

84  
 dk brn L  
 2v fsbk to 1fsbk  
 0.8' brn L, 2msbk  
 1.4' to 3csbk  
 1.4' yel-brn sl  
 2.5' 7csbk  
 yel-red & pale yellow  
 4' 1fs, 2msbk  
 yel-red & pale  
 13.5' 1fs, 0sg

85  
 dk brn L  
 1' 3fg to 2msbk  
 1' brn chsl  
 1.7' 7msbk  
 3' red-brn sl  
 2msbk  
 3' H. brn ls  
 within platy  
 few charviers  
 many fine mica  
 4.8' pale brn  
 & pale yellow  
 1' 1fs, 0sg  
 12' pale yellow ls  
 many mica  
 thick platy  
 13'

86  
 dk brn L  
 0.7' brn L, 2csbk  
 1' brn L, 3csbk  
 1.5' brn chsl  
 2' 2fsbk  
 yel-brn sl  
 0.1' dense  
 4.2' red & brn  
 1fs, thin platy  
 5' pale brn  
 & pale yellow  
 1fs, 0sg  
 common mica  
 7.8' pale brn  
 chsl, thick  
 13.5' platy

87  
 dk brn L, 2fg  
 brn L, 10csbk  
 brn L, 2msbk  
 1.2' yel-brn sl  
 1.9' 1csbk, mica  
 H. brn 1fs  
 0sg, few mica  
 common roots  
 3.5' lt. brn & pale  
 yellow  
 1fs, 0sg  
 few roots  
 12'

DATE	TEST #	DEPTH	START	BREAK 1" DROP	STOP 2" DROP	TIME OF 2ND INCH	P/F/H
10/24/14	84	13.5'	Visual	Sidewall	1.2 gpd / 1.2+2	3-8	P
10/24/14	85	13'	Visual	Sidewall	1.2 gpd / 1.2+2	3-8	P
10/24/14	86	5' / 13.5'	2:02	2:06	2:15	9	P
10/24/14	87	3.5' / 12'	2:25	2:28	2:35	7	P
10/24/14	88	7' / 14.5'	2:36	2:43	2:51	8	P

REMARKS \_\_\_\_\_

SANITARIAN R Bricker BACKHOE Hot Field's (Connie) OTHERS Lot

TEST HOLES USED IN SDA \_\_\_\_\_ AVG. PERC TIME \_\_\_\_\_ SQ. FT/BR \_\_\_\_\_

TRENCH WIDTH \_\_\_\_\_ INLET DEPTH \_\_\_\_\_ MAX. BOT DEPTH \_\_\_\_\_ EFFECTIVE S/W \_\_\_\_\_

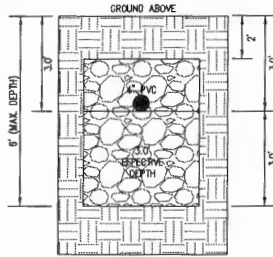
**HOUSE OPTIONS:**

- HOUSE TYPE: KALORAMA (MODERN FARMHOUSE)
- TWO CAR SIDE ENTRY GARAGE
- FINISHED LOWER LEVEL
- WALK-OUT BASEMENT
- ADDITIONAL BATH FINISHED LOWER LEVEL
- GRAND MULTI-GENERATIONAL SUITE ADDITION
- ADDITIONAL 1-CAR FRONT ENTRY GARAGE (14')
- LUXURY COVERED DECK WALK-OUT

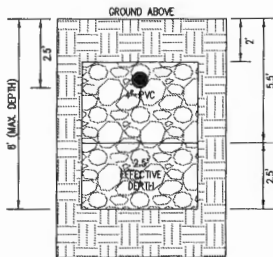
- OPTION No. 012
- OPTION No. 013
- OPTION No. 017
- OPTION No. 383
- OPTION No. 283075
- OPTION No. 283102
- OPTION No. 26169

