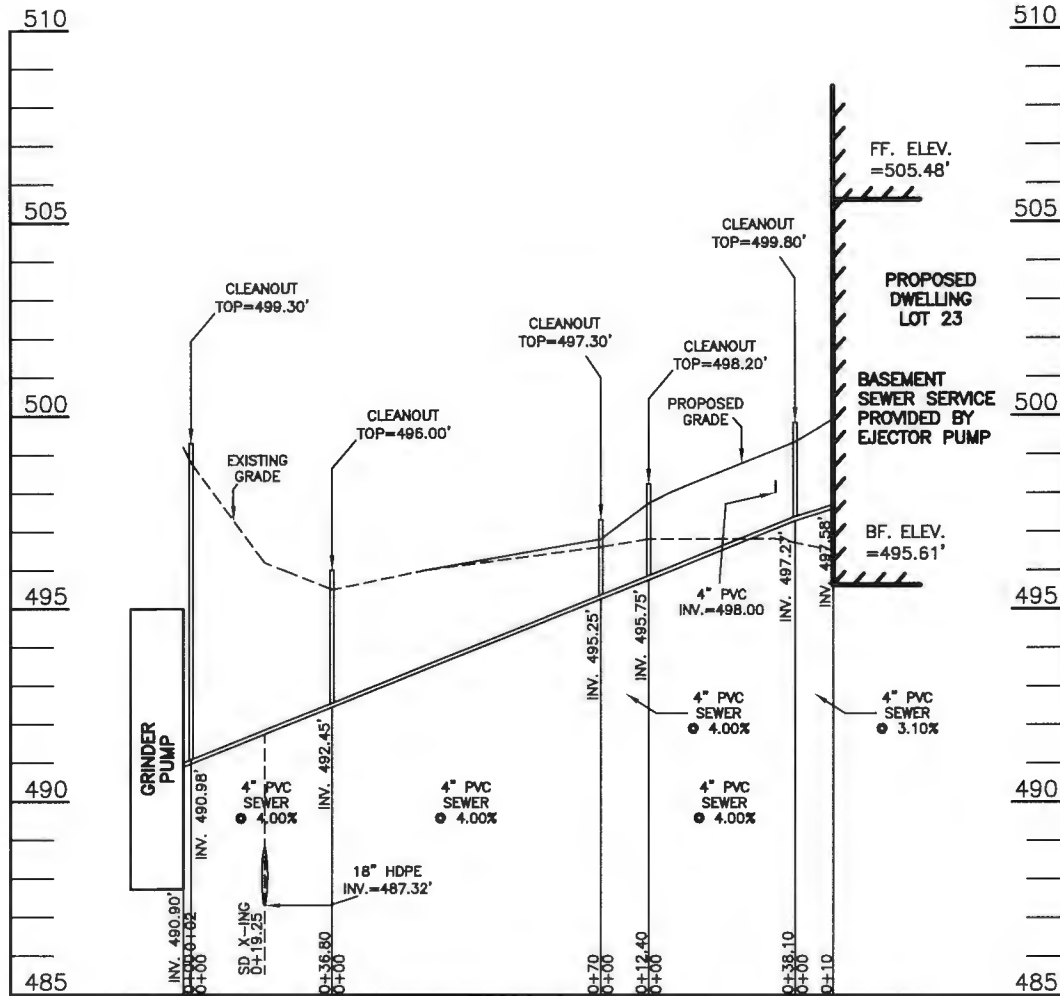
[Signature]

DATE OF APPROVAL

2/4/2023

Approved Septic System Plan
Howard County Health Department

Hank Oswald 7/19/22
Signature Date



**LOT 23 IS A SHARED SEPTIC LOT. SEPTIC FIELD IS LOCATED AT NON-BUILDABLE PRESERVATION PARCEL D.

SEPTIC EXHIBIT

**WILLOWSHIRE
LOT 23
(SHARED SEPTIC)
F-18-086**

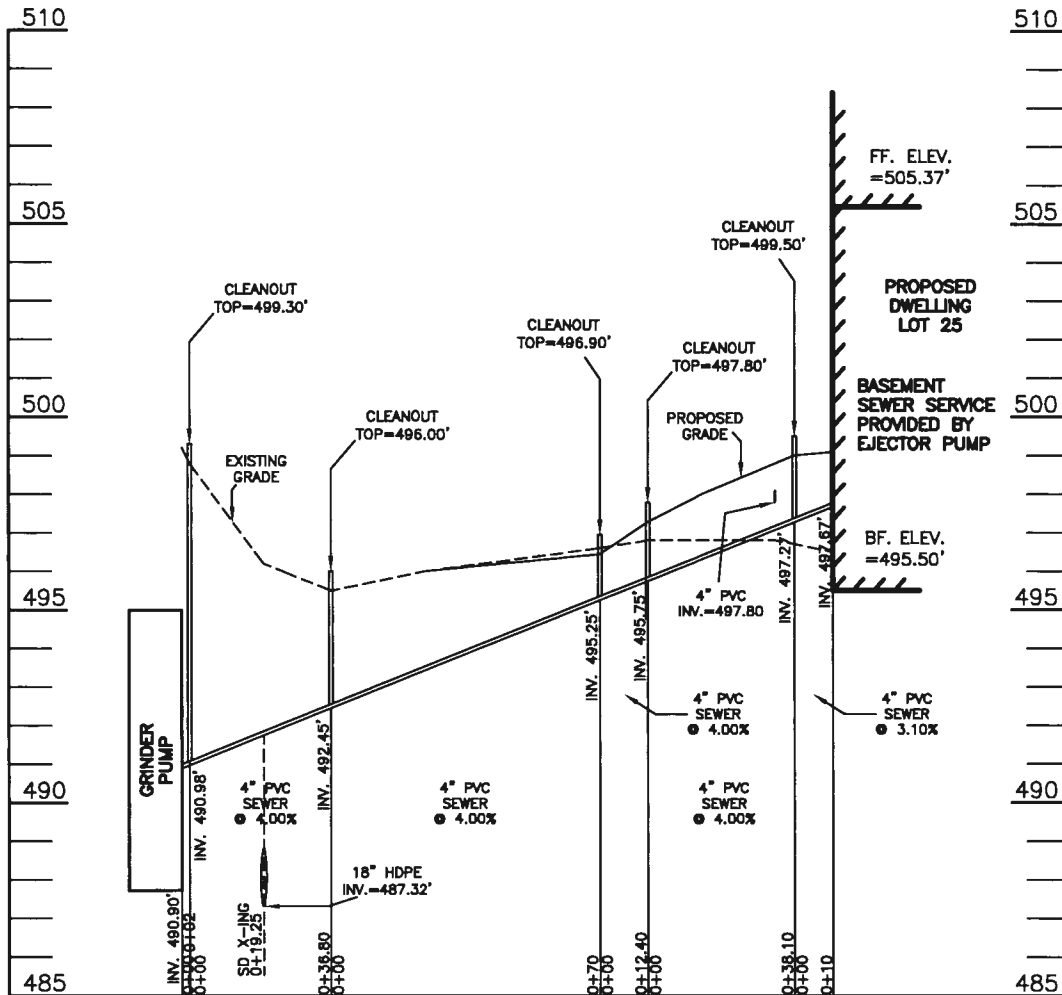
**7009 COLT PLACE
(LIBER 18479, FOLIO 296)
PLAT NO. 25505**

ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

DATE: JUNE 30, 2022
SCALE 1" = 50'

ESE CONSULTANTS
ENGINEERING • PLANNING • SURVEYING • ENVIRONMENTAL

ESE Consultants, Inc.
6731 Columbia Gateway Drive • Suite 120 • Columbia, MD 21046
T: 410-872-9105



SEPTIC EXHIBIT

**WILLOWSHIRE
LOT 23
(SHARED SEPTIC)
F-18-086**

7009 COLT PLACE
(Liber 18479, Folio 296)
PLAT NO. 25505

ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

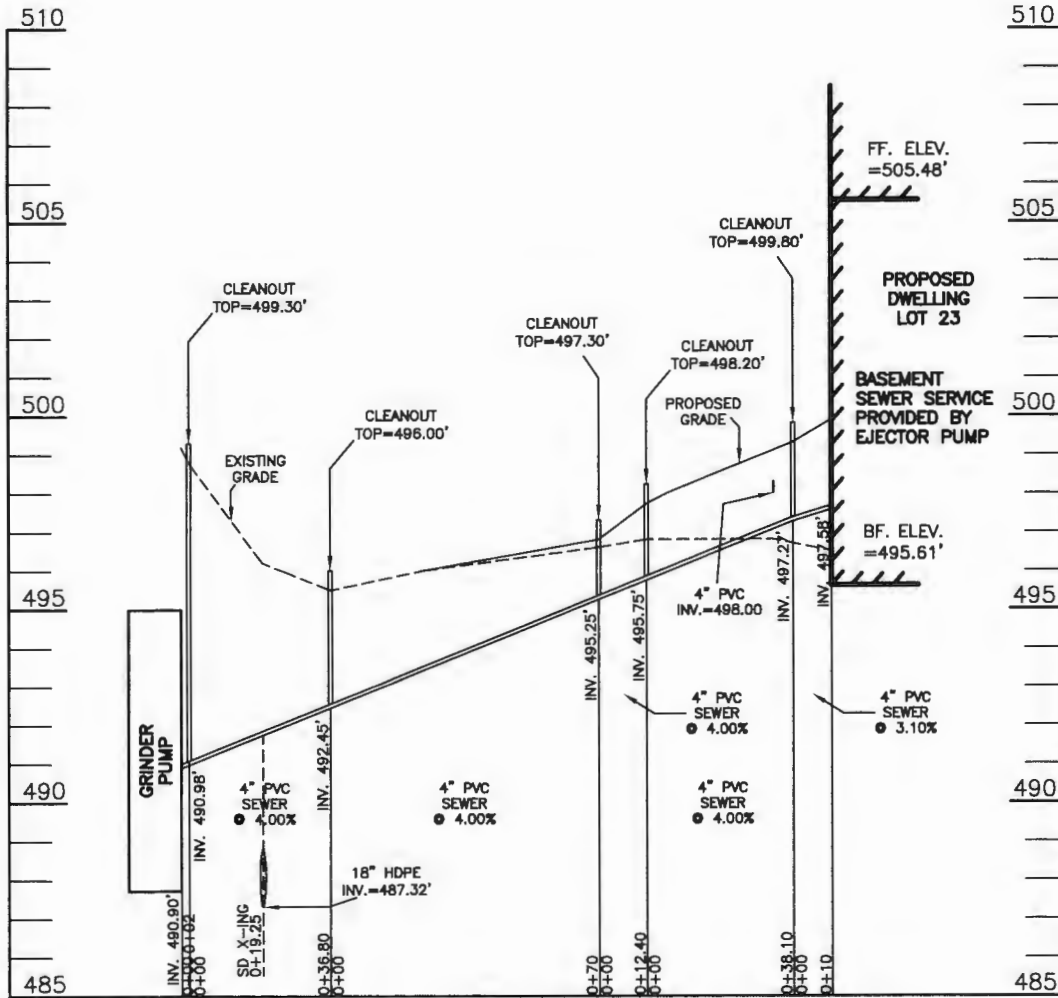
DATE: SEPTEMBER 23, 2021
SCALE 1" = 50'

