

Bureau of Environmental Health
 7178 Gateway Drive Columbia, MD 21046
 (410) 313-2640 Fax (410) 313-2648
 TDD (410) 313-2323 Toll Free 1-866-313-6300
 website: www.hchealth.org

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

RECEIPT DATE: 8-19-14 **ONSITE SEWAGE DISPOSAL SYSTEM** P 554587

INSTALLATION APPROVAL DATE: _____ **PERMIT** A _____

CONSTRUCTION

PROPERTY ADDRESS: 13010 High Grove Road

SUBDIVISION: Schooley Mill Farm LOT: 10 TAX ID: _____

CONTRACTOR: South Carroll Backhoe EMAIL: ken@skbackhoe.com

CONTRACTOR ADDRESS: 4410 Salem Bottom Road PHONE: 410-596-3618

PROPERTY OWNER: NVR Inc. EMAIL: _____

OWNER ADDRESS: 9720 Patuxent Woods Drive, Columbia, MD 21046 PHONE: 410-379-5956

BAT UNIT MODEL: Hoot 600 BNR BAT UNIT SIZE: 750 GPD

PUMP CHAMBER CAPACITY (GALLONS): _____ PUMP SIZE: _____

NUMBER OF BEDROOMS: _____ HOUSE SQ. FT. _____ APPLICATION RATE: _____

DISTRIBUTION SYSTEM: GRAVITY FED LOW PRESSURE DOSED

TRENCHES:	LINEAR FEET REQUIRED: <u>SEE BAT PLAN 172'</u>	INLET DEPTH: <u>SEE BAT PLAN 4.5'</u>
	TRENCH WIDTH: <u>SEE BAT PLAN 3'</u>	MAXIMUM BOTTOM DEPTH: <u>SEE BAT PLAN 7'</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>SEE BAT PLAN</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>SEE BAT PLAN</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:	Set BAT unit per plan. Set distribution box per plan. Install trenches per plan. <u>2x86' Trenches</u>	

ISSUED BY: Jeff Williams ISSUE DATE: 8-19-14 EXPIRATION DATE: 8-19-15

- 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 DOWNGRADIENT 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

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 As-Built Drawing
On Separate Sheet

ROAD NAME

TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
<u>3'</u>	<u>4'4.5"</u>	<u>7'</u>
NUMBER OF TRENCHES		<u>2</u>
TOTAL LENGTH		<u>168'</u>
ABSORPTION AREA		<u>504</u>
DISTRIBUTION BOX LEVEL		<u>Yes</u>
DISTRIBUTION BOX BAFFLE		<u>Elbow</u>
DISTRIBUTION BOX PORT		<u>Yes</u>

SEPTIC TANK DATA

SEPTIC TANK I LEVEL	<u>Yes</u>
MANUFACTURER	<u>Mayer Bros</u> <u>Root</u>
CAPACITY	<u>~2100</u> GAL
SEAM LOC	<u>Top</u>
TANK LID DEPTH	<u>1.5'-2'</u>
BAFFLES	<u>Front</u>
BAFFLE FILTER	<u>N/A</u>
MANHOLE LOC	<u>Front+Rear</u>
6" PORT LOC	<u>None</u>
WATERTIGHT TEST	<u>No</u>
SLOTTED	<u>N/A</u>
DATE ON LID	<u>No-Dry</u>

~~RUMP/SEPTIC TANK LEVEL N/A~~

MANUFACTURER	_____
CAPACITY	_____ GAL
SEAM LOC	_____
TANK LID DEPTH	_____
BAFFLES	_____
BAFFLE FILTER	_____
MANHOLE LOC	_____
6" PORT LOC	_____
WATERTIGHT TEST	_____
SLOTTED	_____
DATE ON LID	_____

