



Building Permit Application

Howard County Maryland
Department of Inspections, Licenses and Permits
3430 Court House Drive
Permits: 410-313-2455
www.howardcountymd.gov

Date Received: _____

Permit No.: 1010000329

Building Address: 18329 Cichla Road
City: Greenbelt State: MD Zip Code: 21071
Suite/Apt. # _____ SDP/WP/BA #: _____
Census Tract: _____ Subdivision: _____
Section: _____ Area: _____ Lot: 6
Tax Map: 12 Parcel: 78 Grid: 5
Zoning: _____ Map Coordinates: _____ Lot Size: 1147

Existing Use: Garage
Proposed Use: Garage
Estimated Construction Cost: \$ 3000
Description of Work: 1000 sq ft garage addition
Occupant or Tenant: _____
Was tenant space previously occupied? ☐ Yes ☐ No
Contact Name: _____
Address: 18329 Cichla Road
City: _____ State: _____ Zip Code: _____
Phone: _____ Fax: _____
Email: _____

Commercial Building Characteristics	Residential Building Characteristics
Height:	<input checked="" type="checkbox"/> SF Dwelling <input type="checkbox"/> SF Townhouse
No. of stories:	Depth Width
Gross area, sq. ft./floor:	1 st floor:
	2 nd floor:
Area of construction (sq. ft.):	Basement:
	<input type="checkbox"/> Finished Basement
Use group:	<input type="checkbox"/> Unfinished Basement
	<input type="checkbox"/> Crawl Space
Construction type:	<input type="checkbox"/> Slab on Grade
<input type="checkbox"/> Reinforced Concrete	No. of Bedrooms:
<input type="checkbox"/> Structural Steel	Multi-family Dwelling
<input type="checkbox"/> Masonry	No. of efficiency units:
<input type="checkbox"/> Wood Frame	No. of 1 BR units:
<input type="checkbox"/> State Certified Modular	No. of 2 BR units:
	No. of 3 BR units:
	Other Structure:
	Dimensions:
➤ Roadside Tree Project Permit	Footings:
<input type="checkbox"/> Yes <input type="checkbox"/> No	Roof:
Roadside Tree Project Permit #	<input type="checkbox"/> State Certified Modular
	<input type="checkbox"/> Manufactured Home

Property Owner's Name: John Doe
Address: 18329 Cichla Road
City: Greenbelt State: MD Zip Code: 21071
Phone: _____ Fax: _____
Email: _____

Applicant's Name & Mailing Address, (If other than stated herein)

Applicant's Name: John Doe
Address: 18329 Cichla Road
City: Greenbelt State: MD Zip Code: 21071
Phone: 410-313-2455 Fax: _____
Email: john.doe@applied.com

Contractor Company: _____
Contact Person: John Doe
Address: 18329 Cichla Road
City: Greenbelt State: MD Zip Code: 21071
License No.: 91215
Phone: 410-313-2455 Fax: _____
Email: _____

Engineer/Architect Company: _____
Responsible Design Prof.: _____
Address: 18329 Cichla Road
City: _____ State: _____ Zip Code: _____
Phone: _____ Fax: _____
Email: _____

Utilities
Water Supply
<input type="checkbox"/> Public
<input checked="" type="checkbox"/> Private
Sewage Disposal
<input type="checkbox"/> Public
<input type="checkbox"/> Private
Electric: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Gas: <input type="checkbox"/> Yes <input type="checkbox"/> No
Heating System
<input type="checkbox"/> Electric <input type="checkbox"/> Oil
<input type="checkbox"/> Natural Gas <input type="checkbox"/> Propane Gas
<input type="checkbox"/> Other:
Sprinkler System:
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Grading Permit Number:
Building Shell Permit Number:

THE UNDERSIGNED HEREBY CERTIFIES AND AGREES AS FOLLOWS: (1) THAT HE/SHE IS AUTHORIZED TO MAKE THIS APPLICATION; (2) THAT THE INFORMATION IS CORRECT; (3) THAT HE/SHE WILL COMPLY WITH ALL REGULATIONS OF HOWARD COUNTY WHICH ARE APPLICABLE THERETO; (4) THAT HE/SHE WILL PERFORM NO WORK ON THE ABOVE REFERENCED PROPERTY NOT SPECIFICALLY DESCRIBED IN THIS APPLICATION; (5) THAT HE/SHE GRANTS COUNTY OFFICIALS THE RIGHT TO ENTER ONTO THIS PROPERTY FOR THE PURPOSE OF INSPECTING THE WORK PERMITTED AND POSTING NOTICES.

Applicant's Signature

Email Address

Title/Company

Print Name

Date

Checks Payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY

PLEASE WRITE NEATLY & LEGIBLY

-FOR OFFICE USE ONLY-

AGENCY	DATE	SIGNATURE OF APPROVAL
State Highways		
Building Officials		
PSZA (Zoning)		
PSZA (Engineering)		
Health		
Is Sediment Control approval required for issuance? <input type="checkbox"/> Yes <input type="checkbox"/> No		
<input type="checkbox"/> CONTINGENCY CONSTRUCTION START		

DPZ SETBACK INFORMATION
Front:
Rear:
Side:
Side St.:
All minimum setbacks met? <input type="checkbox"/> Yes <input type="checkbox"/> No
Is Entrance Permit Required? <input type="checkbox"/> Yes <input type="checkbox"/> No
Historic District? <input type="checkbox"/> Yes <input type="checkbox"/> No
Lot Coverage for New Town Zone:
SDP/Red-line approval date:

Filing Fee	\$
Permit Fee	\$
Tech Fee	\$
Excise Tax	\$
PSFS	\$
Guaranty Fund	\$
Add'l per Fee	\$
Total Fees	\$
Sub-Total Paid	\$
Balance Due	\$
Check	#

Distribution of Copies: White: Building Officials

Green: PSZA,Zoning

Yellow: PSZA,Engineering

Pink: Health

Gold: SHA

Permits: 410-313-2455
Inspections: 410-313-1810
Automated Line: 410-313-3800

Howard County Building/Fire Permit Application
Department of Inspections, Licenses & Permits
3430 Court House Drive
Ellicott City, MD 21043

Permit Number:

B15004081

Building Address: 18329 Chelsea Knolls Drive
Mt. Airy MD 21771
Suite/Apt. # _____ SDP/WP/BA #: _____
Census Tract: _____ Subdivision: Chelsea Knolls
Section: _____ Area: _____ Lot: 6
Tax Map: 12 Parcel: 78 Grid: 5
Zoning: RC-DEO Map Coordinates: _____ Lot Size: _____

Existing Use: Vacant Lot
Proposed Use: New - Single Family
Estimated Construction Cost: \$250,000
Description of Work: Model Corsica 2 story full basement
10R, 2FB, 1HB and Garage (4 bdrm) opt-FP
and Deck

Occupant or Tenant: Ryan Homes
Was tenant space previously occupied? ☐ Yes ☒ No

Contact Name: Daren Snyder
Address: 9720 Patuxent Woods Drive
City: Columbia State: MD Zip Code: 21046
Phone: 410.796.0980 Fax: _____
Email: dsnyder@nvrinc.com

Property Owner's Name: Ryan Homes
Address: 9720 Patuxent Woods Drive
City: Columbia State: MD Zip Code: 21046
Home Phone: _____ Work Phone: 410.796.0980
Applicant's Name & Mailing Address, (If other, than stated herein): _____