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Approved Septic System Plan
Howard County Health Department

Mark Oswald 7/19/22
Signature Date



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Wolf, Kevin

From: Hart, Amy
Sent: Friday, August 4, 2023 8:18 AM
To: Voss, Jordon; Wolf, Kevin; Miscbilling
Cc: Duong, Yeuk; Martin, Sharhonda; Williams, Jeffrey; Bernard, Dana; Page, Shepsura; Rappaport, Ryan; Warner, Zachary
Subject: RE: U&O Release

Good morning all.

On the morning of 8/3/2023 we observed the sewer house connection at the following address in the Willow Creek Subdivision:

Lot #23
7009 Colt Place
Dayton, MD 21036

The Bureau of Utilities releases it's hold on this property for U&O.

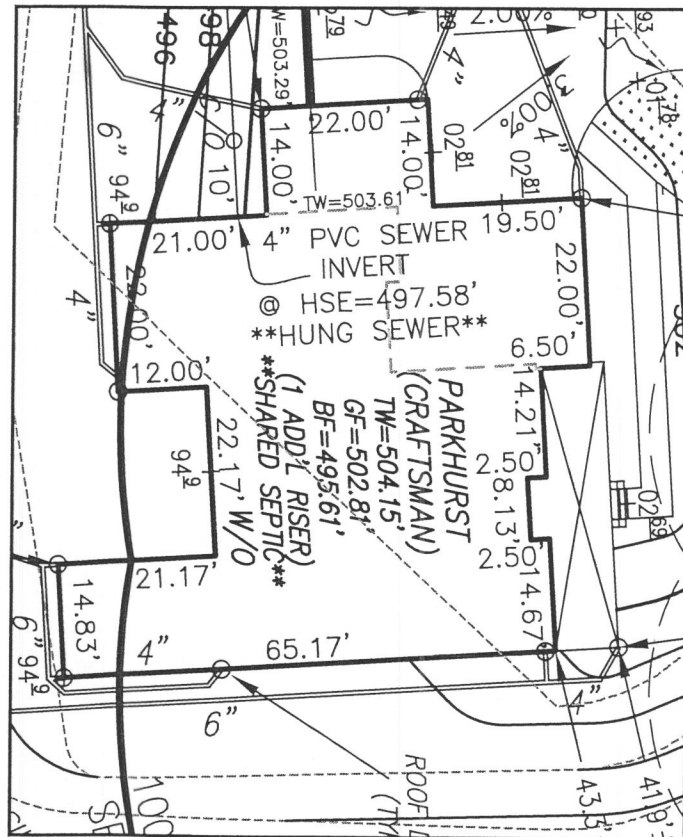
Builder : Toll Brothers

Thank you,
Amy Hart

LEGEND:

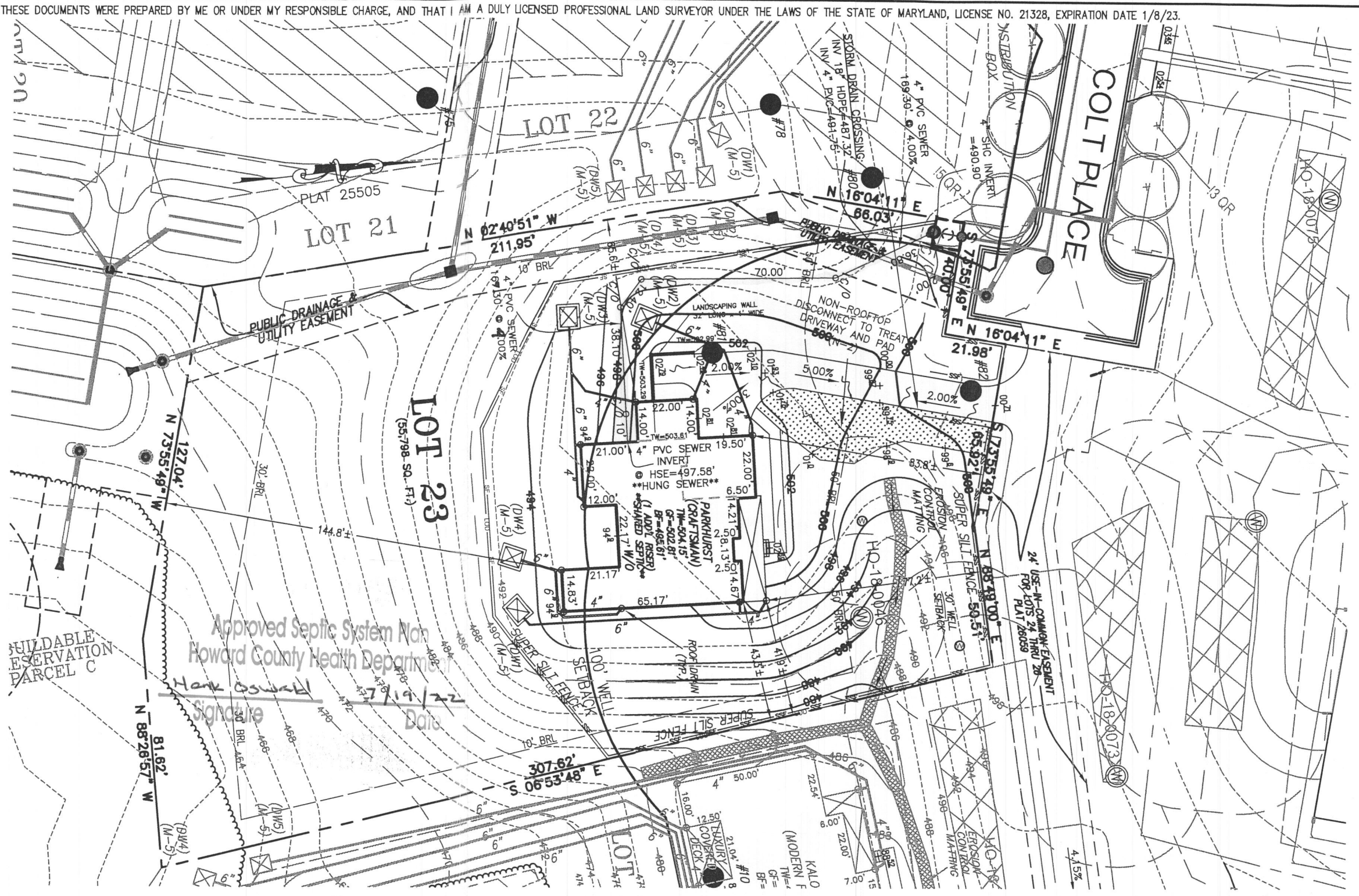
- BRL BUILDING RESTRICTION LINE
- W WELL LOCATION
- T.W. TOP OF WALL
- G.F. GARAGE FLOOR
- B.F. BASEMENT FLOOR
- PASSED PERC LOCATION
- ▨ SEWAGE DISPOSAL AREA
- ▩ WELL BOX AREA
- SILT FENCE
- SUPER SILT FENCE
- LIMITS OF DISTURBANCE
- PROPOSED TREE
- PROPOSED TREE
- SCE STONE CONSTRUCTION ENTRANCE

NOTE:
TOTAL LIMITS OF DISTURBANCE (LOD) = 26,944 SQ. FT.



HOUSE ENLARGEMENT
NOT TO SCALE

BUILDING SETBACKS (B.R.L.'s) SHOWN HEREON PER SITE DEVELOPMENT PLAN
SETBACK DISTANCES SHOWN HEREON AS "±" HAVE AN ACCURACY OF ±0.1' FOOT.



Approved Septic System Plan
Howard County Health Department

Mark Oswald
Signature
7/19/22
Date



HOUSE TYPE: PARKHURST (CRAFTSMAN)

INTERIOR WET BAR	OPTION No. 003
TWO CAR SIDE ENTRY GARAGE	OPTION No. 012
WALK-OUT BASEMENT	OPTION No. 017
MULTI-GENERATIONAL SUITE ADDITION	OPTION No. 263073
ADDITIONAL 1 CAR FRONT ENTRY GARAGE (14')	OPTION No. 263102

WELL NUMBER: HO-18-0046
ADDRESS: 7009 COLT PLACE
DAYTON, MD 21036

PERMIT PLOT PLAN
LOT 23
WILLOWSHIRE
LIBER 18479, FOLIO 296
PLAT NO. 25505
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

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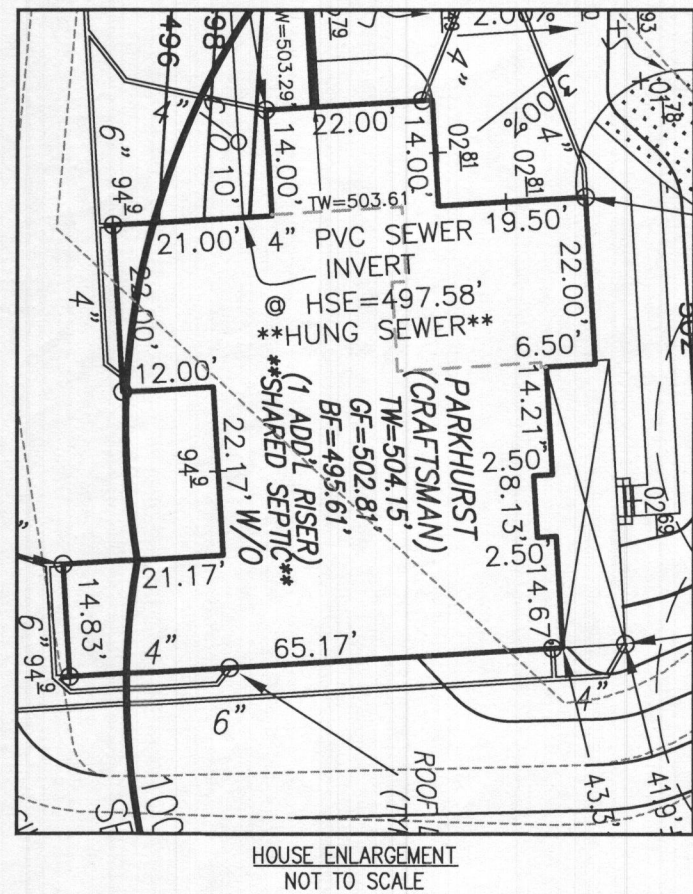
ESE Consultants, Inc.
6731 Columbia Gateway Drive • Suite 120 • Columbia, MD 21046
T: 410-872-9105

DATE: 05/07/2022 SCALE: 1" = 40' FILE: PP LOT 23 - PARKHURST CRAFTS.
CHK'D: M.J.B. JOB NO: 4520 DRAWN: R.C.K.

