



Howard County
Health Department

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: 11/7/19

ONSITE SEWAGE DISPOSAL SYSTEM

P 566443

APPROVAL DATE: 2/14/2020

PERMIT: CONSTRUCTION

A

PROPERTY ADDRESS: 12204 HALL SHOP ROAD, CLARKSVILLE, MD 21029

SUBDIVISION: TAX MAP 40, PARCEL 530

LOT: ----- TAX ID: 05-598803

CONTRACTOR: Hatfield's Equipment

EMAIL: ken@hatfieldsequipment.com

CONTRACTOR ADDRESS: P.O. Box 519, Annapolis Junction, MD 21701

PHONE: 301-490-4289

CONTRACTOR CERTIFIED FOR BAT INSTALLATION:

☒ MDE

☒ MANUFACTURER:

Norweco

PROPERTY OWNER: KEVIN M and JESSICA R SMITH

EMAIL: jessmacksmith@gmail.com

OWNER ADDRESS: 6609 FORTNIGHT COURT, COLUMBIA, MD 21044

PHONE: (703) 217-9434

BAT UNIT MODEL: NORWECO TNTLP-500

PUMP SIZE: N.A.

PUMP TANK CAPACITY: N.A.

OPERATION & MAINTENANCE AGREEMENT

DATE SIGNED:

DATE RECORDED:

DISTRIBUTION SYSTEM:

☒ GRAVITY

☐ PRESSURE DOSED

BEDROOMS: 4

APPLICATION RATE: 0.6

TRENCHES:	LINEAR FEET REQUIRED: <u>167</u>	INLET DEPTH: <u>4.0</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>7.5</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>4.5</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND BAT UNIT LOCATION MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:		

ISSUED BY: R BRICKER

ISSUE DATE: 11/7/19

EXPIRATION DATE: 11/7/20

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 SEPTIC TANKS REQUIRED

NOTE: ALL PARTS OF SEPTIC SYSTEM SHALL BE AT LEAST 100 FEET DOWNGRAIENT 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 N.A.

NOTE: AN INDIVIDUAL CERTIFIED BY MDE AND THE MANUFACTURER FOR BAT INSTALLATION MUST BE PRESENT AT ALL TIMES DURING BAT INSTALLATION.

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.

NOT TO SCALE

* SEE ATTACHED
DIAGRAM

ROAD NAME

TRENCH/DRAINFIELD DATA

WIDTH 3' INLET 4' BOTTOM 7.5'

NUMBER OF TRENCHES 3

TOTAL LENGTH 174'

ABSORPTION AREA 522 sq ft + sidewalk

DISTRIBUTION BOX LEVEL yes

DISTRIBUTION BOX BAFFLE yes

DISTRIBUTION BOX PORT —

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL yes

MANUFACTURER Norweco

CAPACITY 600 GAL

SEAM LOC top

TANK LID DEPTH 1.5'

BAFFLES —

BAFFLE FILTER back

MANHOLE LOC front, center, back

6" PORT LOC —

WATERTIGHT TEST —

SLOTTED three compartments

DATE ON LID none

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:

12/3/2019 TANK AND SPA STAKED. Laid out 3 x 56' TRENCHES.
CONFIRMED SEWER OUT OF HOUSE. OK TO START. (P)

INSTALLATION: 12/5/19 SHC, tank, d-box and one trench completed (ST)

12/6/19 Last two trenches dug. D-box leveled with speed levels. (ST)
Need start-up for BATU.

