

LAYOUT \_\_\_\_\_

INSP 1 \_\_\_\_\_ INSP 3 \_\_\_\_\_

INSP 2 \_\_\_\_\_ INSP 5 \_\_\_\_\_

ISSUE DATE: \_\_\_\_\_

APPROVAL DATE: \_\_\_\_\_

2/19/10

P 532462

A 517386

# PERMIT SHARED SEPTIC SYSTEM

Tax ID # 05-445450

## HOUSE SEWER LINE CONNECTION

### HOWARD COUNTY HEALTH DEPARTMENT BUREAU OF ENVIRONMENTAL HEALTH

Fogles Septic Clean Inc. IS PERMITTED TO INSTALL  ALTER

ADDRESS: 580 Obrecht Road PHONE NUMBER: 410-795-5670

SUBDIVISION Fulton Ridge LOT NUMBER: 5

ADDRESS: 12127 Fulton Ridge Drive PROPERTY OWNER: Michael Praisner

NUMBER OF BEDROOMS: 4

**HOUSE SERVED BY PUBLIC WATER? NO**

LOCATION:	Install 4" house sewer line connection per the approved site plan.
NOTES:	This permit is limited to the installation of the individual house sewer line connection and installation of the grinder pump, if applicable. The Howard County Bureau of Utilities must be contacted for scheduling of inspection of these items as well, at 410-313-4900.

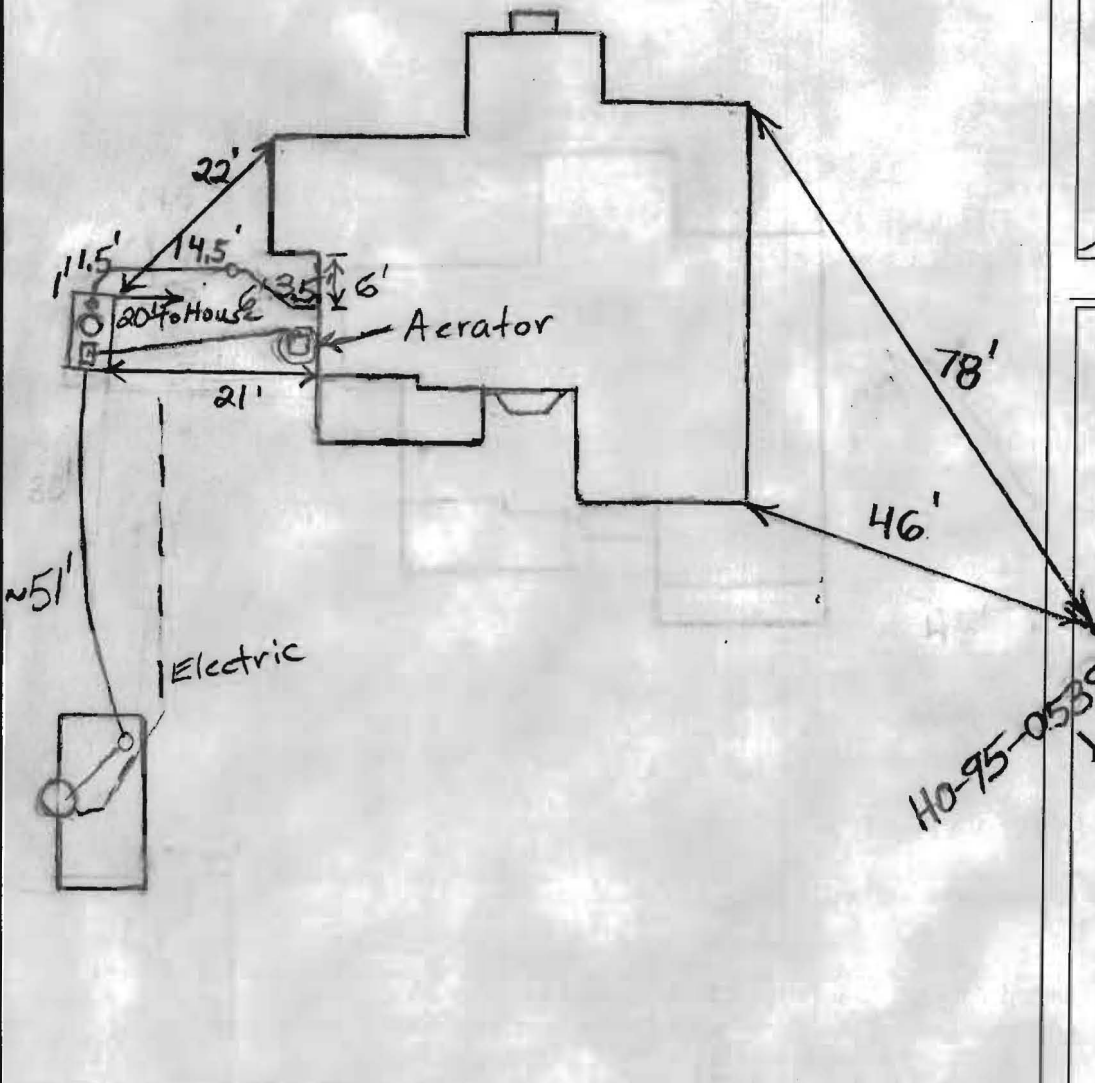
PLANS APPROVED: Dana Bernard DATE: 11/17/09