**INITIAL TRENCH DATA:**

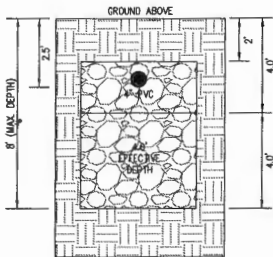
BOTTOM MAX. DEPTH (6")	
<b>TRENCH 1 (T1) 36.50 LF</b>	<b>TRENCH 4 (T4) 36.50 LF</b>
GROUND ABOVE = 478.10'	GROUND ABOVE = 476.10'
INV. IN = 475.10'	INV. IN = 473.10'
BOTTOM TRENCH = 472.10'	BOTTOM TRENCH = 470.10'
<b>TRENCH 2 (T2) 36.50 LF</b>	<b>TRENCH 5 (T5) 36.50 LF</b>
GROUND ABOVE = 477.30'	GROUND ABOVE = 475.20'
INV. IN = 474.30'	INV. IN = 472.20'
BOTTOM TRENCH = 471.30'	BOTTOM TRENCH = 469.20'
<b>TRENCH 3 (T3) 36.50 LF</b>	<b>TRENCH 6 (T6) 36.50 LF</b>
GROUND ABOVE = 476.10'	GROUND ABOVE = 474.50'
INV. IN = 473.10'	INV. IN = 471.50'
BOTTOM TRENCH = 470.10'	BOTTOM TRENCH = 468.50'



INITIAL SYSTEM TRENCH DETAIL (T1 THRU T6) (NOT TO SCALE)



1ST REPLACEMENT SYSTEM TRENCH DETAIL (T7 AND T9) (NOT TO SCALE)

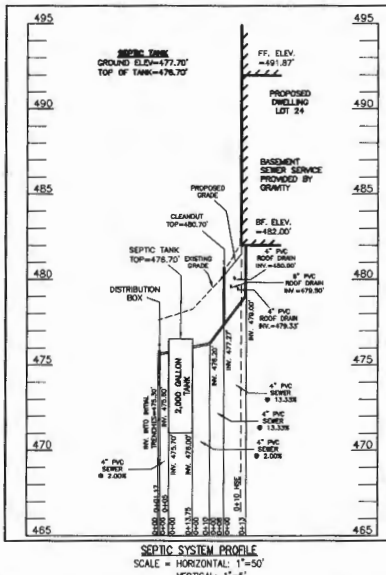


2ND REPLACEMENT SYSTEM TRENCH DETAIL (T10 THRU T11) (NOT TO SCALE)

- LEGEND:**
- BR: BUILDING RESTRICTION LINE
  - T.W.: WELL LOCATION
  - G.F.: GARAGE FLOOR
  - B.F.: BASEMENT FLOOR
  - P.P.: PASSED PERC LOCATION
  - F.P.: FAILED PERC LOCATION
  - SR: SEPTIC RESERVE AREA
  - W.B.A.: WELL BOX AREA
  - PT: PROPOSED TREE
  - TR: PROPOSED TREE

**SOILS LEGEND**

SOIL	NAME	CLASS	Kw
Mac	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B	26
MaD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	B	26



SEPTIC SYSTEM PROFILE SCALE = HORIZONTAL 1"=50' VERTICAL 1"=5'

**SEWAGE DISPOSAL SYSTEM DATA (7 BDRM)**

- PROPOSED INVERT AT FOUNDATION WALL: 470.00'
- EXIST. GRADE OVER TANK: 477.70'  
PROPOSED GRADE OVER TANK: 477.70'  
INVERT IN: 476.00' INVERT OUT: 475.70'
  - DISTRIBUTION BOX  
EXISTING GRADE OVER TANK: 477.60'  
PROPOSED GRADE OVER TANK: 477.60'  
INVERT IN: 475.60' INVERT OUT: 475.30'
  - INITIAL TRENCH DESIGN (7 BDRM x 150 GPD/BDRM = 1,050 GPD)  
1,050 GPD + 0.8 APP. RATE = 1,312.50 SF  
USE 3' WIDE TRENCH WITH 36" GRAVEL BELOW PIPE  
10' MIN. SPACING BETWEEN TRENCH EDGES  
1,312.50 SF x 3' WIDTH = 437.50 LF x 0.50 (SIDEWALL REDUCTION) = 218.75 LF MIN.  
USE 6 36.50' LONG TRENCHES = 219.00 LF
  - 1ST REPLACEMENT TRENCH DESIGN (7 BDRM x 150 GPD/BDRM = 1,050 GPD)  
1,050 GPD + 1.2 APP. RATE = 875 SF  
USE 3' WIDE TRENCH WITH 66" GRAVEL BELOW PIPE  
10' MIN. SPACING BETWEEN TRENCH EDGES  
875 SF x 3' WIDTH = 291.67 LF x 0.50 (SIDEWALL REDUCTION) = 145.83 LF MIN.  
USE 3 94.50' LONG TRENCHES = 143.50 LF
  - 2ND REPLACEMENT TRENCH DESIGN (7 BDRM x 150 GPD/BDRM = 1,050 GPD)  
1,050 GPD + 1.2 APP. RATE = 875 SF  
USE 3' WIDE TRENCH WITH 66" GRAVEL BELOW PIPE  
10' MIN. SPACING BETWEEN TRENCH EDGES  
875 SF x 3' WIDTH = 291.67 LF x 0.42 (SIDEWALL REDUCTION) = 122.50 LF MIN.  
USE 2 91.25' LONG TRENCHES = 122.50 LF