2/14/2020 start-up cart. received from manufacturer. (P)

FINAL INSPECTOR

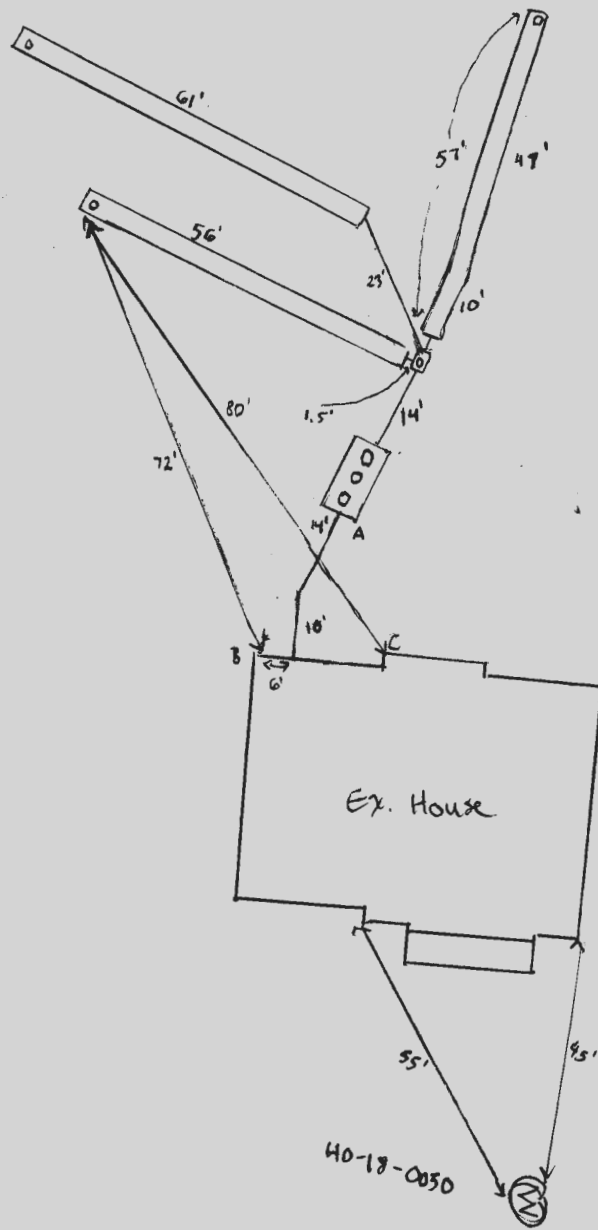
Susan Thomas

DATE OF APPROVAL

2/14/2020

NOT TO SCALE

A to B: 26'
A to C: 23'





BACK RIVER PRE-CAST, LLC
PO BOX 329
GLYNDON, MD 21071
PH# 410-833-3394

NORWECO CERTIFICATION

PROPERTY OWNER: KEVIN SMITH	INSTALLATION COMPANY: HATFIELD
ADDRESS: 12204 HALL SHOP RD.	CERTIFIED INSTALLER: TODD TRACEY
CITY, ZIPCODE & COUNTY: HIGHLAND, 20777, HOWARD	PERMIT#
SIZE OF SYSTEM INSTALLED:	DATE INSTALLED: 12-05-19
600 GPD CONCRETE	START-UP DATE: 02-14-20
NUMBER OF BEDROOMS:	DATE OF FINAL INSPECTION:
TYPE OF INSTALLATION: NEW CONSTRUCTION	DATE OF ELECTRICAL INSPECTION:
ELECTRICAL WIRING PER ELECTRICAL INSTRUCTIONS: YES	TANK LEVEL: YES
HT. OF CONTROL PANEL ABOVE FINAL GRADE: 36"	BURIAL DEPTH OF TANK: 14"
SYSTEM WIRED ON A 15-AMP DEDICATED CIRCUIT WITH STD. BREAKER: YES	RISERS 4" - 6" ABOVE GRADE: YES
LENGTH(S) OF UF WIRE PAST LAST AERATION RISER(S): 36"	VENTED LID(S) ON AERATION CHAMBER(S): YES
FEMALE PLUG(S) WIRED TO UF WIRE: YES	ANY GROUND SETTLING AROUND TANK:
CONDUIT(S) ENTERING AERATION RISER MADE WITH A WATERTIGHT CONNECTION: YES	NO
IS THE INSIDE OF THE CONDUIT ENTERING THE CONTROL PANEL(S) AND AERATION RISER(S) SEALED WITH DUCT SEAL: YES	

ON 2ND PAGE MAKE A ROUGH SKETCH OF THE HOUSE, WHERE THE SYSTEM IS LOCATED, WHERE THE CONTROL PANEL IS LOCATED, WHERE THE FRONT OF THE IS AND DIRECTIONS TO THE PROPERTY.

