



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: 11/10/15

ONSITE SEWAGE DISPOSAL SYSTEM

P 557454

APPROVAL DATE: 2/12/16 SEC

PERMIT: CONSTRUCTION

A

PROPERTY ADDRESS: 12010 Catherine Close Road, Clarksville, MD 21029

SUBDIVISION: Greenberry

LOT: 11

TAX ID: 05-598614

CONTRACTOR: South Carrol

EMAIL: _____

CONTRACTOR ADDRESS: _____

PHONE: _____

CONTRACTOR CERTIFIED FOR BAT INSTALLATION:



MDE



MANUFACTURER:

PROPERTY OWNER: NRV, Inc.

EMAIL: _____

OWNER ADDRESS: _____

PHONE: _____

BAT UNIT MODEL: Hoot H- 1000

PUMP SIZE: 0.4 HP

PUMP TANK CAPACITY: 2000 gal

OPERATION & MAINTENANCE AGREEMENT

DATE SIGNED: 9/23/2015

DATE RECORDED: _____

DISTRIBUTION SYSTEM:



GRAVITY



PRESSURE DOSED

BEDROOMS: 7

APPLICATION RATE: 1.2

TRENCHES:

LINEAR FEET REQUIRED: 207

INLET DEPTH: 4

TRENCH WIDTH: 3

MAXIMUM BOTTOM DEPTH: 8

MINIMUM SPACE

BETWEEN TRENCHES: 10

EFFECTIVE AREA BEGINNING DEPTH: 6.5

LOCATION:

PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND BAT UNIT LOCATION MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.

NOTES:

5x42' Trenches

ISSUED BY: Robert Bricker

ISSUE DATE: 11/10/2015

EXPIRATION DATE: 11/10/2016

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



ELECTRICAL PERMIT ISSUED

E

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.

Letter of Satisfaction Hoot System Installation

Address of Property: 12010 Catherine Close Rd.

Clarksville, MD. 21029

Date of Final Inspection: 2/11/16

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 Daryl
Name of Inspector
Mayer Bros., Inc.

PH: 410-796-1434
FX: 410-796-1438

WBE

info@mayerprecast.com
www.mayerprecast.com

Grease Interceptors, HOOT Aerobic Treatment Units, Septic Tanks, Holding Tanks, Bench Barrier, Water Meter Vaults,
Sectional Valve Units, Top Slabs, Curb Heads, Curb Bumpers, Custom Precast Products



MAYER BROS., INC.
Precast Concrete Products
6264 Race Rd. Elkridge, MD 21075

Letter of Satisfaction
Hoot System Installation

Address of Property: 12010 Catherine Close Rd.

Clarksville, MO. 21029

Date of Final Inspection: 2/11/16

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 Sample

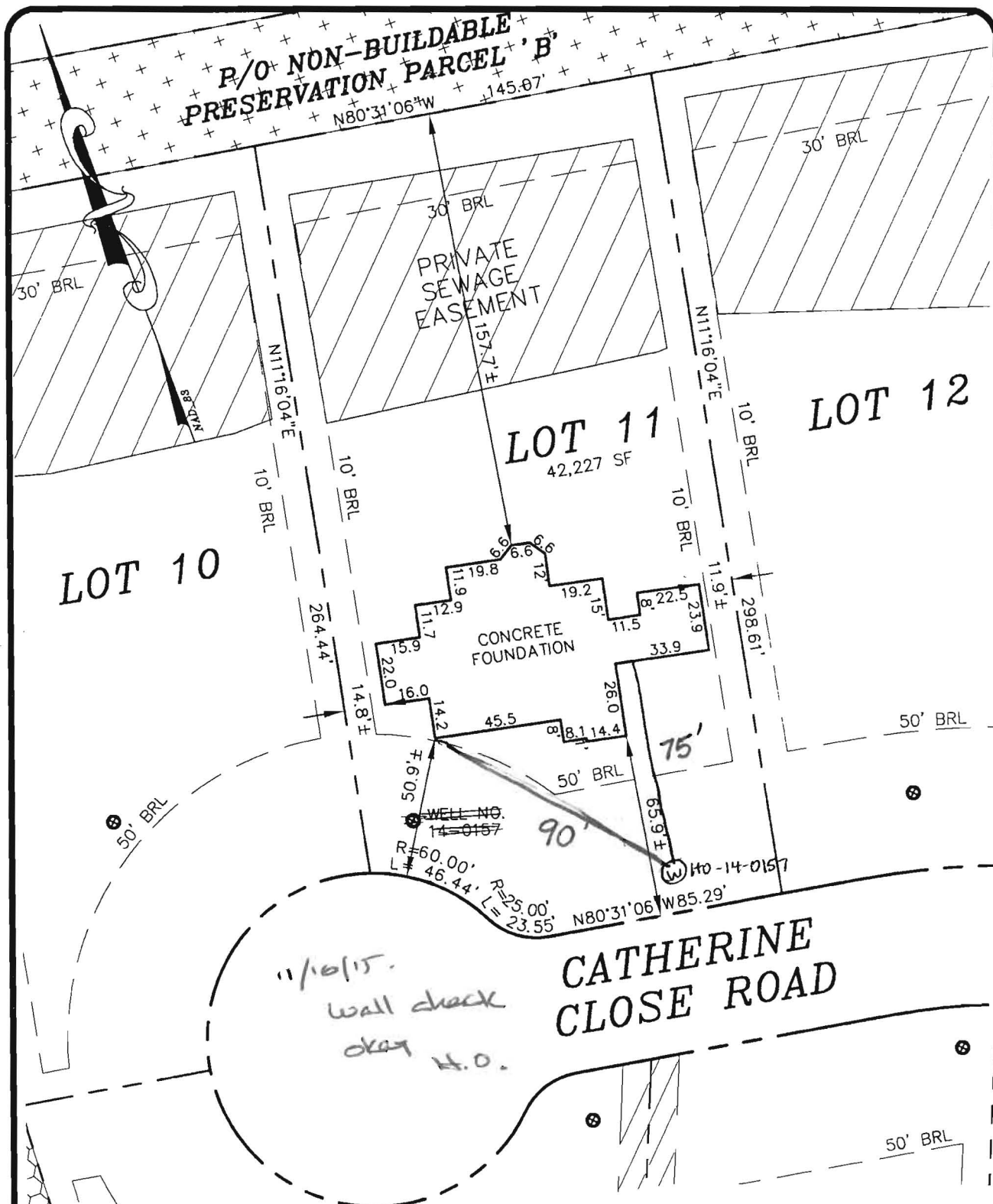
Name of Inspector
Mayer Bros., Inc.