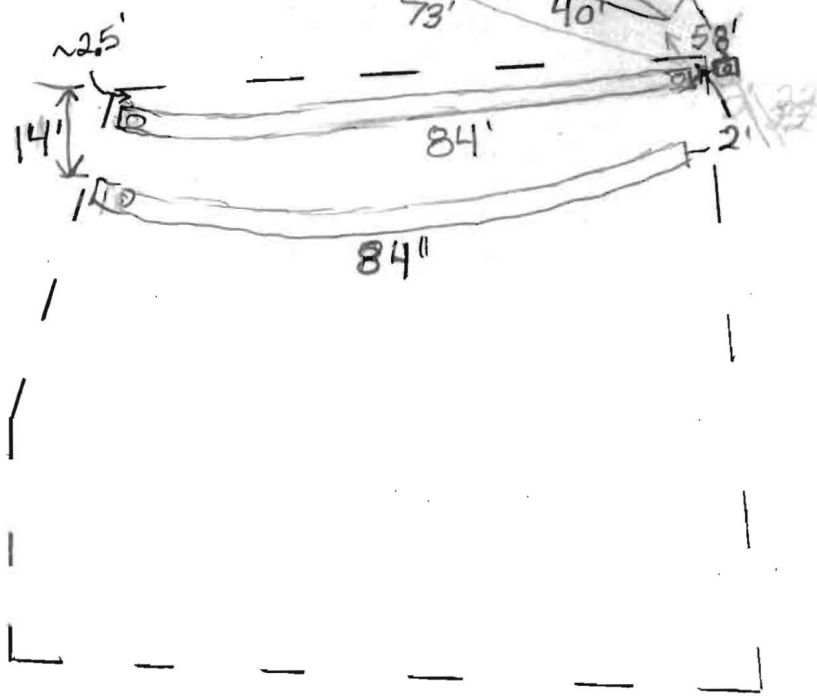
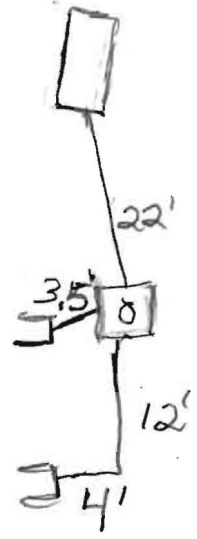
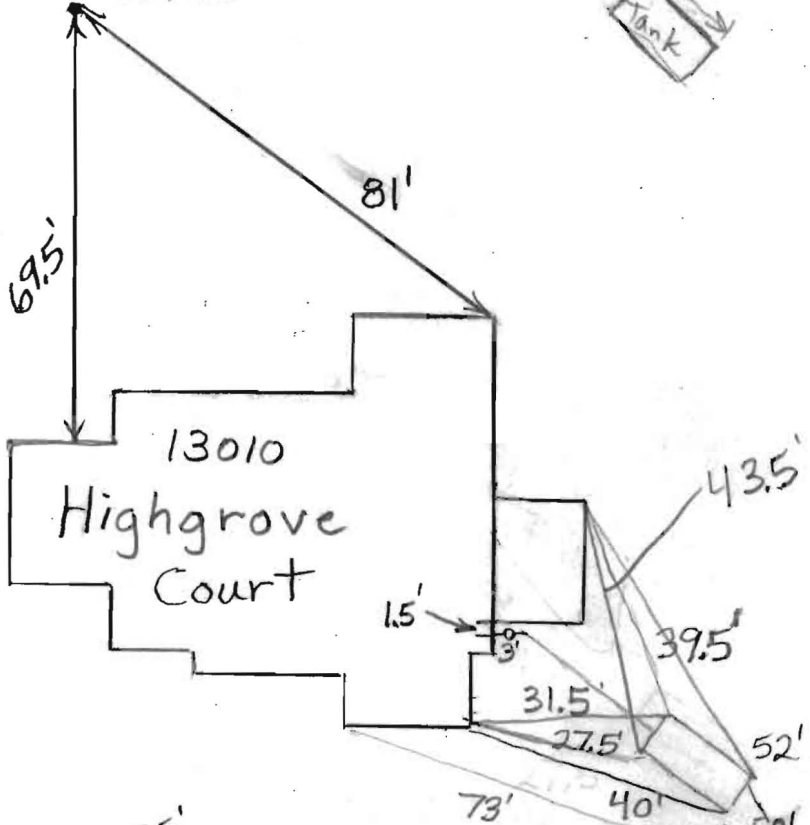
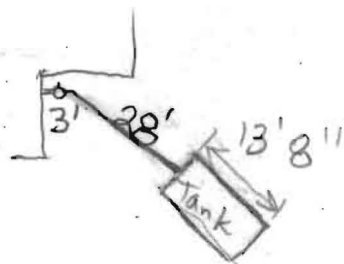
PRE-CONSTRUCTION:

9/12/2014 Trenches laid out on contour across the top of the easement. Tank location staked (PB)

INSTALLATION: 10/17/2014, 10/20

FINAL INSPECTOR _____ DATE OF APPROVAL _____

HO-95-2445





MAYER BROS., INC.