DIRECTIONS CAN START A FEW STREETS AWAY

EXAMPLE: RT. X LEFT ONTO XX STREET RIGHT ONTO PRIVATE DRIVEWAY 5TH HOUSE OF THE LEFT.

I certify that the Norweco Singulair TNT Wastewater Treatment System was installed according to the manufacture's specifications.

Matthew Geckle

February 14, 2019

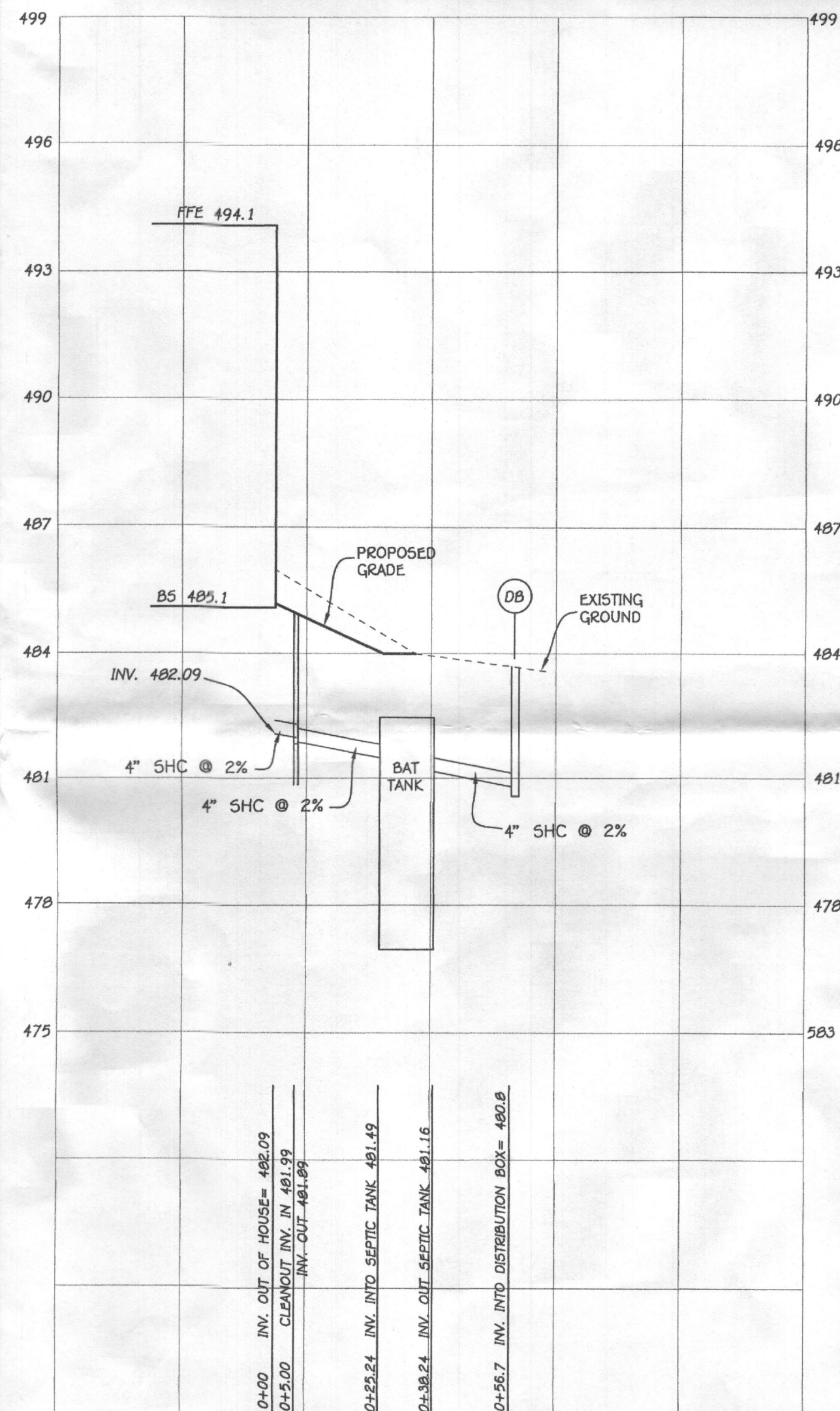
Signature of BRP Representative

Vice-President

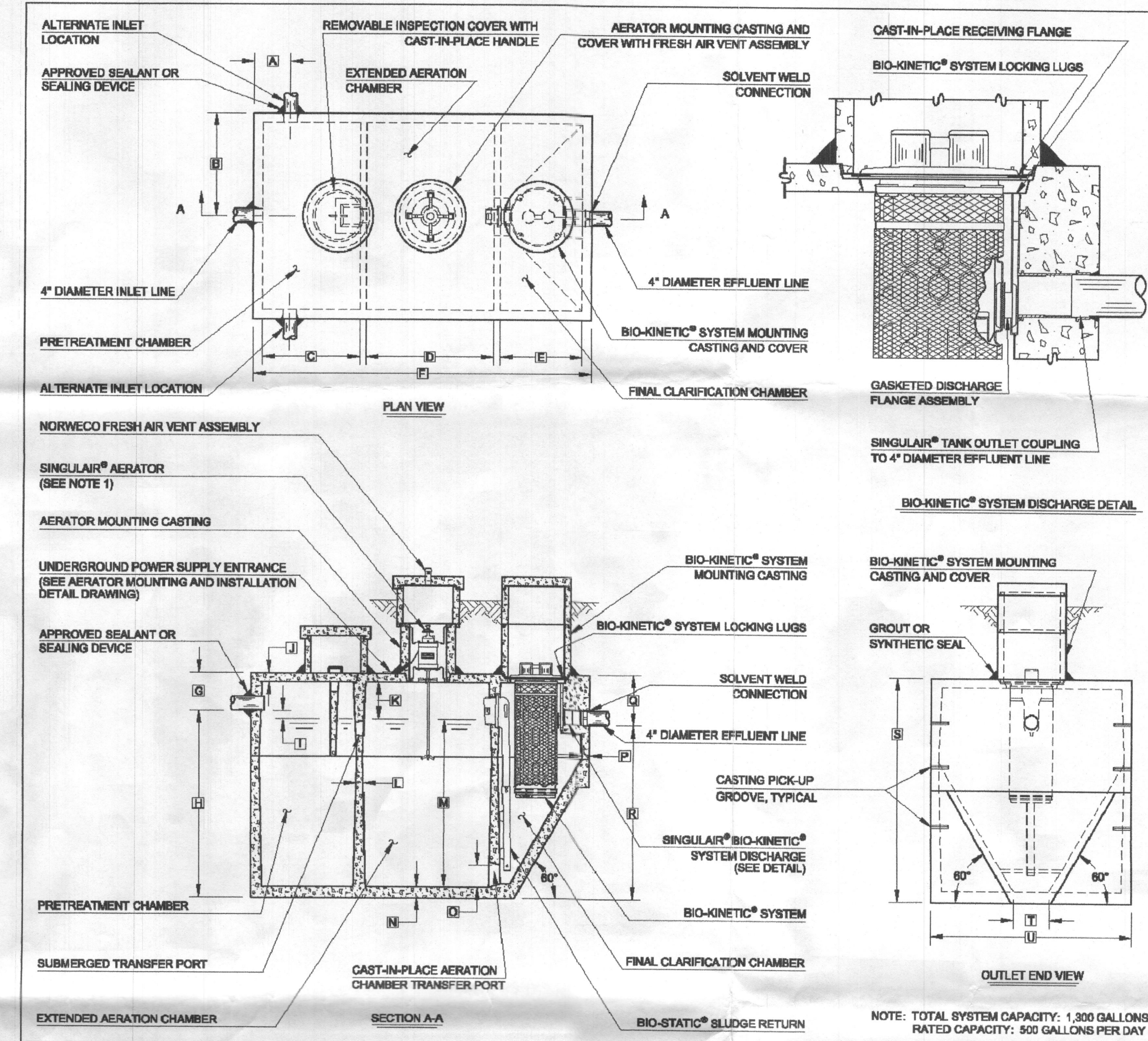
Date

NORWECO TNTLP-750 GPD

FFE 494.1
 BSE 405.1
 INV. OUT OF HOUSE = 402.09
 PROP. GROUND AT CLEANOUT #1 = 405.1
 INV. INTO CLEANOUT = 401.99
 INV. OUT OF CLEANOUT = 401.89
 EX. GROUND AT SEPTIC TANK = 404.2
 PROP. GRADE ABOVE SEPTIC TANK = 404.0
 TOP OF SEPTIC TANK = 402.49
 INV. INTO SEPTIC TANK = 401.49
 INV. OUT OF SEPTIC TANK = 401.16
 EX. GROUND AT DISTRIBUTION BOX = 403.7
 INV. INTO DISTRIBUTION BOX = 400.8
 INV. OUT OF DISTRIBUTION BOX = 400.7



SEPTIC PROFILE