PH: 410-796-1434
FX: 410-796-1438

WBE

info@mayerprecast.com
www.mayerprecast.com

Grease Interceptors, HOOT Aerobic Treatment Units, Septic Tanks, Holding Tanks, Bench Barrier, Water Meter Vaults,
Sectional Valve Units, Top Slabs, Curb Heads, Curb Bumpers, Custom Precast Products



I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROPERTY LINE SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 574, EXPIRATION DATE: 03/21/17.

LOT 11
GREENBERRY
PLATS 23453-23461
ELECTION DISTRICT No. 5
HOWARD COUNTY, MARYLAND

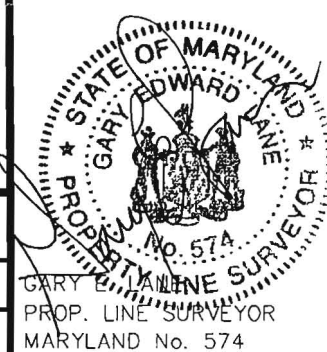
ADDRESS: 12010 CATHERINE CLOSE ROAD
TOP OF WALL ELEV. = 557.8±
FIRST FLOOR ELEV. = N/A

THE INFORMATION SHOWN HAS BEEN ESTABLISHED BY CURRENT ACCEPTABLE SURVEY PROCEDURES AND FROM AVAILABLE RECORD INFORMATION. THIS DRAWING IS TO BE USED FOR TITLE TRANSFER FINANCING, OR REFINANCING ONLY AND IS NOT TO BE USED FOR THE ESTABLISHMENT OF PROPERTY LINES, LOCATION OF FENCES, GARAGES, BUILDINGS, OR OTHER EXISTING OR FUTURE IMPROVEMENTS.

MILDENBERG
BOENDER, & ASSOC., INC.

Engineers Planners Surveyors
7350-B Grace Drive, Columbia, MD 21044
(410) 997-0296 Ball. (410) 997-0298 Fax.

FOUNDATION	DATE: 10/22/15	FINAL LOCATION	DATE: N/A
DRAWN BY: MES	CHECKED BY: GEL	SCALE: 1"=50'	
PROJECT NO.: 15-005	LOCATION DRAWING		





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/hcocohealth

Twitter: HowardCoHealthDep

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

**OPERATION AND MAINTENANCE AGREEMENT
FOR AN ON-SITE SEWAGE DISPOSAL SYSTEM
HAVING AN ADVANCED PRE-TREATMENT SYSTEM**

THIS AGREEMENT is made this 28th day of SEPTEMBER 2015, among NVR, Inc., hereinafter collectively referred to as "Owner", and the Howard County Health Department hereinafter referred to as the "County".

WHEREAS, Owner is the owner or contract owner of a parcel of land located at 12010 Cameron Road, in the 5th Election District of Howard County, Maryland, and the deed to same is recorded or shall be recorded among the Land Records of Howard County, Maryland in Liber Folio PLAT # 23453

WHEREAS, The Lot is suitable for the installation of a conventional on-site sewage disposal system with an advanced pre-treatment system, utilizing best available technology to perform nitrogen reduction, in accordance with the Code of Maryland Regulations 26.04.02.07, effective January 1, 2013. The pre-treatment device being installed is HOOT 1000

NOW, THEREFORE, the parties hereto agree as follows:

A. Owner hereby grants to the County the right to enter upon the Lot at any reasonable time for access to the system to make periodic inspections and the Owner agrees to provide any information and data in Owner's possession reasonably requested and needed by the County to develop accurate and thorough test results.

B. Owner acknowledges and agrees that neither the County nor any of its agents or employees, either officially or individually, underwrites the operation of any system approved by them.

C. The Owner will devote reasonable care and effort to the operation and maintenance of the system in perpetuity or until a public sewer connection is made so that a system malfunction is not the result of poor maintenance, faulty operation, or neglect.

D. The Owner agrees to enter into a contract reasonably acceptable to the Owner and the County with a private entity to operate and maintain on a regularly scheduled basis an approved advanced pre-treatment system. The owner shall supply a copy of the contract to the County when it is renewed or altered.

E. This agreement shall run with the land and upon Owner's taking title to the Lot shall bind the Owner, their heirs, successors, and assigns to the provisions of the agreement as long as the property is in existence and after installation of the system. Owner further agrees that they shall inform in writing any subsequent purchaser or lessee of the Lot that the system shall require

JW 8/8/2014

maintenance or other attention. Upon taking title to the Lot, the Owner agrees to cause this agreement to be recorded in the Land Records of Howard County and assure that it becomes part of the Deed for the subject property in order that prospective buyers may be aware of the special conditions affecting this property.