### PERMIT VOID AFTER 2 YEARS

1. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING A PRE-CONSTRUCTION INSPECTION FOR ALL INSTALLATIONS.
2. ALL PARTS OF SEPTIC SYSTEM SHALL BE 100 FEET FROM ANY WATER WELL UNLESS SPECIFICALLY AUTHORIZED.
3. MANHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS UNLESS SPECIFICALLY AUTHORIZED.
4. CONTRACTOR RESPONSIBLE FOR COMPLIANCE WITH APPLICABLE REGULATIONS, GUIDELINES AND THE TERMS OF THIS PERMIT.
5. NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM.
6. PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT.

**CALL 410-313-1771 FOR INSPECTION HOUSE CONNECTION**

NOT TO SCALE



TRENCH/DRAINFIELD DATA		
WIDTH	INLET	BOTTOM
_____	_____	_____
NUMBER OF TRENCHES _____		
TOTAL LENGTH _____		
ABSORPTION AREA _____		
DISTRIBUTION BOX LEVEL _____		
DISTRIBUTION BOX BAFFLE _____		
DISTRIBUTION BOX PORT _____		

SEPTIC TANK DATA	
SEPTIC TANK 1 LEVEL	Yes
MANUFACTURER	Babylon
CAPACITY	1500 GAL
SEAM LOC	TOP
TANK LID DEPTH	0.5-1'
BAFFLES	Front + 2 Middle
BAFFLE FILTER	No
MANHOLE LOC	Middle
6" PORT LOC	Front and 2 Rear
WATERTIGHT TEST	No
SLOTTED	No
DATE ON LID	No
PUMP/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 _____	

HO-95-0539

ROAD NAME \_\_\_\_\_

PRE-CONSTRUCTION:

11/30/09 Set Microfast Unit 20' from house and 100' from all wells. O.K. if tank is 8' from property line (BB) 12/1/09 Inset tank bet. House connection made (BB) 12/2/09 Connection to grinder pit made. Aerator connected to tank. Started on electric connection, O.K. to backfill. Need pump and alarm test and approval from utilities. (BB)

INSTALLATION: 2/18/10 Blower working, re-wire finish wiring. Blower alarm not working. Need to fix and call for re-inspection. Utilities working on grinder pump start-up. Need confirmation of that as well. (KW) 2/19/10 Inspection made, Blower unit and alarm working. Utilities ok'd grinder pump.

FINAL INSPECTOR JK DATE OF APPROVAL 2/19/10



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

000145

THIS AGREEMENT is made this 11 day of JAN, among MICHAEL PRASER and ANGELA PRASER hereinafter collectively referred to as "Owner", 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 12127 Fulton Ridge, in the \_\_\_\_\_ 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 10740 Folio 331.

20  
20

WHEREAS, The Lot is suitable for the installation of a conventional on-site sewage disposal system, but an advanced pre-treatment system, utilizing best available technology to perform nitrogen reduction, must be installed as part of the sewage disposal system for a 4 bedroom home with 3133 square feet of finished living space and 1572 square feet of unfinished living space. This lot is connected to the shared sewage disposal system. Advanced pre-treatment has been required in order to reduce nitrogen levels based on a nitrogen study completed for the Fulton Ridge subdivision.

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.

STAMP: JUNE 11 10 10 AM '10  
HOWARD COUNTY HEALTH DEPARTMENT

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 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.

