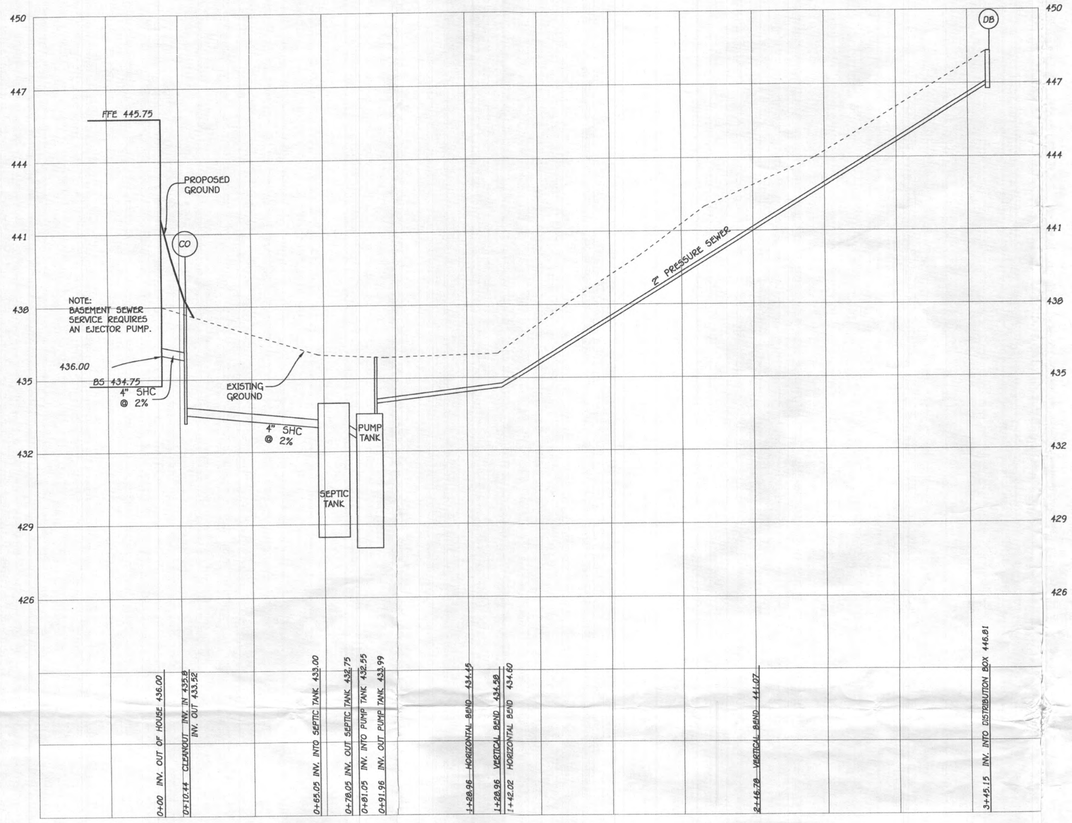
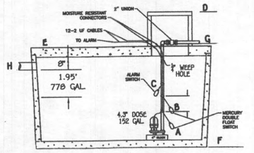


SEPTIC PROFILE

SCALE: 1"=30'

NOTE: SEPTIC SYSTEM ALARM WILL BE ON A CIRCUIT SEPARATE FROM ANY OTHER SEPTIC SYSTEM COMPONENTS OR ALARMS.

PUMP ALARMS / INFORMATION
- A PUMP OFF : 429.80
- B PUMP ON : 430.16
- C HIGH WATER ALARM : 430.52
- D TOP OF ACCESS COVER : 435.80
- E TOP OF TANK : 433.55
- F BOTTOM OF TANK : 427.97
- G DISCHARGE OUT OF TANK : 433.99
- H INVERT INTO TANK : 432.47



778 + 280.5 = 1,058 Cuft EMERGENCY STORAGE

NOTE: THIS DETAIL IS TO BE USED FOR FLOAT CONFIGURATION ONLY - SEE DETAIL ABOVE FOR TANK DIMENSIONS AND ACTUAL LOCATION OF ACCESS COVER.

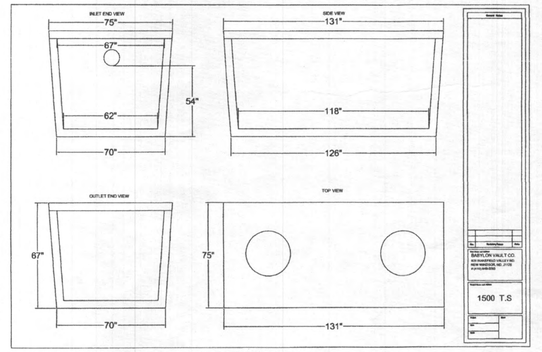
2" SCH. 40 PVC = 253 LF
1 UNION @ 2 EQUIVALENT FEET = 2 LF
3 1/8 HB @ 4 EQUIVALENT FEET = 12 LF
TOTAL LINEAR FEET OF 2" SCH. 40 PVC = 267 LF