Phone: _____ Fax: _____
Email: _____

Contractor Company: Ryan Homes
Contact Person: Daren Snyder
Address: 9720 Patuxent Woods Drive
City: Columbia State: MD Zip Code: 21046
License No.: 56
Phone: 410.796.0980 Fax: 410.796.7094
Email: dsnyder@nvrinc.com

Engineer/Architect Company: Fisher, Collins, & Carter
Responsible Design Prof.: Mark Rubel
Address: 10272 Baltimore National Pike
City: Ellicott City State: MD Zip Code: 21042
Phone: 410.461.2855 Fax: _____
Email: _____

BUILDING DESCRIPTION - COMMERCIAL

Building Characteristics	Utilities
Height:	Water Supply
No. of stories:	<input type="checkbox"/> Public
Gross area, sq. ft./floor:	<input type="checkbox"/> Private
	Sewage Disposal
Area of construction (sq. ft.):	<input type="checkbox"/> Public
	<input type="checkbox"/> Private
Use group:	Electric: <input type="checkbox"/> Yes <input type="checkbox"/> No
	Gas: <input type="checkbox"/> Yes <input type="checkbox"/> No
	Heating System
Construction type:	<input type="checkbox"/> Electric <input type="checkbox"/> Oil
<input type="checkbox"/> Reinforced Concrete	<input type="checkbox"/> Natural Gas <input type="checkbox"/> Propane Gas
<input type="checkbox"/> Structural Steel	
<input type="checkbox"/> Masonry	Sprinkler System:
<input type="checkbox"/> Wood Frame	<input type="checkbox"/> N/A
<input type="checkbox"/> State Certified Modular	<input type="checkbox"/> Full
Roadside Tree Project Permit	<input type="checkbox"/> Partial
<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Other Suppression
Roadside Tree Project Permit#	No. of Heads:

BUILDING DESCRIPTION - RESIDENTIAL

Building Characteristics	Utilities
<input checked="" type="checkbox"/> SF Dwelling <input type="checkbox"/> SF Townhse	Water Supply
Depth Width	<input type="checkbox"/> Public
1 st floor: 40 54	<input checked="" type="checkbox"/> Private
2 nd floor: 40 54	Sewage Disposal
Basement: 40 54	<input type="checkbox"/> Public
<input checked="" type="checkbox"/> Finished Basement	<input checked="" type="checkbox"/> Private
<input type="checkbox"/> Unfinished Basement	Electric: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Crawl Space	Gas: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Slab on Grade	Heating System
No. of Bedrooms: 4	<input type="checkbox"/> Electric
Multi-family Dwelling	<input type="checkbox"/> Oil
No. of efficiency units:	<input type="checkbox"/> Natural Gas
No. of 1 BR units:	<input checked="" type="checkbox"/> Propane Gas
No. of 2 BR units:	
No. of 3 BR units:	
Other Structure:	
Dimensions:	
Footings:	Roadside Tree Project Permit
Roof:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<input type="checkbox"/> State Certified Modular	Roadside Tree Project Permit#
<input type="checkbox"/> Manufactured Home	

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DMS
Applicant's Signature

dsnyder@nvrinc.com

Email Address

Cost Manager
Title/Company

Daren Snyder
Print Name

Date

RECEIVED

SEP 18 2015

LICENSES & PERMITS
DIVISION

GP# 615000073

Checks Payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY
PLEASE WRITE NEATLY & LEGIBLY

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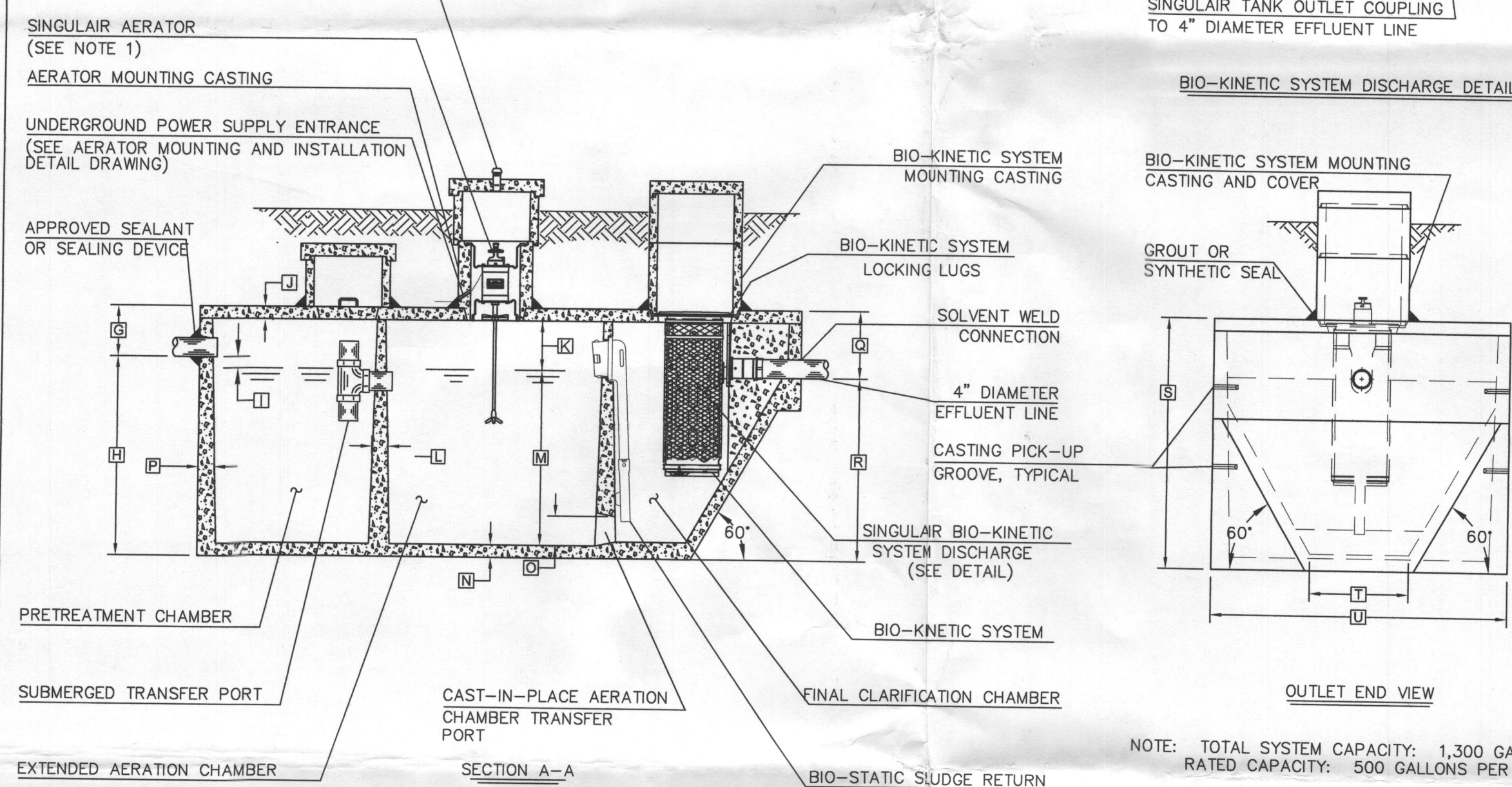
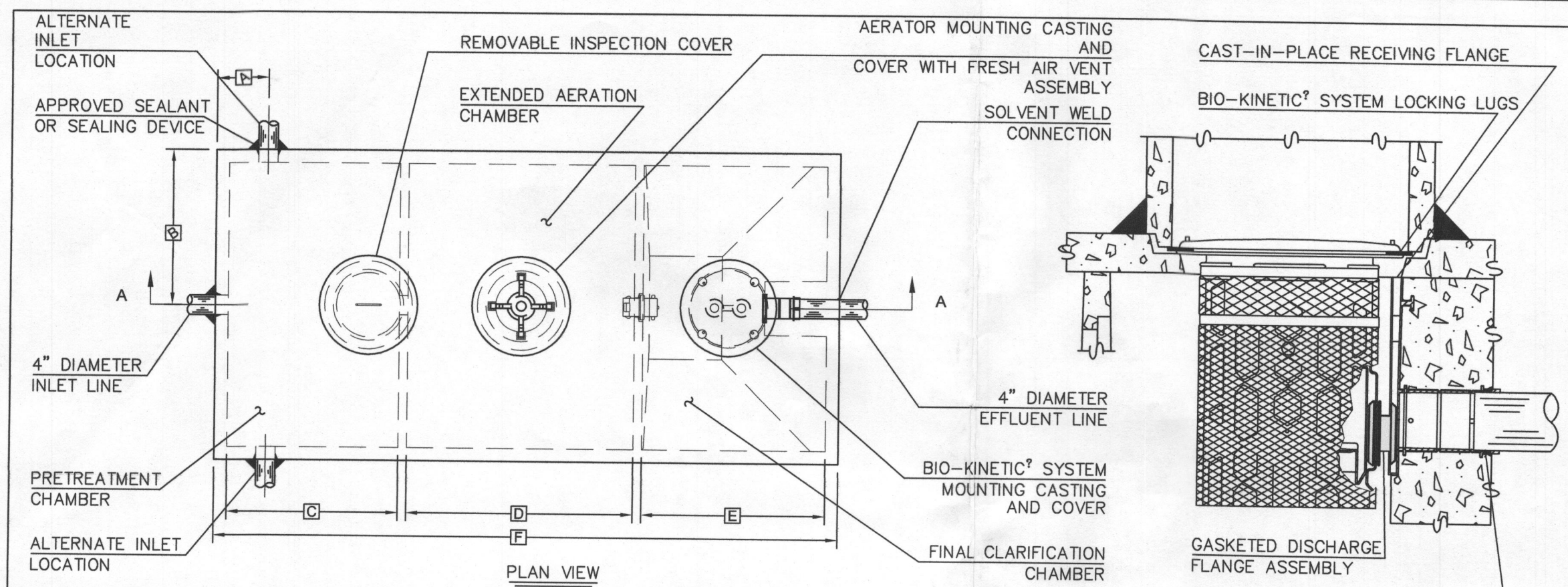
AGENCY	DATE	SIGNATURE OF APPROVAL
State Highways		
Building Officials		
PSZA (Zoning)		
PSZA (Engineering)		
Health	10/10/2015	J. Buckner
Fire Protection		
Is Sediment Control approval required for issuance? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
<input type="checkbox"/> CONTINGENCY CONSTRUCTION START		
<input type="checkbox"/> ONE STOP SHOP		