F. This agreement shall not be construed to limit any authority of the County to protect the public health, safety or comfort or to issue any other orders to take any other action which is now or may hereafter be within its authority.

G. This agreement may be voided at any time at the discretion of the County.

H. This agreement contains the entire agreement and understanding between the County and the Owner. There are no additional terms other than as contained in this agreement. This agreement may not be modified, except in writing signed by each of the parties or by their authorized representatives.

I. The laws of the State of Maryland govern the provisions of all transactions pursuant to this agreement.

J. Owner acknowledges and agrees that interior renovations to increase the number of bedrooms or an increase in living space shall not be permitted without approval from the County.

IN WITNESS WHEREOF, the parties have signed and sealed this agreement on the date indicated above.

Bert Nipon 9/23/2015
Howard County Health Department

[Signature] 9/21/15
Owner #1 Signature Date

Owner #2 Signature Date

Owner #1 Print Name

Owner #2 Print Name

Farrukh Jalisi 9/19/2015
Buyer #1 Signature Date

[Signature] 9/19/2015
Buyer #2 Signature Date

FARRUKH JALISI
Buyer #1 Print Name

JABIR JANOO
Buyer #2 Print Name

SOILS TABLE (WITHIN LOD)

SYMBOL	RATING	NAME	K FACTOR
GgB	(B)	GLENELG LOAM, 3-8% SLOPES.	.20

SEPTIC TRENCH SIZING

SYSTEM	APPLICATION RATE (GPD / SF)	MAXIMUM FLOW RATE (GPD)	AREA OF REQUIRED TRENCH (SF)	TRENCH WIDTH (FT)	LENGTH OF REQUIRED TRENCH (LF)	EFFECTIVE DEPTH (FT)	TRENCH BOTTOM DEPTH (FT)	TRENCH REDUCTION FACTOR**	ADJUSTED LENGTH OF REQUIRED TRENCH (LF)	MINIMUM TRENCH SPACING (FT)	PROVIDED TRENCH LENGTH (FT)
PRIMARY	1.2	1,050	875	3	292	6.5	8.0	0.71	207	10.0'	207.5
SECONDARY	1.2	1,050	875	3	292	5.0	7.0	0.62	181	10.0'	182.5
TERTIARY	1.2	1,050	875	3	292	3.0	5.0	0.62	181	10.0'	182.5

PRIMARY TRENCH DATA

TRENCH	EX. GROUND ELEVATION	INVERT ELEVATION	BOTTOM OF TRENCH EL.
1	549.2	545.2	541.2
2	548.7	544.7	540.7
3	548.5	544.5	540.5
4	548.2	544.2	540.2
5	548.0	544.0	540.0

SEWER SYSTEM CHART

DESCRIPTION	ELEVATION
BASEMENT ELEVATION	549.13
INVERT OUT OF THE HOUSE	546.63
FINISHED GRADE AT SEPTIC TANK	549.50
INVERT INTO SEPTIC TANK	545.88
INVERT OUT OF SEPTIC TANK	545.63
FINISHED GRADE AT HOOT SYSTEM	550.00
INVERT INTO HOOT SYSTEM	545.59
INVERT OUT OF HOOT SYSTEM	545.46
FINISHED GRADE AT PUMP TANK	550.00
TOP OF TANK	546.67
INVERT INTO PUMP TANK	545.42
INVERT OUT OF PUMP TANK	547.00
PUMP TANK FLOOR	541.17
FINISHED GRADE AT DISTRIBUTION BOX	549.30
INVERT INTO DISTRIBUTION BOX	545.30
PUMP OFF	542.59
PUMP ON	542.92
HIGH WATER ALARM	543.42
DOSED RATE	50 GPM
PUMP RUNTIME	3.5 MIN.

MINIMUM TANK CAPACITY = 2,000 GALLONS
PUMP: GOULDS MODEL 3871, EP04 SERIE

LOCATION PLAN

SCALE: 1"=600'

VICINITY MAP

SCALE: 1" = 2000'
ADC MAP 24 GRID F6

GENERAL NOTES:

- THE SUBJECT PROPERTY IS ZONED RR-DEO PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
- PARCEL BACKGROUND:
TAX MAP: 28
GRID: 9
PARCEL: 48
LOT: 11
DEED REFERENCE: LIBER 5891 FOLIO 307
ELECTION DISTRICT: FIFTH
ZONING: RR-DEO
AREA: 29.37 ACRES ±
DPZ FILES: ECP-13-025, SP-13-010, F-14-095, GP-15-081
- 2' TOPOGRAPHY FOR THE DEVELOPED AREAS IS BASED ON AERIAL SURVEY FLOWN BY WINGS TOPOGRAPHY INC. ON OR ABOUT MARCH 2007.
- PRIVATE WELL AND SEPTIC WILL BE UTILIZED.
- SOILS DATA BASED ON THE USDA SOIL SURVEY OF HOWARD COUNTY, MD, DATED MAY, 2008.
- THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 SQ. FT. AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THIS EASEMENT 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 EASEMENT. RECORDATION OF A MODIFIED EASEMENT SHALL NOT BE NECESSARY.
- ANY CHANGES TO A PRIVATE SEWAGE EASEMENT SHALL REQUIRE A REVISED PERC CERTIFICATION PLAN.