DYNAMIC HEAD
267 LF X 2.39 FT PER 100 LF OF 2" PIPE = 6.38 FT OF FRICTION HEAD
VERTICAL FROM PUMP OFF TO HIGH POINT IN PUMP CHAMBER = 3.47 FT OF FRICTION HEAD
HIGH POINT IN PUMP CHAMBER TO HIGHEST ELEV OF SYSTEM = 12.82 FT (PUMP OUT IS THE HIGHEST POINT)
TOTAL DYNAMIC HEAD =23.67 FT

1/6 DESIGN FLOW (900/6=150)
USE 152 GALLON DOSE (150 GALLON MINIMUM)
(RUN TIME = 3 MIN (50.67 GPM X 3 = 152 GALLON DOSE)

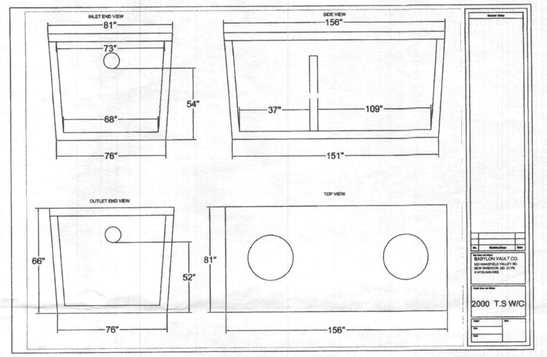
PUMP NEEDS TO HANDLE 50.67 GPM AT 23.67 FT OF HEAD
USE 0.5 HP (GOULD MODEL WE0H PUMP)

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855



PUMP TANK DETAIL

NOT TO SCALE



SEPTIC TANK DETAIL

NOT TO SCALE

ITT

GOULDS PUMPS
Wastewater

APPLICATIONS

Specifically designed for the following uses:
- Homes, Farms, Trailer Courts, Motels, Schools, Hospitals, Industry, Effluent Systems

SPECIFICATIONS

Pump
- Solids handling capabilities: ¾" maximum.
- Discharge size: 2" NPT.
- Capacities: up to 140 GPM.
- Total heads: up to 128 feet TDH.
- Temperature: 104°F (40°C) continuous, 140°F (60°C) intermittent.
- See order numbers on reverse side for specific HP, voltage, phase and RPM's available.

MOTORS
- Fully submerged in high-grade turbine oil for lubrication and efficient heat transfer.
- Class B insulation on ½ – 1½ HP models.
- Class F insulation on 2 HP models.

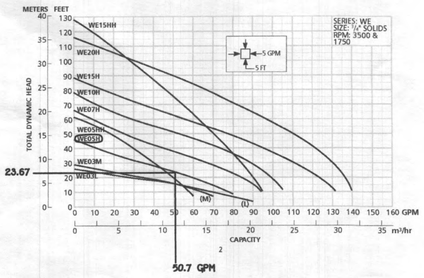
Single phase (60 Hz):
- Capacitor start motors for maximum starting torque.
- Built-in overload with automatic reset.
- SJTOW or STOW severe duty oil and water resistant power cords.
- ½ – 1 HP models have NEMA three prong grounding plugs.
- 1½ HP and larger units have bare lead cord ends.

Three phase (60 Hz):
- Class 10 overload protection must be provided in separately ordered starter unit.
- STOW power cords all have bare lead cord ends.

- **Designed for Continuous Operation:** Pump ratings are within the motor manufacturer's recommended working limits, can be operated continuously without damage when fully submerged.
- **Bearings:** Upper and lower heavy duty ball bearing construction.
- **Power Cable:** Severe duty rated, oil and water resistant. Epoxy seal on motor end provides secondary moisture barrier in case of outer jacket damage and to prevent oil wicking. Standard cord is 20'. Optional lengths are available.
- **O-ring:** Assures positive sealing against contaminants and oil leakage.

AGENCY LISTINGS

Tested to UL 778 and CSA 22.2 108 Standards By Canadian Standards Association File #LR38549
Goulds Pumps is ISO 9001 Registered.



PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS 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. 20748, EXPIRATION DATE: 02/22/2019.

STATE OF MARYLAND — KEVIN MICHAEL VITUCCI — No. 20748 — PROFESSIONAL ENGINEER

Signature Of Professional Engineer — 6/7/19 DATE

OWNER

PATRICE C. OGUEJIOFOR
8603 CROOKED TREE LANE
LAUREL MD 20724

BUILDER

LIBERTY CUSTOM HOMES
A DIVISION OF K P & ASSOCIATES
P.O.BOX 187
CHESTER, MD 21619
410-643-3099

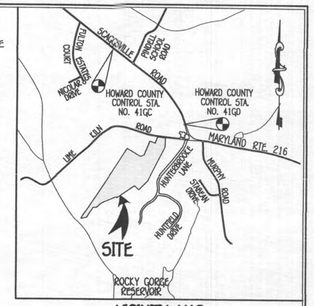
SEPTIC SYSTEM INSTALLATION SITE PLAN

DUSTIN'S GOLDEN FIELDS
LOT 9
8030 KAYLADINE LANE
ZONED: RR-DEO

TAX MAP NO.: 46 PARCEL NO.: 103 GRID NO.: 2
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1"=30' DATE: JUNE 3, 2019
SHEET 2 OF 2

I:\2005\05072\dwg\Lot 9\05072-8008 Septic Plan Lot 9.dwg, Septic Plan, 1:1

NOTE:
1. ANY CHANGE 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.
2. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
3. ELECTRICAL WORK FOR THE INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
4. THE WELL HO-95-2494 HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
5. ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.