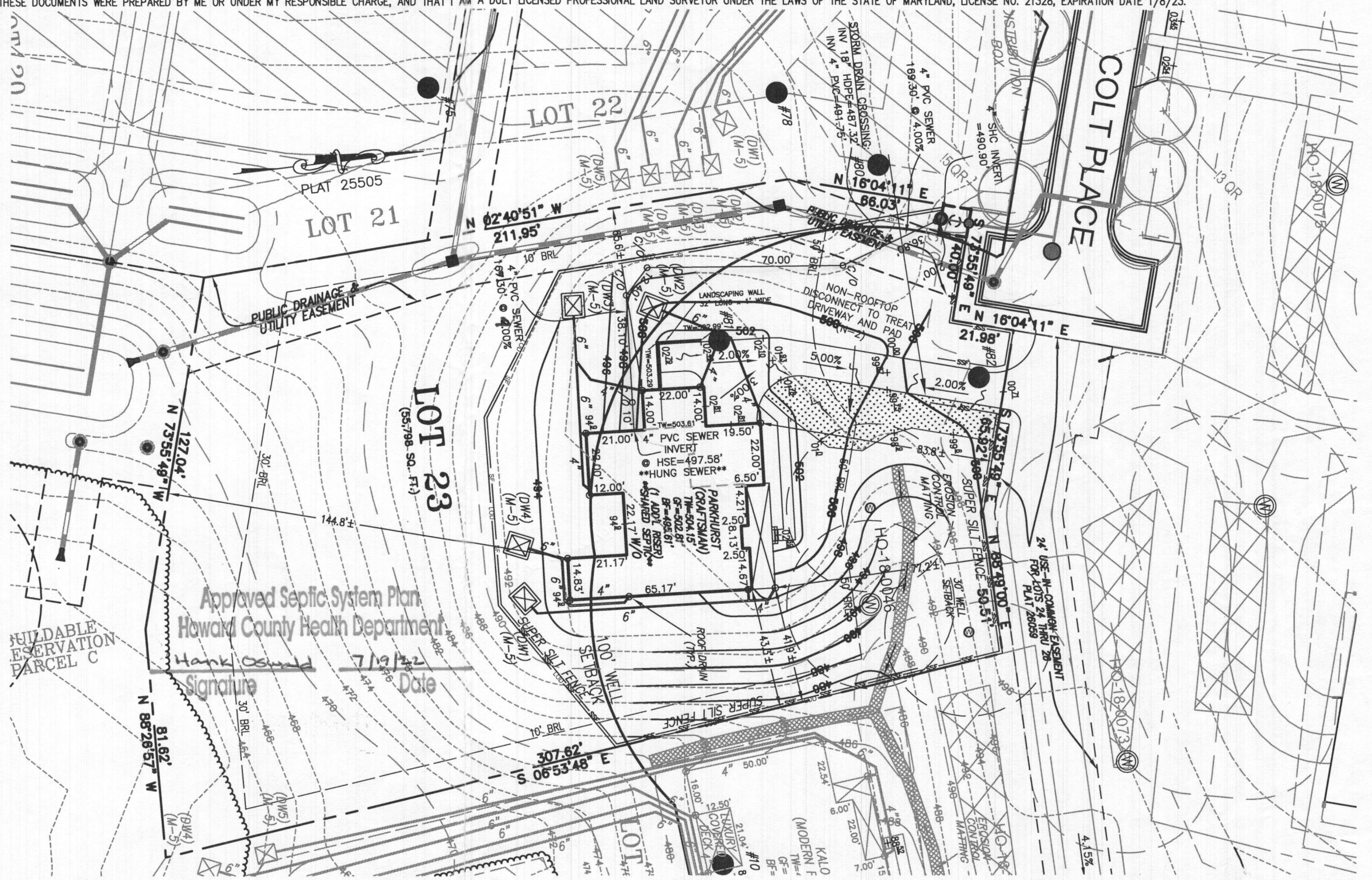
LEGEND:

- BRL BUILDING RESTRICTION LINE
- WELL LOCATION
- T.W. TOP OF WALL
- G.F. GARAGE FLOOR
- B.F. BASEMENT FLOOR
- PASSED PERC LOCATION
- ▨ SEWAGE DISPOSAL AREA
- ▩ WELL BOX AREA
- SILT FENCE
- SUPER SILT FENCE
- LIMITS OF DISTURBANCE
- PROPOSED TREE
- PROPOSED TREE
- SCE STONE CONSTRUCTION ENTRANCE

NOTE:
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Approved Septic System Plan
Howard County Health Department

Hank O'Neil
Signature
7/19/22
Date



HOUSE TYPE: PARKHURST (CRAFTSMAN)

INTERIOR WET BAR
TWO CAR SIDE ENTRY GARAGE
WALK-OUT BASEMENT
MULTI-GENERATIONAL SUITE ADDITION
ADDITIONAL 1 CAR FRONT ENTRY GARAGE (14')

OPTION No. 003
OPTION No. 012
OPTION No. 017
OPTION No. 263073
OPTION No. 263102

WELL NUMBER: HO-18-0046
ADDRESS: 7009 COLT PLACE
DAYTON, MD 21036

PERMIT PLOT PLAN
LOT 23
WILLOWSHIRE
LIBER 18479, FOLIO 296
PLAT NO. 25505
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

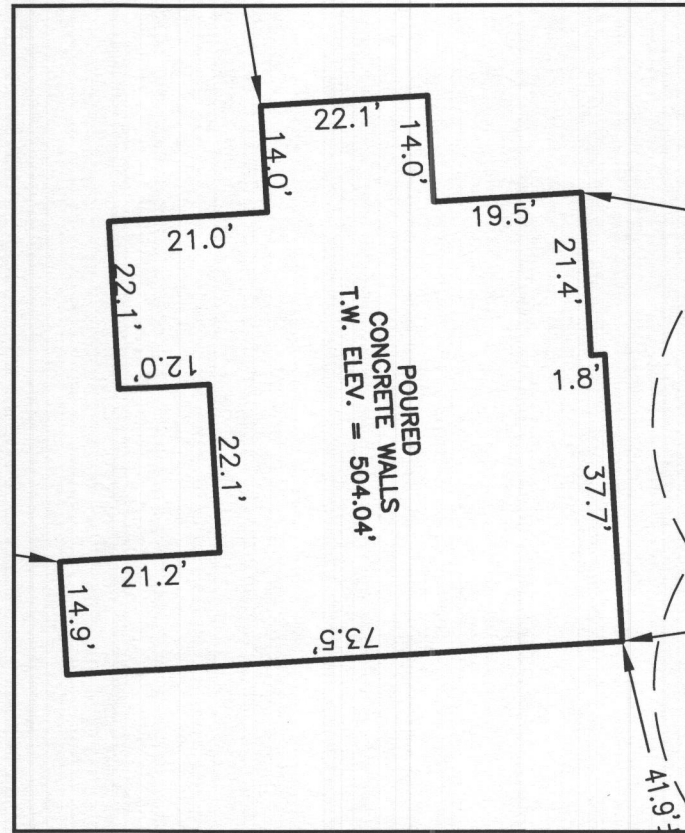
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6731 Columbia Gateway Drive • Suite 120 • Columbia, MD 21046
T: 410-872-9105

DATE: 05/07/2022 SCALE: 1" = 40' FILE: PP LOT 23 - PARKHURST CRAFTS.
CHK'D: M.J.B. JOB NO: 4520 DRAWN: R.C.K.