 SCALE: 1"=30'



BAT NOTES

- 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.
- THE MAXIMUM COVER OVER THE BAT PER THE MANUFACTURER'S SPECIFICATION IS 3 FEET. IF COVER EXCEEDS 3 FEET, THEN A TRAFFIC BEARING TANK IS REQUIRED.
- THE BAT SYSTEM SHALL BE MAINTAINED AND OPERATED FOR THE LIFE OF THE SYSTEM.
- THE BAT SHALL BE OPERATED BY AND MAINTAINED BY A CERTIFIED SERVICE PROVIDER.
- WITHIN ONE MONTH OF INSTALLATION, A PERSON INSTALLING THE BAT SYSTEM SHALL REPORT TO THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) IN A MANNER ACCEPTABLE TO MDE. THE ADDRESS AND DATE OF COMPLETION OF THE BAT INSTALLATION AND THE TYPE OF BAT INSTALLED, ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
- AN AGREEMENT AND EASEMENT MUST BE COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN THE LAND RECORDS OF HOWARD COUNTY.
- THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.
- SURFACE RUNOFF SHALL BE DIRECTED AROUND THE BAT TANK. SEWAGE FLOWS TO THE TANK BY GRAVITY AND WATER EXITING THE TANK TO THE SEPTIC AREA WILL FLOW BY GRAVITY.
- IF THERE IS EXCESSIVE RESISTANCE TO THE AERATOR MOTOR, AN ALARM WILL BE VISIBLE AND AUDIBLE. SEE MANUFACTURER SPECS FOR ADDITIONAL INFORMATION.
- THE EXISTING WELL, TAG NO. HO-18-0050, HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.

Approved Septic System Plan
 Howard County Health Department
 NORWECO TNT 500
 To Gravity drainfield for
 4 bedroom SFD
 Signature: *R. Buck* 9/26/2019
 Date

**BAT SYSTEM
 INSTALLATION SITE PLAN
 SMITH PROPERTY**

12204 HALL SHOP ROAD

TAX MAP #40 GRID: 6 ZONED: RR-DEO PARCEL: 530
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1"=30' DATE: AUG. 29, 2019



PROFESSIONAL CERTIFICATION

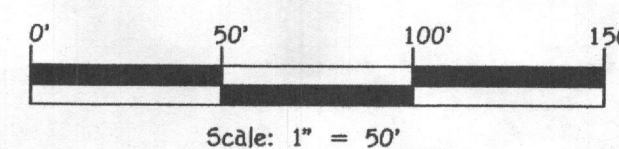
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20748, EXPIRATION DATE: 02-22-2022.

