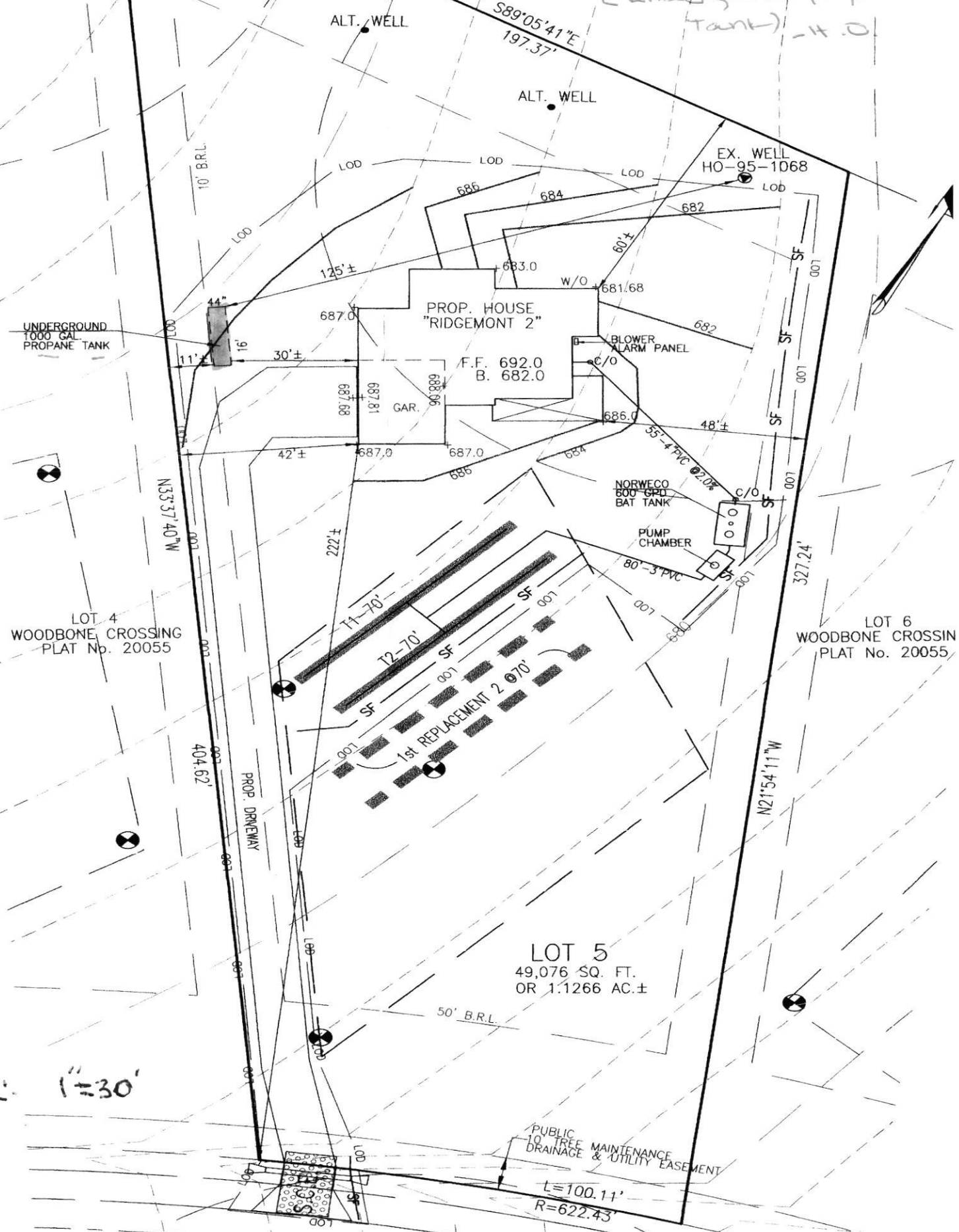


SECTION 1
PATAPSCO OVERLOOK
PLAT # 6718

11/16/15
Site Plan approved
as shown for D15004874
(Underground Propane
Tank) - H.O.