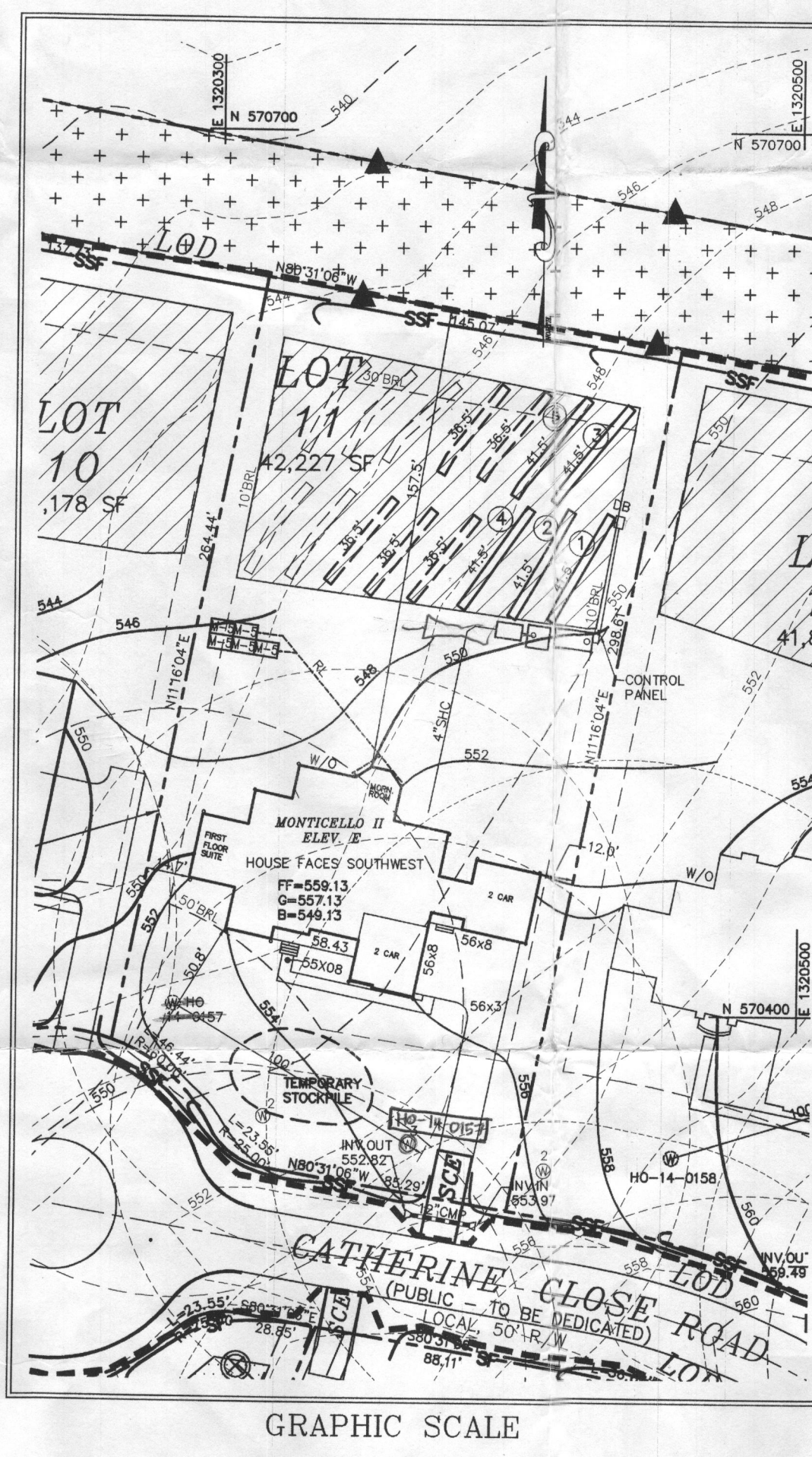
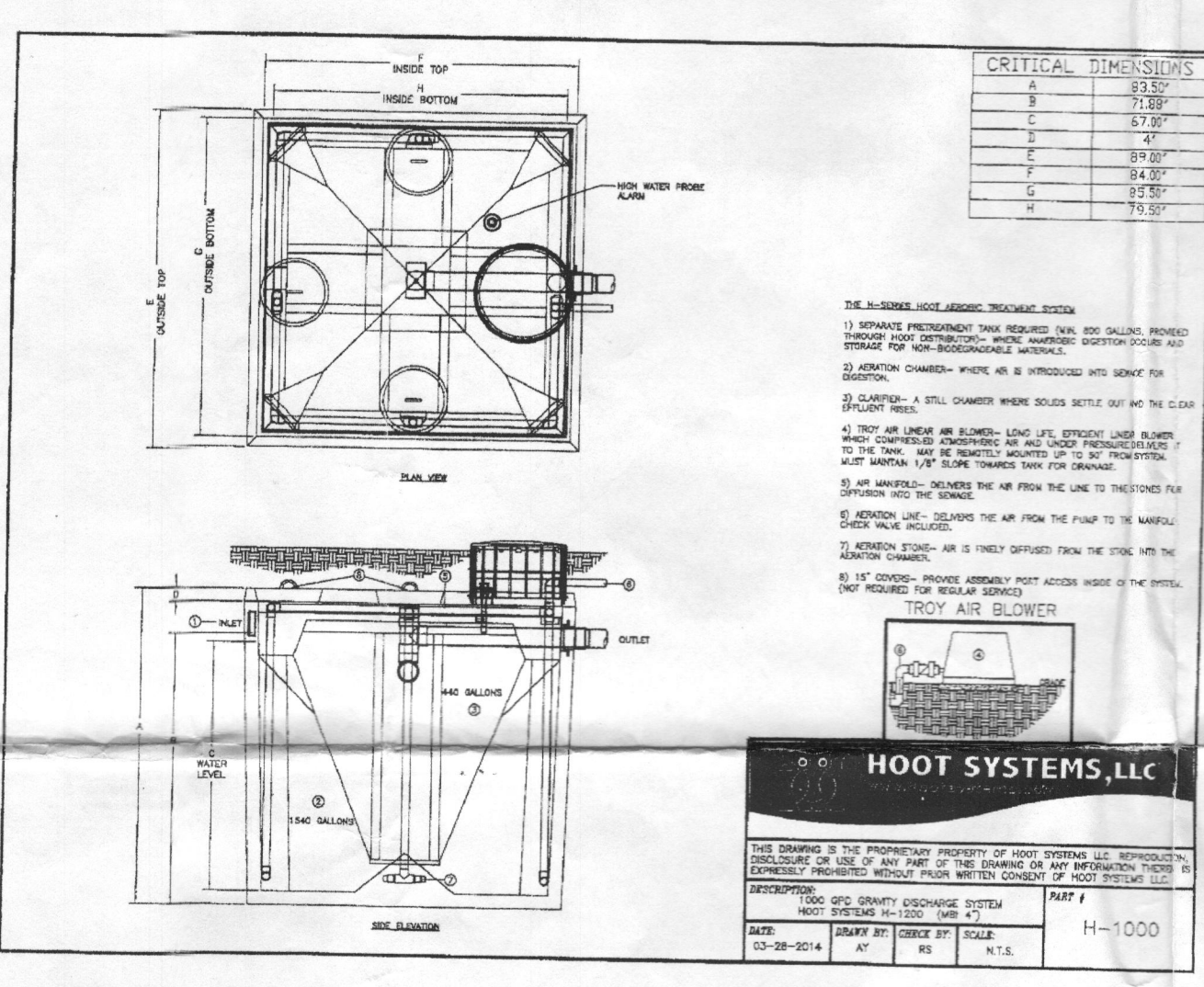