**WELL LOCATION CERTIFICATION:**

THE EXISTING WELL SHOWN FOR LOT 24 (TAG NO. HO-18-0047) HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN HEREON.

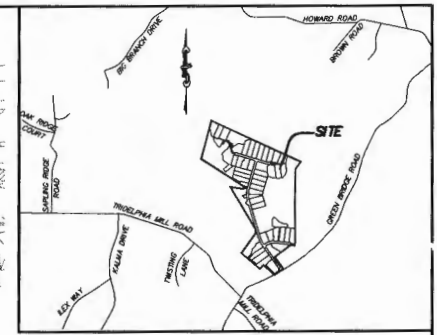
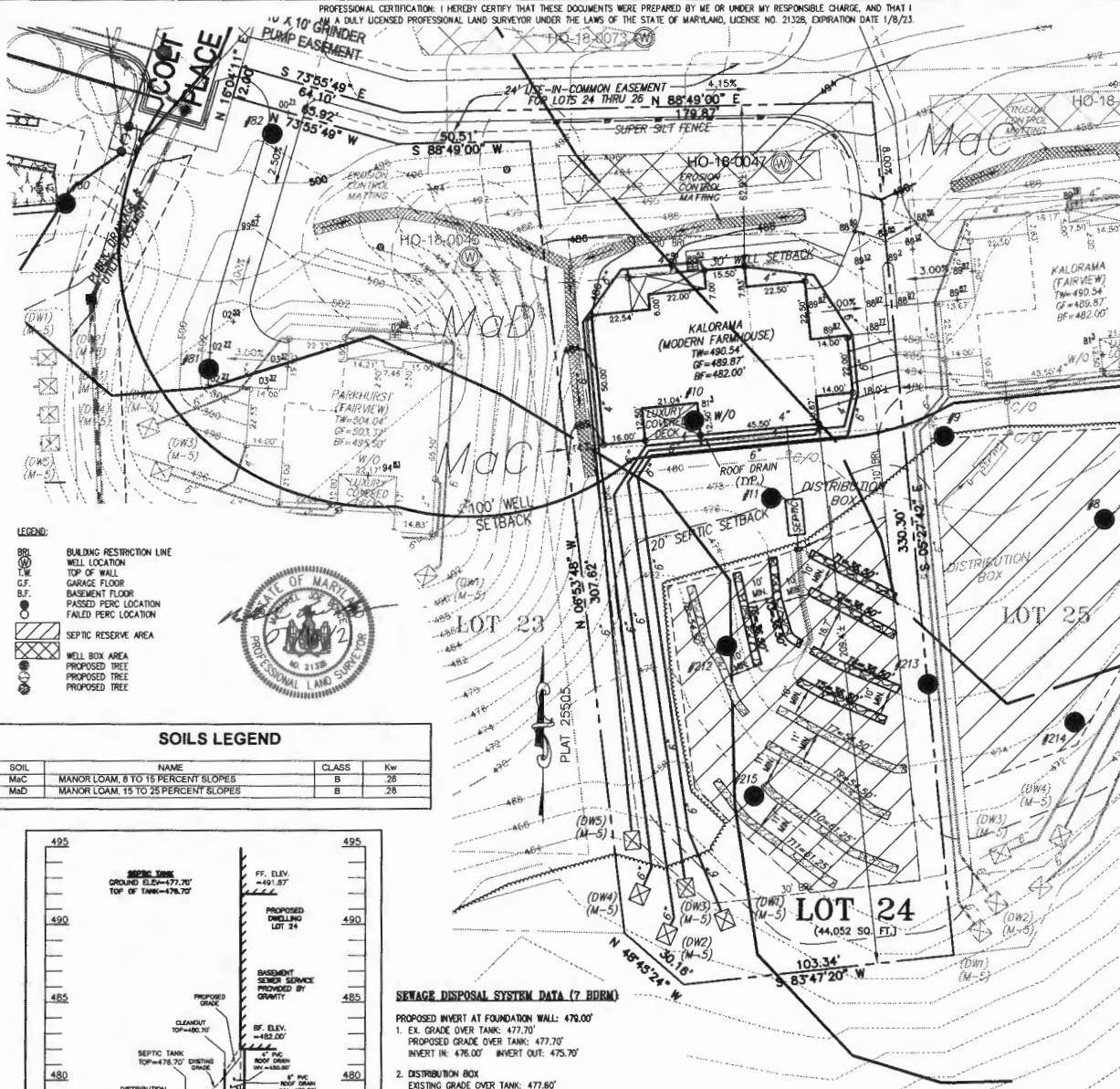
ONSITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN  
**LOT 24 WILLOWSHIRE**  
LIBER 18479, FOLIO 296  
PLAT NO. 25505  
ELECTION DISTRICT NO. 5  
HOWARD COUNTY, MARYLAND  
ADDRESS: 7005 COLT PLACE  
DAYTON, MARYLAND 21036