Scale: 1"=30'



Howard County
Department of Inspections, Licenses & Permits
3430 Court House Drive
Ellicott City, MD 21043
(410) 313-2455

CERTIFICATE OF USE AND OCCUPANCY

Issued On March 24, 2016

Pursuant to the provisions of the Zoning Regulations for Howard County, Maryland and to the provisions of the Howard County Building Code for Howard County, Maryland which were in effect on the date Building Permit No. B15003911 was filed.

Permission is granted to LDG INC at 8601 GEORGIA AVENUE SILVER SPRING, MD 20910 to use and occupy the land and/or building described and located as follows:

727 WOODBINE CROSSING RD
MOUNT AIRY, MD 21771

Lot Number 5

For the purpose set forth below:

Residential New Single Family Dwelling Permit

Description of Work:

SFD/ 2-STORY, FULL BSMT, 9 R, 2 FB, 1 HB, 1 FP, 2-CAR SIDE LOAD GARAGE (4 BR), PORCH, ENERGY PERFORMANCE METHOD

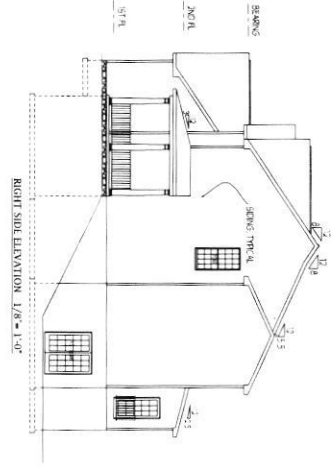
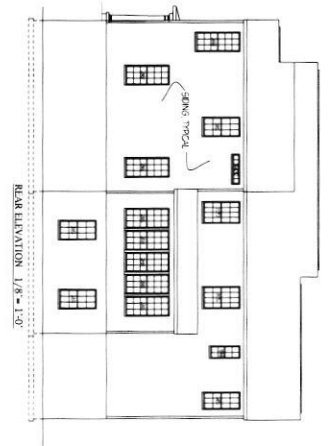
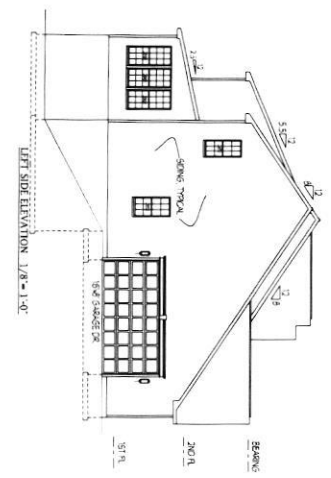
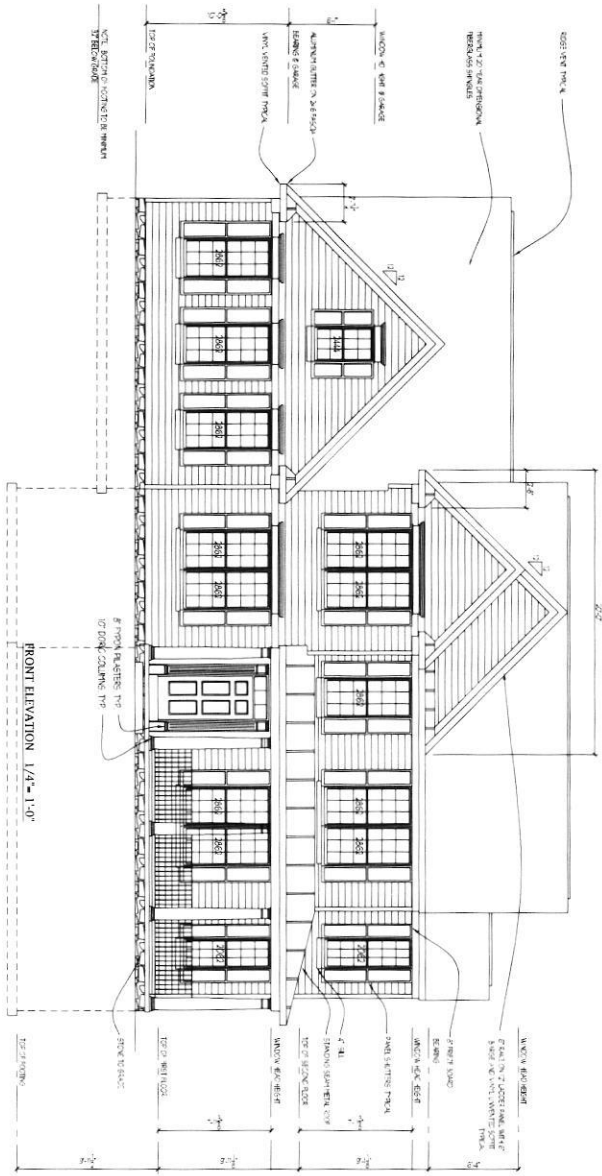
Conditions/Comments:

Certificate of Use And Occupancy for Building Permit Number B15003911 Issued on 10/9/2015 approved by the Designee of the Department of Inspections, Licenses & Permits of Howard County, Maryland,

Shal Logan on *3-24-16*

THIS CERTIFICATE IS GOOD FOR THE USE AND TO THE EXTENT DESCRIBED ABOVE. A CHANGE IN USE, OR ANY EXTENSION THEREOF, REQUIRES A NEW PERMIT

B15003A11
 FPS show 4 BR
 w/ unfinished basement.



FINAL SET 8/31/15

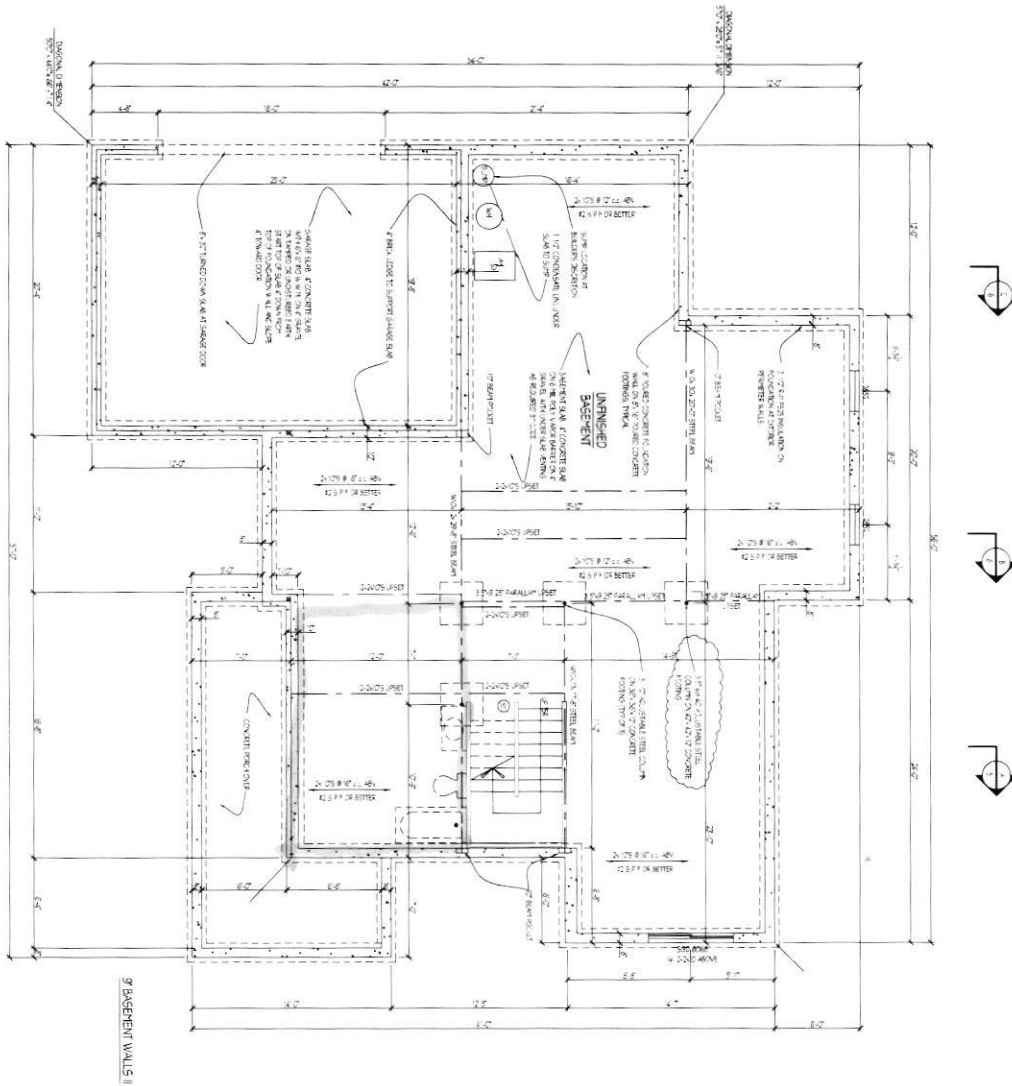
Project No.: C15.11
 Date: 8/15
 Scale: NOTED