LEGEND:

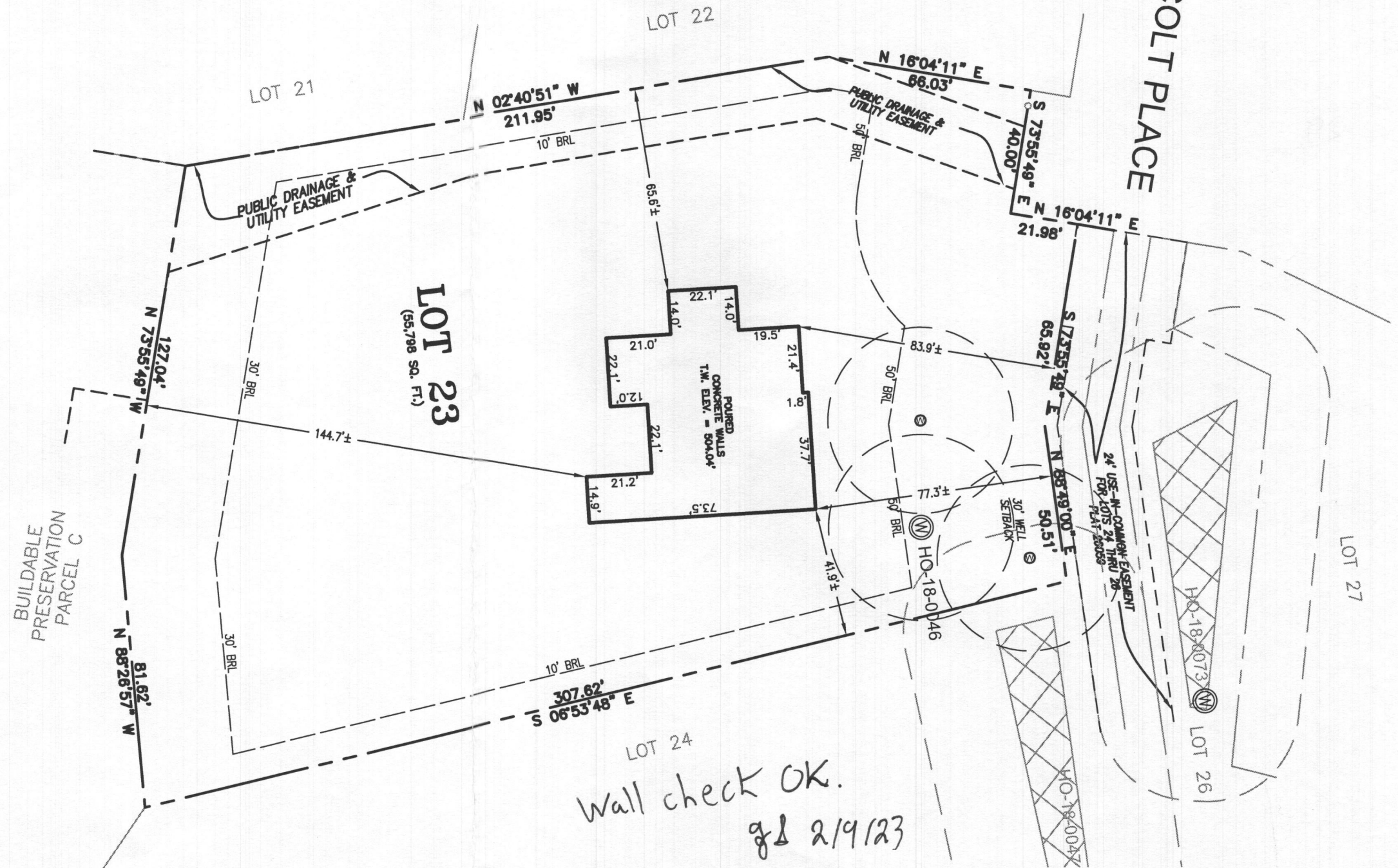
- BRL BUILDING RESTRICTION LINE
- ⊙ WELL LOCATION
- T.W. TOP OF WALL
- SEWAGE DISPOSAL AREA
- WELL BOX AREA



HOUSE ENLARGEMENT
NOT TO SCALE

WELL NUMBER: HO-18-0046
 ADDRESS: 7009 COLT PLACE
 DAYTON, MD 21036
 PERMIT NO.: B21002779

BUILDING SETBACKS (B.R.L.'s) SHOWN HEREON PER SITE DEVELOPEMENT PLAN
 SETBACK DISTANCES SHOWN HEREON AS "±" HAVE AN ACCURACY OF ±0.1' FOOT.



SURVEYOR'S CERTIFICATE

THIS WALLCHECK WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT. THIS PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS, RIGHT-OF-WAYS, COVENANTS, AND RESTRICTIONS, ETC. OF RECORD, SOME OR ALL OF WHICH MAY OR MAY NOT BE SHOWN AND/OR REFERENCED HEREON. BEARINGS AND DISTANCES OF THE PROPERTY BOUNDARY LINES SHOWN HEREON ARE PER AVAILABLE RECORDS AND HAVE NOT BEEN FIELD VERIFIED.
THIS IS NOT A "LOCATION DRAWING" AND IS NOT TO BE USED FOR SETTLEMENT PURPOSES.

Michael Joe Boyce 21328 01/19/23
 SIGNATURE: MICHAEL JOE BOYCE MD. LIC NO. DATE

WALLCHECK
 LOT 23
WILLOWSHIRE
 LIBER 18479, FOLIO 296
 PLAT NO. 25505
 5th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

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ESE Consultants, Inc.
 6731 Columbia Gateway Drive • Suite 120 • Columbia, MD 21046
 T: 410-872-9105

DATE: 01/19/2023
 CHK'D: M.J.B.

SCALE: 1" = 40'
 JOB NO: 4520

FILE: WC LOT 23
 DRAWN: V.X.P.

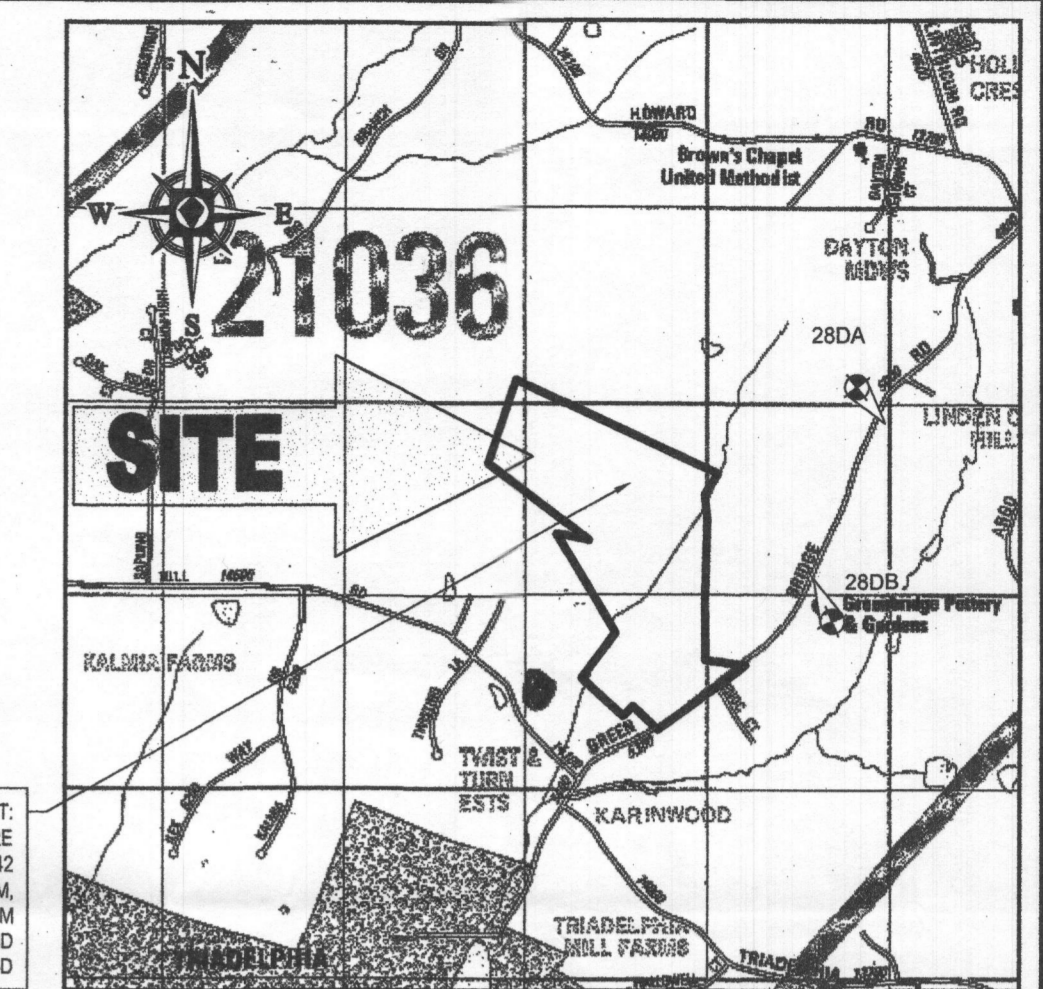


STANDARD DRAWING LEGEND FOR ENTIRE PLAN SET (NOT TO SCALE)		
EXISTING NOTE	TYPICAL NOTE TEXT	PROPOSED NOTE
---	ONSITE PROPERTY LINE / R.O.W. LINE	---
---	NEIGHBORING PROPERTY LINE / INTERIOR PARCEL LINE	---
---	EASEMENT LINE	---
---	SETBACK LINE	---
---	UNDERGROUND FORCE MAIN	---
S	SANITARY SEWER MAIN	---
⊙	SANITARY MANHOLE	•
○	TERMINAL SANITARY MANHOLE	•
---	STREAM BUFFER	SS
---	FLOODPLAIN	---
---	LIMIT OF DISTURBANCE	---
---	UTILITY TEST PIT LOCATION	⊕
WB	WETLAND BUFFER	---
---	PERCOLATION HOLE (PASSED)	•
---	PERCOLATION HOLE (FAILED)	⊗
---	PERENNIAL STREAM	---
---	INTERMITTENT STREAM	---
---	SEWAGE DISPOSAL AREA	PRIVATE SHARED
---	PROPOSED SEWER HOUSE CONNECTION	---
---	WETLAND BUFFER	---
---	STREAM BUFFER	---
---	TREELINE	---
---	SEWER CLEANOUT	•

FINAL PUBLIC SEWER, FORCE MAIN AND SHARED ONSITE SEWER SYSTEM PLANS FOR WILLOWSHIRE LOTS 23, 38, 39, 40 & 42

CONTRACT NO.: 50-5062-D

LOCATION OF SITE
5232 GREEN BRIDGE ROAD
TAX MAP 27, GRID 18, PARCELS 34,36, 98, 111 & 112
5TH ELECTION DISTRICT, ZONED RR-DE0
HOWARD COUNTY MARYLAND



PROJECT:
WILLOWSHIRE
LOTS 23, 38, 39, 40 & 42
SEWER MAIN, LOW PRESSURE SEWER SYSTEM,
AND SHARED ONSITE SEWER SYSTEM
HOWARD COUNTY, MARYLAND
CONTRACT NO. 50-5062-D

