

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: 7/1/15 **ONSITE SEWAGE DISPOSAL SYSTEM** P 556508-C

APPROVAL DATE: 9/22/2015 **PERMIT: CONSTRUCTION** A _____

PROPERTY ADDRESS: 17034 Hardy Road

SUBDIVISION: Shears Property LOT: 2 TAX ID: 04-327748

CONTRACTOR: South Carroll Backhoe EMAIL: scbackhoe@comcast.net

CONTRACTOR ADDRESS: 4410 Salem Bottom Road, Westminster, MD 21157 PHONE: 410-596-3618

CONTRACTOR CERTIFIED FOR BAT INSTALLATION: MDE MANUFACTURER:

PROPERTY OWNER: Delores Shears Carney EMAIL: Carney4289@gmail.com

OWNER ADDRESS: 423 Drury Lane, Baltimore, MD 21229 PHONE: 443-805-7714

BAT UNIT MODEL: HOOT 600 BNR PUMP SIZE: 0.3hp PUMP TANK CAPACITY: 1500gal

OPERATION & MAINTENANCE AGREEMENT DATE SIGNED: 8/11/15 DATE RECORDED: 8/11/15

DISTRIBUTION SYSTEM: GRAVITY PRESSURE DOSED BEDROOMS: 4 APPLICATION RATE: 0.8

TRENCHES:	LINEAR FEET REQUIRED: <u>141</u>	INLET DEPTH: <u>3.5</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>6</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>3.5</u>

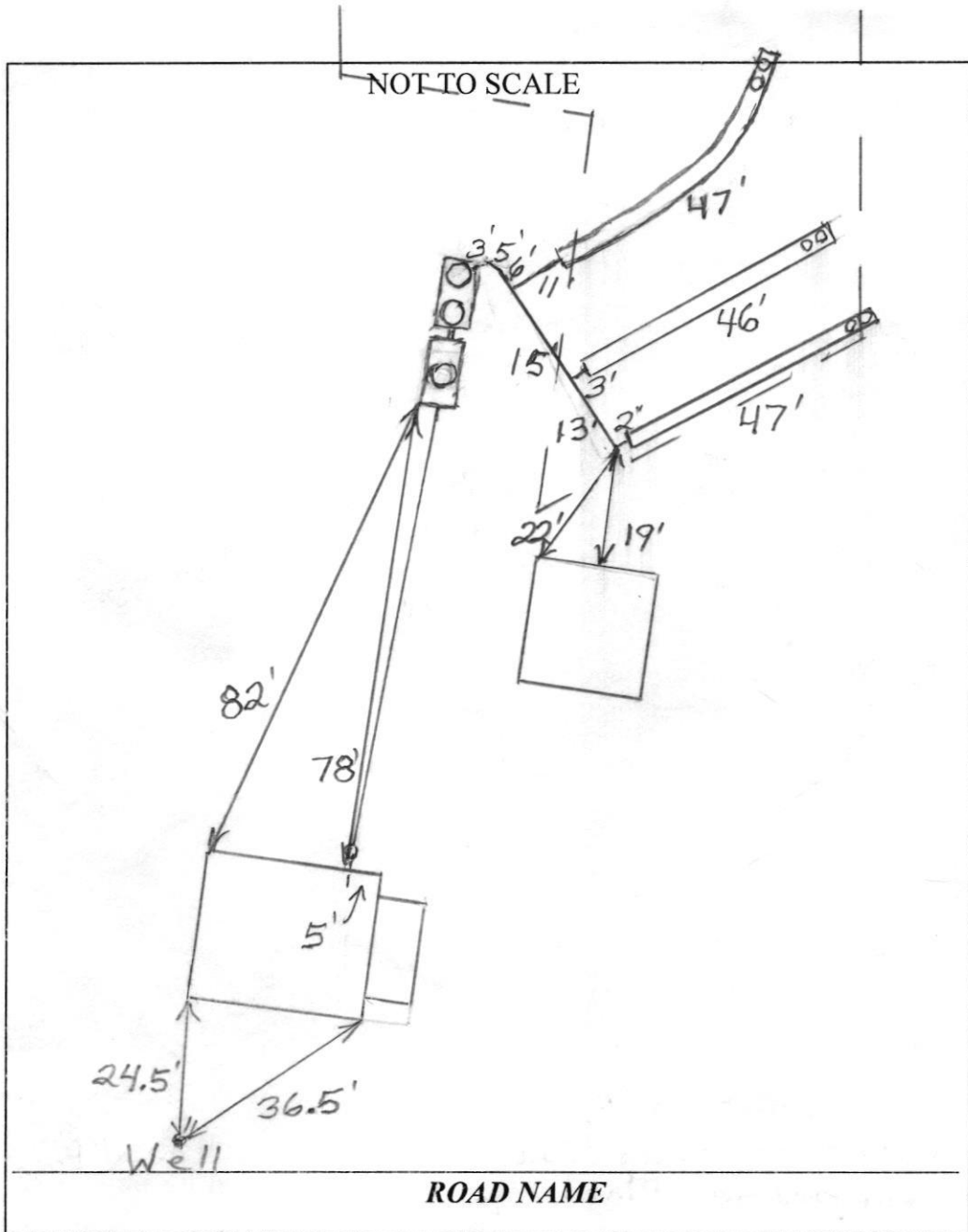
LOCATION: **PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND BAT UNIT LOCATION MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.**