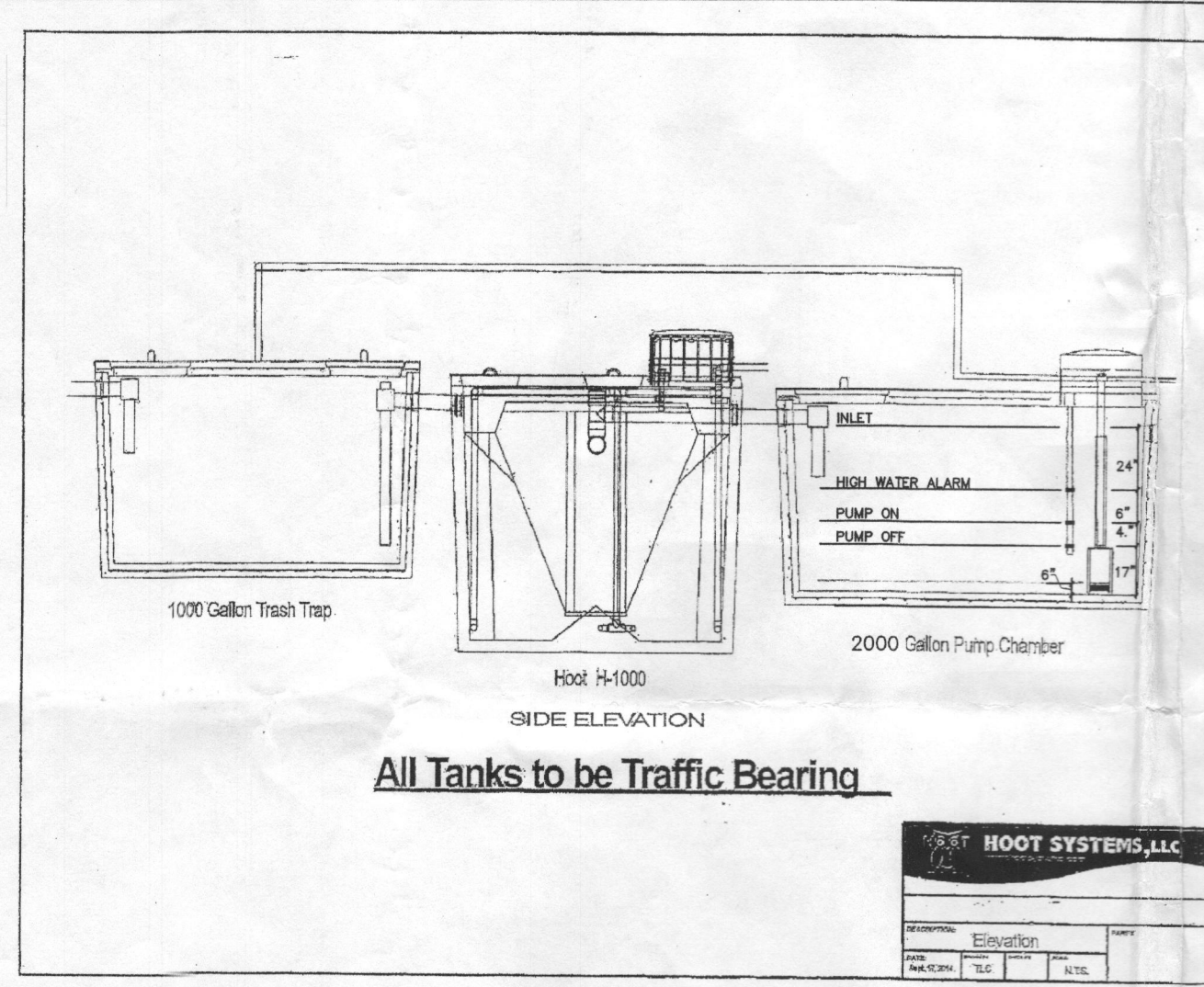
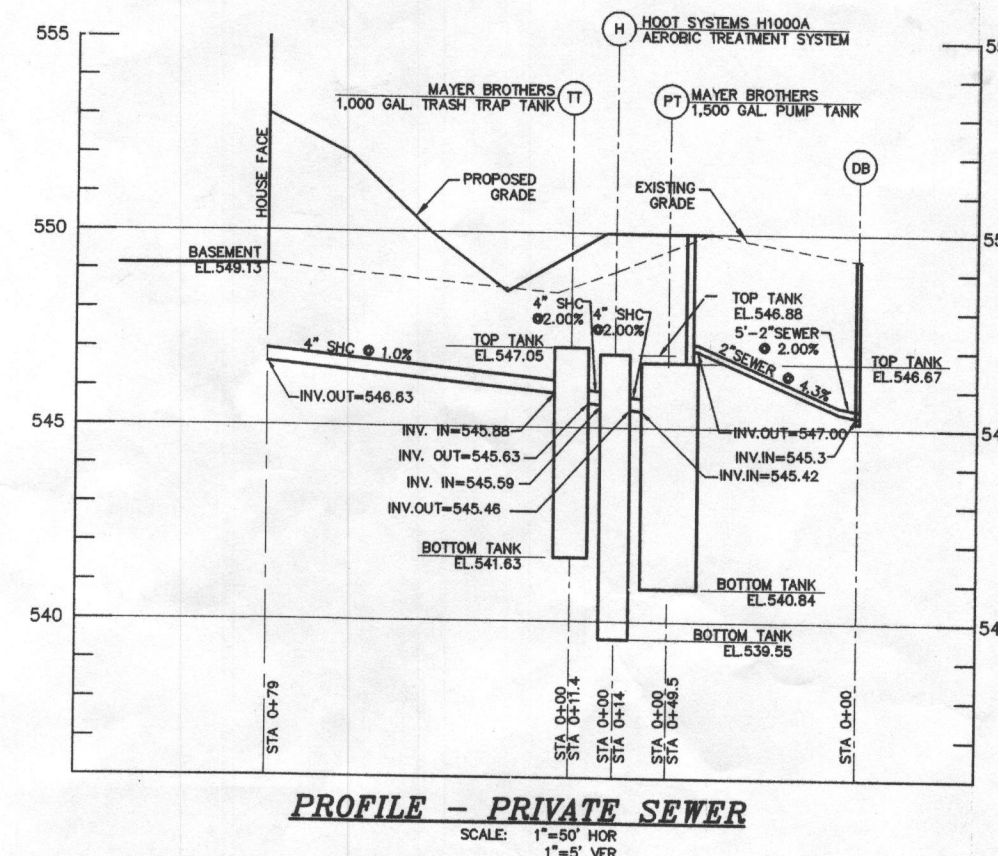
ON-SITE SEWAGE DISPOSAL SYSTEM:

RESIDENTIAL SYSTEM DESIGN: HOOT 600 BNR
7 BEDROOM HOUSE (LIVING AREA = 2,288 SQ.FT.)
150 GALLONS X # OF BEDROOMS = VOLUME OF WASTEWATER / DAY
150 X 7 = 1,050 GPD
PERC RATE = 2-5 MINUTES/INCH
APPLICATION RATE = 1.2 GPD/SQ.FT.
DESIGN FLOW ÷ APPLICATION RATE = SQ.FT. OF TRENCH REQUIRED
1,050 ÷ 1.2 = 875 SQ.FT.
SQ.FT. REQUIRED ÷ WIDTH OF TRENCH = LENGTH OF TRENCH
875 ÷ 3.0' = 292 FT
USE 18" OF GRAVEL BELOW DRAIN PIPE
292 X 0.71 = 207
USE FIVE (5) TRENCHES (41.5')
A MINIMUM OF 10' BETWEEN TRENCHES UTILIZING SIDEWALL REDUCTION CREDIT.

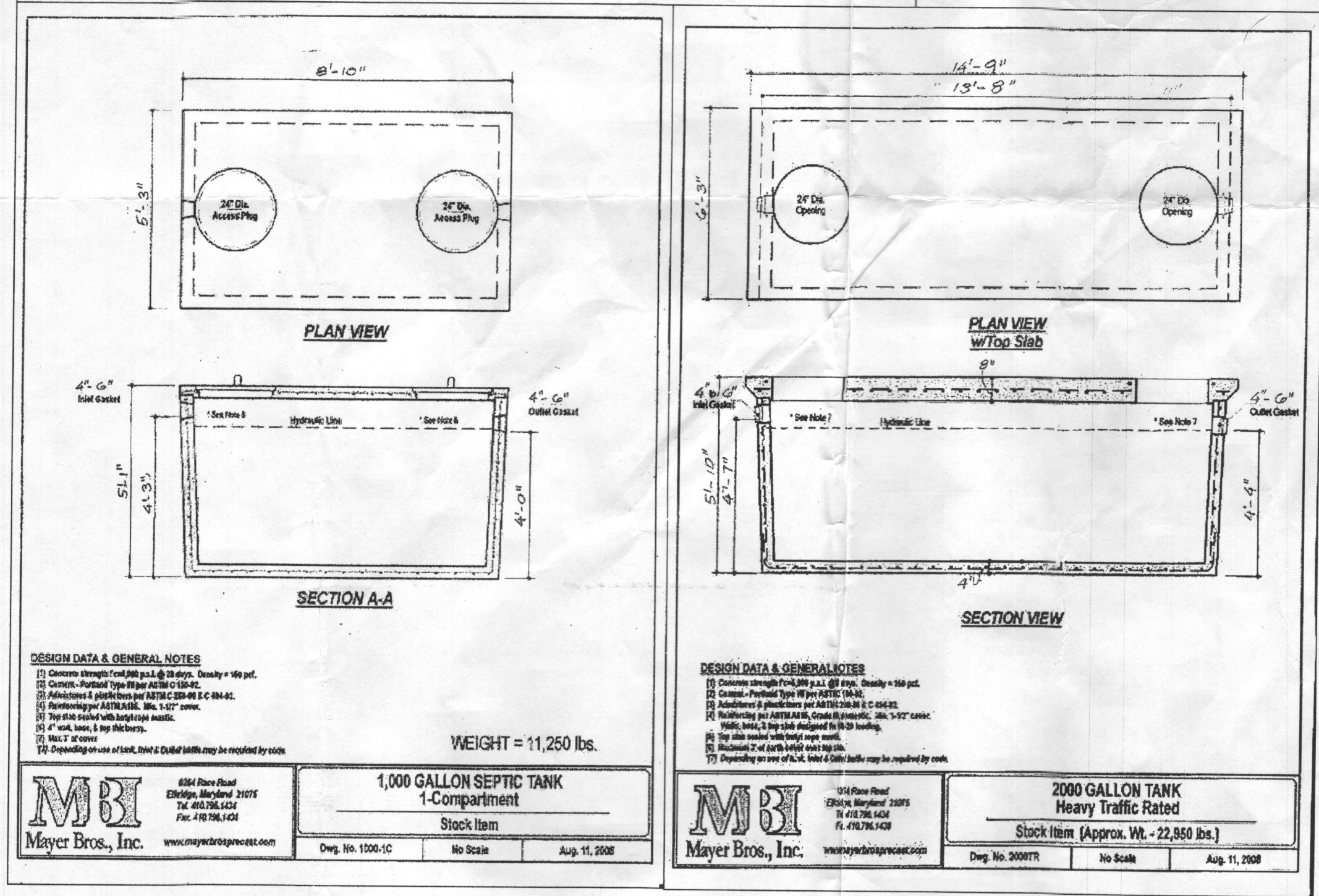
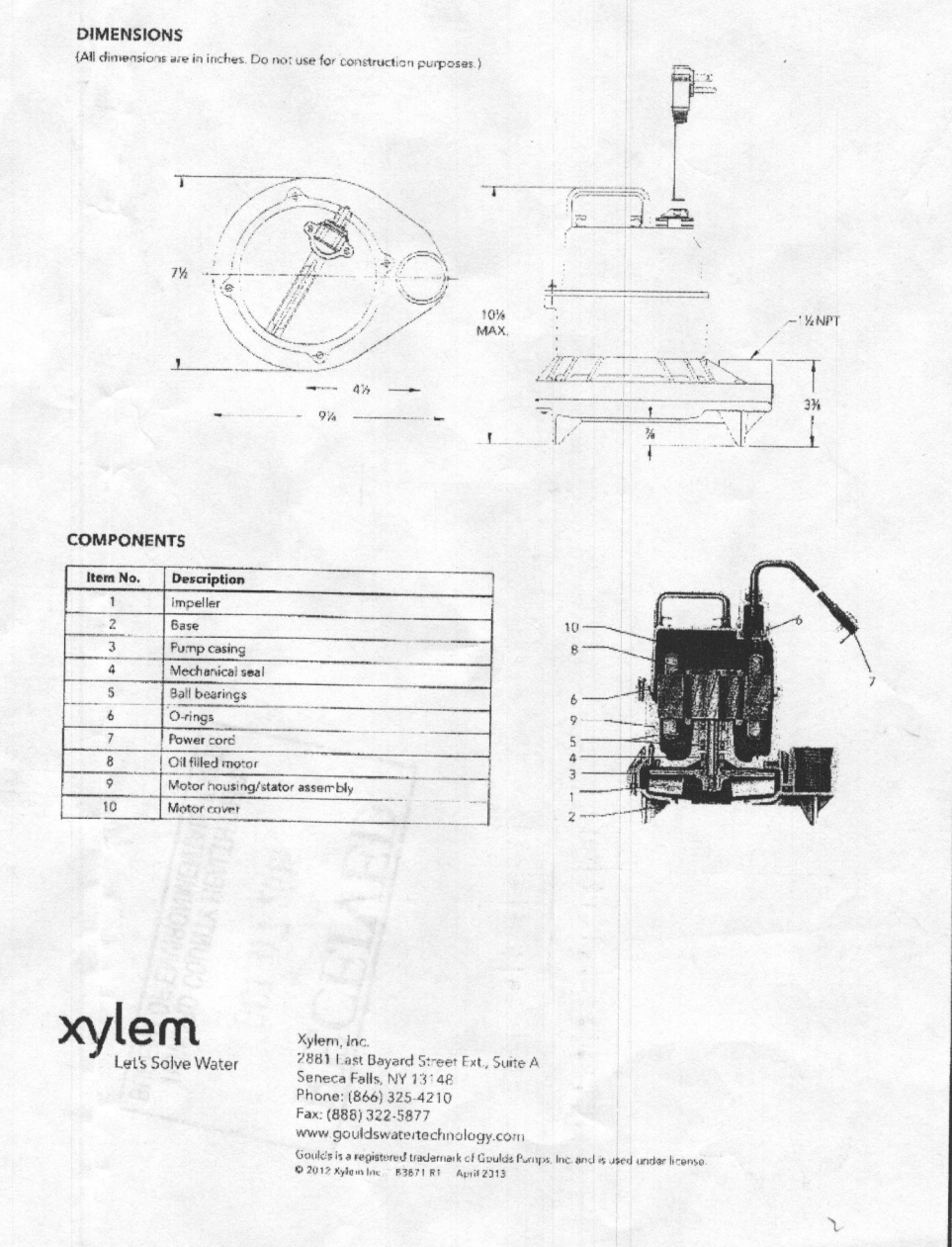
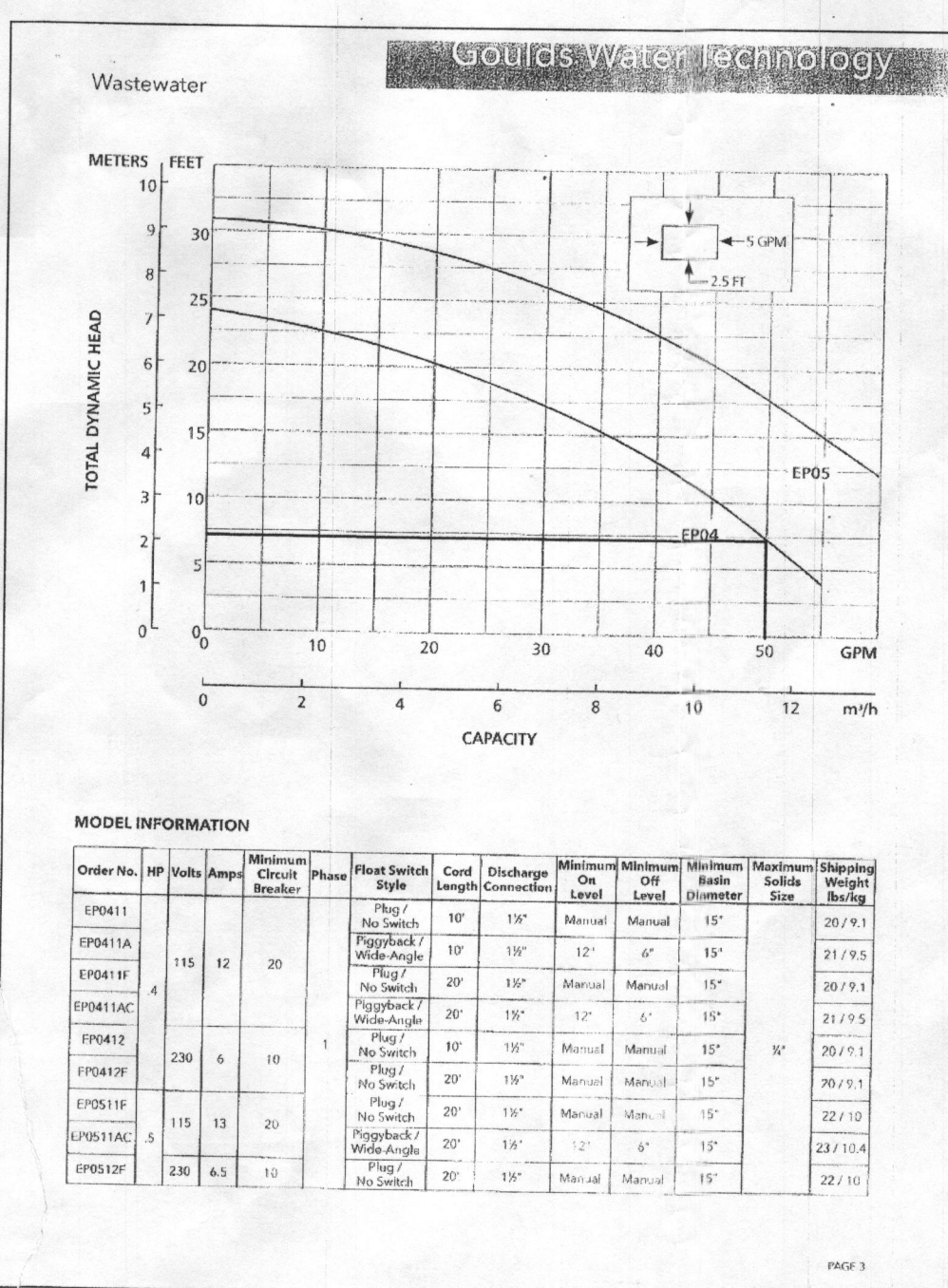
BEST AVAILABLE TECHNOLOGY (BAT) SITE PLAN NOTES