5010 EE ST BH 1:18  
EMERGENCY HEALTH  
SAVED 2004 & REPAIR DEPT  
HOWARD COUNTY

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.

DATE: 1/14/10

*Michael Praisner*  
Owner MICHAEL PRAISNER

DATE: 1/11/10

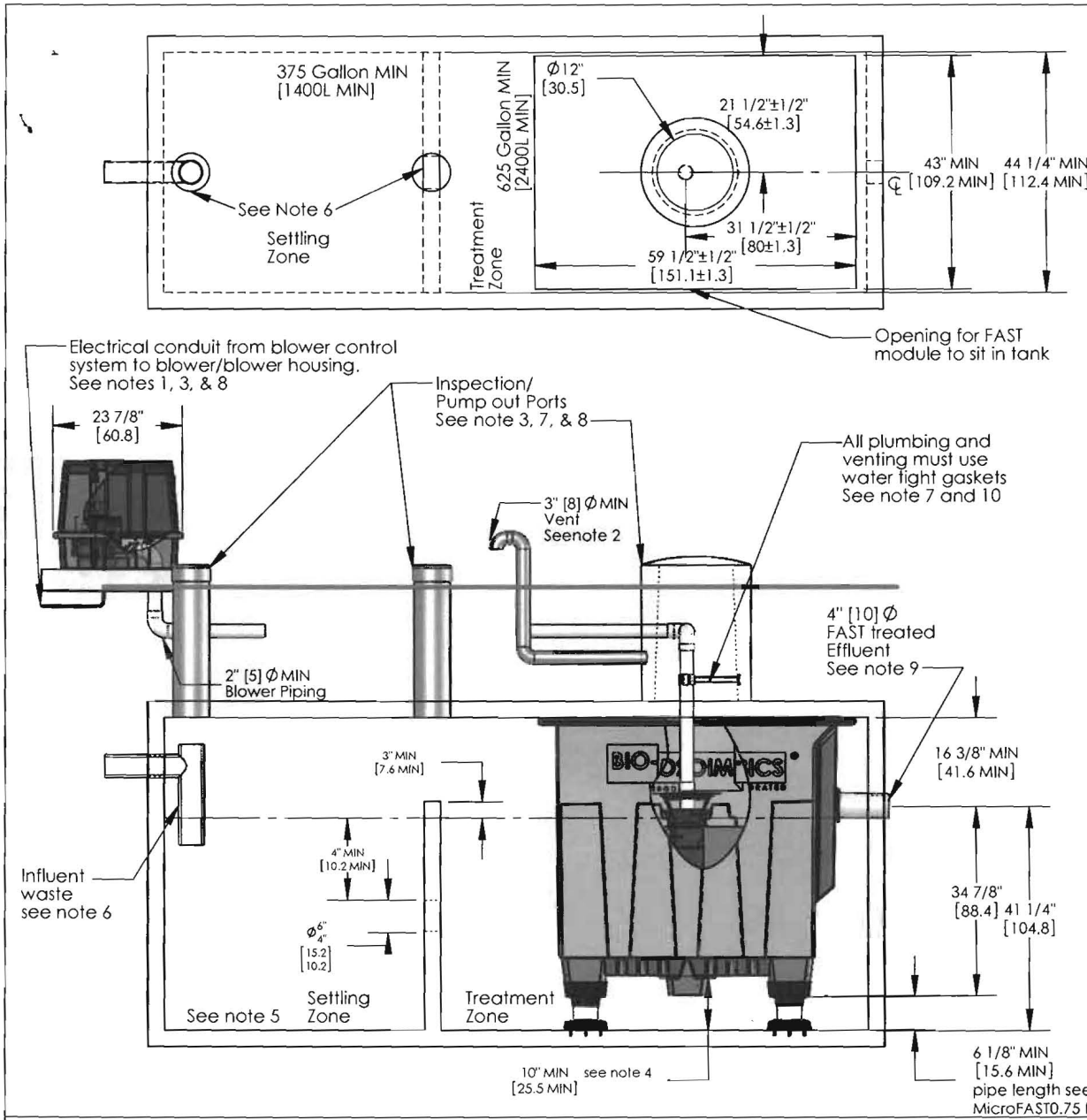
*Angela J. Praisner*  
Owner ANGELA J PRAISNER