NOTES: Pump and abandon existing septic tank and dry well for final approval of permit.
Pump and Alarm test on Pump Chamber must also be completed and approved for Final Approval of Installation. MB 8/12/15

ISSUED BY: Robert Bricker ISSUE DATE: 9-3-15 EXPIRATION DATE: 7/1/16

- 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 15004541
- 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.**



TRENCH/DRAINFIELD DATA		
WIDTH	INLET	BOTTOM
3'	3.5'	6'
NUMBER OF TRENCHES	3	
TOTAL LENGTH	140'	
ABSORPTION AREA	420 + Sidewall	
DISTRIBUTION BOX LEVEL	N/A	
DISTRIBUTION BOX BAFFLE	N/A	
DISTRIBUTION BOX PORT	N/A	

SEPTIC TANK DATA	
SEPTIC TANK 1 LEVEL	Yes
MANUFACTURER	Mayer/Hoot
CAPACITY	1320 GAL
SEAM LOC	Top-Traffic
TANK LID DEPTH	4'-5'
BAFFLES	Front
BAFFLE FILTER	No
MANHOLE LOC	Front
6" PORT LOC	None
WATERTIGHT TEST	No
SLOTTED	N/A
DATE ON LID	Dry
PUMP/SEPTIC TANK LEVEL	Yes
MANUFACTURER	Mayer
CAPACITY	1500 GAL
SEAM LOC	Top-Traffic
TANK LID DEPTH	4-4.5'
BAFFLES	No
BAFFLE FILTER	No
MANHOLE LOC	Front+Rear
6" PORT LOC	None
WATERTIGHT TEST	No
SLOTTED	No
DATE ON LID	Dry

PRE-CONSTRUCTION

9/8/2015 Backhoe broken. Trenches not staked. Layout cancelled. (BB)

9/9/2015 Trench locations staked. Trench contour checked and adjusted. (BB)

INSTALLATION:

9/8/2015 Working on house connection. (BB)

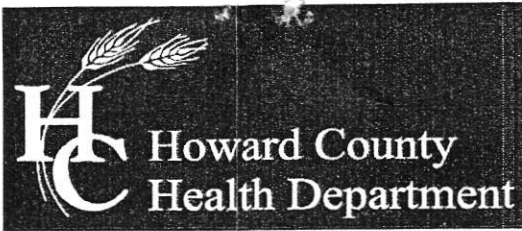
9/9/2015 House connection done and tanks set. (BB)

9/15/2015 Trenches installed. (BB)

9/16/2015 Pump and alarm working. Two plus feet of head in turn-ups. Need approval from Hoot inspector. (BB)

9/22/2015 Received approval from Hoot inspector. (BB)

FINAL INSPECTOR B. Baker DATE OF APPROVAL 9/22/2015



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

THIS AGREEMENT is made this 11th day of August 2015, among The Estate of Joseph Sheras, 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 17034 Hardy Road, in the 4th 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 _____.

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 Foot 600 BPL.

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

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.