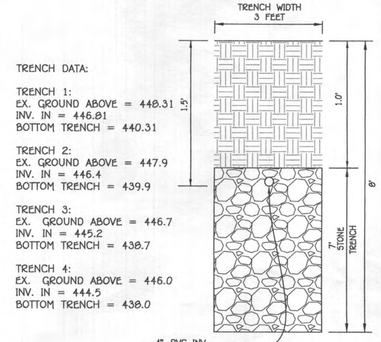
VICINITY MAP
SCALE: 1" = 2,000'
HO. CO. ADC MAP 18, GRID G-5

SEWAGE DISPOSAL SYSTEM DATA
6 BEDROOMS
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 5.0 FEET
TRENCH DEPTH = 8 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 3 FEET
SF OF DRAINFIELD = 900 GPD / 0.8 = 1125 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D)=(3+2)/(3+1+(2x3))=0.5
TRENCH LENGTH = 375 SF x 0.5 = 187.50 FEET
TRENCH SPACING = 2D+W = ((2*3) + 3) = 9 USE 10'
(4 TRENCH'S AT 46.88')

FIRST REPLACEMENT
SEWAGE DISPOSAL SYSTEM DATA
6 BEDROOMS
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 6 FEET
TRENCH DEPTH = 8 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 2 FEET
SF OF DRAINFIELD = 900 GPD / 0.8 = 1125 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D)=(3+2)/(3+1+(2x2))=0.625
TRENCH LENGTH = 375 SF x 0.625 = 234.38 FEET
TRENCH SPACING = 2D+W = ((2*2) + 3) = 7 USE 10'
(4 TRENCH'S AT 58.59')

SECOND REPLACEMENT
SEWAGE DISPOSAL SYSTEM DATA
6 BEDROOMS
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 5.5 FEET
TRENCH DEPTH = 6.5 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 1.0 FEET
SF OF DRAINFIELD = 900 GPD / 0.8 = 1125 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D)=(3+2)/(3+1+(2x1))=0.833
TRENCH LENGTH = 375 SF x 0.833 = 312.38 FEET
TRENCH SPACING = 2D+W = ((2*1) + 3) = 5 USE 10'
(5 TRENCH'S AT 62.48')

PLAN
SCALE: 1" = 30'



TRENCH DATA:

TRENCH 1:
EX. GROUND ABOVE = 448.31
INV. IN = 446.81
BOTTOM TRENCH = 440.31

TRENCH 2:
EX. GROUND ABOVE = 447.9
INV. IN = 446.4
BOTTOM TRENCH = 439.9

TRENCH 3:
EX. GROUND ABOVE = 446.7
INV. IN = 445.2
BOTTOM TRENCH = 438.7

TRENCH 4:
EX. GROUND ABOVE = 446.0
INV. IN = 444.5
BOTTOM TRENCH = 438.0

INITIAL TRENCH DETAIL
SCALE : 1"=2'

NOTE: NO GRAVITY SEWER SERVICE FOR LOT 9

0' 30' 60' 120'
SCALE: 1" = 30'

FFE 445.75
BSE 434.75
INV. OUT OF HOUSE = 436.00
PROP. GROUND AT CLEANOUT #1 = 438.3
INV. INTO CLEANOUT = 435.8
INV. OUT OF CLEANOUT = 433.52
EX. GROUND AT SEPTIC TANK = 436.00
PROP. GRADE ABOVE SEPTIC TANK = 436.00
TOP OF SEPTIC TANK = 434.00
INV. INTO SEPTIC TANK = 433.00
INV. OUT OF SEPTIC TANK = 432.75
EX. GROUND AT PUMP TANK = 435.8
PROP. GRADE ABOVE PUMP TANK = 435.8
TOP OF PUMP TANK = 433.55
INV. INTO PUMP TANK = 432.47
INV. OUT OF PUMP TANK = 433.99
EX. GROUND AT DISTRIBUTION BOX = 448.31
INV. INTO DISTRIBUTION BOX = 446.91
INV. OUT OF DISTRIBUTION BOX = 446.81

Superseded by Approved OSDS 4/8/2022

Approved Septic System Plan
Howard County Health Department
Hank Oswald 8/14/19
Signature Date

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
9	8030 KAYLADINE LANE

SEPTIC SYSTEM INSTALLATION SITE PLAN

DUSTIN'S GOLDEN FIELDS
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ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

STATE OF MARYLAND · LEO MICHAEL WITTEN · No. 20748 · PROFESSIONAL ENGINEER

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