VICINITY MAP
COPYRIGHT AEC THE MAP PEOPLE
PERMIT USE NO. 2002153-5
SCALE: 1"=2000'
AEC MAP COORDINATES: 30C5

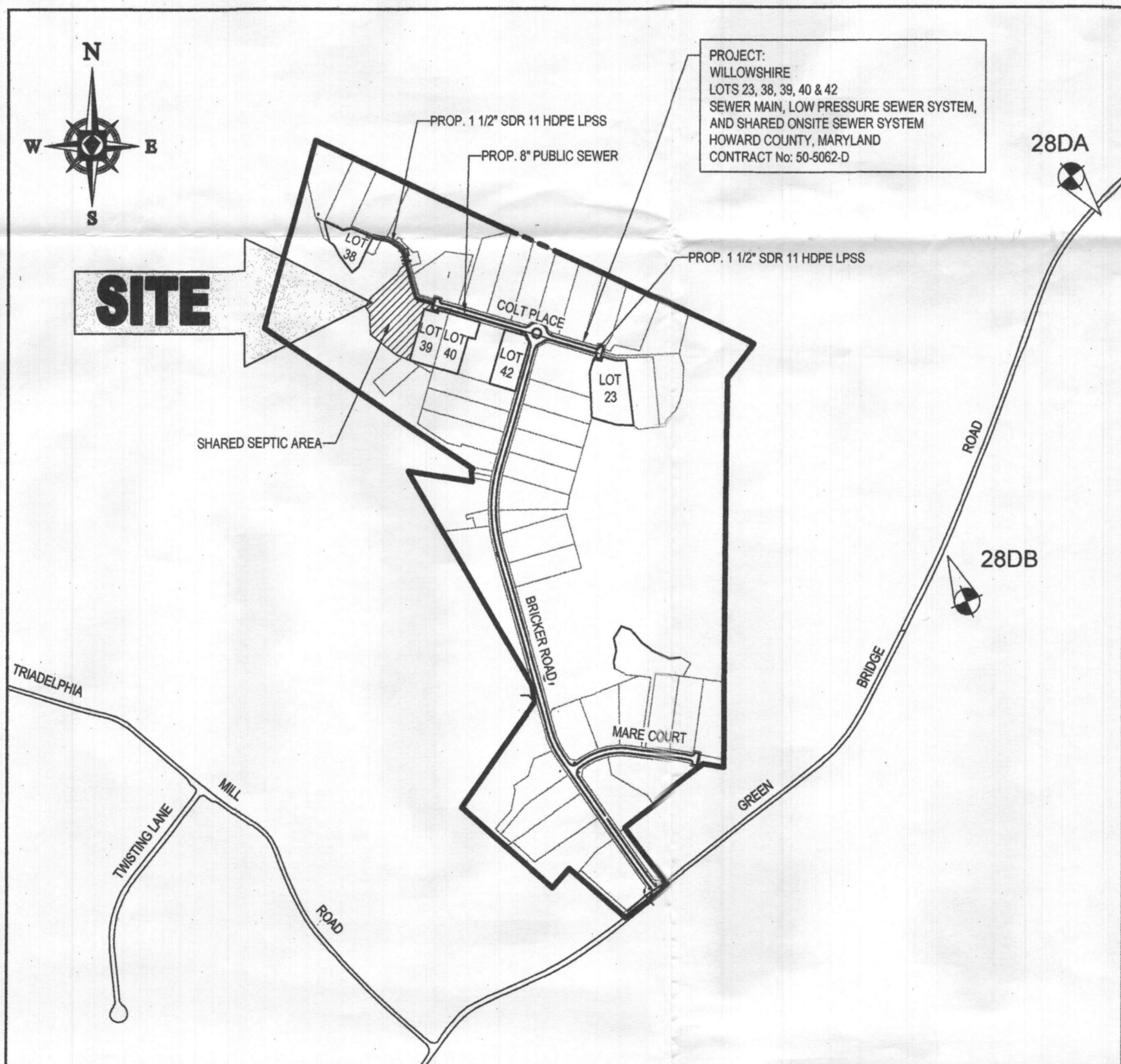
GENERAL NOTES

- APPROXIMATE LOCATIONS OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED ON APRIL 28, 2015 BY BOHLER ENGINEERING.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLAN COORDINATE SYSTEM. HORIZONTAL AND VERTICAL CONTROL DATUM ARE BASED ON HOWARD COUNTY MONUMENT NOS. 28DA AND 28DB WHICH WERE USED FOR THIS PROJECT.
HOWARD COUNTY MONUMENT NO. 28DA ELEV. = 564.389'
HOWARD COUNTY MONUMENT NO. 28DB ELEV. = 537.361'
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES. CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED UNLESS OTHERWISE NOTED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONIES OWED BY THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
- FOR DETAILS NOT SHOWN ON THE DRAWING, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
- WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL AT THE LOCATIONS OF THE TEST PITS. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN MADE SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
AT & T1-800-252-1133
BGE (CONSTRUCTION SERVICES) 410-637-8713
BGE (EMERGENCY) 410-686-0123
BUREAU OF UTILITIES 410-313-4900
COLONIAL PIPELINE COMPANY 410-795-1390
MISS UTILITY 1-800-257-7777
VERIZON 1-800-745-0033
STATE HIGHWAY ADMINISTRATION 410-531-5533
HOWARD COUNTY HEALTH DEPARTMENT OFFICE 410-313-8300
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL REMOVE TREES, STUMPS, AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410)313-7450 AT LEAST FIVE WORKING DAYS BEFORE OPEN CUTTING OR BORING/JACKING OF ANY COUNTY ROAD FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(A) OF THE HOWARD COUNTY CODE.
- WAIVER (DMV2-19-000) FROM THE HOWARD COUNTY DESIGN MANUAL VOL. II, WATER AND SEWER SECTION 4.3 B.3 B AND 4.5 E FOR LOTS 23, 38-40 AND 42 (NO BASEMENT GRAVITY SERVICE) HAS BEEN APPROVED BY HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS ON DEC. 14, 2018. AS A RESULT OF TOPOGRAPHY CAUSING DEPTH OF SEWER IN EXCESS OF 20 FEET, BASEMENT SEWER SERVICE CANNOT BE PROVIDED TO THESE LOT PROPOSED LOTS. FOR THESE LOTS, GRAVITY SEWER SERVICE TO BE PROVIDED TO FIRST FLOOR ONLY. BASEMENT SERVICE TO BE PROVIDED BY PRIVATE ON-SITE PUMP TO BE LOCATED INSIDE THE HOUSE. THE APPROVAL AND INSPECTION OF ON-SITE PUMPING UNITS INCLUDES THE DEPARTMENT OF INSPECTION, LICENSE AND PERMIT (DIP).
- CONSTRUCTION SHALL CONFORM TO ALL LOCAL, COUNTY, AND STATE GUIDELINES, INCLUDING HOWARD COUNTY BUILDING CODES AND RECOMMEND STANDARD FOR WASTEWATER SYSTEMS (2004); DISCREPANCIES SHALL BE REFERRED TO ENGINEER.
- REFER TO SEPTIC PERMIT APPROVAL FOR SAMPLING PROTOCOLS AND FREQUENCY FOR THE RESPECTIVE SITES. COPY OF THE SEPTIC PERMIT APPROVAL SHALL BE KEPT WITH THE O&M MANUAL.
- A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH THE MDE (410-537-3680), HOWARD COUNTY HEALTH DEPARTMENT AND BUREAU OF UTILITIES & CONSTRUCTION INSPECTIONS REPRESENTATIVES PRIOR TO STARTING WORK TO REVIEW DESIGN DOCUMENTS AND CONSTRUCTION REQUIREMENTS.
- AN OPEN TRENCH INSPECTION SHALL BE CONDUCTED PRIOR TO FILLING WITH GRAVEL.
- THIS AREA DESIGNATES A SEWAGE DISPOSAL AREA OF AT LEAST 10,000 SQ FT PER LOT ON SHARED SYSTEM AS REQUIRED BY THE MARYLAND DEPARTMENT OF ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE AREAS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWER SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE AREA. RECORDED OF A REVISED SEWAGE EASEMENT SHALL NOT BE NECESSARY.
- WAIVER (DMV2-20-000) FROM THE HOWARD COUNTY DESIGN MANUAL VOL. II, WATER AND SEWER, SECTION 8.1 E.9 C WHICH REQUIRES SEPTIC TANKS SIZED (TOTAL CAPACITY) FOR A MINIMUM VOLUME EQUAL TO 1250 GALLONS PER 4-BEDROOM HOUSE, WITH AN ADDITIONAL 250 GALLONS FOR EACH ADDITIONAL BEDROOM HAS BEEN APPROVED BY HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS ON NOVEMBER 16, 2019.
- THE DEVELOPER SHALL CONDUCT QUARTERLY MONITORING OF THE TREATED EFFLUENT DURING THE 12-MONTH PERIOD FOLLOWING 80% OCCUPANCY OF THE LOTS CONNECTED TO THE SEWERAGE SYSTEM. THE SAMPLING AND ANALYSIS SHALL BE IN ACCORDANCE WITH MDE GUIDANCE FOR PRE-TREATMENT SYSTEMS WITH GREATER THAN 1500 GPD CAPACITY. THIS INCLUDES GRAB SAMPLING EFFLUENT IN THE PUMP TANK WITH LABORATORY ANALYSES OF BOD, TSS, TOTAL NITROGEN (TKN), NITRATE, NITRITE, ALKALINITY, AND FOG. DO, PH, AND TEMPERATURE SHOULD BE TAKEN TOGETHER WITH LABORATORY ANALYSIS OF EFFLUENT PIPE AS POSSIBLE. IF THE EFFLUENT CONSISTENTLY EXCEEDS THE APPROVED DESIGN CRITERIA OR APPLICABLE REGULATORY LIMITS, THE DEVELOPER WILL NOTIFY HCHD, MDE, AND HCBJ AND WILL MAKE THE NECESSARY ADJUSTMENTS OR REPAIRS TO THE SYSTEM WITH AGENCY OVERSIGHT PRIOR TO DEDICATION OF THE SYSTEM TO HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. IF A TREATMENT REDUCTION IN PERCENT IS SPECIFIED, CONCURRENT INFLUENT MONITORING IS REQUIRED.