1

Project: CATONVILLE HOMES
 RIDGEMONT 2
 WOODBINE CROSSING LOT 5

Drawing: ELEVATIONS
 FL1 SQ.FT: 1590
 FL2 SQ.FT: 1325
 Notes:

Plymouth Road Architects
 640 Plymouth Road, Baltimore, MD 21229, 410-788-0281
 PlymouthRoadArchitects.com



FINAL SET 8/31/15

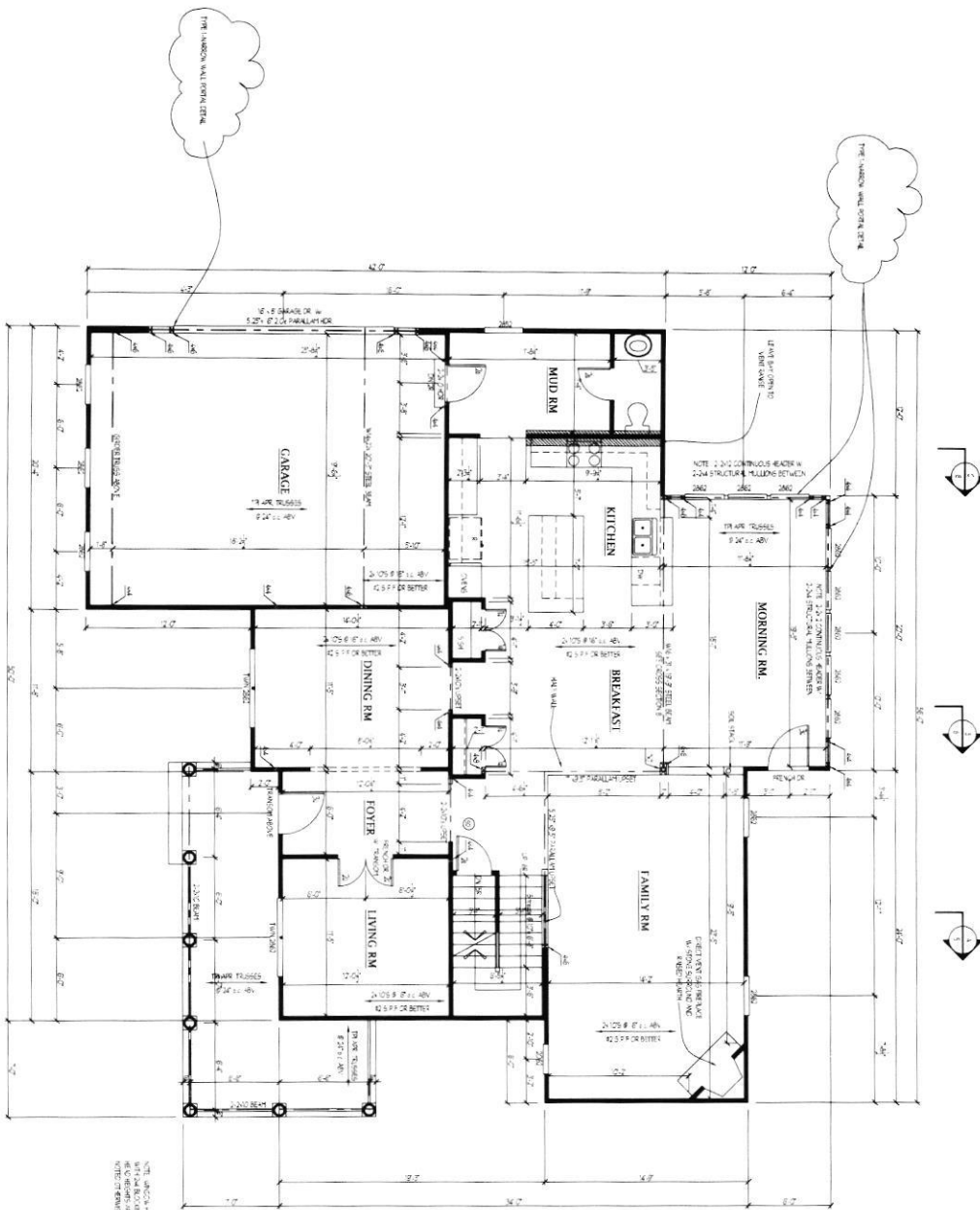
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Project No.: C15.11
 Date: 8/15
 Scale: 1/4"=1'-0"