Ben Rifon 8/11/2015
Howard County Health Department

Personal Rep. for Estate of J.M. Sheers
Delores Ann Carvey 8/10/15
Owner #1 Signature Date

Owner#2 Signature Date

Delores Ann Carvey
Owner #1 Print Name

Owner #2 Print Name

Buyer #1 Signature Date

Buyer #2 Signature Date

Buyer #1 Print Name

Buyer #2 Print Name

Clerk of the Circuit Court for
Howard County
Land Records/Licensing

The Thomas Dorsey Building
9250 Bendix Road
Columbia, MD 21045
410-313-5850

=====
LR - Agreement Recording Fee
1x 20.00 20.00

Grantor/Grantee Name: Carvey
Reference/Control #: 104

LR - Agreement Surcharge
1x 40.00 40.00

=====
SubTotal: 60.00
Total: 60.00

=====
REV-Check-BOA 60.00
Number : 679

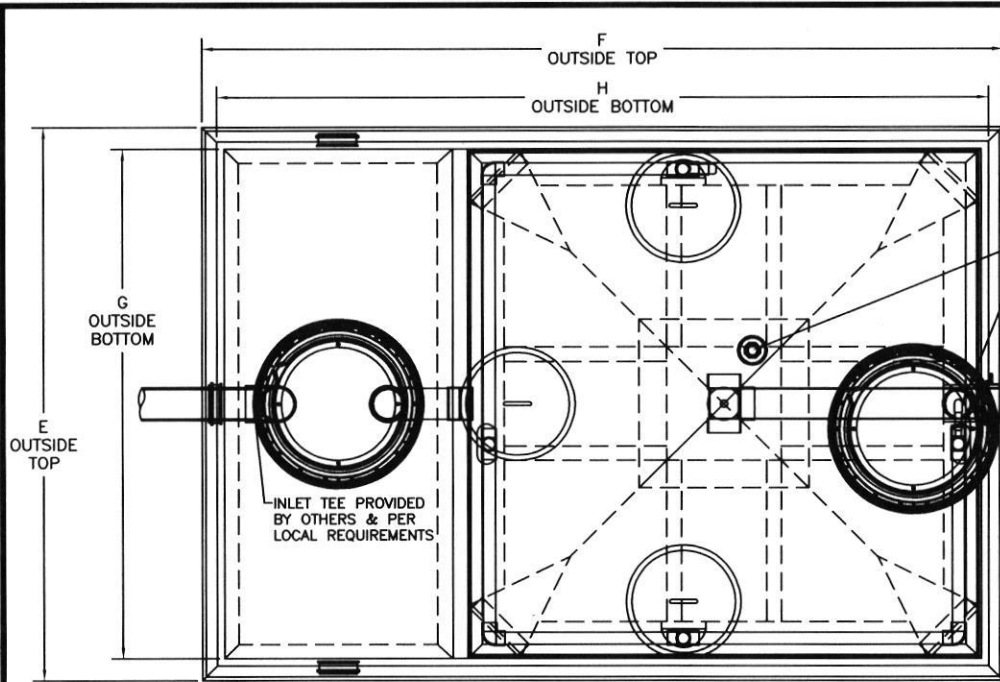
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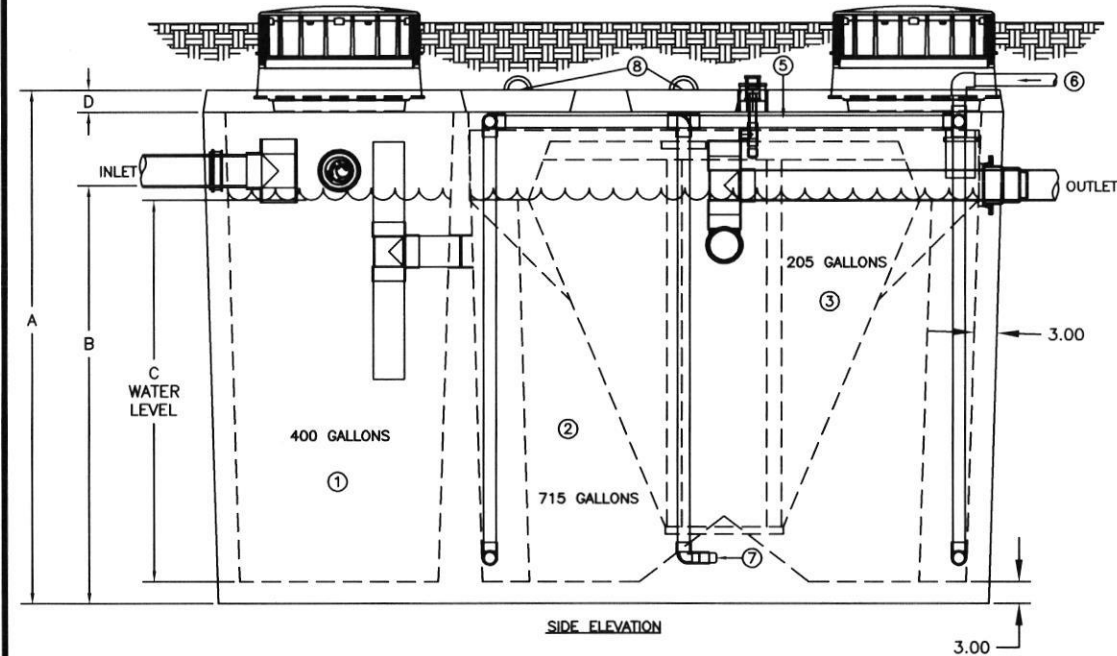
***** DUPLICATE #001 *****