DATE: 2/3/2010

*P. Wilfen for Peter Beilenson*  
Howard County Health Department  
Peter L. Beilenson, M.D., M.P.H., Health Officer

IMP FD SURE \$ 20.00  
RECORDING FEE 20.00  
TOTAL 40.00  
Rec# HOBS Rec# 77357  
NDR KHC Blk # 130  
Feb 03, 2010 12:33 PM

SOID EE ST BW 1:18  
EMERSON  
MAY 2008

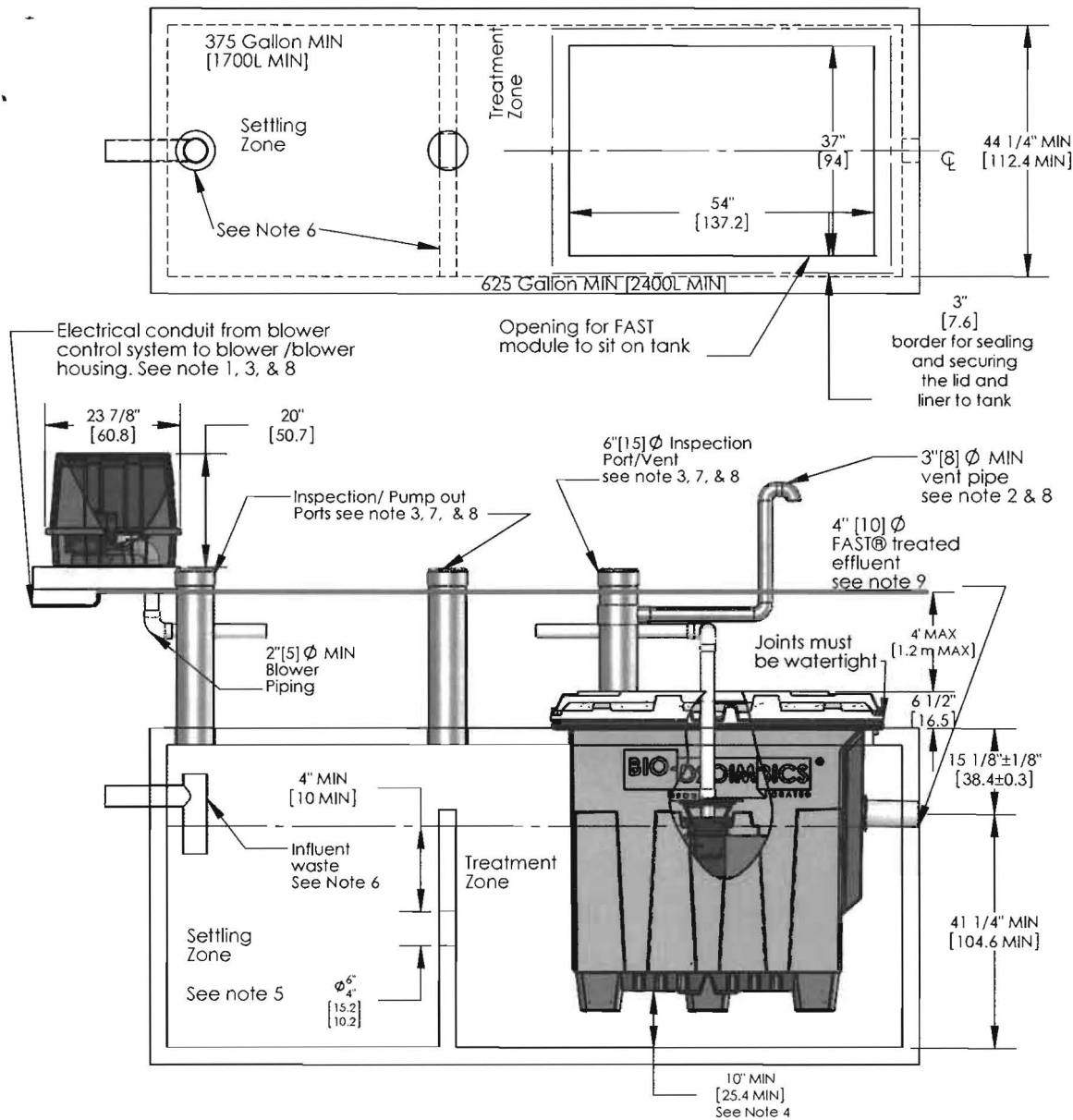


- NOTES**
- Blower piping to FAST@ may not exceed 100 FT [30.5m] total length and use a maximum of 4 elbows in the piping system (@ 100FT [30m]). For distances greater than 100 FT [30m] consult factory. Blower must be located above flood levels on a concrete base 24" X 18" X 1" [61 X 45.7 X 2.6cm] min.
  - Vent to be located above finish grade or higher to avoid infiltration. Cap with a vent grate with at least 7.1 sq in. [45.8 sq. cm] open surface area. Secure with stainless steel screws (see sheet 4 of 4 MicroFAST@ 0.75 Details).  
OR  
Run Vent to desired location and cover opening with a vent grate with at least 7.1 sq in. [45.8 sq. cm] open surface area. Secure with stainless steel screws. Vent piping must not allow excess moisture build up or back pressure.
  - All appurtenances to FAST@ (e.g. tank pump outs, etc.) must conform to all applicable country, state, province, and local plumbing and electrical codes. Blower control system by Bio-Microbics, Inc.
  - Tank volume must be increased by 20% if minimum of 10 inches [25.5cm] is used between the unit and the base of tank. Consult factory for approval.
  - The primary compartment may be a separate tank.
  - Either the influent pipe tee shall be fitted with a pipe cap or the baffle separating the two zones shall be extended all the way to the top of the tank. If choosing to use the pipe cap. Then the baffle shall be at least 3" [8cm] higher than the water level as shown on the drawing.
  - All inspection, viewing and pump out ports must be secured to prevent accidental or unauthorized access.
  - Tank, piping, conduit, blower housing pad and vents are provided by others.
  - All piping and ancillary equipment installed after FAST must not impede or restrict free flow of effluent.
  - The air supply line into the FAST@ unit must be secured to prevent vibration induced damage. The air supply line should be secured with a non-corrosive clamp every 2' min [5cm]. See Alternate air supply option on sheet 4 of 4 MicroFAST@ 0.75
  - Min height may be reduced, consult factory and reference "Short-FAST-Module-Procedure.pdf"