Drawing: BASEMENT/ FOUNDATION PLAN
 Project: CATONSVILLE HOMES
 RIDGEMONT 2
 WOODBINE CROSSING LOT 5

Notes:

Plymouth Road Architects
 640 Plymouth Road, Baltimore, MD 21229. 410-788-0281
 PlymouthRoadArchitects.com



NOTE: ALL DIMENSIONS ARE TO FACE UNLESS NOTED OTHERWISE. ALL DIMENSIONS ARE TO FACE UNLESS NOTED OTHERWISE.

FINAL SET 8/31/15

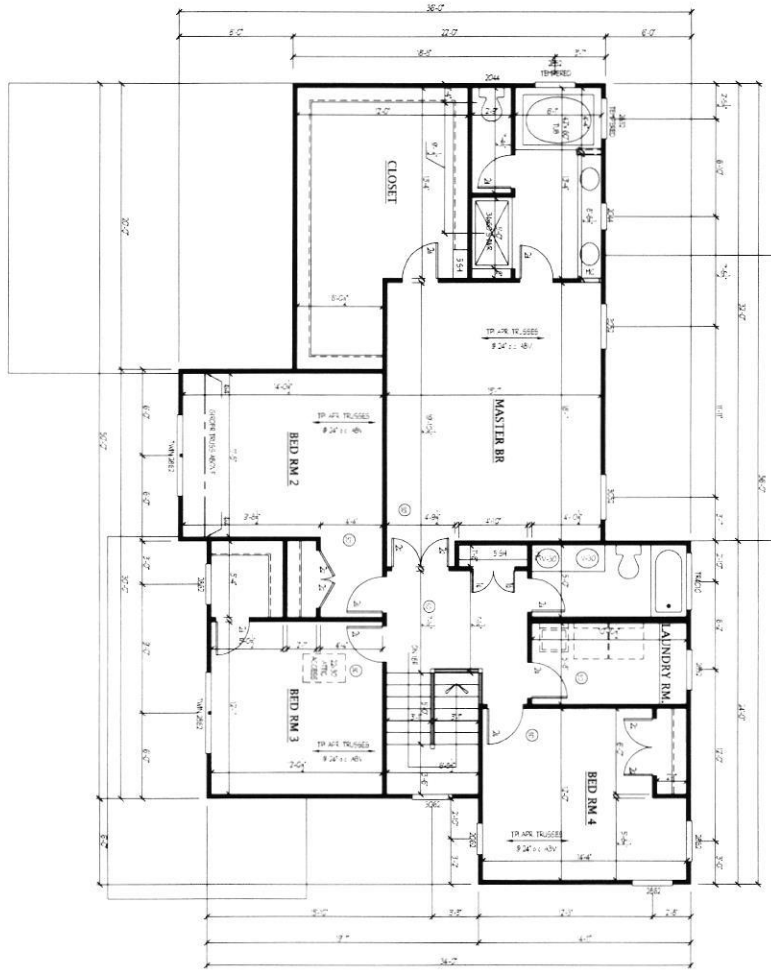
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Project No.: C15.11
 Date: 8/15
 Scale: 1/4"=1'-0"