SHEET INDEX	
SHEET TITLE	SHEET NUMBER
WATER AND SEWER PLAN - TITLE SHEET	1
WATER AND SEWER PLAN - PUBLIC SEWER & FORCE MAIN PLAN & PROFILES	2
WATER AND SEWER PLAN - DRAINFIELD PLAN	3
WATER AND SEWER PLAN - TREATMENT SYSTEM DETAIL	4
WATER AND SEWER PLAN - DISTRIBUTION DETAILS	5

QUANTITIES TABLE				
ITEMS	QUANTITIES ESTIMATED	QUANTITIES	AS-BUILT TYPE	MANUFACTURER / SUPPLIER
GRINDER PUMP (DUPEX)	2	2	DUPEX	ZOELLER
CLEANOUTS	7	7	CONCRETE	HORNE CONCRETE
GATE VALVES	1	1	MJ RS O/R	MUELLER CO.
4" S.H.C.	65 L.F.	75 L.F.	PVC-SDR 35	JM - MFG.
1 1/2" SDR 11 HDPE (LPSS)	830 L.F.	850 L.F.	HDPE	FLYING W PLASTICS
8" SDR 35 PVC	591 L.F.	590 L.F.	PVC	JM - MFG.
TERMINAL FLUSHING CONNECTION MANHOLE	2	2	PRECAST CONC.	ATLANTIC CONCRETE
SANITARY MANHOLE	2	2	PRECAST CONC.	ATLANTIC CONCRETE
3" WIDE DRAINFIELD TRENCH	750 L.F.	750 L.F.	TYPE 2-A WASHED STONE	HYDRO-TERRA
2" PVC LATERALS	744 L.F.	744 L.F.	2" PVC HDPE	FLYING W PLASTICS
3" PVC PVC FORCE MAINS	180 L.F.	180 L.F.	3" PVC HDPE	FLYING W PLASTICS
2,000 GALLON SETTLING TANKS	1	1	PRECAST CONC.	GILLESPIE
4.5 BAT UNIT (MICROFAST)	1	1	PRECAST CONC.	GILLESPIE
6,000 GALLON DOSING TANK	1	1	PRECAST CONC.	GILLESPIE
DOSING PUMPS	3	3	CAST IRON	GOULDS WOODBURY
8' X 12' CONTROL SHED	1	1	COTTAGE A-FRAME	RIDGE CABINET CO.
TRANSITION MANHOLE	2	2	PRECAST CONC.	ATLANTIC CONCRETE
NAME OF UTILITY CONTRACTOR				HIGH LAND TURF, INC.
CHECK BOX				
AS-BUILT DATE		11-4-2021		

SANITARY STRUCTURE SCHEDULE					
NAME	TYPE	RIM ELEV. (FT.)	INVERTS	NORTHING	EASTING
CO1	CLEANOUT	498.88	INV OUT = 487.05 (4')	N 570,893.3515	E 1,311,123.6162
CO2	CLEANOUT	498.22	INV OUT = 487.05 (4')	N 570,294.4136	E 1,312,238.6271
CO5	CLEANOUT	490.48	INV OUT = 487.50 (1 1/2') INV OUT = 487.50 (1 1/2')	N 570,902.4267	E 1,311,127.9163
CO6	CLEANOUT	499.96	INV OUT = 487.50 (1 1/2') INV OUT = 487.50 (1 1/2')	N 570,304.9229	E 1,312,239.3952
GP#1	GRINDER PUMP HO.CO. STD. DET. E-2.03	500.00	INV IN = 497.50 (1 1/2') INV IN = 497.00 (4')	N 570,299.2047	E 1,312,238.0072
GP#2	GRINDER PUMP HO.CO. STD. DET. E-2.03	480.00	INV IN = 487.50 (1 1/2') INV IN = 487.00 (4')	N 570,897.8861	E 1,311,125.7163
SM#4	TERMINAL FLUSHING CONNECTION HO.CO. STD. DET. E-1.03	498.88	INV OUT = 484.84 (1 1/2')	N 570,332.4276	E 1,312,252.7908
SM#3	TERMINAL FLUSHING CONNECTION HO.CO. STD. DET. E-1.03	981.82	INV OUT = 485.00 (1 1/2')	N 570,912.9433	E 1,311,127.1739
SM#1	STANDARD MANHOLE HO.CO. STD. DET. G-5.12	498.77	INV IN = 492.10 (8') INV IN = 491.86 (8')	N 570,584.8743	E 1,311,377.1162
SM#2	STANDARD MANHOLE HO.CO. STD. DET. G-5.12	500.00	INV IN = 494.04 (8') INV IN = 494.14 (4') INV IN = 493.94 (8')	N 570,538.3398	E 1,311,537.9644
TSM#1	TRANSITION MANHOLE HO.CO. STD. DET. S-4.15	497.17	INV IN = 493.09 (1 1/2') INV OUT = 492.50 (8')	N 570,598.0542	E 1,311,372.8478
TSM#2	TRANSITION MANHOLE HO.CO. STD. DET. S-4.15	511.97	INV IN = 506.65 (1 1/2') INV OUT = 506.15 (8')	N 570,427.9169	E 1,311,922.3346
VALVE BOX	ISOLATION VALVE BOX	497.19	INV IN = 491.86 (8') INV OUT = 491.86 (8')	N 570,579.8789	E 1,311,375.7005



USE PROJECTION	
HOUSES SERVED BY ON-SITE SYSTEM	0
BEDROOMS PER HOUSE	5
FLOW PER BEDROOM (GPD)	150
TOTAL DESIGN FLOW AT 150 GPD/BEDROOM (GAL)	3,750
ADF (GPD)	1,875

BENCHMARK	
GEODETIC SURVEY CONTROL - 28DA	ELEV. 564.389' N 570,624.997 E 1,314,434.228
GEODETIC SURVEY CONTROL - 28DB	ELEV. 537.361' N 569,055.561 E 1,313,795.348

WATER NOTES:

- WATER SERVICE TO ALL BUILDABLE LOTS SHALL BE PRIVATE AND PROVIDED BY INDIVIDUAL PRIVATE WELLS.

SEWER NOTES:

- ALL SEWER MAINS SHALL BE DIP OR PVC UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- FORCE MAINS SHALL BE D.I.P. ONLY.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED WITH INFLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL 05.52. WHERE WATERTIGHT FRAME AND COVER IS USED, SET TOP OF FRAME 1'-0" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.
- LOTS 1 THRU 22, 24 THRU 37, 41, AND 43 THRU 45 SHALL HAVE PRIVATE ON-SITE DISPOSAL SYSTEMS.
- LOW PRESSURE SEWER PORTION OF THE COLLECTION SYSTEM MUST BE HDPE SDR-11 OR BETTER WITH THERMALLY WELDED JOINTS.
- ALL FORCE MAIN MUST BE LEAK TESTED.
- TRACER WIRE SHALL BE INSTALLED ALONG ENTIRE LENGTH OF LOW PRESSURE SEWER.
- A SPARE PUMP WILL BE PROVIDED TO THE COUNTY AT DEDICATION OF THE PUBLIC SANITARY SEWER IMPROVEMENTS.
- THE FORCE MAIN ELEMENT OF THE SHARED-SEPTIC SYSTEM MUST BE CONSTRUCTED OF FUSIBLE HDPE WHEN PASSING WITHIN 50 FEET OF THE WELL ZONES ON LOTS 22, 29 AND 30.

SEE SHEET 4 FOR SHARED SEPTIC TREATMENT SYSTEM NOTES.

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT. (F-19-060)

John C. Roberts 1/28/20
DATE

APPROVED: FOR PRIVATE WATER, AND SHARED SEWER SYSTEM FOR LOTS 23, 38, 39, 40 & 42.

Deborah M. Moore-Rossman 2/12/2020
COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT

DEVELOPER:		
ELM STREET DEVELOPMENT 5074 DORSEY HALL ROAD, SUITE 205 COLUMBIA, MD 21042 CONTACT: JASON VAN KIRK PHONE: (410) 720-3021		
OWNERS:	PARCEL 34	PARCEL 112
PARCEL 36	TOLL MID ATLANTIC LP COMPANY INC. 250 GIBRAL TAY ROAD HORSHAM PA, 19044 TEL.	TOLL MID ATLANTIC LP COMPANY INC. 250 GIBRAL TAY ROAD HORSHAM PA, 19044 TEL.
PARCEL 111	PARCEL 98	
DENNIS A. LEAF LENORE D. SINES 5232 GREEN BRIDGE ROAD DAYTON, MD 21035 TEL.	JERRY MALICK JANET BURKE JT 5234 GREEN BRIDGE ROAD DAYTON, MD 21035 TEL.	

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND

Robert J. ... 1-15-2020
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND

... 2-19-20
CHIEF, DEVELOPMENT ENGINEERING DIVISION

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE: CALL (800) 486-4848 (PA) 1-800-242-1776 (DC) 1-800-251-7777 (VA) 1-800-655-7001 (MD) 1-800-351-7777 (DE) 1-800-392-6559

BOHLER ENGINEERING
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21284
Phone: (410) 821-7900
Fax: (410) 821-7997
www.BohlerEngineering.com

B. ROWE
PROFESSIONAL ENGINEER
1/16/2020
PROFESSIONAL CERTIFICATION:
I, B. ROWE, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 6688, EXPIRATION DATE: 12/31/21

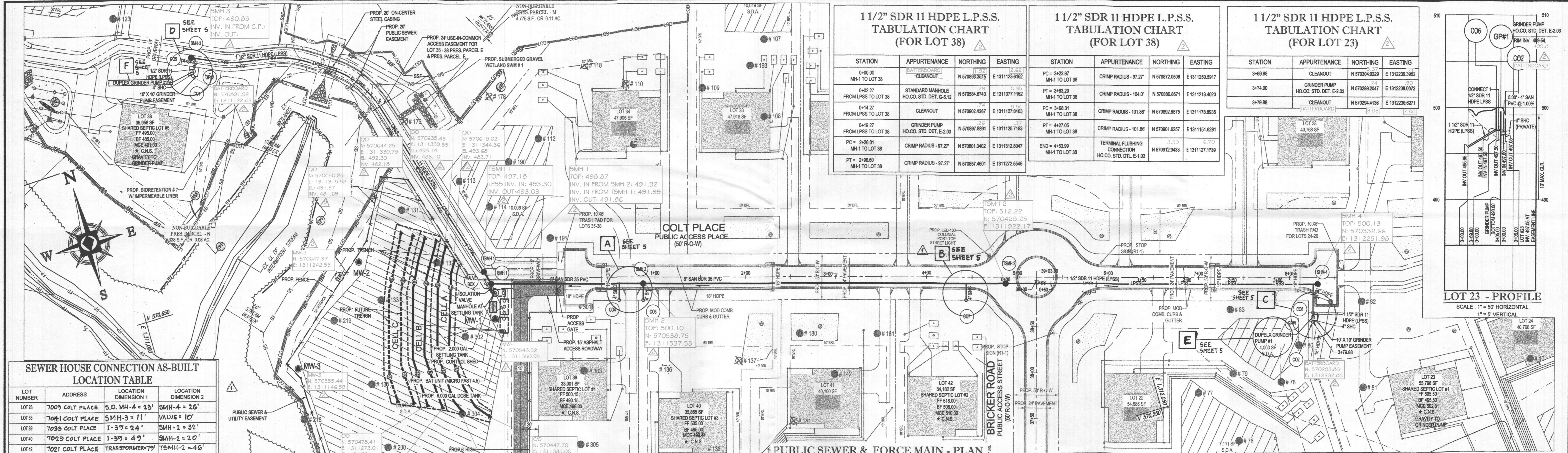
DES. AVG	DRN. AVG	CK. TG	DATE
			01/03/20
			1/24/2022
			1/29/21

WATER AND SEWER PLAN	
TITLE SHEET	
PARCEL NO.	34, 36, 98, 111 & 112
600' SCALE MAP NO.	27 & 28
BLOCK NO.	