  - Refer to sheet 4 of 4 MicroFAST@ 0.75 Details drawing for leg extensions requirements.

DO NOT SCALE				MicroFAST 0.75 FAST Unit	
UNLESS NOTED DIMENSIONS ARE IN INCHES [CENTIMETERS] TOLERANCES ± 0.02 IN/IN [± 0.05 CM/CM]				WEIGHT	lb
		NAME	DATE	A	MicroFAST@ 0.75 with feet
		DRAWN CTC	12/18/2006		
		CHECKED PF	7/22/2008	REVISED Tuesday, July 22, 2008	REV. INI-Q2-E

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*↑ This configuration approved*



**NOTES**

- Blower piping to FAST® may not exceed 100 FT [30.5m] total length and use 4 elbows maximum. For distances greater than 100 FT [30.5m] - consult factory. Blower must be located above flood/standing water levels on a solid surface or concrete base 24" X 18" X 1" [61X45.7X2.6cm] minimum.
- Vent to be located above finish grade or higher to avoid infiltration. Cap with vent grate w/at least 7.1 sq in. [45.8 sq. cm] open surface area. Secure with stainless steel screws (see sheet 4 of 4 *MicroFAST® 0.75 Details.*)  
or  
Run vent to desired location and cover opening with vent grate w/at least 7.1 sq in. [45.8 sq. cm] of open surface area. Secure with stainless steel screws. Vent piping must not allow excess moisture build up or back pressure.
- All appurtenances to FAST® (e.g. tank pump outs, etc.) must conform to all country, state, province, and local plumbing and electrical codes. The blower control system is provided by Bio-Microbics, Inc.
- Tank volume must be increased by 20% if minimum of 10 inches [25.5cm] is used between the unit and the base of tank. Consult factory for approval.
- The primary compartment may be a separate tank.
- Either the influent pipe tee shall be fitted with a pipe cap or the baffle separating the two zones shall be extended to the top of the tank. If choosing to use the pipe cap, then the baffle shall be at least 3"[8] higher than the water level as shown on the drawing.
- All inspection, viewing and pump out ports must be secured to prevent accidental or unauthorized access
- Tank, anchors, piping, conduit, blower housing pad and vents are provided by others.
- All piping and ancillary equipment installed after FAST® must not impede or restrict free flow of effluent.
- No more than 4 FT [1.2 m] of fill may be placed over unit lid. Unit may stand inside tank. See sheet 2 of 4 *MicroFAST® 0.75 with feet.* Refer to installation manual for more details.