Signature of Professional Engineer: *Michael V. Viteri*

DATE: 9/26/19

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 31 CENTONAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL PIER
 ELLICOTT CITY, MARYLAND 21042
 (410) 461-2095

ADDRESS CHART	
PARCEL	STREET ADDRESS
530	12204 HALL SHOP ROAD



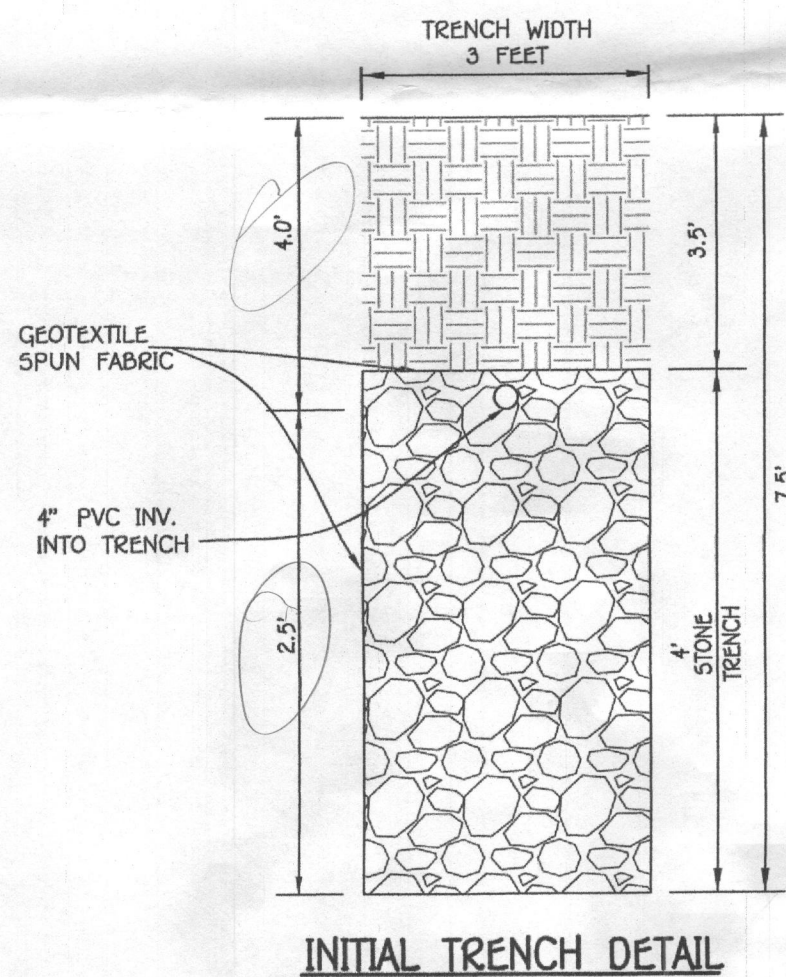
BUILDER

Envision Builders
 7939 Honeygo Blvd.
 Suite 112
 White Marsh, Md 21236
 Ph. 410-652-5705

OWNER

Kevin Smith
 Jessica Smith
 6609 Fortnight Ct
 Columbia, Md 21044

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. THE WELL HO-10-0050 HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
4. 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.



TRENCH DATA:

TRENCH 1:
EX. GROUND ABOVE = 483.7
INV. IN = 480.7
BOTTOM TRENCH = 476.2
TRENCH 2:
EX. GROUND ABOVE = 483.7
INV. IN = 480.7
BOTTOM TRENCH = 476.2
TRENCH 3:
EX. GROUND ABOVE = 483.0
INV. IN = 480.0
BOTTOM TRENCH = 475.5

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. 20740, EXPIRATION DATE: 02-22-2022.

