



HOWARD COUNTY HEALTH DEPARTMENT

70165

DATE
9/20/21

Received From

PHONE #

Gudschick, Little
Switzer, P.A. 301 421-4024

For

CASH
 CHECK
NO.
65101

Revised on Lot 19
@ 13845 Mill Creek
200000 Dollars

\$

Received By

A King



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

Twitter: HowardCoHealthDep

Maura J. Rossman, M.D., Health Officer

SEWAGE DISPOSAL SYSTEM SPECIFICATIONS WORKSHEET

Address: _____

Subdivision: Crawford and O'keefe Lot: 19

Table with 4 columns: Replacement type, Application rate, Effective area beginning depth, Bottom maximum depth. Rows include Initial system, 1st Replacement, and 2nd Replacement.

Design Flow = 150 gallons per day per bedroom

Design flow ÷ application rate = square footage of drainfield required

Linear length of trench required = drainfield square footage x sidewall reduction percentage ÷ trench width

Sidewall reduction credit formula:

(W + 2) / (W + 1 + 2D) x 100 = Percent of length of standard trench where W=trench width and D= depth between effective area beginning depth and trench bottom.

Standard design requirements:

- Trenches must be located to provide room for 3 systems in the disposal area
All trenches must be equal length unless low pressure dosed
All trenches must be on contour
Minimum trench spacing: 10' for all trenches utilizing sidewall reduction credit.
Minimum trench spacing for trenches with no sidewall credit (bottom area only) is 6' for a 2' wide trench and 9' for a 3' wide trench
Maximum trench length is 100'
Maximum pipe depth is 4'

Additional requirements:

Approved: Dana Bernard Date: 2-20-2018



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	9-23-2021	JOB NO.	17071
PROJECT	Crawford Subdivision		
	Lot 19 (13845 Mill Creek Ct.)		

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

ATTN: Jeff Williams

- 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	Revised Perc. Certification Plan for Lot 19 at 13845 Mill Creek Ct.