DO NOT SCALE

UNLESS NOTED DIMENSIONS ARE IN INCHES [CENTIMETERS] TOLERANCES ± 0.02 IN/IN [± 0.05 CM/CM]

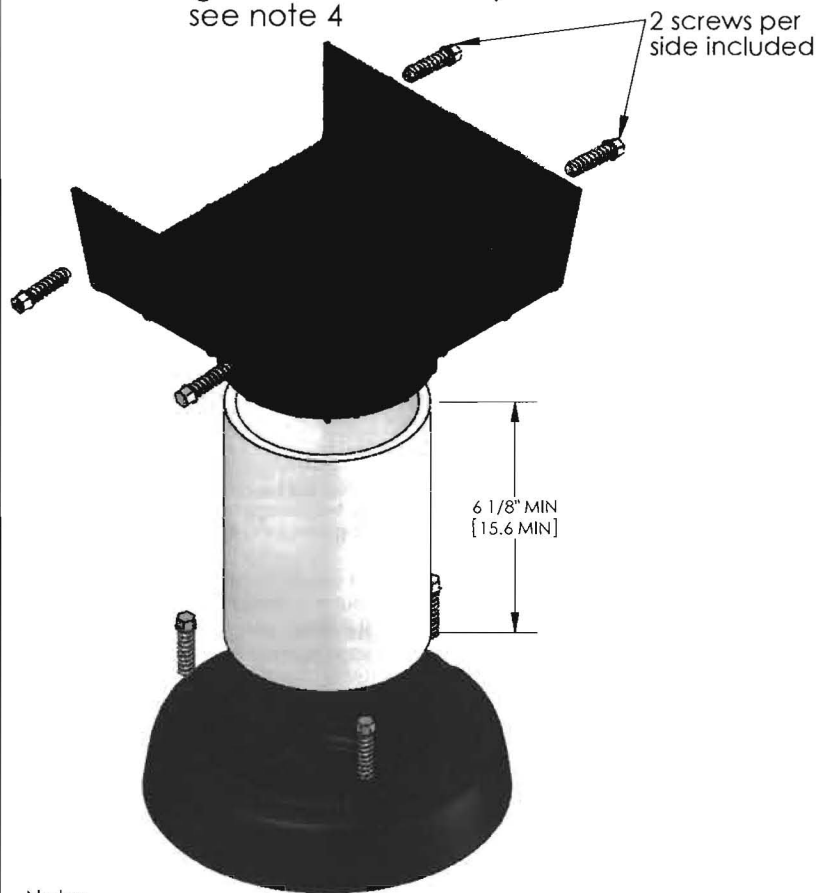


MicroFAST 0.75 FAST Unit

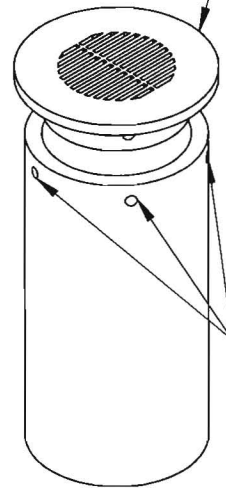
WEIGHT	lb	SIZE	DRAWING NUMBER	SHEET 1 OF 4
NAME	DATE	A	MicroFAST® 0.75 with lid	
DRAWN	CTC	12/18/2006		
CHECKED	PF	7/22/2008	REVISED Tuesday, July 22, 2008	REV. INI-02-E

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Minimum leg extension assembly  
see note 4