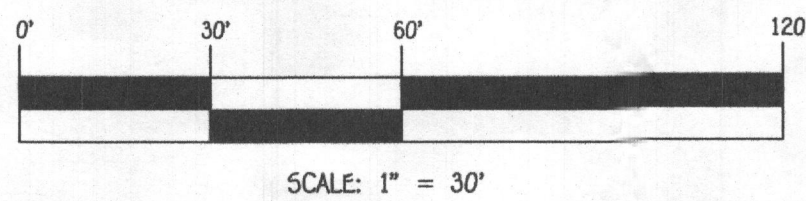
Alfred M. Vitucci
Signature of Professional Engineer

9/26/19
DATE



ADDRESS CHART	
PARCEL	STREET ADDRESS
530	12204 HALL SHOP ROAD

PLAN
SCALE: 1"=30'



BUILDER

Envision Builders
7939 Honeygo Blvd.
Suite 112
White Marsh, Md 21236
Ph. 410-682-5785

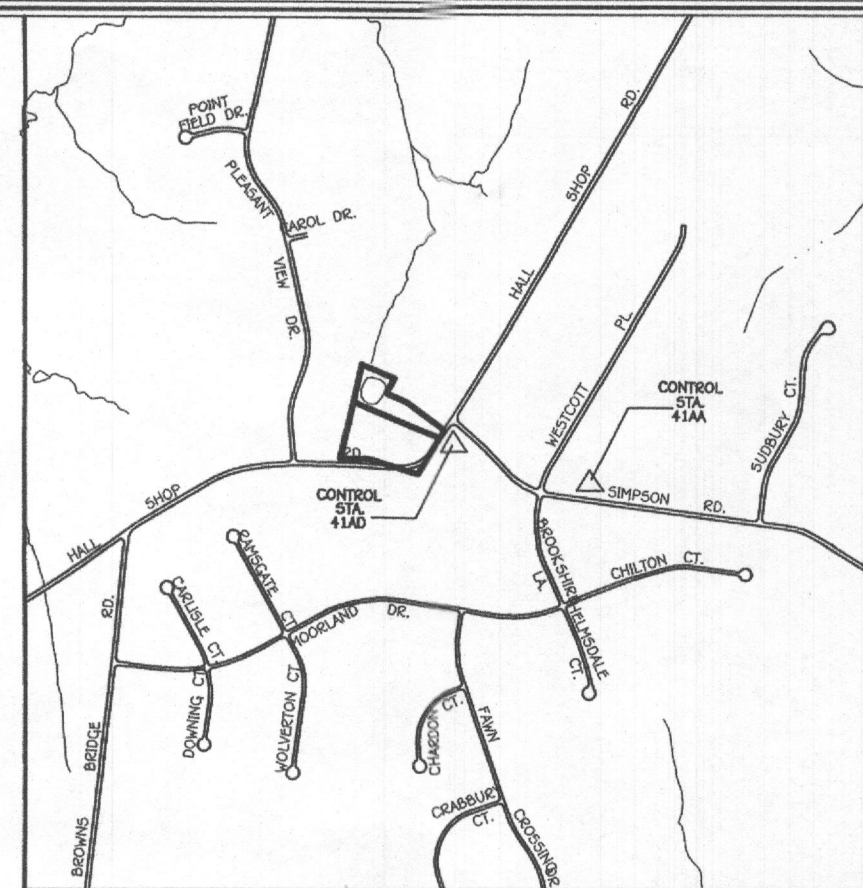
OWNER

Kevin Smith
Jessica Smith
6609 Fortnight Ct
Columbia, Md 21044

BAT SYSTEM INSTALLATION SITE PLAN SMITH PROPERTY 12204 HALL SHOP ROAD

TAX MAP #40 GRID: 6 ZONED: RR-DEO PARCEL: 530
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1"=30' DATE: SEPT. 29, 2019