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ESE Consultants, Inc.  
7164 Columbia Gateway Drive • Suite 230 • Columbia, MD 21048  
T: 410-672-9105

DATE: 07/16/2021 SCALE: 1"=30' FILE: OS25 LOT 24  
CHK'D: M.J.B. JOB NO: 4520 DRAWN: R.C.K.

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

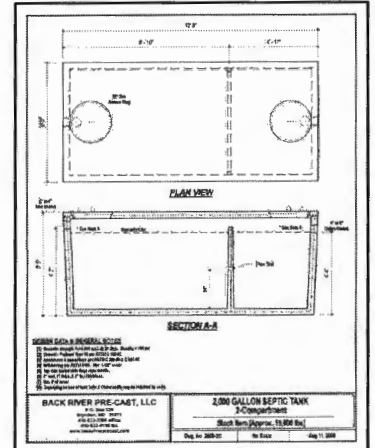


**VICINITY MAP**

1" = 200'  
TAX MAP 27, GRID 18

**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 WELL AND VED 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. RECORDATION 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.L.'S) SHOWN HEREON PER SITE DEVELOPMENT PLAN SETBACK DISTANCES SHOWN HEREON AS "x" 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 COMPLES 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 AND A TOPOGRAPHIC SURVEY PREPARED BY BOHLER ENGINEERING ON 08/25/15 AND REVISED ON 09/03/15.



SEPTIC TANK & DISTRIBUTION BOX  
2,000 GALLON SEPTIC TANK  
3-Compartment  
Back River Pre-Cast, LLC  
Back River, MD 21038  
Tel: 410-326-1100 Fax: 410-326-1101