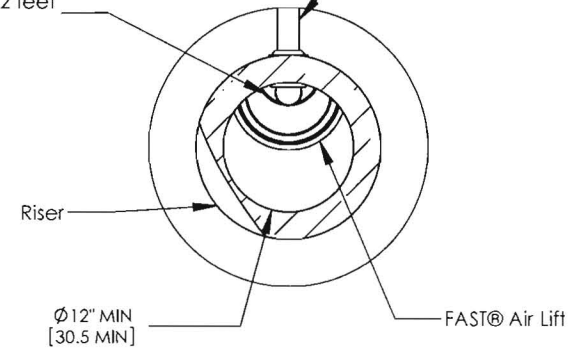


NDS 6" Grate MIN  
7.1 SQ in open  
surface area

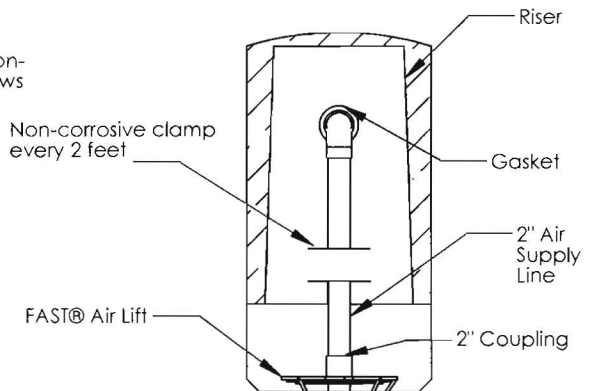


FAST@ Lid  
Vent Option

Non-corrosive clamp  
every 2 feet



Non-corrosive clamp  
every 2 feet



Alternate Air Supply Option

Notes

1. Secure leg extension to the FAST@ unit by placing two screws on each side of the leg extension (4 screws per foot are included).
2. Cut 4" [10] schd. 40 PVC pipe (not included) to obtain the desired height. Minimum pipe length of 6 1/8" [15.56]; Original leg extension height requires a pipe length of 11 1/8" [28.26]. For heights greater than 18" [45.7] use schd. 80 PVC pipe (not included). Consult factory for extending leg beyond 36" [91].
3. Anchor the leg extensions to the tank with non-corrosive hardware not included at the provided mounting points.
4. Increase minimum tank volume by 20% if minimum leg extension is used.
5. The air supply line into the FAST@ unit must be secured so as to prevent damage from pipe vibration. See all notes on *MicroFAST@ 0.75 with lid* drawing
6. The air supply line into the FAST@ unit must be secured to prevent vibration induced damage. The air supply line should be secured with a non-corrosive clamp every 2' MIN.
7. Tank, anchors, piping conduit, blower, housing pad and vents are provided by others.

DO NOT SCALE

UNLESS NOTED  
DIMENSIONS  
ARE IN INCHES  
[CENTIMETERS]  
TOLERANCES  
± 0.02 IN/IN  
[± 0.05 CM/CM]

**BIO-MICROBICS**  
INCORPORATED

MicroFAST 0.75 FAST Unit

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WEIGHT	lb	SIZE	DRAWING NUMBER	SHEET 4 OF 4
NAME	DATE	A	MicroFAST@ 0.75 Details	
DRAWN	CTC	12/18/2006		
CHECKED	PF	7/22/2008	REVISED Tuesday, July 22, 2008	REV. INI-02-E

**Specifications for MicroFAST 0.75 Wastewater Treatment System**

**1. GENERAL**

The contractor shall furnish and install (1) MicroFAST@0.75 treatment system as manufactured by Bio-Microbics, Inc. The treatment system shall be complete with all needed equipment as shown on the drawings and specified herein.

The principal items of equipment shall include FAST@ system insert, leg extensions, or lid, blower assembly, blower controls and alarms. All other items will be provided by others. The MicroFAST 0.75 unit shall be situated within a 625 Gallon[2400L] minimum compartment or tank as shown on the plans, or in a 1025 gallon [3880L] one compartment tank. Suggested maximum settling zone is (1X) the daily flow. Tank(s) must provide adequate pump out access and conform to local, state, and all other applicable codes. The contractor shall provide coordination between the FAST system and tank supplier with regard to fabrication of the tank, installation of the FAST unit and delivery to the job site.

**2. OPERATING CONDITIONS**

The MicroFAST 0.75 treatment system shall be capable of treating the wastewater produced by typical family activities (bath, laundry, kitchen, etc.) ranging from (1) one to (11) eleven persons and not to exceed 750 US Gallons per day (2800LPD).

**3. MEDIA**

The FAST media shall be manufactured of rigid PVC, polyethylene, or polypropylene and it shall be supported by the polyethylene insert. The media shall be fixed in position and contain no moving or wearing parts and shall not corrode. The media shall be designed and installed to ensure that sloughed solids descend through the media to the bottom of the septic tank.