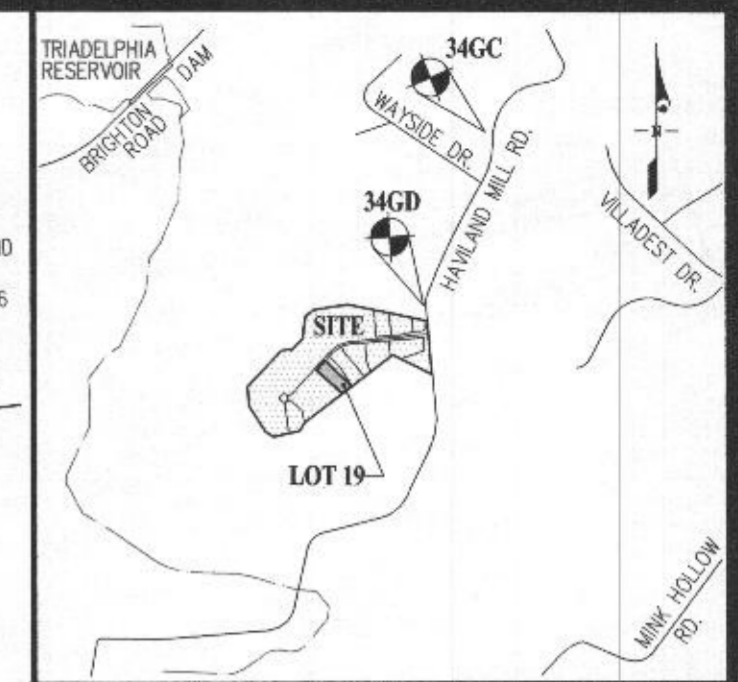
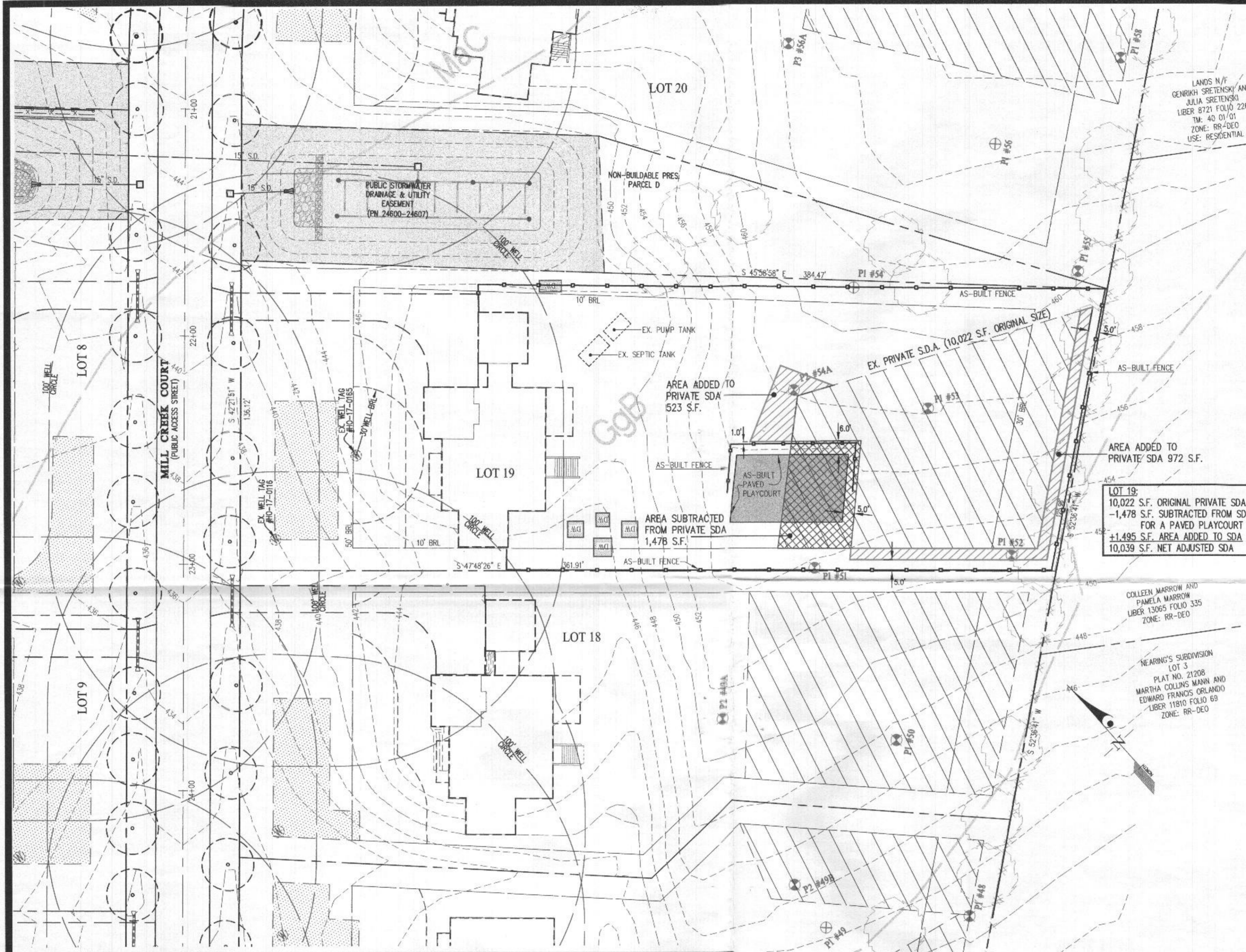
- THESE ARE TRANSMITTED as checked below:
- FOR APPROVAL SIGN & RETURN
 FOR YOUR USE AS SUBMITTED TO _____
 FOR REVIEW & COMMENT AS REQUESTED BY _____
 PER YOUR REQUEST _____

REMARKS: _____

COPY TO: _____

SIGNED: Kristy Pierce
 Kristy Pierce

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



VICINITY MAP
SCALE: 1" = 2,000'
ADC MAP: 30
GRID: C5

BENCHMARKS
34GC ELEV. 482.873 N = 554,882.960 E = 1,314,248.668
34GD ELEV. 465.288 N = 553,733.762 E = 1,313,736.594

LEGEND

600	EXISTING CONTOUR
DW	DRYWELL LOCATION
WELL	EXISTING WELL LOCATION
WELL BOX	EXISTING WELL BOX
EXISTING SDA	EXISTING PRIVATE SEWAGE DISPOSAL AREA
PROPOSED SDA	PROPOSED PRIVATE SEWAGE DISPOSAL EXPANSION AREA
PROPOSED SUBTRACTION	PROPOSED PRIVATE SEWAGE DISPOSAL SUBTRACTION AREA
P#	PERCOLATION TEST HOLES (PASSED)
⊕ P#	PERCOLATION TEST HOLES (FAILED)