WILLOWSHIRE
LOTS 1 - 45, BUILDABLE PRESERVATION PARCEL C, NON-BUILDABLE PRESERVATION PARCEL A, B, D, E-G, L & NON-BUILDABLE BULK PARCEL H-K

5232 GREEN BRIDGE ROAD
TAX MAP 27, GRID 18, PARCELS 34, 36, 98, 111 & 112
5TH ELECTION DISTRICT, ZONED RR-DE0
HOWARD COUNTY MARYLAND
CONTRACT NO.: 50-5062-D

SCALE AS SHOWN
SHEET 1 OF 5



1 1/2" SDR 11 HDPE L.P.S.S. TABULATION CHART (FOR LOT 38)

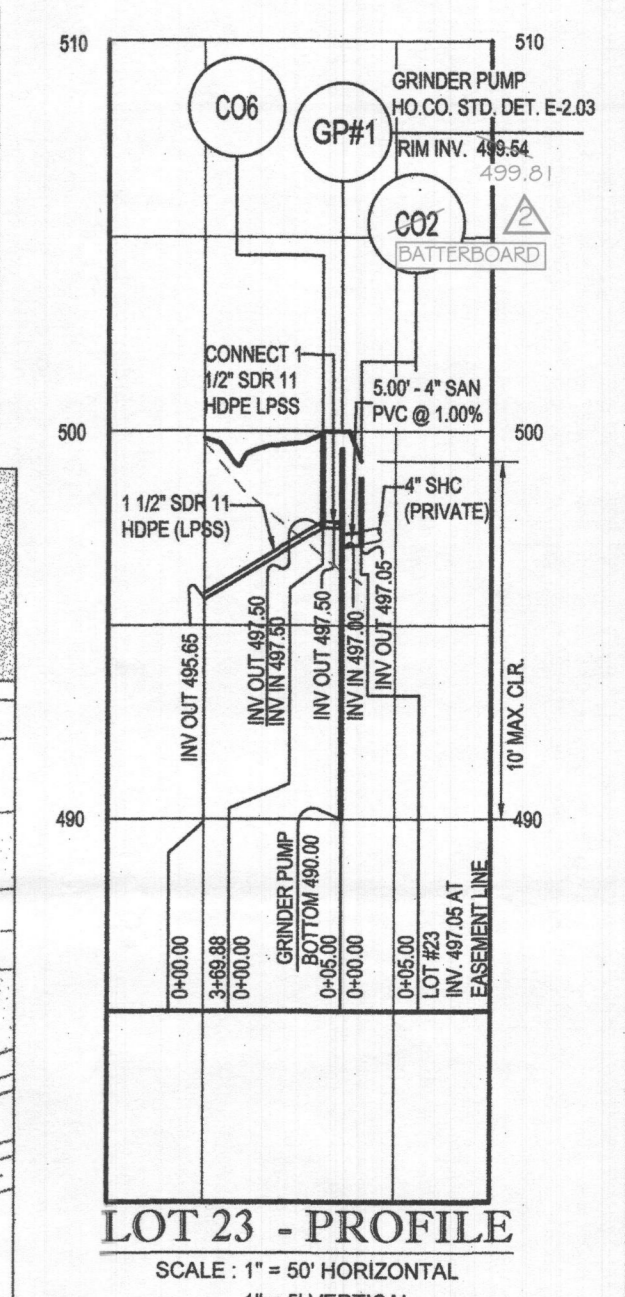
STATION	APPURTENANCE	NORTHING	EASTING
0+00.00	1/2" SDR 11 HDPE L.P.S.S. CLEANOUT	N 57063.3515	E 131123.6162
0+02.27	STANDARD MANHOLE HO.CO. STD. DET. G-4.12	N 57084.6743	E 131137.1162
0+14.27	CLEANOUT	N 57092.4267	E 131127.9163
0+19.27	GRINDER PUMP HO.CO. STD. DET. E-2.03	N 57087.8881	E 131125.7163
PC = 2+06.81	CRIMP RADIUS - 97.27'	N 57081.3402	E 131132.8047
MH-1 TO LOT 38	CRIMP RADIUS - 97.27'	N 57085.4801	E 131127.5545
FT = 2+06.80			
MH-1 TO LOT 38			

1 1/2" SDR 11 HDPE L.P.S.S. TABULATION CHART (FOR LOT 38)

STATION	APPURTENANCE	NORTHING	EASTING
PC = 3+22.87	CRIMP RADIUS - 97.27'	N 57082.0058	E 131125.8917
MH-1 TO LOT 38	CRIMP RADIUS - 104.47'	N 57088.8671	E 131123.4020
FT = 3+23.39			
MH-1 TO LOT 38	CRIMP RADIUS - 101.86'	N 57082.8575	E 131117.8936
PC = 3+28.31			
MH-1 TO LOT 38	CRIMP RADIUS - 101.86'	N 57081.6267	E 131151.6281
FT = 4+27.05			
MH-1 TO LOT 38	TERMINAL FLUSHING CONNECTION HO.CO. STD. DET. E-1.03	N 57081.2493	E 131127.1738
END = 4+53.99			
MH-1 TO LOT 38			

1 1/2" SDR 11 HDPE L.P.S.S. TABULATION CHART (FOR LOT 23)

STATION	APPURTENANCE	NORTHING	EASTING
3+69.88	CLEANOUT	N 57034.0229	E 131229.2962
3+74.90	GRINDER PUMP HO.CO. STD. DET. E-2.03	N 57028.2047	E 131228.0072
3+79.88	CLEANOUT	N 57028.4138	E 131228.6221