Precast Concrete Products
6264 Race Rd. Elkridge, MD 21075

Letter of Satisfaction Hoot System Installation

Address of Property: 13010 Highgrove Rd.
Highland, MD. 20777
Lot #10 Schooley mill

Date of Final Inspection: 11/11/14

Installer: South Carroll Backhoe Service

Hoot Technician/Inspector: Mike Sample

I hereby certify that the Hoot system installed at the property listed above has been installed according to proper Hoot installation practices. I have also verified the startup of the system and it is in proper working order.

Sincerely,

H. Michael Dayer

Name of Inspector
Mayer Bros., Inc.

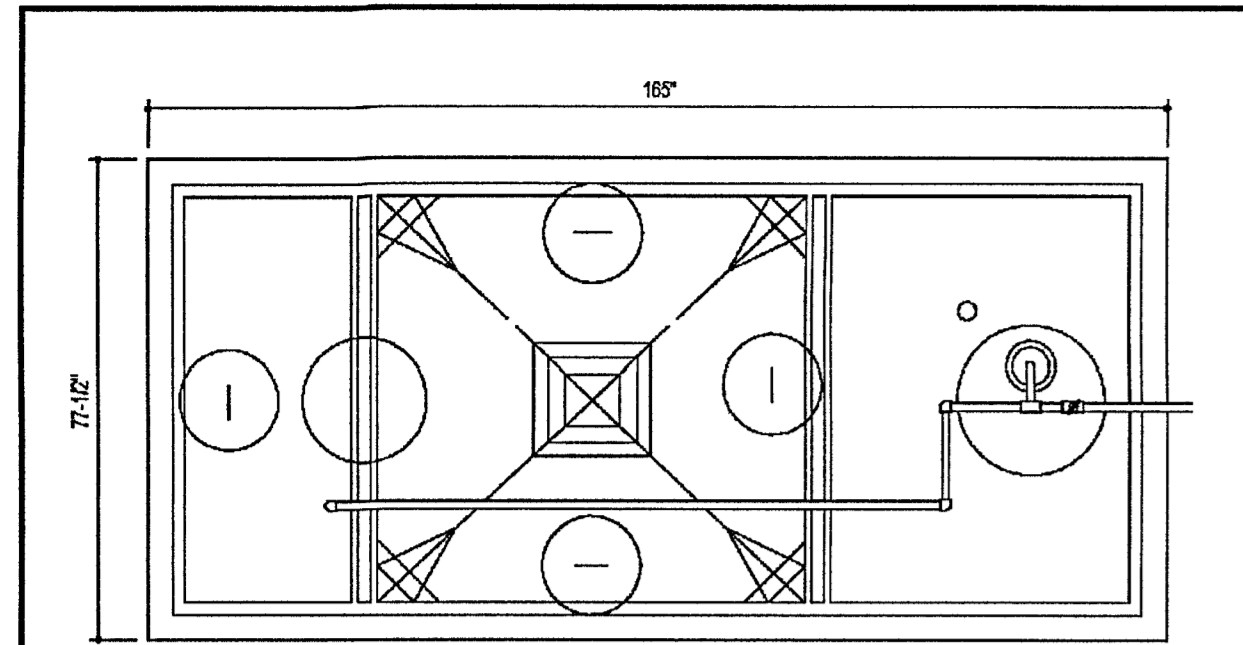
PH: 410-796-1434

FX: 410-796-1438

WBE
NPCA Certified Plant

mayerbro@connect.net
www.mayerbrosprecast.com

Grease Interceptors, Grease Solutions, Aerobic Treatment Units, Septic Tanks, Holding Tanks, Storm Water Structures, Hydroceptors,
Bench Barrier, Water Meter Vaults, Sectional Valve Vaults, Top Slabs, Curb Heads, Curb Bumpers, PermEntry Basement Entries,
Scapewel Window Wells, Custom Precast Products



SEPTIC SYSTEM ELEVATIONS
 A = 502.4
 B = 500.13 (INV. INTO TANK)
 C = 496.30
 D = 496.71
 E = 497.96
 F = 499.96
 G = 500.96
 H = 1.27' (7" MIN.)
 I = 501.35 (INV. OUT OF TANK)

FFE = 504.52
 BSE = 494.50
 INV. OUT OF HOUSE = 500.64
 INV. INTO DISTRIBUTION BOX = 495.80

NOTE:
 THE PROPOSED HOUSE IS TO HAVE 5 BEDROOMS.

