

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: 1/27/2020 **ONSITE SEWAGE DISPOSAL SYSTEM** P 567286-A

APPROVAL DATE: 01/03/2020 **PERMIT: CONSTRUCTION** A _____

PROPERTY ADDRESS: 13855 Mill Creek Court

SUBDIVISION: Crawford Subdivision LOT: 18 TAX ID: _____

CONTRACTOR: South Carroll Backhoe EMAIL: _____

CONTRACTOR ADDRESS: _____ PHONE: 410.875.4197

PROPERTY OWNER: NVR Inc. EMAIL: _____

OWNER ADDRESS: 9720 Patuxent Woods drive PHONE: _____

SEPTIC TANK SIZE (GALLONS): 2,000 TANK MANUFACTURER: Babylon Vault

PUMP MODEL: WE0115H PUMP SIZE 0.5 HP PUMP TANK CAPACITY: 1500

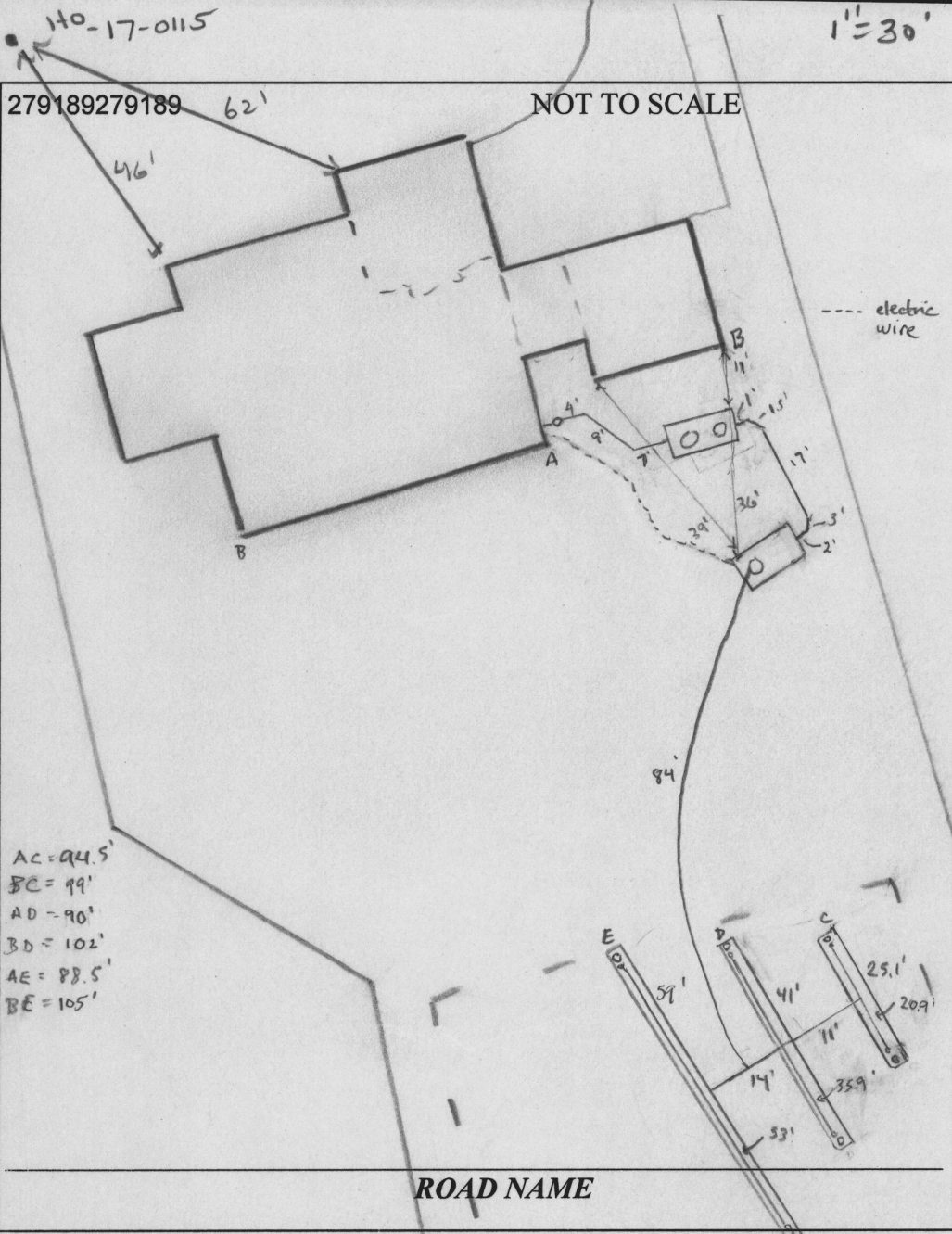
DISTRIBUTION SYSTEM: GRAVITY PRESSURE DOSED BEDROOMS: 6 APPLICATION RATE: 1.2

TRENCHES:	LINEAR FEET REQUIRED: <u>125.1 LF</u>	INLET DEPTH: <u>2 FT</u>
	TRENCH WIDTH: <u>3 FT</u>	MAXIMUM BOTTOM DEPTH: <u>8 FT</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10 FT</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>5 FT</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:	LPD Design	

ISSUED BY: Hank Oswald ISSUE DATE: 2/3/2020 EXPIRATION DATE: 2/3/2021

- NOTE: CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION INSPECTION PRIOR TO BEGINNING ANY INSTALLATION
- NOTE: CONTRACTOR MUST SCHEDULE AN INSPECTION AND GAIN APPROVAL OF ALL COMPONENTS PRIOR TO COVERING
- NOTE: STONE MUST BE APPROVED BY HEALTH DEPARTMENT AND GRAVEL TICKET MUST BE AVAILABLE FOR REVIEW.
- NOTE: WATERTIGHT TANKS REQUIRED
- NOTE: ALL PARTS OF SEPTIC SYSTEM SHALL BE AT LEAST 100 FEET DOWNGRADE FROM ANY WATER WELL
- NOTE: MANHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS
- NOTE: AN ELECTRICAL PERMIT IS REQUIRED FOR INSTALLATION OF ANY ELECTRICAL COMPONENTS OF THE SYSTEM
- ELECTRICAL PERMIT ISSUED E 20000099