DPZ SETBACK INFORMATION	
Front:	
Rear:	
Side:	
Side St.:	
All minimum setbacks met?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is Entrance Permit Required?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Historic District?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Lot Coverage for New Town Zone:	
SDP/Red-line approval date:	

Filing Fee	\$ 100
Permit Fee	\$
Tech Fee	\$
Excise Tax	\$
PSFS	\$
Guaranty Fund	\$ 50
Add'l per Fee	\$
Total Fees	\$
Sub-Total Paid	\$
Balance Due	\$

Distribution of Copies: White: Building Officials Green: PSZA, Zoning Yellow: PSZA, Engineering Pink: Health Gold: SHA
T:\Operations\Updated Forms\New building app 11.10.2010.docx

CKS 850942 +
850943



- GENERAL NOTES:**
- SINGULAR AERATOR, AS TESTED AND ACCEPTED BY NSF, OPERATING 60 MINUTES ON / 60 MINUTES OFF.
 - FALL THROUGH SINGULAR[®] PLANT FROM INLET INVERT TO OUTLET INVERT IS FOUR INCHES. INLET INVERT IS TWELVE INCHES BELOW TANK TOP.
 - ON DEEPER INSTALLATIONS, PRECAST RISERS MUST BE USED TO EXTEND AERATOR MOUNTING CASTING AND BIO-KINETIC SYSTEM MOUNTING CASTING TO GRADE.
 - TANK REINFORCED PER ACI STD. 318-05.
 - REMOVABLE COVERS ON RISERS WEIGH IN EXCESS OF SEVENTY-FIVE POUNDS EACH TO PREVENT UNAUTHORIZED ACCESS.
 - CONTACT THE LOCAL, LICENSED SINGULAR DISTRIBUTOR FOR ELECTRICAL REQUIREMENTS.

PROJECT ENGINEER'S APPROVAL:
I (WE) HEREBY CERTIFY THAT THIS DRAWING HAS BEEN CHECKED AND IS APPROVED FOR USE IN CONFORMITY WITH THE CONTRACT DOCUMENTS.

DATE:

NAME:

CONTRACTOR'S CERTIFICATION:
I (WE) HEREBY CERTIFY THAT THIS DRAWING HAS BEEN CHECKED AND IS APPROVED FOR USE IN CONFORMITY WITH THE CONTRACT DOCUMENTS.

DATE:

NAME:

CRITICAL DIMENSIONS

A	1'-0"	N	0'-3"
B	3'-0"	O	0'-6"
C	3'-4"	P	0'-3"
D	4'-5"	Q	1'-4"
E	3'-7"	R	3'-8"
F	12'-2"	S	5'-0"
G	1'-0"	T	2'-0"
H	4'-0"	U	6'-0"
I	0'-3"	V	
J	0'-3"	W	
K	1'-0"	X	
L	0'-2"	Y	
M	3'-6"	Z	

norweco
U.S. AND FOREIGN PATENTS PENDING
LOW-PROFILE SINGULAR[®] BIO-KINETIC WASTEWATER TREATMENT SYSTEM
MODEL: NTLTP-500 GPD
NTS
PC-5-7091

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 SHALL BE 3 FEET.
- 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.
- ANY 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 15565, FOLIO 079.
- 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.

SEPTIC SYSTEM ELEVATIONS

FTE = 765.42
BSE = 756.50
INV. OUT OF HOUSE = 753.50
PROP. GROUND AT C/O = 755.40
INV. INTO C/O = 752.50
INV. OUT OF C/O = 752.40
EX. GROUND AT BAT TANK = 755.40
TOP OF BAT TANK = 753.32
COVER OVER BAT TANK = 2.08 FT
INVERT INTO BAT TANK = 752.32
INVERT OUT OF BAT TANK = 751.99
EX. GROUND AT PUMP TANK = 755.40
TOP OF PUMP TANK = 752.66
COVER OVER PUMP TANK = 2.74 FT
INVERT INTO PUMP TANK = 751.91
INVERT OUT OF PUMP TANK = 752.83

SEPTIC SYSTEM DESIGN

5 BEDROOM HOUSE
LOADING RATE = 750 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 5.5 FEET
TRENCH DEPTH = 6.0 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 0.5 FEET
SF OF DRAINFIELD = 750 GPD / 0.8 = 937.5 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2*0.5)) = 1.0
TRENCH LENGTH = 937.5 SF x 1.0 / 3 = 312.5 FEET (USE 314.5 FEET)
TRENCH SPACING = 2D+W = ((2*0.5) + 3) = 4 USE 10'