**LEGEND:**

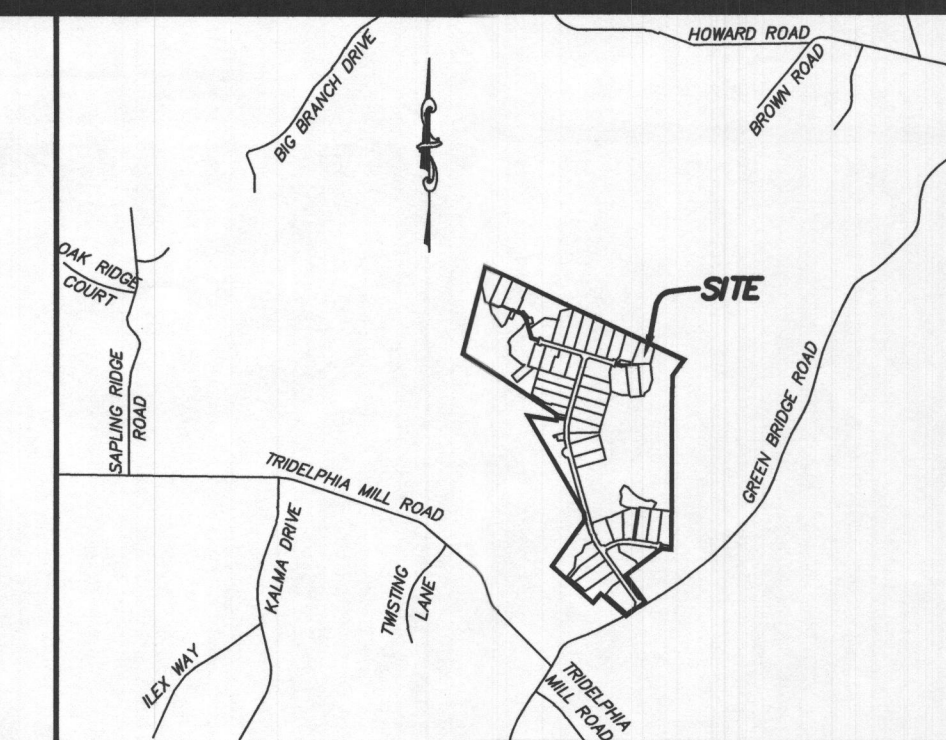
- PROPOSED DRYWELL LOCATION
- BOUNDARY/RIGHT OF WAY LINE
- BUILDING RESTRICTION LINE
- PROPOSED CURB
- EXISTING WELL
- PASSED PERC
- SOIL TYPE (TYP.)
- WELL BOX
- SEWAGE DISPOSAL AREA
- PROPOSED TREE

**PURPOSE NOTE:**

THE PURPOSE OF THIS REVISED PERCOLATION CERTIFICATION PLAN IS TO REVISE THE SEWAGE DISPOSAL AREA (SDA) FOR LOT 26 TO ALLOW FOR HOUSE.

**SOILS LEGEND**

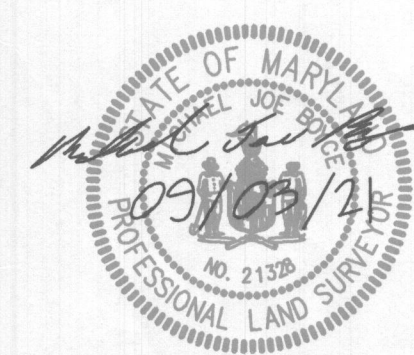
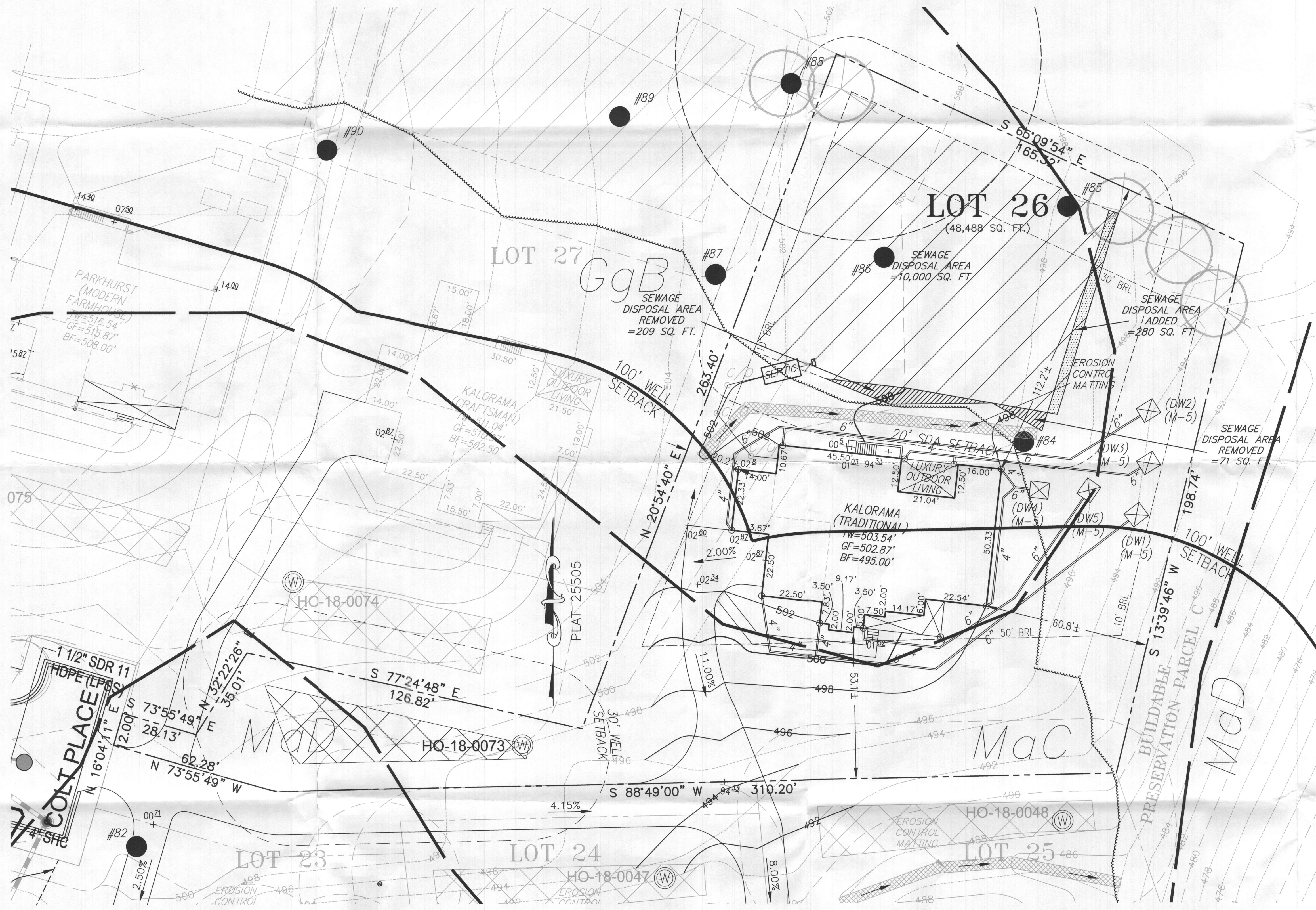
SOIL	NAME	CLASS	Kw
GgB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	B	.28
MaC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B	.28
MaD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	B	.28