- NOTE: MDE RECOMMENDS SEPTIC TANKS, BAT, AND OTHER PRETREATMENT UNITS BE PUMPED AT A FREQUENCY ADEQUATE TO ENSURE THAT SOLIDS ARE NOT DISCHARGED TO THE DISPOSAL AREA

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 TO SCHEDULE INSPECTIONS.



AC = 94.5'
 BC = 99'
 AD = 90'
 BD = 102'
 AE = 88.5'
 BE = 105'

1" = 30'

NOT TO SCALE

TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
3'	2'	8'
NUMBER OF TRENCHES		3
TOTAL LENGTH		125'
ABSORPTION AREA		375 sq ft ^{to sidewalk}
DISTRIBUTION BOX LEVEL		-
DISTRIBUTION BOX BAFFLE		-
DISTRIBUTION BOX PORT		-

PRE-CONSTRUCTION:

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL	yes
MANUFACTURER	Babylon
CAPACITY	1500 GAL
SEAM LOC	top
TANK LID DEPTH	1'
BAFFLES	front + back
BAFFLE FILTER	-
MANHOLE LOC	front + back
6" PORT LOC	-
WATERTIGHT TEST	-
SLOTTED	yes
DATE ON LID	12-9-19

PUMP/SEPTIC TANK LEVEL yes

MANUFACTURER	Babylon
CAPACITY	1500 GAL
SEAM LOC	top
TANK LID DEPTH	2'
BAFFLES	-
BAFFLE FILTER	-
MANHOLE LOC	back
6" PORT LOC	-
WATERTIGHT TEST	-
SLOTTED	yes
DATE ON LID	12-6-19

ROAD NAME

2/4/20 Laterals staked. Verified situation. laterals are OK, verified. House sewer location (HWS) could not be verified. OK to turn septic tank slightly, move pump tank out of swale, adjusted location on high side of swale. (KIM)

INSTALLATION: 2/12/20 Tanks set and connected. Cleanout installed. Tanks filled with water to prevent floating in case of rain. Reinspect for baffle on pump tank. (ST) 2/14/20 First two trenches dug. Holes drilled in LPD manifolds according to plan (4.18' in Trench 1, 5.13' in Trench 2) (ST) 2/18/20 Last trench installed. Force main installed and connected to trenches. Third trench has holes in manifold according to plan (5.9' apart). Reinspect for STC and cleanout that was uninstalled. (ST) 2/18/20 (p.m.) STC and C/O installed. Needs P/A (ST) 01/03/2020 ELECTRICAL ON BOX OUTSIDE HOUSE. DHP ~ 22' @ LAT TURN UP HEIGHT.