FRICTION LOSS IN 3" PIPE FITTINGS:

4 1/8" HB x 6 FEET PER FITTING = 24 EQUIVALENT FEET OF PIPE
5 TEE/CROSS x 17 FEET PER FITTING = 85 EQUIVALENT FEET OF PIPE
1 UNION x 4 FEET PER FITTING = 4 EQUIVALENT FEET OF PIPE
2 ELBOWS x 12 FEET PER FITTING = 24 EQUIVALENT FEET OF PIPE
TOTAL EQUIVALENT FEET OF PIPE = 137 FT

TOTAL LINEAR FEET OF 3" SCH. 40 PVC = 57 LF + 137 LF = 194 LF

DYNAMIC HEAD

194 LF x 1.74 FT PER 100 LF OF PIPE = 3.38 FT OF FRICTION HEAD
DISTAL HEAD = 2.00 FT
VERTICAL FROM PUMP OFF TO DISCHARGE = 3.66 FT OF STATIC HEAD
VERTICAL FROM DISCHARGE TO TRENCH = 0 FT
TOTAL DYNAMIC HEAD = 9.0 FT

PIPE VOLUMES

57 LF (3" SCH. 40 PIPE) x 38.4 GALLONS PER 100 LF = 21.9 GALLONS
292 LF (1.5" SCH. 40 PIPE) x 10.6 GALLONS PER 100 LF = 30.9 GALLONS

MINIMUM DOSE

MINIMUM DOSE = (5 X LATERAL PIPE VOLUME) + (FORCE MAIN & MANIFOLD)
= (5 X 30.9) + (21.9)
= 176.4 GALLONS

176 GALLONS IS MORE THAN 1/6 DESIGN FLOW (750/6=125)
USE 180.6 GALLON DOSE (176.4 GALLON MINIMUM)
(RUN TIME = 2 MIN (90.3 GPM X 2 = 180.6 GALLON DOSE))

PUMP NEEDS TO HANDLE 90.3 GPM AT 9 FT OF HEAD
USE 0.5 HP (ME50 PUMP)

PROFESSIONAL CERTIFICATION

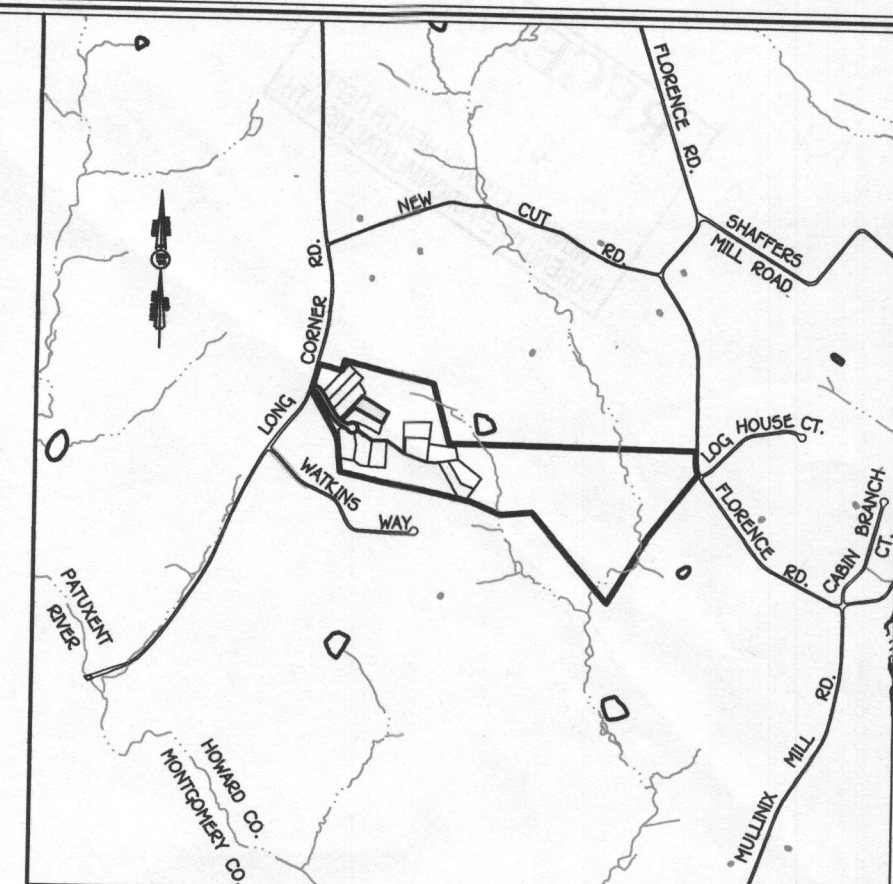
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38386, EXPIRATION DATE: 01/12/2016.

Signature of Professional Engineer

DATE



LEGEND	
SYMBOL	DESCRIPTION
---	EXISTING CONTOUR 2' INTERVAL
- - -	PROPOSED CONTOUR 2' INTERVAL
x362.5	SPOT ELEVATION
⊙	EXISTING WELL
⊙	EXISTING STREET TREES FROM F-12-072
⊙	EXISTING PERIMETER TREES FROM F-12-072