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 BLOWER MAY NOT BE LOCATED MORE THAN 100 FEET FROM THE TANK BASED ON THE MANUFACTURER'S SPECIFICATIONS.
- 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 HAS BEEN COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN THE LAND RECORDS OF HOWARD COUNTY, LIBER 14780, FOLIO 067.
- 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.
- AT HIGH WATER ALARM PROBE, PUMP WILL HAVE CONTINUOUS OPERATION UNTIL LEVEL GOES BENEATH PROBE.
- IF WATER LEVEL RISES ABOVE THE ALARM PROBE, AN AUDIBLE AND VISUAL ALARM WILL SOUND. SEE MANUFACTURER SPECS FOR ADDITIONAL INFORMATION.
- ALARM TO BE WIRED TO A CIRCUIT SEPARATE FROM THE PUMP CIRCUIT.

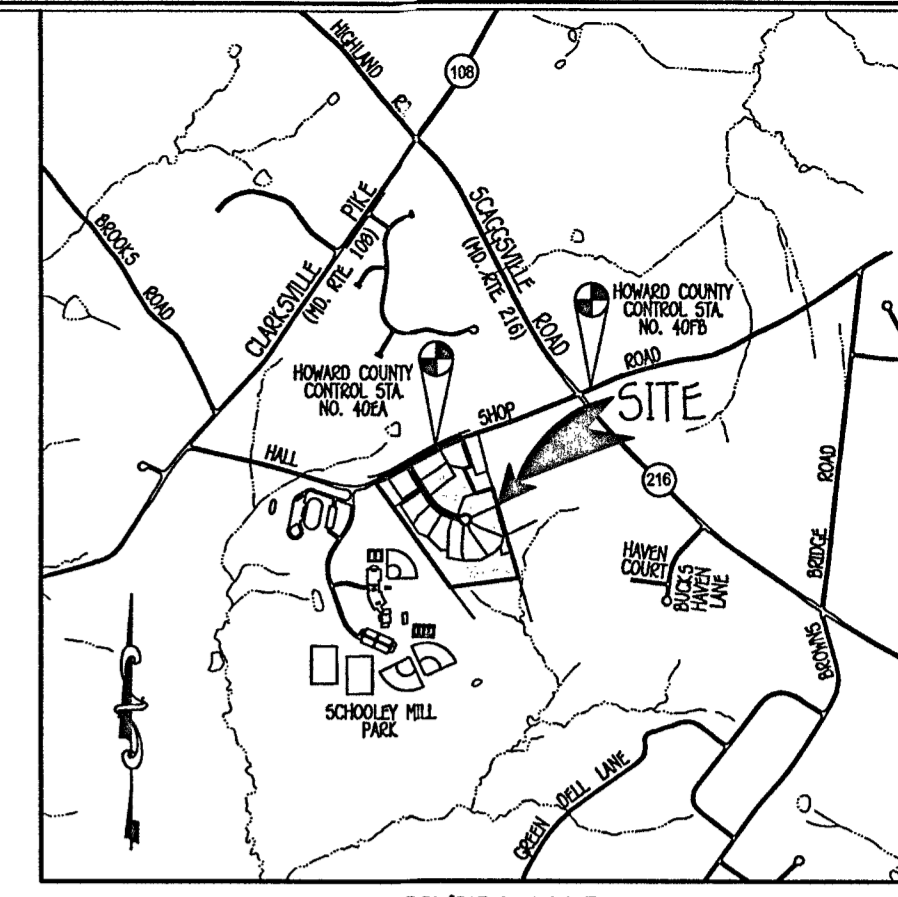
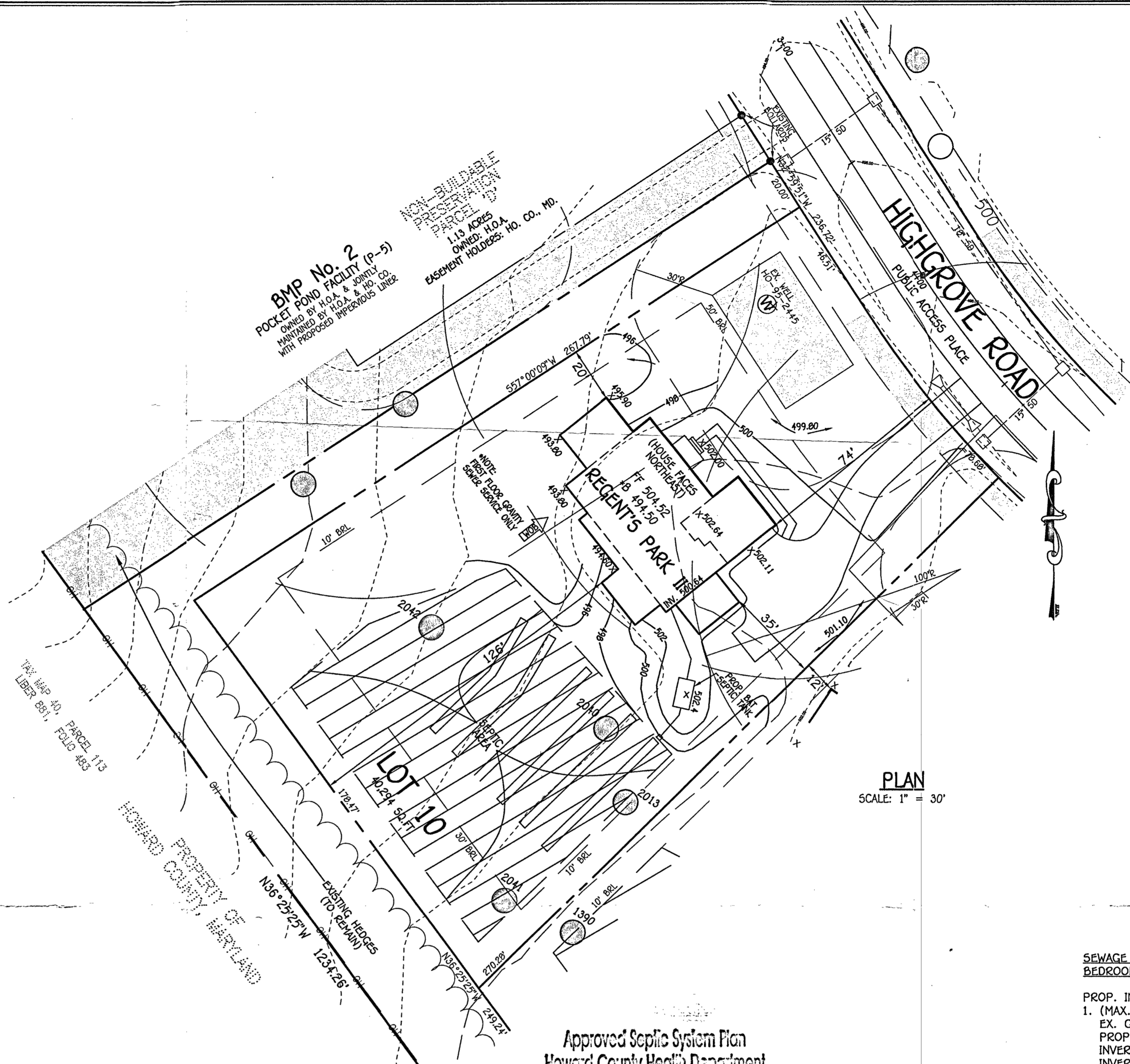
DESIGN DATA & GENERAL NOTES

- Concrete strength F_{cr} = 4,000 p.s.i., @ 28 days, Density = 144 p.c.f.
- Concrete - Protection Type III per ASTM C 1504-02
- Reinforcing steel per ASTM A 618-02
- Reinforcing per ASTM A 618-02, Min. 1.02' cover.