FINAL INSPECTOR

DATE OF APPROVAL

01/03/2020

THE EXISTING WELL SHOWN ON THIS PLAN (IDENTIFIED WITH THE WELL TAG NUMBER HO-17-0115) HAS BEEN FIELD LOCATED BY G.L.W. (PROFESSIONAL LAND SURVEYORS) AND IS ACCURATELY SHOWN ON THIS PLAN.

LOT 17
(builder is NVR)

100' WELL CIRCLE

STRATFORD HALL
ELEV. A (rev.)
FFE = 447.84±
BSE = 438.00±
PORCH = 447.34±
TOW = 446.67±
(HUNG SEWER)

LOT 18
42,305 SF
IE = 442.26

2-CAR GARAGE
445.96±(F)
446.33±(B)

2-CAR GARAGE
445.96±(F)
446.33±(B)

OPT. SUITE

OPT. PORCH

20' SEPTIC SETBACK

N 552,663.858

E 1,312,661.673

P2 #49A

PRIVATE SEWAGE DISPOSAL AREA

30' BRL

2" PVC FORCE MAIN

TRENCH #1

TRENCH #2

TRENCH #3

TRENCH #3

TRENCH #2

TRENCH #1

(59.0')

(41.0')

(25.1')

(14.67')

(13.8')

(4.0')

(30.0')

(11.48')

(11.48')

(11.48')

(11.48')

(11.48')

(11.48')

182.98'

S 45°01'27" E

HP 437.0

ex. 436.4

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S 88°31'42" W

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N 44°01'26" W

124.02'

124.02'

124.02'

P2 #49A

P2 #49A

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LOW PRESSURE DISTRIBUTION SYSTEM CALCULATIONS

Per MDE BASIC LPD DESIGN - Draft Version 1 - Date July 3, 2014

ADDRESS: **13855 Mill Creek Court**
 SUBDIVISION: **Crawford**
 DATE: Oct. 2019

LOT: 18

Number of Manifolds: **1**

Design Flow: 900 gpd
 Pump Off Elevation: 438.17
 Inv. Out of Pump Tank: 440.42
 Pump Bottom Elevation: 437.00

Manifold 1 Type: center-feet

Trench 1	Elev:	451.1	Length:	25.1
Trench 2	Elev:	450.1	Length:	41.0
Trench 3	Elev:	449.1	Length:	59.0
			Total=	125.1

2' Elev. Range, Single Manifold OK

Manifold Length 29 ft Type: SCH 40
 Force Main Length 89.0 ft Type: SCH 40

Manifold 1	Trench	Trench Length (ft)	Feed	Pipe Inv. Elev (ft)	Head (ft)	Hole Diam. (in)	Hole Flow Rate (gpm)	Hole Spacing (ft)	Number of Holes	Trench Flow Rate (gpm)	Lateral Length (ft)	Flow (gpm) per LF Trench	Gal. per LF Trench	Lateral Diam. (in)*	Type
	1	25.1	Center	451.1	2.0	5/16	1.63	4.18	6	9.77	20.92	0.389	1.198	1.25	SCH 40
2	41	Center	450.1	3.0	5/16	1.99	5.13	8	15.95	35.88	0.389	1.197	1.25	SCH 40	
3	59	Center	449.1	4.0	5/16	2.30	5.90	10	23.03	53.10	0.390	1.201	1.25	SCH 40	

Max/Min Flow Ratio (should be <1.10) : 1.00 * Min. Per Figure 4.4

Min. System Discharge Rate: 48.8 gpm

Manifold Diam. 2.0 in Vel. 5.0 fps Friction Loss (Table 4.4) 3.803
 Force Main Diam. 2.0 in Vel. 5.0 fps Friction Loss (Table 4.4) 3.803
 Minimum Dose: 150.0 gal (Vol. in FM, Man, 5x Lat. = 63.4 gal. < 1/6 Design Flow = 900/6 = 150 gal.)