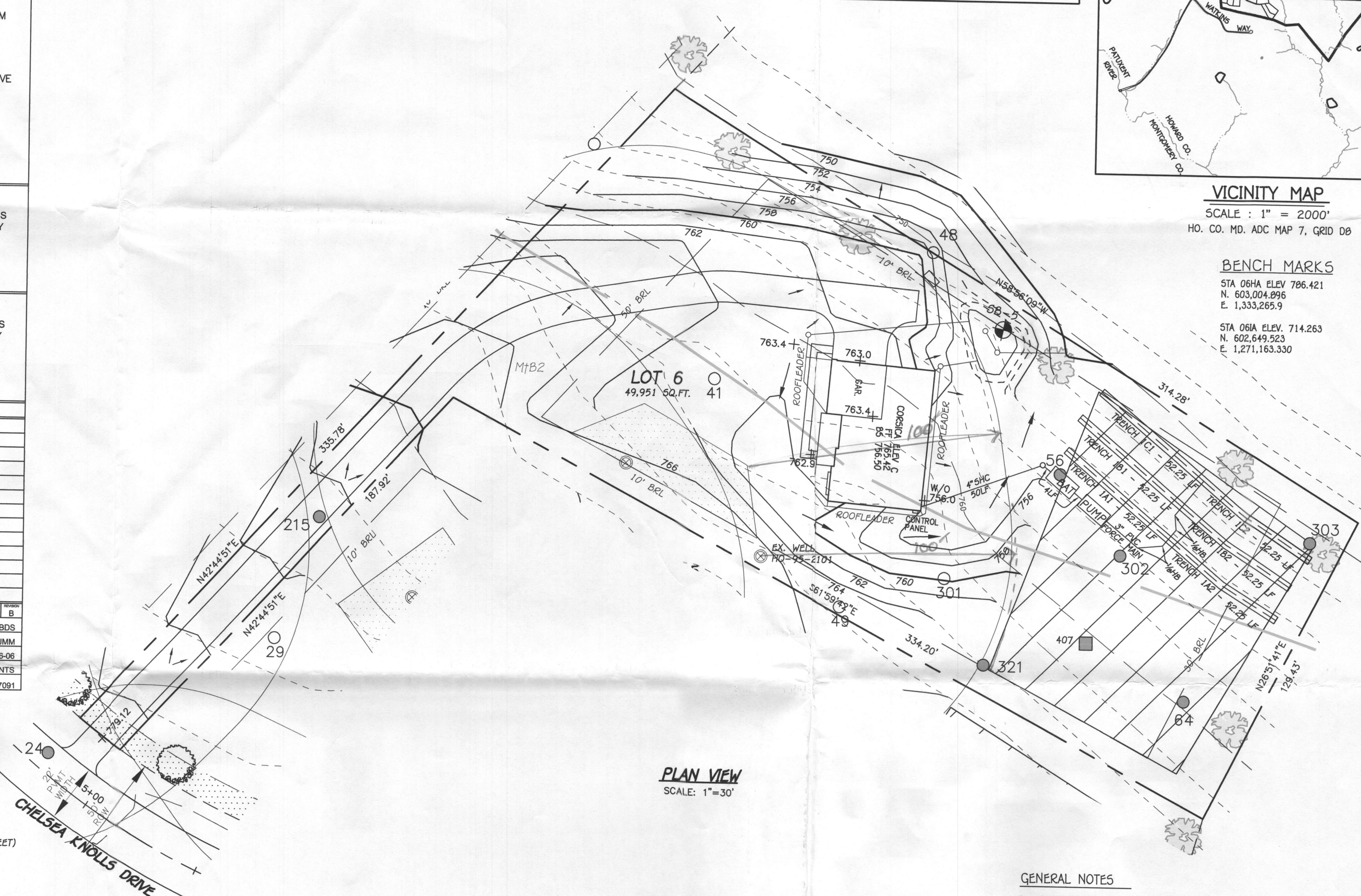


VICINITY MAP

SCALE : 1" = 2000'
HO. CO. MD. ADC MAP 7, GRID D8

BENCH MARKS

STA 06HA ELEV 786.421
N. 603,004.896
E. 1,335,265.9
STA 06HA ELEV 714.263
N. 602,649.523
E. 1,271,163.330



PLAN VIEW
SCALE: 1"=30'

GENERAL NOTES

- SUBJECT PROPERTY ZONED: RC-DEO
- TOTAL AREA OF PROPERTY: 49,951 SQ. FT. OR 1.14 AC.
- SEPTIC EASEMENT SUBJECT TO HOWARD COUNTY HEALTH DEPARTMENT REVIEW.
- CONTRACTOR/BUILDER TO VERIFY ELEVATION IN THE FIELD BEFORE BEGINNING ANY CONSTRUCTION.
- BOUNDARY OF LOT BASED ON PLAT #22017.
- TOPOGRAPHY SHOWN HEREON TAKEN FROM F-07-072 WHICH IS BASED ON FIELD RUN TOPOGRAPHIC SURVEY CONDUCTED BY MILDENBERG, BOENDER & ASSOCIATES, INC. IN SEPTEMBER, 2001. TOPOGRAPHY IN NON-DEVELOPED AREAS IS BASED ON HOWARD COUNTY 200 SCALE TOPOGRAPHY.
- NO WETLANDS EXIST ON THIS LOT.

NOTE

THE EXISTING WELL SHOWN ON THIS PLAN, TAG NO. HO #95-2101 HAS BEEN FIELD LOCATED BY FISHER, COLLINS & CARTER, INC., PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.