Mayer Brothers, Inc.
 654 Rice Road
 Elledge, Maryland 21037
 Tel: 410.765.6248
 Fax: 410.765.1438
 www.mayerbrothers.com

**600 GPD BNR SYSTEM
 H-600 BNR
 With 750 GALLON PUMP CHAMBER**

Dwg. No. Hoot Form #1 No Scale March 19, 2009



VICINITY MAP
 SCALE: 1" = 2000'
 HO. CO. ADC MAP NO. 5051,
 GRIDS G-3 & G-4 & H-3 & H-4

BENCH MARKS

T.P. 402A
 N. 547.911.391
 E. 1,324,510.091
 LOC. NEAR INTERSECTION OF
 HALL SHOP ROAD & ENTRANCE TO
 SCHOOLLEY MILL PARK

T.P. 407B
 N. 540,470.386
 E. 1,326,000.809
 LOC. NEAR INTERSECTION OF
 HALL SHOP ROAD &
 SCHOOLLEY MILL ROAD

PLAN
 SCALE: 1" = 30'

APPLICATIONS
 Specifically designed for the following uses:

- Effluent systems
- Homes
- Farms
- Heavy duty pump
- Water transfer
- Devolting

SPECIFICATIONS

- Solids handling capability: 1/2" maximum.
- Capacities: up to 60 GPM.
- Total heads: up to 31 feet.
- Discharge size: 1 1/2" NPT.
- Mechanical seal: carbon rotary/ceramic-stationary, BUNA-N elastomers.
- Temperature: 104° F (40° C) continuous, 140° F (60° C) intermittent.
- Fasteners: 300 series stainless steel.
- Capable of running dry without damage to components.

Motor:

- EP04 Single phase: 0.4 HP 115 or 230 V, 60 Hz, 1550 RPM, built in overload with automatic reset.
- EP05 Single phase: 0.5 HP 115 V or 230 V, 60 Hz, 1550 RPM, built in overload with automatic reset.
- Power cord: 10 foot standard length, 16/3 SJTW with three prong grounding plug. Optional 20 foot length, 16/3 SJTW with three prong grounding plug (standard on EP05).
- Fully submerged in high grade turbine oil for lubrication and efficient heat transfer.

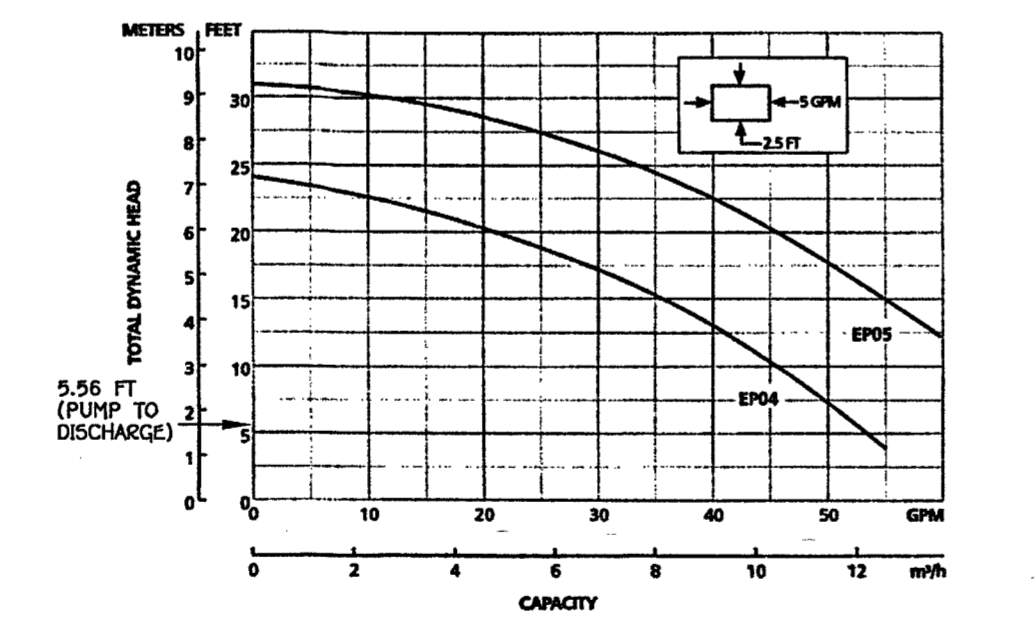
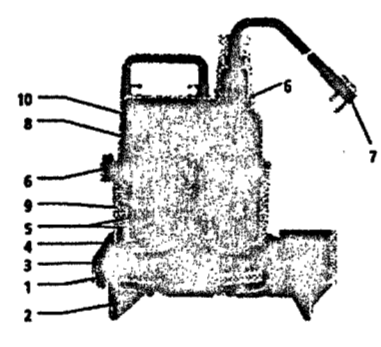
Available for automatic and manual operation. Automatic models include Mechanical Float Switch assembled and preset at the factory.