Calculate Total Design Head

1. Friction Loss in FM & Mnfold: 4.6 ft
 Friction Loss from Fittings: 46 ft X 3.803 = 1.7 ft

No.	Type	Equ. Length	No.	Type	Equ. Length
2	90 Deg. Std Ell	7.0	0	Gate Valve	1.3
0	45 Deg. Std Ell	4.0		Globe Valve	55
2	90 Deg. Side Tee	10.0		Angle Valve	28
	Coupling or Str.				
6	Run of Tee	2.0	(2 straight run of tees + 3 tees + 1 union disconnect)		

Friction Loss from Laterals: 1.73 ft
 2. Static Head: 12.93 ft
 3. Min. Distal (discharge) head 2.0 ft

TDH= 23.0 ft

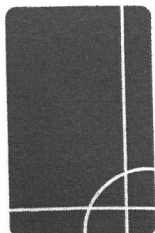
Note #1: The minimum dose is the greater value of either 1/6 the Design Flow or [(5 x lateral volume) + one volume the manifold + one volume of the force main]

Rectangular Tr:
 H: Height (inside dimen
 W: Top Width (inside d
 L: Top Length (inside di
 a: Bottom Width (insid
 b: Bottom Length (insic

Height from bottom of c
 Chamber width at in
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 Chamber Volume at

Float Switch Setting Param
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 septic tank outlet invert
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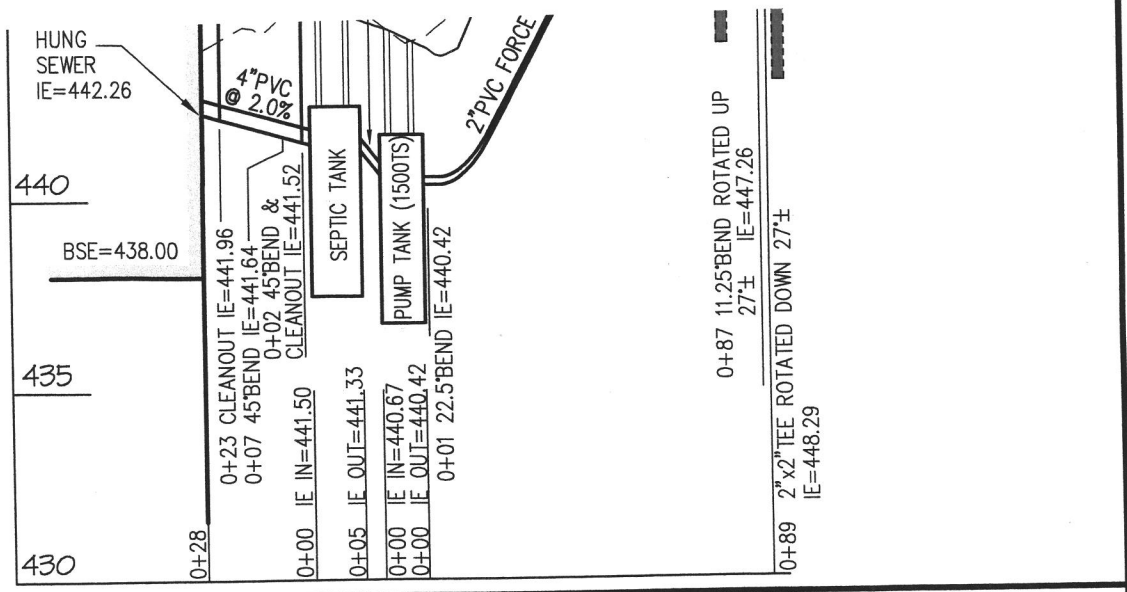


GLW

PLANNING | ENGINEERING | SURVEYING

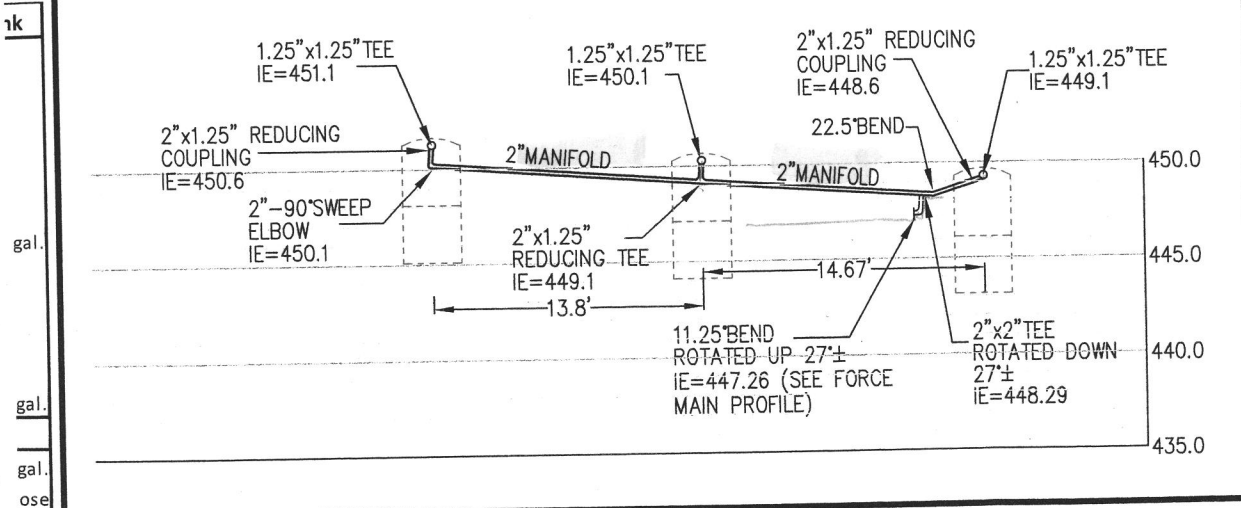
3909 NATIONAL DRIVE | SUITE 250 | BURTONSVILLE, MD 20866 | GLWPA.COM
 PHONE: 301-421-4024 | BALT: 410-880-1820 | DC&VA: 301-989-2524 | FAX: 301-421-4186