- GENERAL NOTES**
1. THE AREA SHOWN THUS: [Hatched Symbol] DESIGNATES PRIVATE SEWAGE DISPOSAL AREA OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED. THIS SEWAGE DISPOSAL AREA SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE AREA. RECORDATION OF A REVISED SEWAGE AREA SHALL NOT BE NECESSARY.
 2. ANY CHANGES TO A PRIVATE SEWAGE DISPOSAL AREA SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
 3. THE LOTS SHOWN HEREON WAS RECORDED ON PLAT Nos. 24600 - 24607. REFER TO PLAT FOR DIMENSIONS, LOT AREAS, ALL EASEMENTS, ANY RESTRICTIONS, AND PROVISIONS.
 3. EXISTING TOPOGRAPHY SHOWN IS FROM AERIAL TOPO DONE BY BOHLER ENGINEERING (DATED 1/16/15), GLW 2018 FIELD RUN TOPO OF MASS GRADED LOTS, GP-19-026 and VERIFIED FROM GLW AS-BUILT OF THE PLAY COURT & FENCE IN SEPT 2021.
 4. ALL WELL AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.

SOILS CHART:

MAP UNIT	MAP UNIT NAME	TYPE
GgB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	B
MAC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B

SOILS DELINEATION LINE

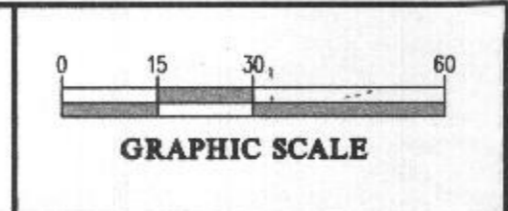
THE PURPOSES FOR THIS REVISED PERCOLATION CERTIFICATION PLAN IS:

- TO RESHAPE THE APPROVED SEWAGE DISPOSAL AREA OF 12/15/2017 ON LOT 19 FOR A PLAYCOURT.

APPROVED FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT

[Signature] R. DATE 10/14/21
HEALTH OFFICER, HOWARD COUNTY HEALTH DEPT. *[Signature]*

LOT 19 PROPERTY OWNER:
NEERAJ VERMA
13845 MILL CREEK COURT
CLARKSVILLE, MARYLAND 21029
443-255-9609
nv1043@yahoo.com

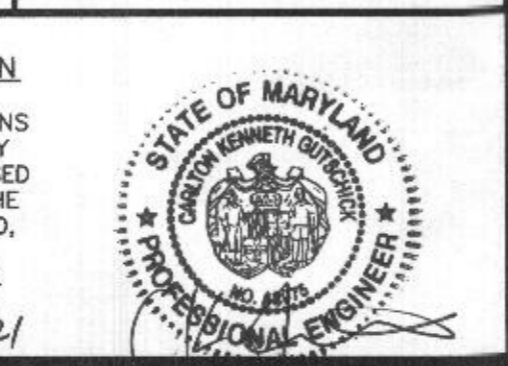


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PHONE: 301-421-4024 | BALT: 410-880-1820 | DC&VA: 301-989-2524 | FAX: 301-421-4186

DESIGNED BY:
DRAWN BY: KLP
CHECKED BY: CKG

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12975, EXPIRATION DATE: MAY 26, 2022.
9/23/21