PERFORMANCE RATINGS

Total Head (ft. of water)	Gallons Per Minute	EP04	EP05
5	53	-	-
10	46	62	-
15	36	55	-
20	21	46	-
25	9	33	-
30	-	11	-

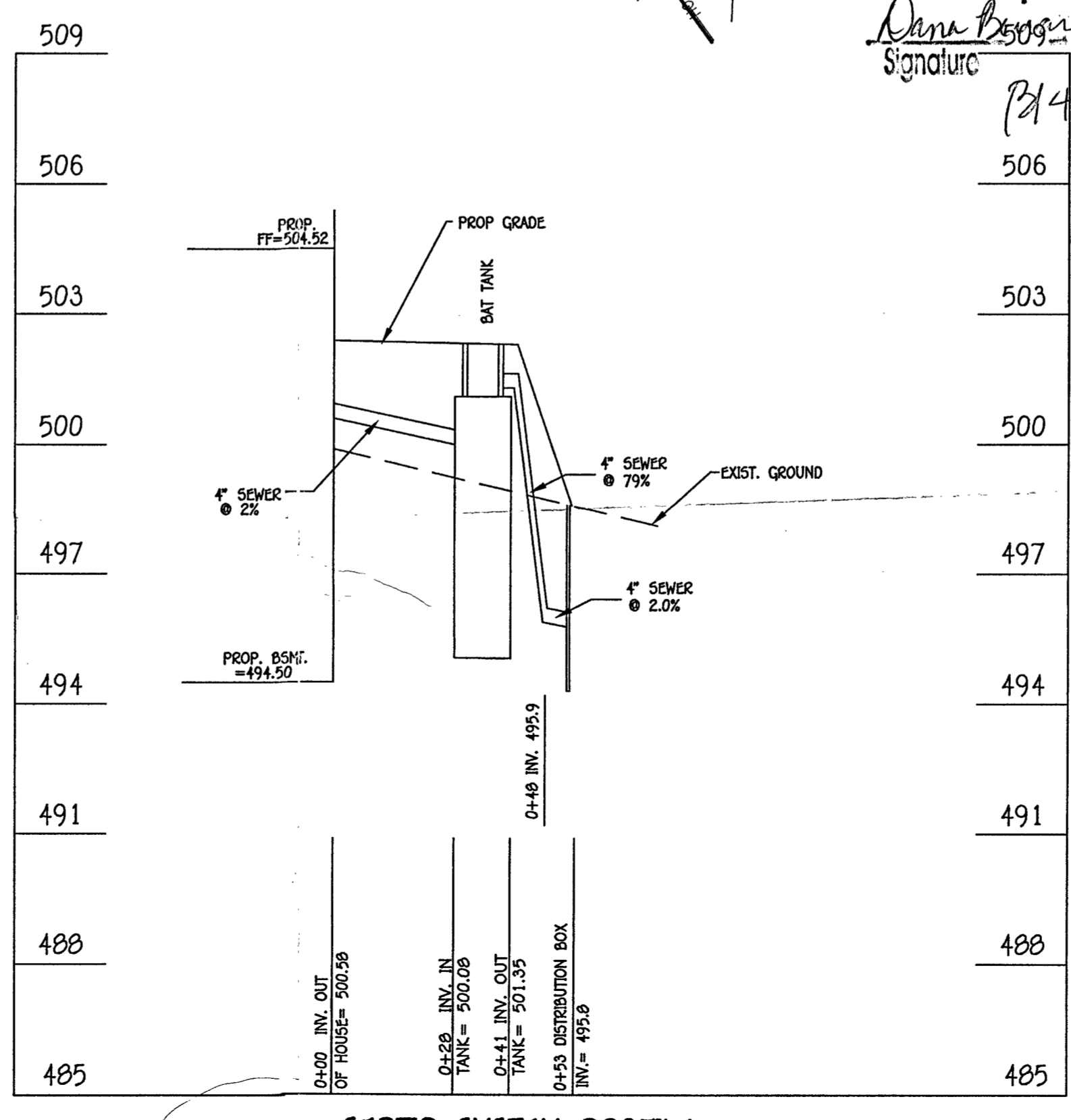
COMPONENTS

Item No.	Description
1	Impeller
2	Blade
3	Pump Casing
4	Mechanical Seal
5	Ball Bearings
6	O-Ring
7	Power Cord
8	Oil Filled Motor
9	Motor Housing/Shaft Assembly
10	Motor Cover