**VICINITY MAP**  
1" = 2000'  
TAX MAP 27, GRID 18

**GENERAL NOTES:**

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- THERE ARE NO EXISTING WELLS OR SEPTIC SYSTEMS WITHIN 100' OF THE PROPERTY'S BOUNDARIES EXCEPT THAT WHICH ARE SHOWN.
- HOUSE SITES SHOWN COMPLY WITH MINIMUM BUILDING RESTRICTION REGULATIONS.
- EXACT LENGTH OF SEPTIC TRENCHES IS TO BE DETERMINED BY THE HEALTH DEPARTMENT AT THE TIME OF TRENCH LAYOUT AND INSPECTION.
- TOPOGRAPHY SHOWN HEREON IS FROM HOWARD COUNTY GIS AND A TOPOGRAPHIC SURVEY PREPARED BY BOHLER ENGINEERING ON 09/25/15 AND REVISED ON 09/03/15.
- WELL SHOWN HEREON WAS LOCATED AND FIELD VERIFIED BY ESE CONSULTANTS, INC. ON 01/14/2021.

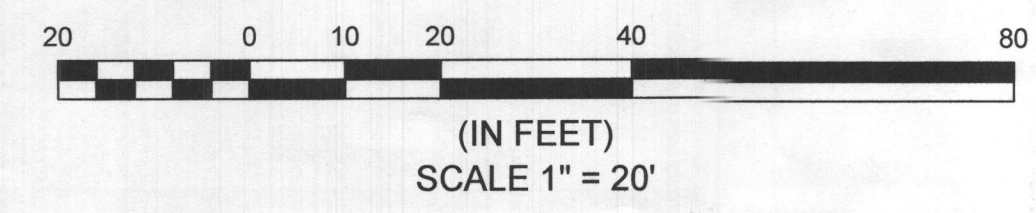


BUILDING SETBACKS (B.R.L.'s) SHOWN HEREON PER SITE DEVELOPMENT PLAN  
SETBACK DISTANCES SHOWN HEREON AS "±" HAVE AN ACCURACY OF ±0.1' FOOT.