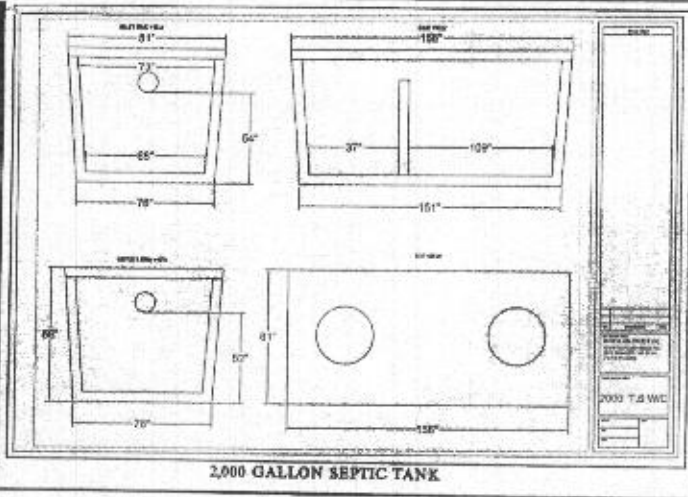


SCALE	ZONING
1" = 30'	RR-DEO
DATE	TAX MAP - GRID
SEPT. 2021	34&39-19&6

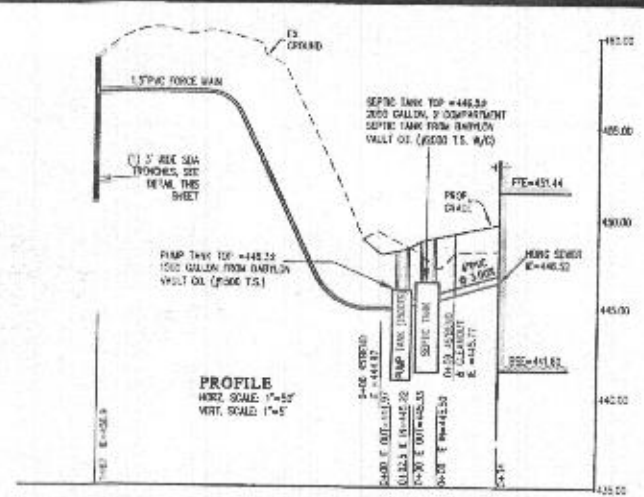
REVISED PERCOLATION CERTIFICATION PLAN

CRAWFORD SUBDIVISION
LOT 19 (13845 MILL CREEK COURT)
Plat No. 24600-24607

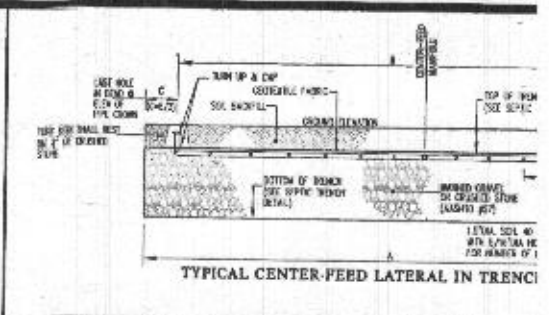
G. L. W. FILE No. 17071
SHEET 1 OF 1



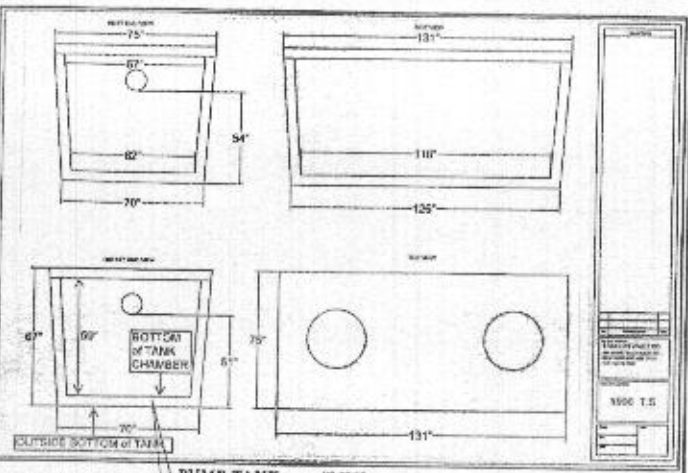
2,000 GALLON SEPTIC TANK



PROFILE
HORIZ. SCALE: 1"=5'
VERT. SCALE: 1"=5'



TYPICAL CENTER-FEED LATERAL IN TRENCH



PUMP TANK NO SCALE

PUMP CHAMBER ELEVATION DATA

- MAX. HIGH WATER (FAD) @ 200'
- PUMP-ON WATER LEVEL @ 237'
- PUMP-OFF @ 216'

1. SWITCH WATER LEVELS ARE MEASURED FROM THE BOTTOM OF THE TANK CHAMBER.
2. TANK SHALL BE INSTALLED SO THAT THE BOTTOM OF THE CHAMBER IS ABSOLUTELY LEVEL.
3. SWITCH LEVELS ARE CALCULATED FOR THE TANK CHAMBER DIMENSIONS SHOWN. IF A CHAMBER DIMENSION CHANGES, THEN THE SWITCH WATER LEVEL MUST BE RECALCULATED.
4. PROVIDE A 1/4" SQUARE BRACKET HOLE IN THE TOP BEAM OF THE DISCHARGE PIPING ABOVE THE TANK IF THE MOUNT OF THE LOWEST SOIL LATERAL IS BELOW THE PUMP TANK INLET OUT.
5. USE A UNION DISCONNECT TO FACILITATE PUMP REPLACEMENT.