MODEL INFORMATION

Order No.	HP	Volts	Amperage	Phase	Float Switch	Cond Length	Discharge Connection	Minimum On Level	Minimum Off Level	Minimum Basin Diameter	Maximum Solids Size	Shipping Weight (lbs)
EP0411					Plug / No Switch	10'	1 1/2"	Manual	Manual	15"		20/9.1
EP0411A					Plugback / No Switch	10'	1 1/2"	Manual	Manual	15"		21/9.5
EP0411F					Plug / No Switch	20'	1 1/2"	Manual	Manual	15"		20/9.1
EP0411AC					Plugback / No Switch	20'	1 1/2"	Manual	Manual	15"		21/9.5
EP0412					Plug / No Switch	10'	1 1/2"	Manual	Manual	15"	1/2"	20/9.1
EP0412F					Plug / No Switch	20'	1 1/2"	Manual	Manual	15"		20/9.1
EP0511F					Plug / No Switch	10'	1 1/2"	Manual	Manual	15"		22/10
EP0511AC					Plugback / No Switch	20'	1 1/2"	Manual	Manual	15"		23/10.4
EP0512F					Plug / No Switch	20'	1 1/2"	Manual	Manual	15"		22/10



Approved Septic System Plan
 Howard County Health Department
 Signature: *Dana Boyd* Date: 7-9-14

SEWAGE DISPOSAL SYSTEM DATA (PERMIT FOR 5 BEDROOMS, DESIGN FOR 5 BEDROOMS)

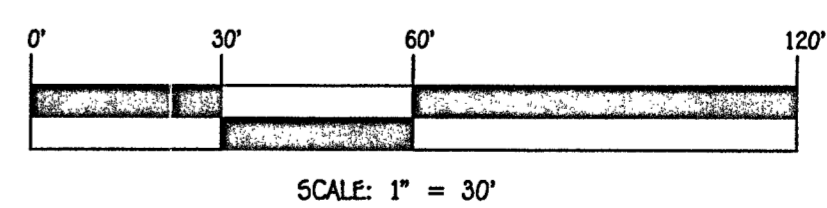
- PROP. INVERT AT FOUNDATION WALL: 500.64
- (MAX. NO. BDRMS.=5)
 EX. GRADE OVER TANK: 502.4
 PROP. GRADE OVER TANK: 502.4
 INVERT IN: 500.13
 INVERT OUT: 501.35
 - DISTRIBUTION BOX:
 EX. GRADE: 498.60
 PROP. GRADE: 498.60
 INVERT IN: 495.80
 - TRENCH DESIGN:
 (5 BDRM X 150 GPD/BDRM = 750 GPD)
 750 / 0.8 AFR RATE = 937.5 SF
 USE 3' WIDE TRENCH AND 9' MIN. SPACING BETWEEN TRENCH EDGES.
 937.5 SF / 3' WIDTH = 312.5 L.F. X 0.55 = 172 L.F. MIN. TRENCH
 USE 3- 57.3' LONG TRENCHES = 172.00 L.F.

TRENCH DATA:

TRENCH 1:
 EX. GROUND ABOVE = 498.60
 INV. IN = 495.60
 BOTTOM TRENCH = 491.60

TRENCH 2:
 EX. GROUND ABOVE = 498.0
 INV. IN = 495.0
 BOTTOM TRENCH = 491.0

TRENCH 3:
 EX. GROUND ABOVE = 497.5
 INV. IN = 494.5
 BOTTOM TRENCH = 490.5



SCHOOLLEY MILL FARM
 SITE PLAN FOR BAT INSTALLATION
 FOR LOT 10
 13010 HIGHGROVE ROAD

BUILDER/DEVELOPER
 NV HOMES
 9720 Patuxent Woods
 COLUMBIA, MARYLAND 21046
 410-379-5956

Zoned: RR-DEO
 Tax Map No. 40; Grid No. 10 & 11; Parcel No. 115 & 149
 Fifth Election District - Howard County, Maryland
 Date: June 24, 2013 Scale: As Shown



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: 2/22/15.

Aldo M. Vitucci
 ALDO M. VITUCCI DATE: 6-24-14