SOILS LEGEND

SOL	NAME	CLASS
MSB	Mt. Air clayey loam, 3 to 8 percent slopes, moderately eroded	A
MC2	Mt. Air clayey loam, 8 to 15 percent slopes, moderately eroded	A

BAT SITE PLAN

LOT 6
CHELSEA KNOLLS
18329 CHELSEA KNOLLS DRIVE

ZONING: RC-DEO
TAX MAP NO. 12 GRID NO. 5 PARCEL NO. 78
FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DATE: OCTOBER, 2015
SHEET 1 OF 2

OWNER
CHELSEA KNOLLS, LC
1355 BEVERLY RD., SUITE 240
MCLEAN, VIRGINIA 22101
(703) 734-9730
(301) 720-3021

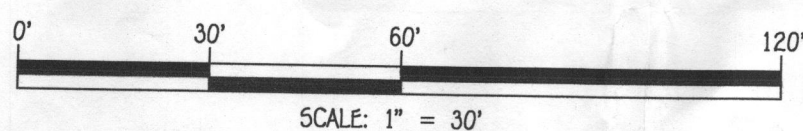
DEVELOPER

RYAN HOMES, INC.
ATTN: LEVIN BOWSER
9720 PATUXENT WOODS DRIVE
COLUMBIA, MARYLAND 21046
410-796-0980

FISHER, COLLINS & CARTER, INC.

CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

CENTRAL SQUARE OFFICE: 10272 BALTIMORE NATIONAL PIKE
ELLCOTT CITY, MARYLAND 21042
(410) 461-2895



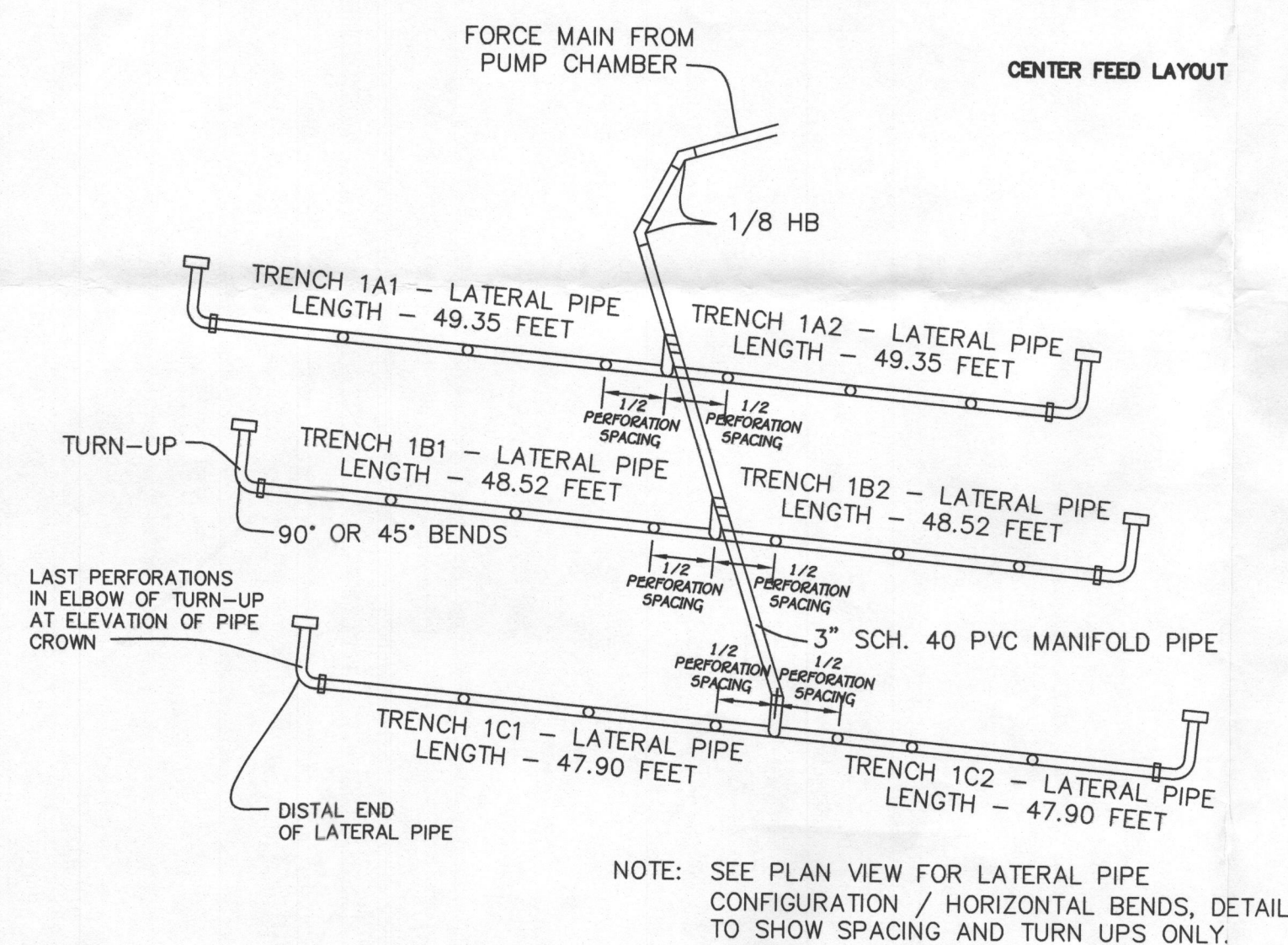
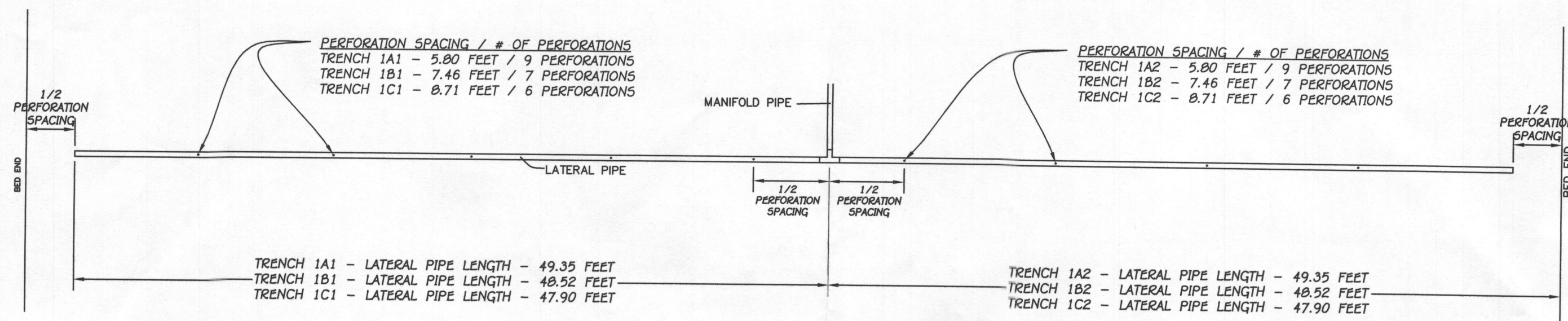