Lot-8 LRS Pump Tank (Babylon 1500 T.S.) Elevations

High finished grade at top of tank	443.70
Top of tank elevation	443.50
Bottom of tank above tank, 2' max.	3.40 ft.
Bottom of tank	440.10
Subsided pump chamber elevation	441.65
Invert out	444.22
Invert in	444.97
Bottom of pump inlet or 8" block	441.55

Lot-8 Septic Tank (Babylon 2000 T.S.) W/C Elevations

High finished grade at top of tank	443.20
Top of tank elevation	443.00
Bottom of tank above tank, 2' max.	3.70 ft.
Bottom of tank	440.00
Invert in	445.50
Invert out	445.24

Rectangular Trapezoidal Pump Chamber Volume Calculations (Babylon Vault 1500 T.S.)

H: Height (inside elevation from bottom of chamber to top cover)	50.00 in.
W: Top Width (inside dimension)	37.00 in.
L: Top Length (inside dimension)	131.00 in.
w: Bottom Width (inside dimension)	30.00 in.
l: Bottom Length (inside dimension)	131.00 in.
Chamber Bottom Area (A ₁)	736.0 sq. ft.
Height from bottom of chamber to inlet level (H ₁)	40.00 in.
Chamber width at inlet level (W ₁)	34.24 in.
Chamber length at inlet level (L ₁)	132.34 in.
Chamber Sectional Area at inlet level (S ₁)	1096.7 sq. ft.
Chamber Volume at inlet level (V ₁)	40280 cu. ft.
1687 gal.	

Float Switch Setting Parameters & Volume Calculations

Design flow per day from reserved capacity (assumed alarm level)	5.00 gpd
Design frequency per day & volume per day	5.00 gpd @ 120.0 gal./day
Water level (W ₁) to which alarm	36.00 in.
Chamber width at alarm level (W ₁)	34.27 in.
Chamber length at alarm level (L ₁)	130.97 in.
Chamber Sectional Area at alarm level (S ₁)	736.7 sq. ft.
Water volume at alarm level (V ₁)	21036 cu. ft.
Assumed capacity provided at alarm setting (V ₁)	17426 cu. ft.
Back check required capacity (V ₁)	17426 cu. ft.
756 gal.	

Alarm High-water level (from bottom of pump chamber)

Reference water level (W ₁) from bottom of pump chamber	36.00 in.
Chamber width at this level (W ₁)	34.26 in.
Chamber length at this level (L ₁)	130.91 in.
Chamber Sectional Area at this level (S ₁)	7082.05 sq. ft.
Water volume (V ₁) to switch pump on	176243 cu. ft.
772 gal.	

Pump-off water level (from bottom of pump chamber)

Chamber width at this level (W ₁)	34.00 in.
Chamber length at this level (L ₁)	131.00 in.
Chamber Sectional Area at this level (S ₁)	7623.99 sq. ft.
Water volume (V ₁) to switch pump off	186940 cu. ft.
847 gal.	

Volume between on-off switches: ((S₁-S₂)/2)*L*(W₁+W₂)*((S₁-S₂)/2)*L

Volume between on-off switches (V ₁)	28543 cu. ft.
125 gal.	

Back Check discharge water setting: V₁-V₂

Back Check discharge water setting (V ₁ -V ₂)	28543 cu. ft.
125 gal.	

LOW PRESSURE DISTRIBUTION SYSTEM CALCULATIONS

ADDRESS: 23845 1481 Creek Court
SUNCOASTON, ORland
DATE: September 2018

Design Flow: 250 gpd
Pump On Elevation: 443.72
In. Out of Pump Tank: 486.97
Pump Inlet Elevation: 441.55

Number of Manholes: 8

Type: Center-feed

Trench 1	Elev: 456.8	Length: 97'
Trench 2	Elev: _____	Length: _____
Trench 3	Elev: _____	Length: _____

Manifold Length: 5 ft Type: SCH 40
Sole Inlet Manifold Length: 357.0 ft Type: SCH 40

Trench	Length (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	
1	97	Center	456.8	2.0	3/56	1.63	1.32	37	22.80	61.88	1.118	1.471

ZOELLER PUMP COMPANY

TECHNICAL DATA SHEET DOSE-MATE SERIES
Models 152, 153, 153 Pro Series, 153 Pro

PRODUCT SPECIFICATIONS

Model	Flow (gpd)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)
152	250	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

SECTION

MODEL 152 & 153

TOTAL DYNAMIC HEAD FLOW PER MINUTE

Flow (gpm)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)
100	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

PUMP SELECTION

Model	Flow (gpd)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)	Flow (ft)
152	250	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