**PERC CERTIFICATION**  
I CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON FIELD LOCATIONS PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION, AND ARE CORRECT, TO THE BEST OF MY KNOWLEDGE AND BELIEF.  
09/03/21  
DATE  
MICHAEL JOE BOYCE  
PROFESSIONAL SURVEYOR FOR ESE CONSULTANTS, INC.  
MD. LICENSE NO. 2138, EXPIRES 1/8/23

APPROVED FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT  
[Signature]  
COUNTY HEALTH OFFICER  
10/1/21  
DATE

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



REVISED  
PERCOLATION CERTIFICATION PLAN  
**WILLOWSHIRE**  
LOTS 1-45  
BUILDABLE PRESERVATION PARCEL C,  
NON-BUILDABLE PRESERVATION PARCELS A, B, D, E, F, G & L-P  
NON-BUILDABLE PARCELS H-K  
**LOT 26**  
LIBER 18479, FOLIO 296  
AS SHOWN ON PLAT NO. 25505  
ZONED: RR-DEO  
TAX MAP: 27, GRID: 18, PARCEL: 36  
7000 COLT PLACE, DAYTON, MD 21036  
5TH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND  
SCALE: 1" = 20' DATE: AUGUST 2021

**LEGEND:**

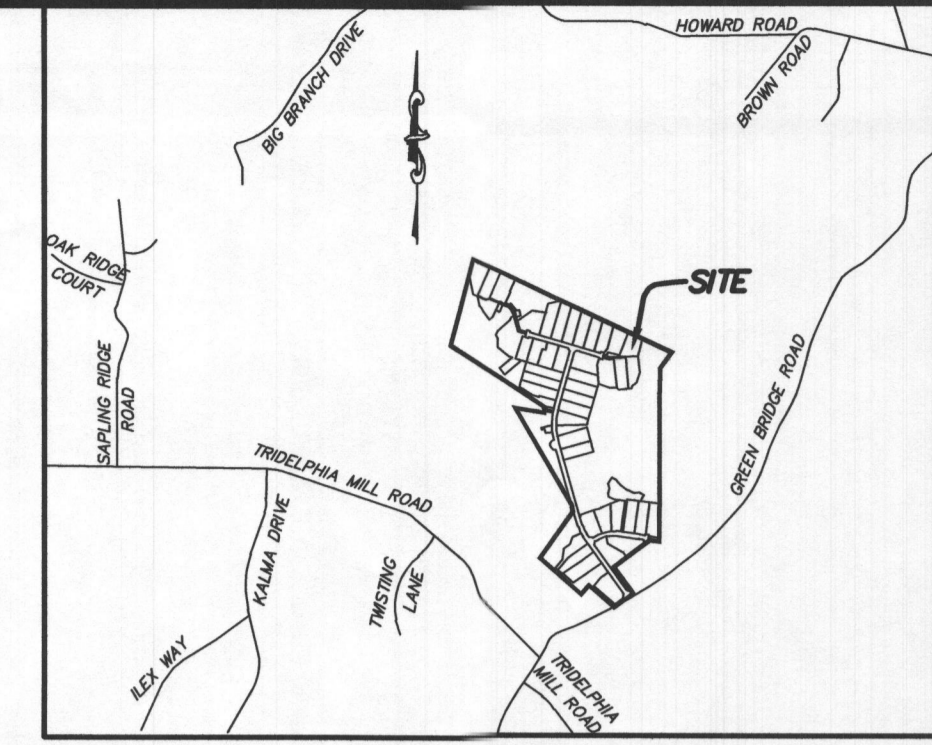
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- BOUNDARY/RIGHT OF WAY LINE
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- EXISTING WELL
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- SOIL TYPE (TYP.)
- WELL BOX
- SEWAGE DISPOSAL AREA
- PROPOSED TREE