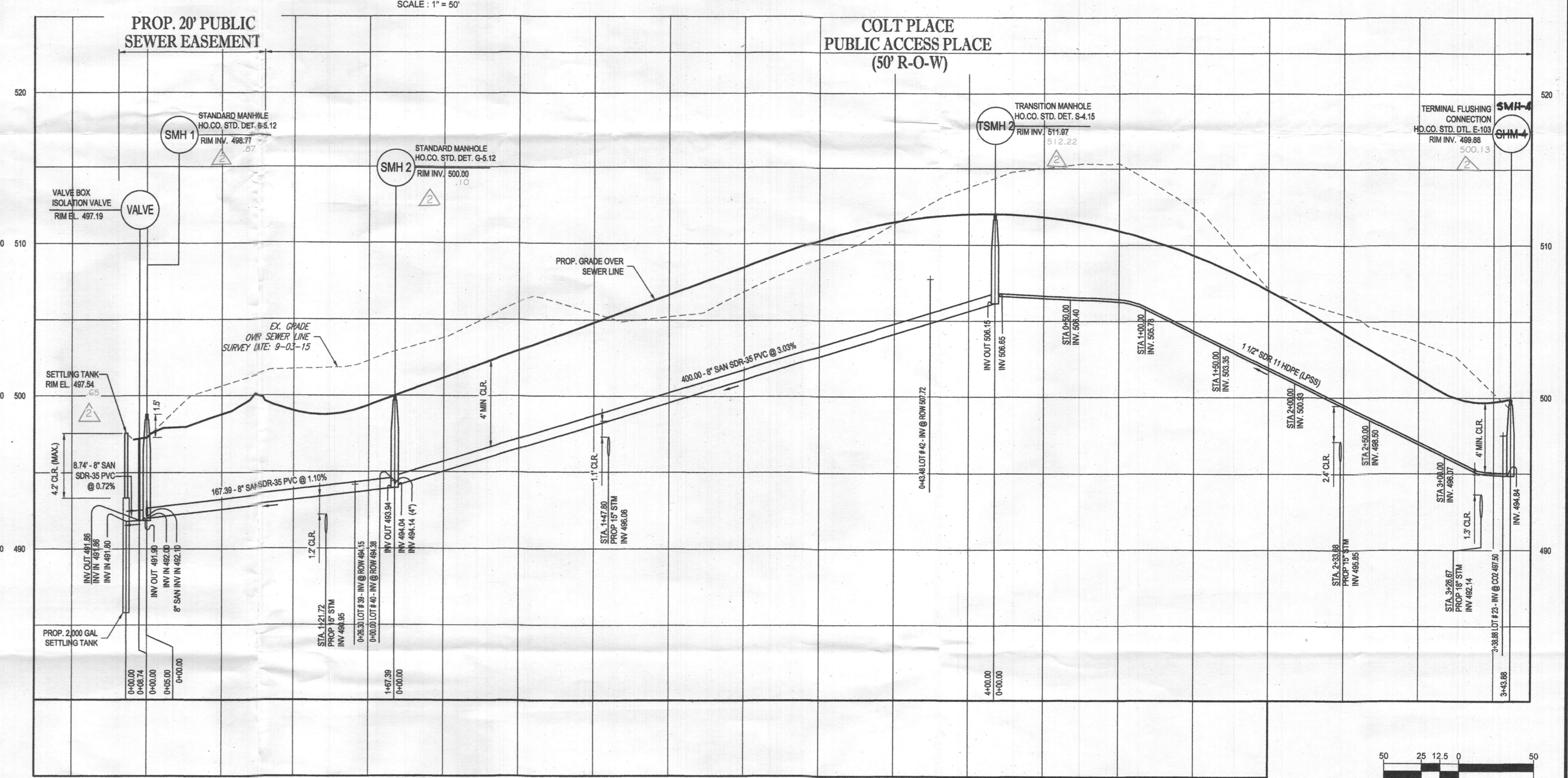
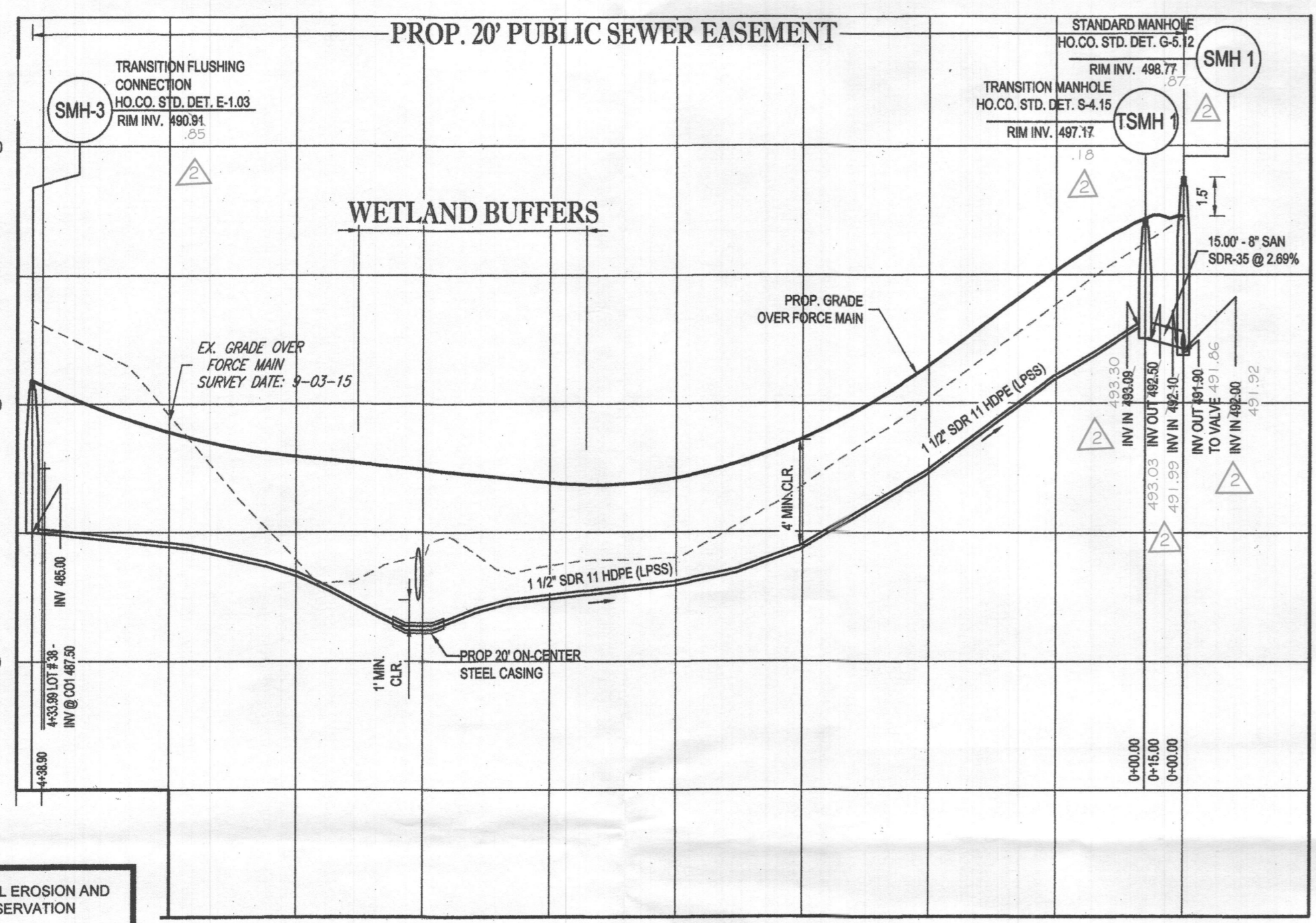
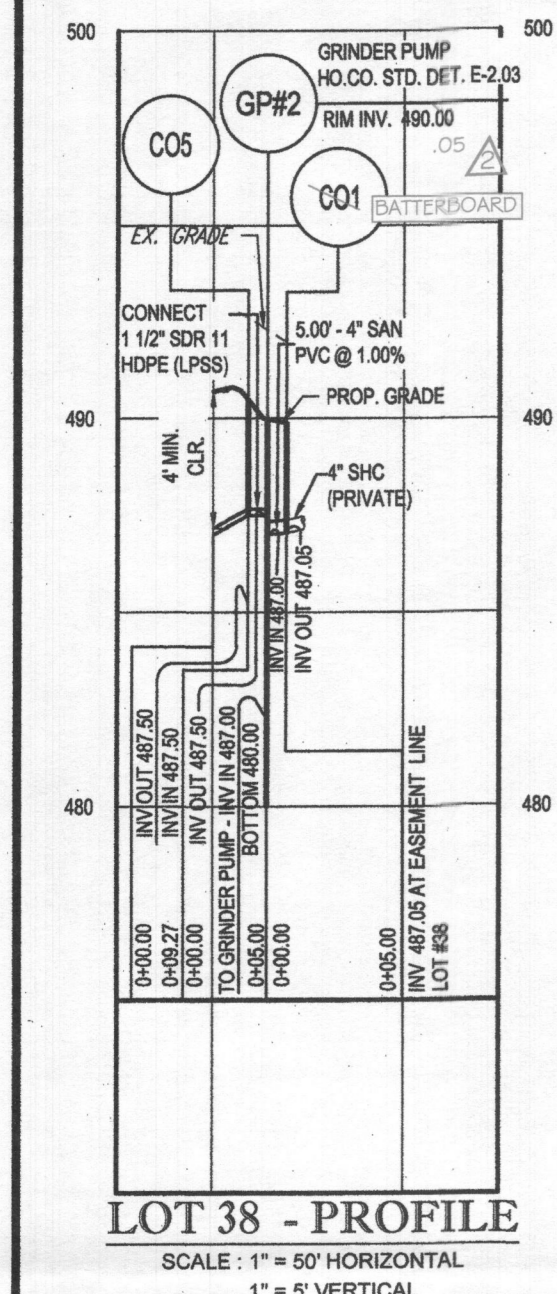


SEWER HOUSE CONNECTION AS-BUILT LOCATION TABLE

LOT NUMBER	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
LOT 23	7009 COLT PLACE	5.0' MH-4 = 2.6'	SMH-4 = 2.6'
LOT 38	7041 COLT PLACE	SMH-3 = 11'	VALVE = 10'
LOT 38	7033 COLT PLACE	1-3' = 2.4'	SMH-2 = 3.2'
LOT 40	7029 COLT PLACE	1-3' = 4.9'	SMH-2 = 2.0'
LOT 42	7021 COLT PLACE	TRANSFORMER-79'	TSMH-2 = 4.6'

LOT	MCE	BF	FF	Inv. @ of House	SHC Length (ft)	SHC Slope	Inv. @ of Manhole	Inv. @ of Grinder Pump	Prop. Cleanout @ Grinder Pump	Bottom of Drop Connection	Drop Length (ft)	Drop Length (ft)	C.N.S.
23	502.81	496.50	505.50	500.31	331.00	1.00%	497.05	497.00	500.00	490.00	N/A	N/A	NO
38	491.00	486.00	496.00	488.50	183.00	1.00%	487.05	487.00	490.00	480.00	N/A	N/A	NO
38	498.30	491.00	501.00	495.80	183.00	1.00%	494.15	N/A	N/A	N/A	N/A	N/A	NO
40	489.44	496.00	505.00	496.94	278.00	1.00%	494.34	N/A	N/A	N/A	N/A	N/A	NO
42	510.30	508.00	518.00	507.80	264.00	1.00%	505.34	N/A	N/A	N/A	YES	2.98	NO

* C.N.S. (CELLAR NOT SERVED), DENOTES GRAVITY SEWER SERVICE, FIRST FLOOR ONLY. GRAVITY BASEMENT SERVICE NOT AVAILABLE; BASEMENT TO BE PROVIDED BY PRIVATE ONSITE PUMP.



THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT (F-18-78C)

John R. Roberts 1/28/22
DATE

APPROVED: FOR PRIVATE WATER AND SHARED SEWER SYSTEM FOR LOTS 23, 38, 39, 40 AND 42.

Brian M. Manser 2/12/2020
COUNTY HEALTH OFFICER
DATE

1 1/2" LPSS FORCE MAIN - PROFILE
SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

1 1/2" LPSS FORCE MAIN AND 8" SEWER MAIN - PROFILE
SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND

Chris 1-15-2010
CHIEF, BUREAU OF UTILITIES
DATE

DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND

David 2-17-22
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE

BOHLER ENGINEERING
901 DULANEY VALLEY ROAD, SUITE 801 TOWSON, MARYLAND 21284
Phone: (410) 821-7900
Fax: (410) 821-7987
www.BohlerEngineering.com

B. R. ROWE
PROFESSIONAL ENGINEER
LICENSE NO. 40888, EXPIRATION DATE: 11/30/21

REV.	DATE	DESCRIPTION	BY
1	1/24/22	AS-BUILT	SHL
2	11/23/21	AS BUILT	W/RA

WATER AND SEWER PLAN
PUBLIC SEWER & FORCE MAIN PLAN & PROFILES

PARCEL NO. 34, 36, 98, 111 & 112
BLOCK NO. 27 & 28

WILLOWSHIRE
LOTS 1-45, BUILDABLE PRESERVATION PARCEL C, NON-BUILDABLE PRESERVATION PARCEL A, B, D, E-G, L, & NON-BUILDABLE BULK PARCEL H-K

5232 GREEN BRIDGE ROAD
TAX MAP 27, GRID 18, PARCELS 34, 36, 98, 111 & 112
5TH ELECTION DISTRICT, ZONED RD-DEO
HOWARD COUNTY MARYLAND
CONTRACT NO.: 50-5062-D

SCALE AS SHOWN
SHEET 2 OF 5