FIGURE 4.1 CENTER FEED MANIFOLD DISTRIBUTION NETWORK

PERFORATED PVC LATERAL PIPE BLOWUP DETAIL
SCALE: 1"=1'

NOTE: PLACE AN OBSERVATION PIPE IN THE GRAVEL BED AT THE DISTAL END OF EACH TRENCH SEGMENT.

ME SERIES EFFLUENT PUMPS

Trust The Pump Experts.

Myers has a market leading portfolio of horsepower and pump curve combinations, delivered with distinctive service.

Features

RELIABLE AND TOUGH

- Rugged, oil-cooled motor provides continuous bearing lubrication and maximizes heat dissipation

EXTENDED SERVICE

- Lubricated ball bearings and shaft seal for longer service life

MOTOR PROTECTION

- Long-life carbon/ceramic seal protects motor against water leakage

THERMAL OVERLOAD

- Heat sensor overload protection with automatic reset when motor cools to safe operating temperature

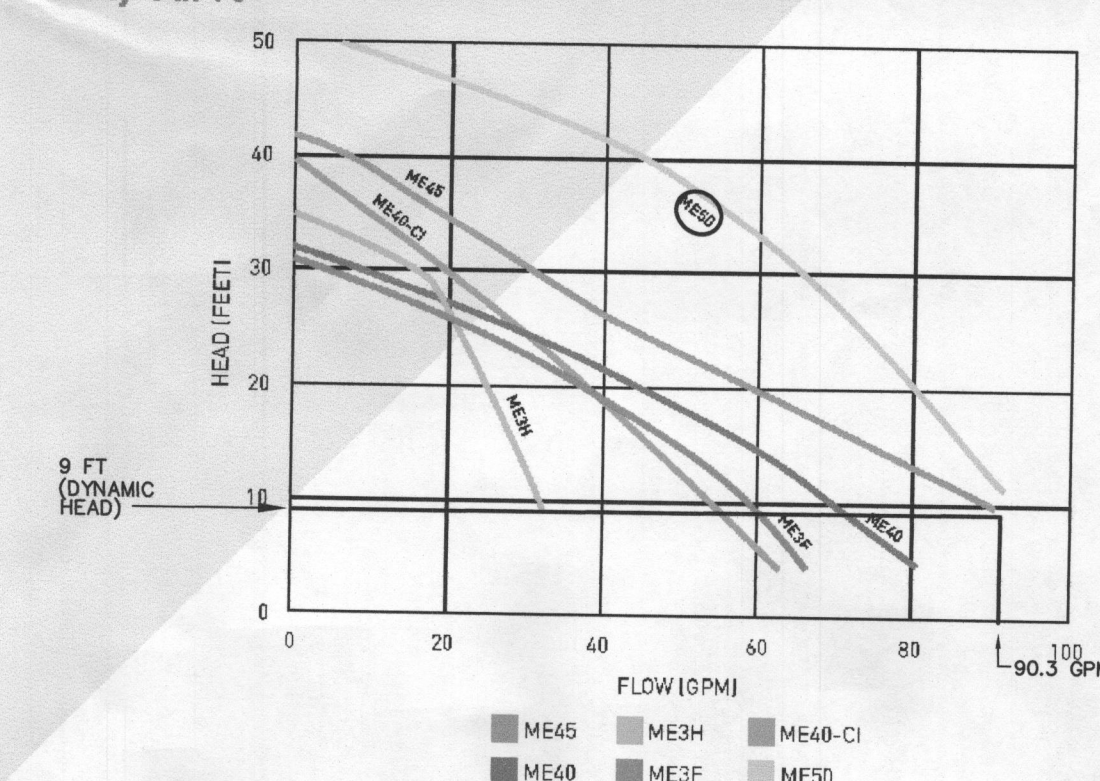
NO DRILLING REQUIRED

- Anti-airlock hole in base reduces added labor

EASY SERVICEABILITY

- Pump, intake screen volute base, switch and power cord are serviceable

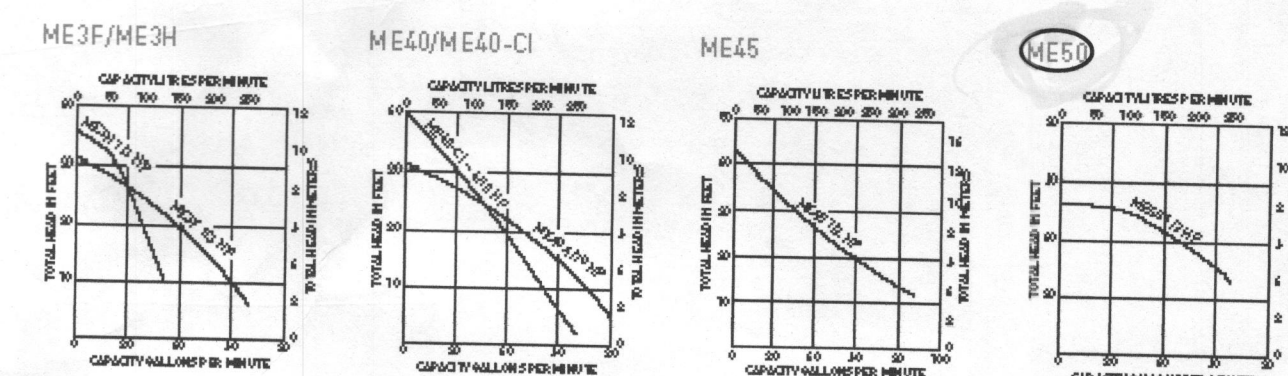
Family Curve



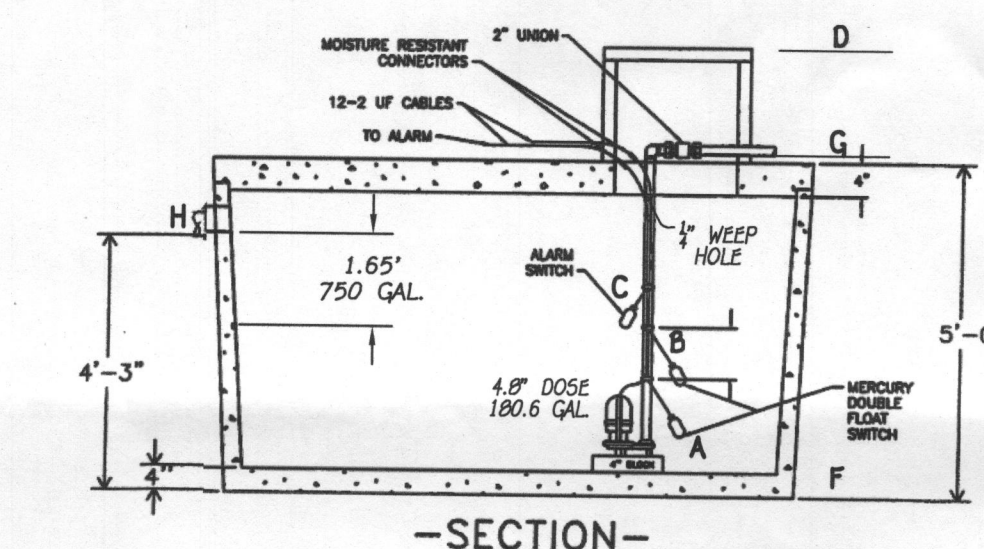
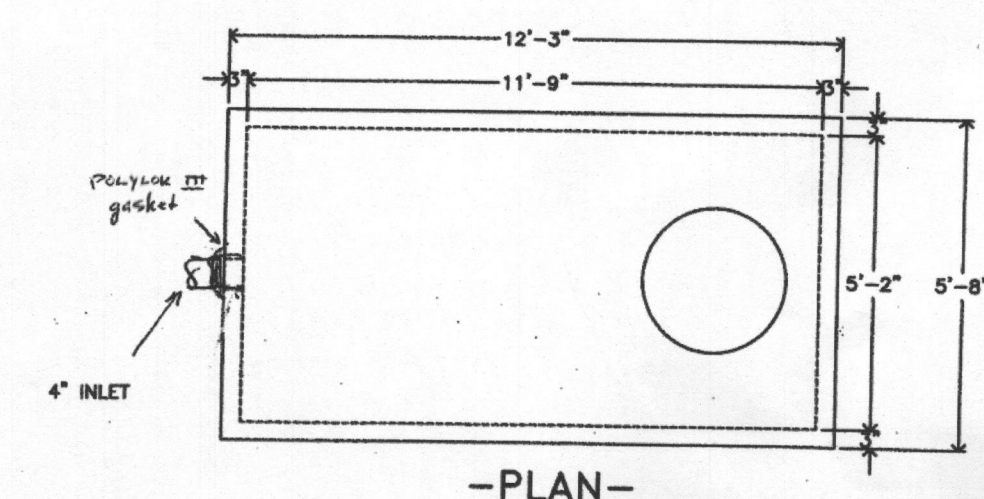
NOTE: USE A ME50 PUMP

Specifications

	ME3F/ME3H	ME40	ME40-CI	ME45	ME50
Capacity	ME3H: 36 GPM (13.5 LPM) ME3F: 40 GPM (15.1 LPM)	80 GPM (30.3 LPM)	80 GPM (30.3 LPM)	87 GPM (32.7 LPM)	120 GPM (45.4 LPM)
Shut-off Head	ME3H: 35' (10.7 m) ME3F: 31' (9.5 m)	32' (9.8 m)	40' (12.2 m)	44' (13.4 m)	55' (16.8 m)
Operation	Automatic or manual	Automatic or manual	Automatic or manual	Automatic or manual	Automatic or manual
Solids Handling	3/4" (19 mm)	3/4" (19 mm)	3/4" (19 mm)	3/4" (19 mm)	3/4" (19 mm)
Liquid Handling	Domestic effluent and drain water	Domestic effluent and drain water	Domestic effluent and drain water	Domestic effluent and drain water	Domestic effluent and drain water
Liquid Temp	Intermittent up to 140°F (60°C)	Intermittent up to 140°F (60°C)	Continuous 120°F (49°C)	Intermittent up to 140°F (60°C)	Intermittent up to 140°F (60°C)
Motor Electrical Data	1/2 HP, 1550 RPM, shaded pole, oil-filled, 115V, 12.5A, 16, 60Hz, 230V, 6.5A, 16, 60Hz	4/10 HP, 1550 RPM, PSC with thermal overload, oil-filled, 115V, 12.5A, 16, 60Hz, 230V, 6.5A, 16, 60Hz	4/10 HP, 1550 RPM, PSC with thermal overload, oil-filled, 115V, 12.5A, 16, 60Hz, 230V, 6.5A, 16, 60Hz	1/2 HP, 3450 RPM, PSC with thermal overload, oil-filled, 115V, 6.6A, 16, 60Hz, 230V, 6.5A, 16, 60Hz	1/2 HP, 115V, 1/2 to 1-1/2 HP, 230V, 16, 09/220/400/690V, 3ph, PSC with thermal overload, oil-filled, per motor split capacitor type, 18, 3450 RPM, 60Hz
Acceptable pH Range	6-9	5-9	5-9	5-9	5-9
Shaft Seal	Carbon and ceramic mechanical seal	Carbon and ceramic mechanical seal	Carbon and ceramic mechanical seal	Carbon and ceramic mechanical seal	Carbon and ceramic mechanical seal
Housing/Volute	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron
Volute Base	Fiberglass reinforced polypropylene	Cast iron	Cast iron	Cast iron	Cast iron
Impeller	Fiberglass reinforced	Cast iron	Thermoplastic, non-clog, vortex type	Cast iron	Cast iron
Exterior Hardware	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Power Cord	20', 14/2, SJTW	20', 14/2, SJTW	20', 14/2, SJTW	20', 14/2, SJTW	10'
Discharge, NPT	1-1/2" (38.1 mm)	1-1/2" (38.1 mm)	2" (50.8 mm)	2" (50.8 mm)	2" (50.8 mm)



MONARCH PRODUCTS COMPANY, INC.
YORK HAVEN, PA.