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~ Thank you for visiting us today ~



PLAN VIEW



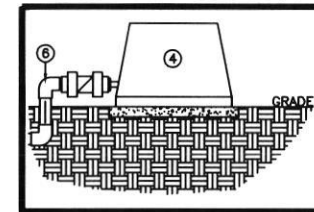
SIDE ELEVATION


CRITICAL DIMENSIONS	
A	69.00'
B	57.00'
C	52.00'
D	3'
E	74.50'
F	106.00'
G	65.00'
H	97.00'

THE H-SERIES HOOT AEROBIC TREATMENT SYSTEM

- 1) PRETREATMENT TANK- WHERE ANAEROBIC DIGESTION OCCURS AND STORAGE FOR NON-BIODEGRADEABLE MATERIALS.
- 2) AERATION CHAMBER- WHERE AIR IS INTRODUCED INTO SEWAGE FOR DIGESTION.
- 3) CLARIFIER- A STILL CHAMBER WHERE SOLIDS SETTLE OUT AND THE CLEAR EFFLUENT RISES.
- 4) TROY AIR LINEAR AIR BLOWER- LONG LIFE, EFFICIENT LINEAR BLOWER WHICH COMPRESSED ATMOSPHERIC AIR AND UNDER PRESSURE DELIVERS IT TO THE TANK. MAY BE REMOTELY MOUNTED UP TO 50' FROM SYSTEM. MUST MAINTAIN 1/8" SLOPE TOWARDS TANK FOR DRAINAGE.
- 5) AIR MANIFOLD- DELIVERS THE AIR FROM THE LINE TO THE STONES FOR DIFFUSION INTO THE SEWAGE.
- 6) AERATION LINE- DELIVERS THE AIR FROM THE PUMP TO THE MANIFOLD. CHECK VALVE INCLUDED.
- 7) AERATION STONE- AIR IS FINELY DIFFUSED FROM THE STONE INTO THE AERATION CHAMBER.
- 8) 15" COVERS- PROVIDE ASSEMBLY PORT ACCESS INSIDE OF THE SYSTEM. (NOT REQUIRED FOR REGULAR SERVICE)

TROY AIR BLOWER





HOOT SYSTEMS, LLC

www.hootsystems.com

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DESCRIPTION: 600 GPD GRAVITY DISCHARGE SYSTEM HOOT SYSTEMS H-600A			PART # H-600A
DATE: 03-17-2014	DRAWN BY: AY	CHECK BY: RS	



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

Sean Carney

August 20, 2015

RE: 17034 Hardy Rd

Mr. Carney,

Hoot tanks manufactured in Maryland are generally designed for a maximum of 3' earth load. We can and do manufacture these systems that can withstand H₂O loading and up to 5' of earth cover. We will not go deeper because of the challenges in maintaining the equipment.

I have attached the shop drawings and the engineering calculations for the deeper load bearing tank. Please feel free to call with any questions.

Thank You,

Nancy J. Mayer

Nancy J. Mayer
President
Mayer Bros., Inc.
410-796-1434
nancy@mayerprecast.com

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

WBE

info@mayerprecast.com
www.mayerprecast.com

fax : 904 282 9333

CONSULTING ENGINEERS

tel : 904 291 4333

BRUNT SYSTEMS ENGINEERING INC

ORANGE PARK FL 32065 2528

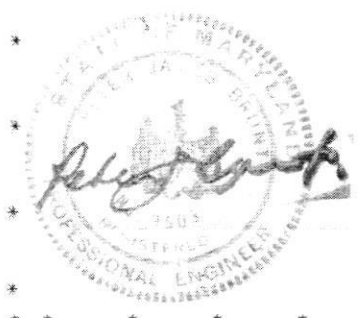
HOOT 600 BNR
DEEP. 5'