SHEET 1 OF 2



VICINITY MAP
SCALE: 1" = 1200'

INITIAL SYSTEM

SEWAGE DISPOSAL SYSTEM DATA DESIGN FOR
4 BEDROOMS
LOADING RATE = BEDROOMS X 150 GPD/BEDROOM = 600 GPD
APPLICATION RATE = 0.6
EFFECTIVE SIDEWALL BEGINS AT 4.5 FEET
TRENCH DEPTH = 7.5 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 3 FEET
SF OF DRAINFIELD = 600 GPD / 0.6 = 1000 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH =
(W+2)/(W+1+2D)=(3+2)/(3+1+(2x3))=0.5
TRENCH LENGTH = 333.33 SF x 0.5 = 166.67 FEET
(USE 3 TRENCHES AT 55.56 LF.)
TRENCH SPACING = 2D+W = ((2x3) + 3) = 9' USE 10'

REPLACEMENT SYSTEM

SEWAGE DISPOSAL SYSTEM DATA DESIGN FOR
4 BEDROOMS
LOADING RATE = 4 BEDROOMS X 150 GPD/BEDROOM = 600 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 4.0 FEET
TRENCH DEPTH = 5.5 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 1.5 FEET
SF OF DRAINFIELD = 600 GPD / 0.8 = 750 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH =
(W+2)/(W+1+2D)=(3+2)/(3+1+(2x1.5))=0.71
TRENCH LENGTH = 250.00 SF x 0.417 = 177.50 FEET
(USE 4 TRENCHES AT 44.37 LF.)
TRENCH SPACING = 2D+W = ((2x4) + 3) = 6' USE 10'

Approved Septic System Plan
Howard County Health Department
NORWECO TNT 500
to Gravity drainfield
for 4-Bedroom SFD
R. Buckle 9/26/2019
Signature Date

LEGEND

SYMBOL	DESCRIPTION
---	EXISTING CONTOUR 2' INTERVAL
---	PROPOSED CONTOUR 2' INTERVAL
---	EXISTING TREES
x457.70	SPOT ELEVATION
-SF-SF-	SILT FENCE
-SSF-SSF-	SUPER SILT FENCE
---	LIMITS OF DISTURBANCE
484.6 +	PROPOSED SPOT ELEVATION
⊙	EXISTING WELL
▨	DENOTES SEWAGE DISPOSAL AREA
▨	DENOTES EXISTING PAVING TO REMAIN

T.M. 41 PAR. 346
BENNETT
12188 HALL SHOP RD
L.1177, F.585

S 67°26'54" E 222.96'

S 29°38'37" W 105.12'

S 67°26'54" E 137.31'

N 13°16'25" E 237.24'

EXISTING POND

Septic
Disposal
Area

SEE
DETAIL

EX. WELL
HO-18-0050

174.6'±

GRAVEL
AREA

GUY POLE

HALL SHOP ROAD
Major Collector

T.M. 40 PAR. 95
STULL
12210 HALL SHOP RD
L.2981, F.182
(SECOND PARCEL)

Old
barn

N 67°43'13" W 591.90'

11/7/19
walkcheck
approved
MLC

POURED
CONCRETE
FOUNDATION

DETAIL:
1"=20'



Mark J. Babel
PROPERTY LINE SURVEYOR
REG. #339

10/11/19
DATE

12204 HALL SHOP ROAD
Deed Reference 18765/ 00158
Fifth Election District
Howard County, Maryland

HOUSE LOCATION
DRAWING

FOUNDATION LOCATION: 10/10/19
FINAL LOCATION:
BOUNDARY SURVEY:

SCALE: 1"=30'
DATE: 10/11/19
DRAWN BY: MD
CHECKED BY: MLC
PROJECT No.: 16019-7001

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 461 - 2895

#12204 HALL SHOP ROAD
B.R.L. BUILDING RESTRICTION LINE
TOP OF FOUNDATION ELEVATION = 492.2'±