PRECAST 1 COMPARTMENT PUMP TANK 1500 GALLON CAPACITY

DWG. PT-15-1

PUMP ALARMS / INFORMATION
A. PUMP OFF: 749.16
B. PUMP ON: 749.56
C. HIGH WATER ALARM: 750.26
D. TOP OF ACCESS COVER: 755.40
E. TOP OF TANK: 752.66
F. BOTTOM OF TANK: 747.66
G. DISCHARGE OUT OF TANK: 752.83
H. INVERT INTO TANK: 751.91

NOTE: SEPTIC SYSTEM ALARM WILL BE ON A CIRCUIT SEPARATE FROM ANY OTHER SEPTIC SYSTEM COMPONENTS OR ALARMS.

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. 38386, EXPIRATION DATE: 01/12/2016.

Signature Of Professional Engineer: *[Signature]* DATE: 10/9/15



OWNER

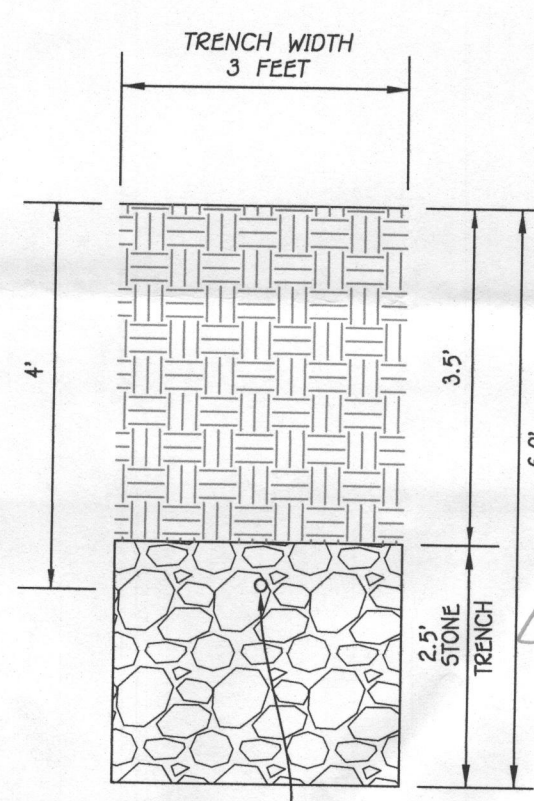
CHELSEA KNOLLS, LC
1355 BEVERLY RD. SUITE 240
MCLEAN, VIRGINIA 22101
(703) 734-9730
(301) 720-3021

DEVELOPER

RYAN HOMES, INC.
ATTN: KEVIN BOWSER
9720 PATUXENT WOODS DRIVE
COLUMBIA, MARYLAND 21046
410-796-0980

LARGER DIAMETER PIPE BROUGHT TO GRADE SURROUNDS LATERAL TO PROVIDE ACCESS AND PROTECTION

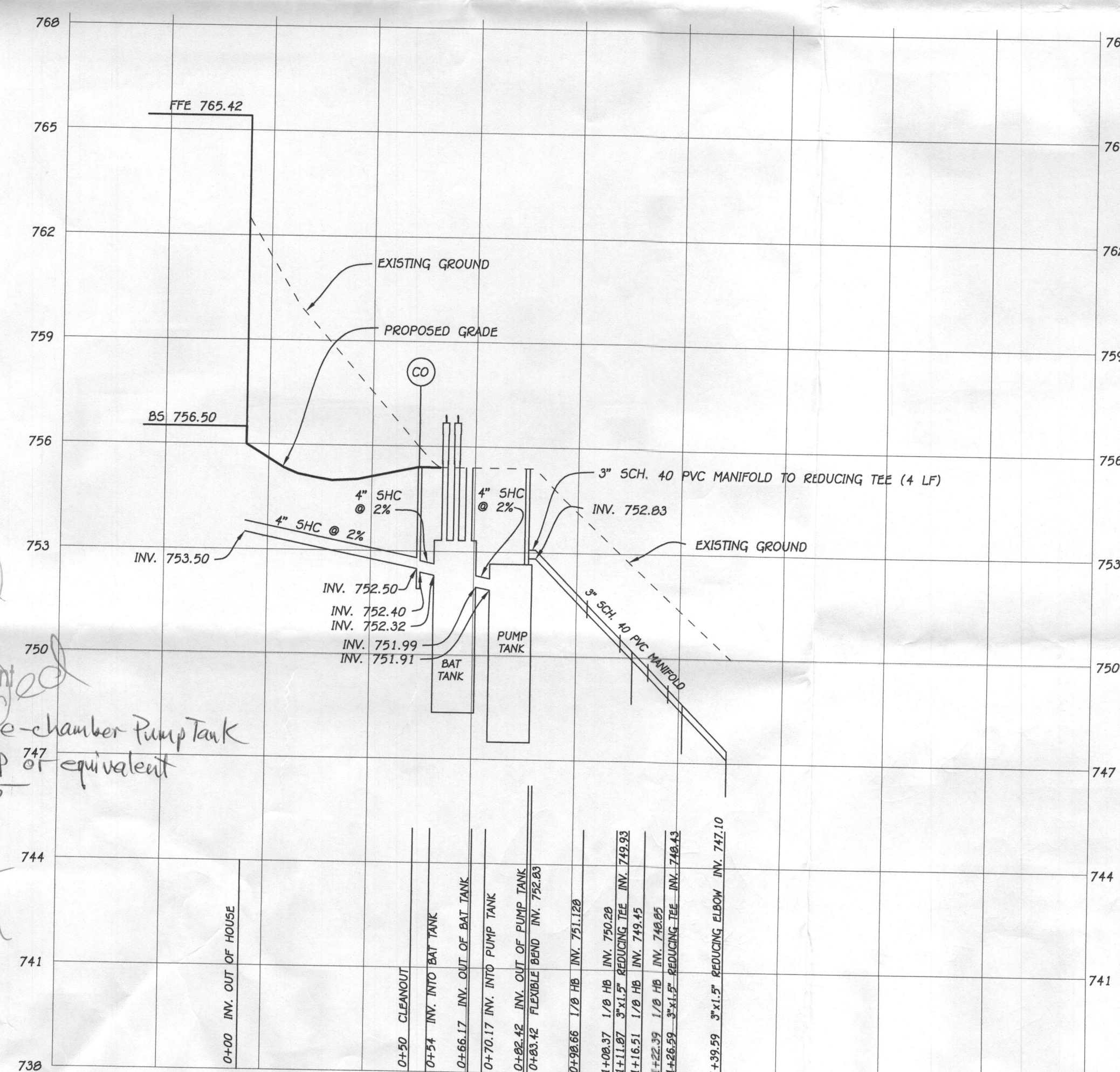
TURN-UP HEIGHT 2 FEET



TRENCH DETAIL
SCALE: 1"=2'

NOTE: OBSERVATION PIPE MUST BE INSTALLED AT EACH END OF EACH TRENCH

Approved Septic System Plan
Howard County Health Department
NORWEGIAN TINTLP-500
1 Monarch 1500 gal single-chamber Pump Tank
w/ Myers ME50 Pump of equivalent
Signature: *[Signature]* Date: 10/9/15
B-1500 4081



SEPTIC PROFILE

HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'

BAT SITE PLAN

LOT 6
CHELSEA KNOLLS
18329 CHELSEA KNOLLS DRIVE

ZONING: RC-DEO
TAX MAP NO. 12 GRID NO. 5 PARCEL NO. 78
FOURTH ELECTION DISTRICT—HOWARD COUNTY, MARYLAND
DATE: OCTOBER, 2015
SHEET 2 OF 2

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

CENTRAL SQUARE OFFICE: 10272 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21042
(410) 461-2895