- 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 DEPTH OF THE BAT PER THE MANUFACTURER'S SPECIFICATION IS 3.0' FEET.
- THE BLOWER MAY NOT BE LOCATED MORE THAN 100 FEET FROM THE TANK BASED ON 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 (1) 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.
- THE BAT SYSTEM 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.

WELL CERTIFICATION:
THE EXISTING WELL, TAG NO. HO-14-0157, HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN



Approved Septic System Plan
Howard County Health Department
Hoot H-1000 & 2000 gal Pump Chamber (Mayer Bros)
M/Goulds EP04 Series pump
Signature: RB...
10/2/2015 or equiv.
B15003721



APPROVED FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS
COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT
DATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME/US THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 17942, EXP. DATE 09/03/2016.
R. JACOB HIKMAT, P.E.
DATE: 10/6/15

Project

15-005

date

SEP 2015

Illustration

MM

date

SEP 2015

Scale

1"=50'

date

SEP 2015

12010 CATHERINE CLOSE RD., CLARKSVILLE MD

FIRST ELECTION DISTRICT

HOWARD COUNTY

SITE PLAN FOR BAT INSTALLATION

MILDENBERG, BOENDER & ASSOC., INC.

Engineers Planners Surveyors

6800 Deerpath Road, Suite 150, Ellicott City, Maryland 21075

(410) 997-0296 Fax

1 OF 1