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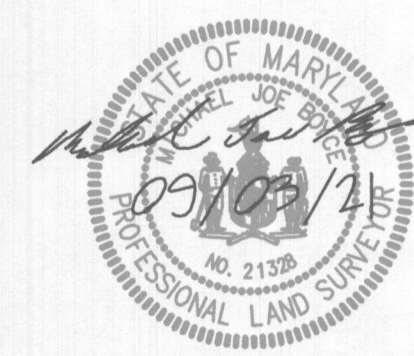
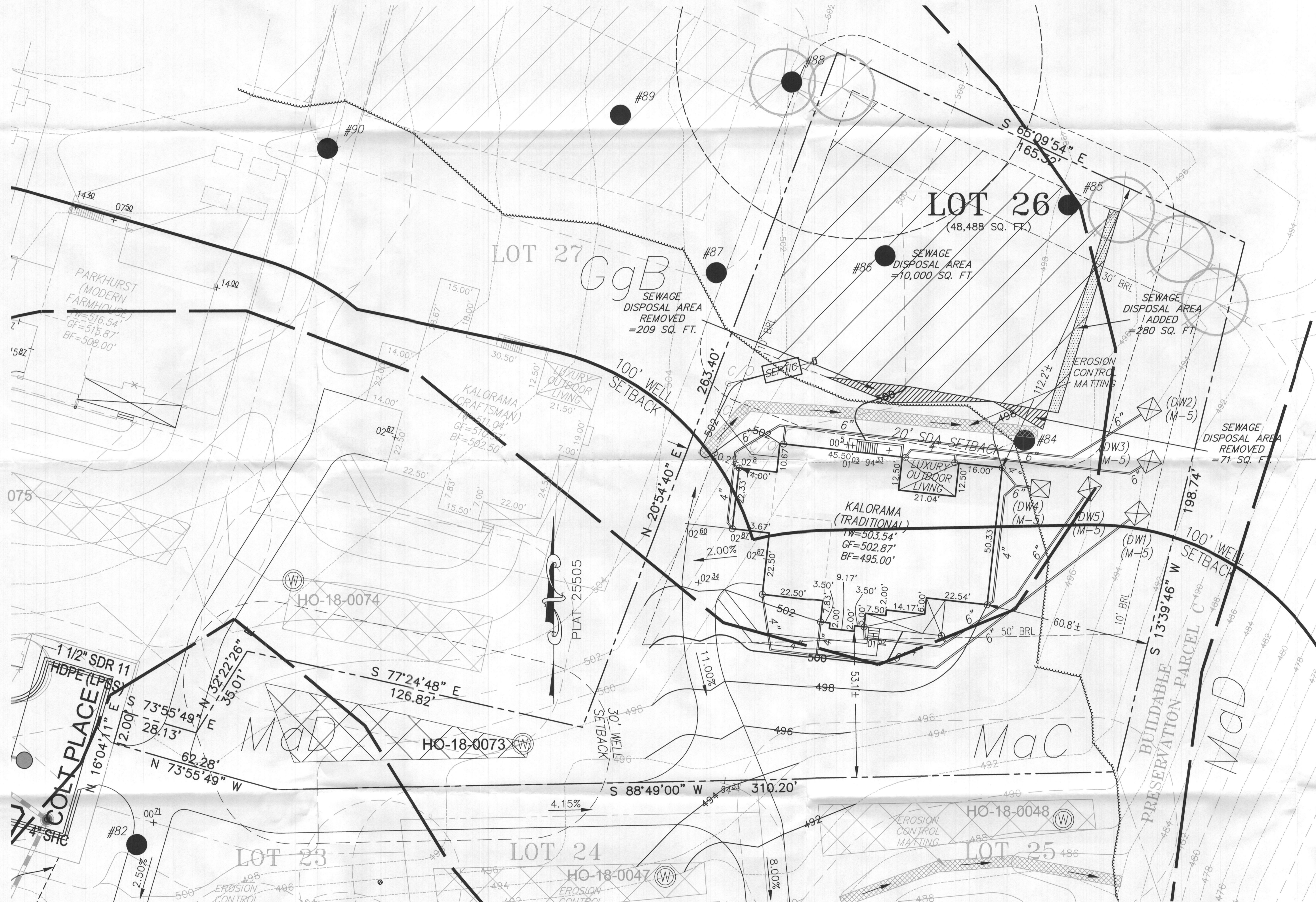
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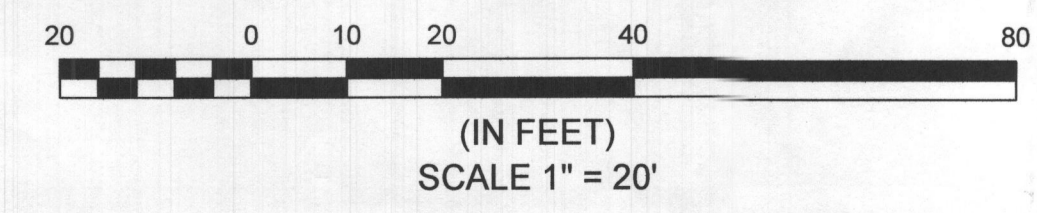


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DATE 8/1/21

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