DESIGNED BY:					
MBT					
DRAWN BY:					
KLP					
CHECKED BY:					
CKG					
					DATE



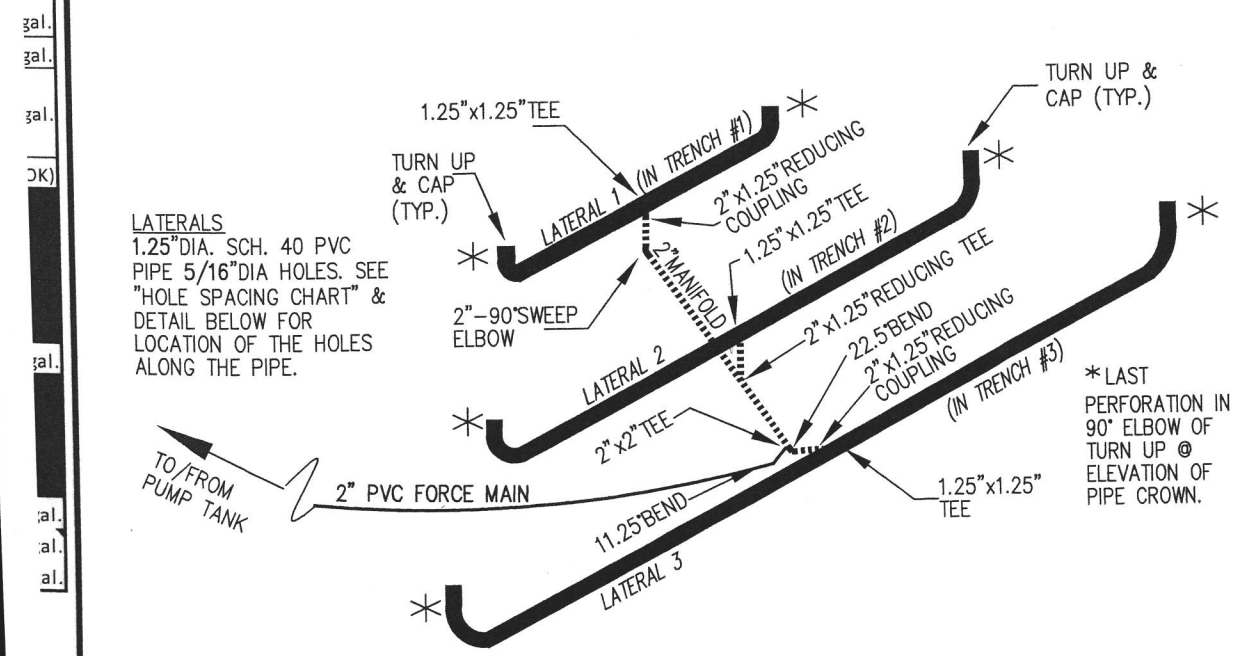
FORCE MAIN PROFILE

HORZ. SCALE: 1"=50'
VERT. SCALE: 1"=5'



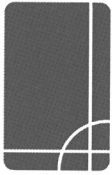
2" MANIFOLD PROFILE

SCALE: 1" = 10'



NOTES:

1. ANY CHANGE TO THE LOCATION OF THE HOLES MUST BE APPROVED BY THE HEALTH DEPARTMENT PRIOR TO CONSTRUCTION. MAY BE REQUIRED.
2. THE MAXIMUM EARTH COVER DEPTH WILL REQUIRE 18" MINIMUM EARTH COVER.
3. THE WELLS (TAG #17-011) IS ACCURATELY SHOWN ON THE PLAN.
4. ALL WELLS AND SEPTIC SYSTEMS ARE SHOWN ON THE PLAN.