**4. BLOWER**

The MicroFAST 0.75 unit shall come equipped with a regenerative type blower capable of delivering 17-25 CFM [31-46m3/hr] The blower assembly shall include an inlet filter with metal filter element.

**5. REMOTE MOUNTED BLOWER**

The blower shall be mounted , up to 100 feet [30.5 meters] maximum, from the MicroFAST unit on a contractor supplied concrete base. The blower must not set in standing water and its elevation must be higher than the normal flood level. A two-piece, rectangular housing shall be provided. The discharge air line from the blower to the MicroFAST System shall be provided and installed by the contractor.

**6. ELECTRICAL**

The electrical source should be within 150 feet [45.7 meters] of the blower consult local codes for longer wiring distances. All wiring must conform to all applicable codes(IEC, NEC, etc.). Wiring distances must prevent significant voltage loss. Input power on 60Hz electrical system is 110/220 VAC, single phase, 2.8/1.4 Amps. Input power on 50Hz electrical systems 127/230 VAC, single phase 0.352 kw/hr. All conduit and wiring shall be supplied by contractor.

**7. CONTROLS**

The control panel provides power to the blower with an alarm system consisting of a visual and audible alarm capable of signaling blower circuit failure and high water conditions. The control panel is equipped with SFR@ (Sequencing Fixed Reactor) timed control feature. A manual silence button is included.

**8. INSTALLATION AND OPERATING INSTRUCTIONS**

All work installation and connections of the MicroFAST 0.75 shall be done in accordance with the written instructions provided by the manufacturer and in accordance with all applicable local codes and regulations. Operations manuals shall be furnished which will include a description of installation, operation, and system maintenance procedures.

**9. FLOW AND DOSING**

FAST systems have been successfully designed, tested and certified receiving gravity, demand-based influent flow. When influent flow is controlled by pump or other means to help with highly variable flow conditions, then multiple dosing events should be used to help ensure even flow.


**10.WARRANTY**

Bio-Microbics, Inc. warrants all new residential FAST@ models (MicroFAST@ 0.50, 0.75, 0.90, and 1.5) against defects in materials and workmanship for a period of two years after installation or three years from date of shipment; whichever ever occurs first, subject to the following terms and conditions. (all other FAST@ system models are warranted for a period of one year after installation or eighteen months from date of shipment, whichever occurs first, subject to the following terms and conditions):

During the warranty period, if any part is defective or fails to perform as specified when operating at design conditions, and if the equipment has been installed and is being operated and maintained in accordance with the written instructions provided by Bio-Microbics, Inc., Bio-Microbics, Inc. will repair or replace at its discretion such defective parts free of charge. Defective parts must be returned by owner to Bio-Microbics, Inc.'s factory postage paid, if so requested. The cost of labor and all other expenses resulting from replacement of the defective parts and from installation of parts furnished under this warranty and regular maintenance items such as filters or bulbs shall be borne by the owner. This warranty does not cover general system misuse, aerator components which have been damaged by flooding or any components that have been disassembled by unauthorized persons, improperly installed or damaged due to altered or improper wiring or overload protection. This warranty applies only to the treatment plant and does not include any of the house wiring, plumbing, drainage, septic tank or disposal system. Bio-Microbics, Inc. reserves the right to revise, change or modify the construction and/or design of the FAST system, or any component part or parts thereof, without incurring any obligation to make such changes or modifications in present equipment. Bio-Microbics, Inc. is not responsible for consequential or incidental damages of any nature resulting from such things as, but not limited to, defect in design, material, or workmanship, or delays in delivery, replacements or repairs.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED. BIO-MICROBICS SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

NO REPRESENTATIVE OR PERSON IS AUTHORIZED TO GIVE ANY OTHER WARRANTY OR TO ASSUME FOR BIO-MICROBICS, INC., ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF ITS PRODUCTS. Contact your local distributor for parts and service.

DO NOT SCALE			MicroFAST 0.75 FAST Unit	
UNLESS NOTED DIMENSIONS ARE IN INCHES [CENTIMETERS] TOLERANCES ± 0.02 IN/IN [± 0.05 CM/CM]				
WEIGHT	lb	SIZE	DRAWING NUMBER	
		A	MicroFAST@ 0.75 Specifications	
DRAWN	CTC	12/18/2006	REV. INH-02-E	
CHECKED	PF	7/22/2008	REVISED Tuesday, July 22, 2008	

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SHEET 3 OF 4