PROGRAM - MULTIBOX - ATLANTIC ENGINEERS, WHEATON, MD.
SINGLE OR MULTICELL BOXES BASED ON CLEAR SPANS WITHOUT HAUNCHES
(EXCEPT THAT WITH PILASTERS SPANS ARE TO CENTER OF PILASTER)

DESIGN BY BRUNT SYSTEMS ENGINEERING INC 3533 LIVE OAK HOLLOW DR. ORANGE PK. FL 32065 2528

DATE	JOB NUMBER	JOB NAME :	DESIGNED FOR:	DESCRIPTION
03/31/09	0903013		MAYER BROS. INC	HOOT - NON-TRAFFIC

CONCRETE STRENGTH = 5000 PSI AT 28 DAYS
NUMBER OF CELLS = 3
LENGTH OF CELLS IN FEET = 2.40, 5.58, 4.10
INSIDE WIDTH OF BOX IN FEET = 5.54
INSIDE DEPTH OF BOX IN FEET = 5.17
ASSUMED WEIGHT OF EARTH = 120 LB/CF
SET EQUIVALENT LIQUID PRESSURE = 42.0
HEIGHT OF FILL OVER BOX IN FEET = 5.00 MAX. ←
THICKNESS OF TOP SLAB IN INCHES = 4.0
THICKNESS OF BASE SLAB IN INCHES = 4.0
PROJECTION OF BASE SLAB IN INCHES = 0.0
SIDE WALL THICKNESS IN INCHES = 4.0
END WALL THICKNESS IN INCHES = 4.0
COVER FOR TOP SLAB INCHES = 2.0
COVER FOR BASE SLAB INCHES = 2
COVER SIDE WALLS INCHES = 2
COVER FOR END WALLS INCHES = 2
LOADING ON STRUCTURE = NON-TRAFFIC
SURCHARGE ADDED IN FEET = 5 Feet



WALL MOMENTS FROM EXTERIOR PRESSURE

IN FOOT-KIPS PER FOOT
IN END WALL CELL 1 = 1.28
AT CORNERS OF CELL 1 = -1.50
IN SIDE WALLS CELL 1 = -0.66
IN SIDE WALLS BETWEEN CELLS 1 & 2 = 0.00
IN CROSSWALL BETWEEN CELLS 1 & 2 = -0.34
IN SIDE WALLS CELL 2 = 1.49
IN SIDE WALLS BETWEEN CELLS 2 & 3 = -1.56
IN CROSSWALL BETWEEN CELLS 2 & 3 = 0.00
IN SIDE WALLS CELL 3 = 0.90
AT CORNER OF CELL 3 = -1.55
IN END WALL CELL 3 = 1.33

WALL REINFORCEMENT

1 LAYER - PLACED CENTRALLY
1 SHEET 6"x 6" - W6x W6 WWF
TIE SHEETS @ CNRS W/ #5 VERT.
W/ #4 at 12" C/C HORIZ. (ONLY)

TOP SLAB DESIGN MOMENT

IN FOOT-KIPS PER FOOT = 3.90

4" TOP SLAB REINFORCEMENT

1 LAYER - 2" COVER BTM.
USE #5 at 6" C/C (S.W.)
W/ #4 at 12" C/C (L.W.)
& ADD'L #5 TRIM BARS at OPNGS.

BASE SLAB DESIGN MOMENTS

IN FOOT-KIPS PER FOOT = 4.70

4" BOTTOM SLAB REINFORCEMENT

PLACE REBAR WITH 1" COVER TOP FACE
USE #4 at 4" C/C (S.W. - TOP BARS)
& #4 at 6" C/C (L.W.)

APPROX. VOLUME OF TOP SLAB = 1.10 C.Y. APPROX. WEIGHT OF TOP SLAB = 2.23 TONS
APPROX. VOLUME OF WALLS = 3.16 C.Y. APPROX. WEIGHT OF WALLS = 6.40 TONS
APPROX VOLUME OF BASE SLAB = 1.10 C.Y. APPROX WEIGHT OF BASE SLAB = 2.23 TONS
APPROX. TOTAL VOLUME = 5.33 C.Y. APPROX. TOTAL WEIGHT = 10.80 TONS

Letter of Satisfaction

Hoot System Installation

Address of Property: 17034 Hardy Rd.
Lisbon, MD 21771

Date of Final Inspection: 9/16/15

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,

N. Michael Dayer

Name of Inspector
Mayer Bros., Inc.

PH: 410-796-1434

FX: 410-796-1438

WBE
NPCA Certified Plant

mayerbro@connext.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