GLW
 PLANNING | ENGINEERING | SURVEYING

3909 NATIONAL DR. SUITE 250
 BURTONSVILLE, MD 20866
 301-421-4024 | FAX: 301-421-4186
 WWW.GLWPA.COM

LETTER OF TRANSMITTAL

DATE	10-14-2014	JOB NO.	17071
PROJECT	Crawford Subdivision		
	Lot 10 (13855 Mill Creek Ct.)		

TO: Bureau of Environmental Health
 8930 Stanford Blvd.
 Columbia, MD 21045

ATTN: _____

- WE ARE SENDING THE FOLLOWING ITEMS:**
- ATTACHED
 - UNDER SEPARATE COVER
 - MYLARS
 - PRINTS
 - COST ESTIMATES
 - DESCRIPTIONS
 - GRADE SHEETS
 - COPY OF LETTER
 - APPLICATIONS
 - COMPUTATIONS
 - OTHER _____
- VIA:**
- MAIL
 - OVERNIGHT
 - GLW COURIER
 - COURIER
 - OTHER _____

COPIES	DATE	PAGES	DESCRIPTION
3		1 of 1	OSDS Plan for Crawford Subdivision - Lot 18 (13855 Mill Creek Ct.)

- THESE ARE TRANSMITTED as checked below:**
- FOR APPROVAL
 - FOR YOUR USE
 - FOR REVIEW & COMMENT
 - PER YOUR REQUEST
 - SIGN & RETURN
 - AS SUBMITTED TO _____
 - AS REQUESTED BY _____
 - _____

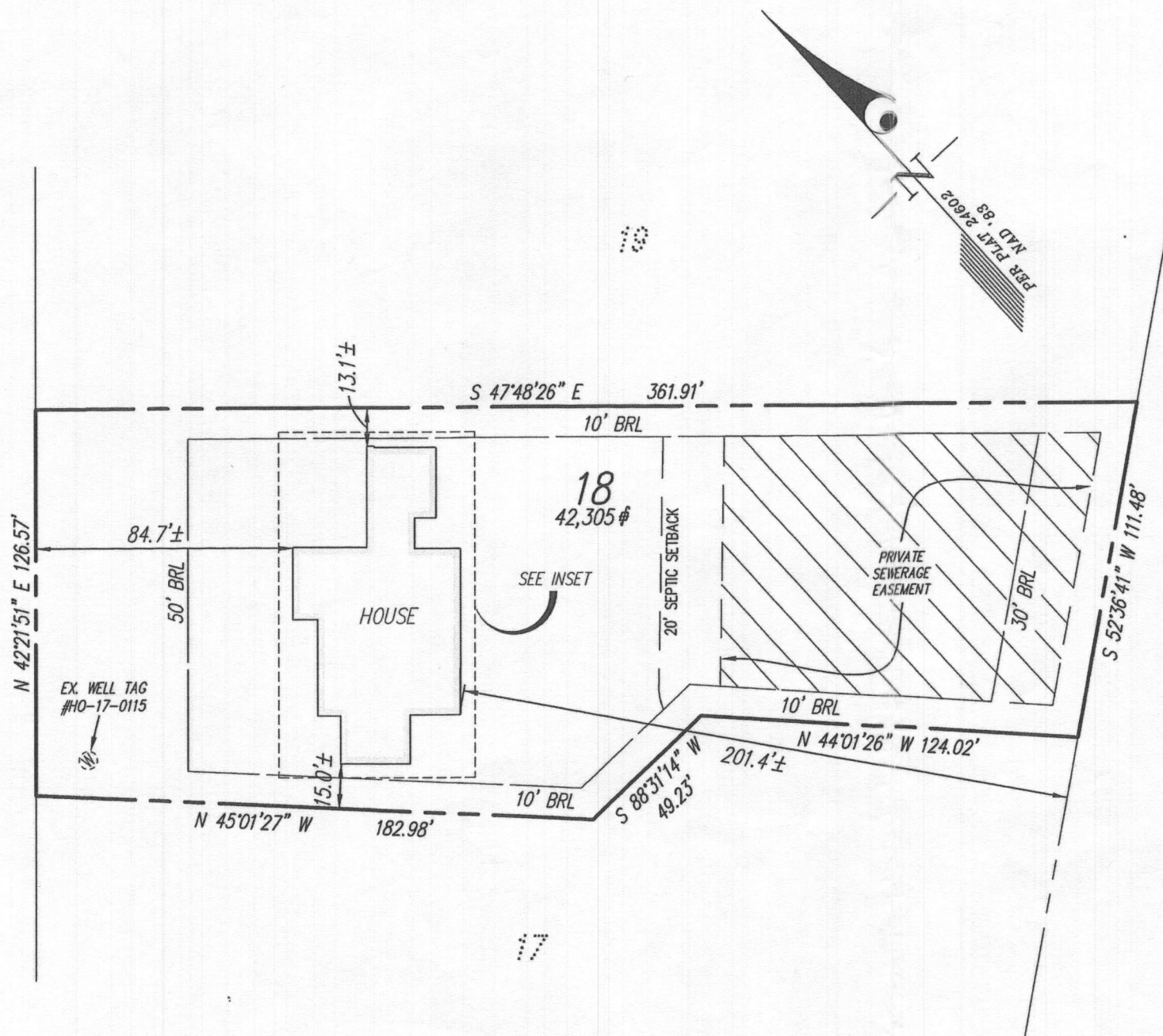
REMARKS: _____

COPY TO: _____

SIGNED: Kristy Pierce
 Kristy Pierce

If enclosures are not as noted, kindly notify us at once.

MILL CREEK COURT
(PUBLIC ACCESS STREET)



2/3/2020
wall check
okay. H.O.

SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY TO:
'NVR, INC.,'

THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF,
THE POSITION OF THIS BUILDING FOUNDATION
HAS BEEN ESTABLISHED BY ACCEPTED FIELD PRACTICES.

[Signature] 1/28/2020
For Gutschick, Little and Weber, P.A. :
Thomas C. O'Connor, Jr.,
Professional Land Surveyor, No. 10954 (EXP. DATE: 07/03/2020)

THIS WALLCHECK IS VALID ONLY WITH AN ORIGINAL SIGNATURE AND EMBOSSED SEAL OF THE ABOVE SURVEYOR.

NOTES:

THIS WALLCHECK WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT. THIS PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS, RIGHTS-OF-WAY, 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.

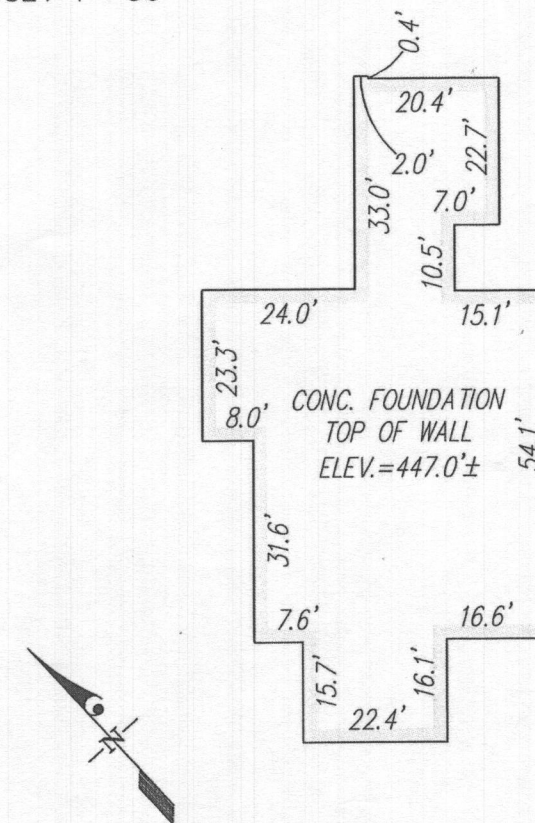
THIS IS NOT A "LOCATION DRAWING" AND IS NOT TO BE USED FOR SETTLEMENT PURPOSES.

THE PROPERTY SHOWN HEREON LIES WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON THE F.E.M.A. FLOOD INSURANCE RATE MAP, MAP NUMBER 24027C0140D, EFFECTIVE DATE NOVEMBER 6, 2013.

BUILDING SETBACKS (B.R.L.'S) SHOWN HEREON PER PLOT PLAN.

SETBACK DISTANCES SHOWN HEREON ARE TO THE OUTERMOST FACE OF THE FOUNDATION WALLS AND HAVE AN ACCURACY OF ± 0.1' FOOT.

INSET 1"=30'



WALLCHECK
(SPECIAL PURPOSE SURVEY)

CRAWFORD SUBDIVISION

LOT 18
13855 MILL CREEK COURT

HOWARD COUNTY, MARYLAND

DATE OF LATEST FIELD WORK: 01/14/2020

G.L.W. FILE No. 17071

REFERENCE : PLAT No.: 24602

SCALE: 1"=50'



DES.
DRN. MB/SS
CHK.

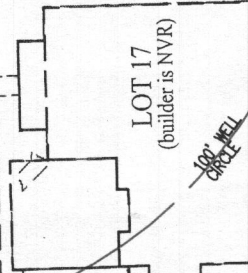
PREPARED FOR:
NVR, INC.
9720 PATUXENT
WOODS DRIVE
COLUMBIA, MD 21046

12" D/W CULVERT, 20 L.F.
(per Ho.Co. Det. R-6.06)
INV IN= 434.8±
INV OUT=434.1±

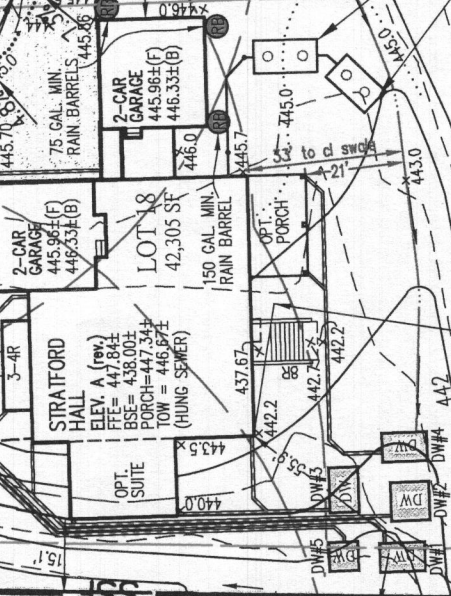
25-00 MILL CREEK COURT
(PUBLIC-ACCESS STREET)

THE EXISTING WELL SHOWN ON THIS PLAN (IDENTIFIED WITH THE WELL TAG NUMBER HO-17-0115) HAS BEEN FIELD LOCATED BY G.L.W. (PROFESSIONAL LAND SURVEYORS) AND IS ACCURATELY SHOWN ON THIS PLAN.

LOT 17
(builder is NVR)



10" NYLOPLAST DRAIN (PART #2770AG04D) STANDARD GRATE, W/FLEXSTORM INLE FILTER (PART #625HDR) TOP OF DRAIN (INFLOW ELEV)=444.5
FILL AREA BTM DRAIN-1 CURB W/1'-2" SIZE RIVER ROCK
1.5" DEPRESSED CURB (FLUSH W/FINISHED GRADE @ 444.7)
4" DECORATIVE CURB (STONE, TREATED LUMBER OR CONCRETE)
LOT 19
(builder is NVR)



G9B

INITIAL SEPTIC AREA. NO GRADING W/ SEWAGE DISPOSAL AREA. LOD SHOWN IS FOR THE INSTALLATION OF THE INITIAL SEPTIC SYSTEM ONLY.

Approved Septic System Plan
Howard County Health Department

Dana Burrell 12-4-19
Signature Date
B 19003857
80

GRAPHIC SCALE

NOTE: THE FRONT DOOR FOR LOT 18 FACES NORTHWEST.

DRYWELL (M-5) SIZE CHART

DRYWELL No.	LENGTH x WIDTH	DEPTH OF STONE
1	6'x8.33'	5'
2	8'x8'	5'
3	6'x9.33'	5'
4	6'x8.33'	5'
5	6'x6'	5'

FOR CONSTRUCTION DETAILS OF DRYWELL(S) SEE F-17-016, SHEET 33.

BUILDING PERMIT PLOT PLAN

DES.	PREPARED FOR:	G. L. W. No.	17071
DRN.	NVR INC. 9720 PATUXENTS WOODS DRIVE COLUMBIA, MD 21045 PH: 410-379-5956	ZONING	RR-DEO
CHK.		TAX MAP/GRID	34&39-19&6
		DATE	OCT. 2019
		SCALE	1"=40'
		SHEET	1 OF 1

CRAWFORD SUBDIVISION
LOT 18 (13855 MILL CREEK CT.)
Plat No. 24600-24607