Drawing: **FIRST FLOOR PLAN**
 Project: **CATONSVILLE HOMES
 RIDGEMONT 2
 WOODBINE CROSSING LOT 5**

Notes:

Plymouth Road Architects
 640 Plymouth Road, Baltimore, MD 21229 - 410-788-0281
 PlymouthRoadArchitects.com



NOT TO SCALE
 DIMENSIONS ARE IN FEET AND INCHES
 UNLESS OTHERWISE NOTED
 © 2015 PLYMOUTH ROAD ARCHITECTS
 ALL RIGHTS RESERVED

FINAL SET 8/31/15

8/31/2015 10:52:33 AM

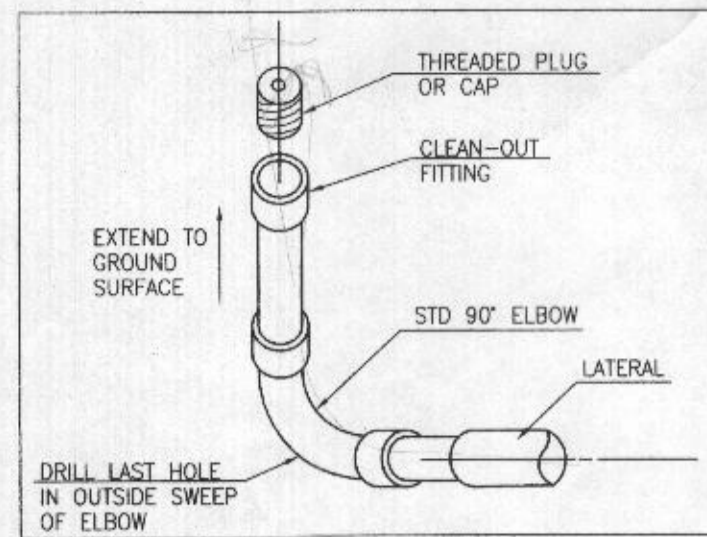


Project No.: C15.11
 Date: 8/15
 Scale: 1/4" = 1'-0"

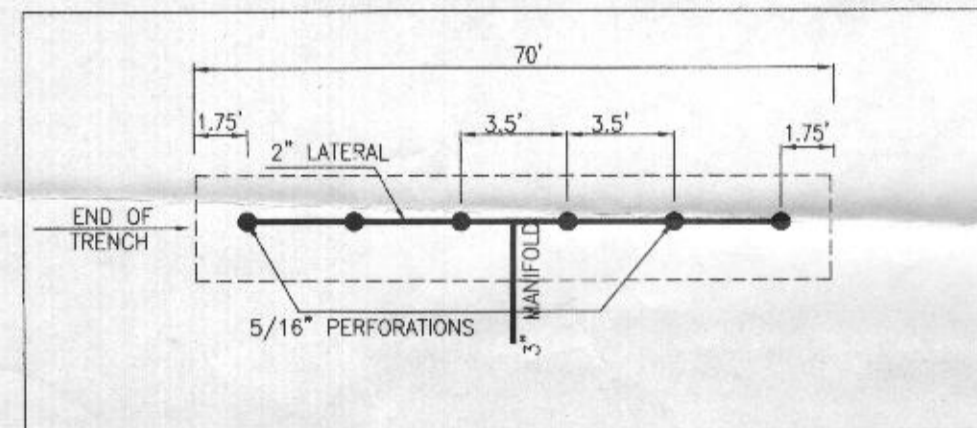
Drawing: SECOND FLOOR PLAN
 Project: CATONVILLE HOMES
 RIDGEMONT 2
 WOODBINE CROSSING LOT 5

Notes:

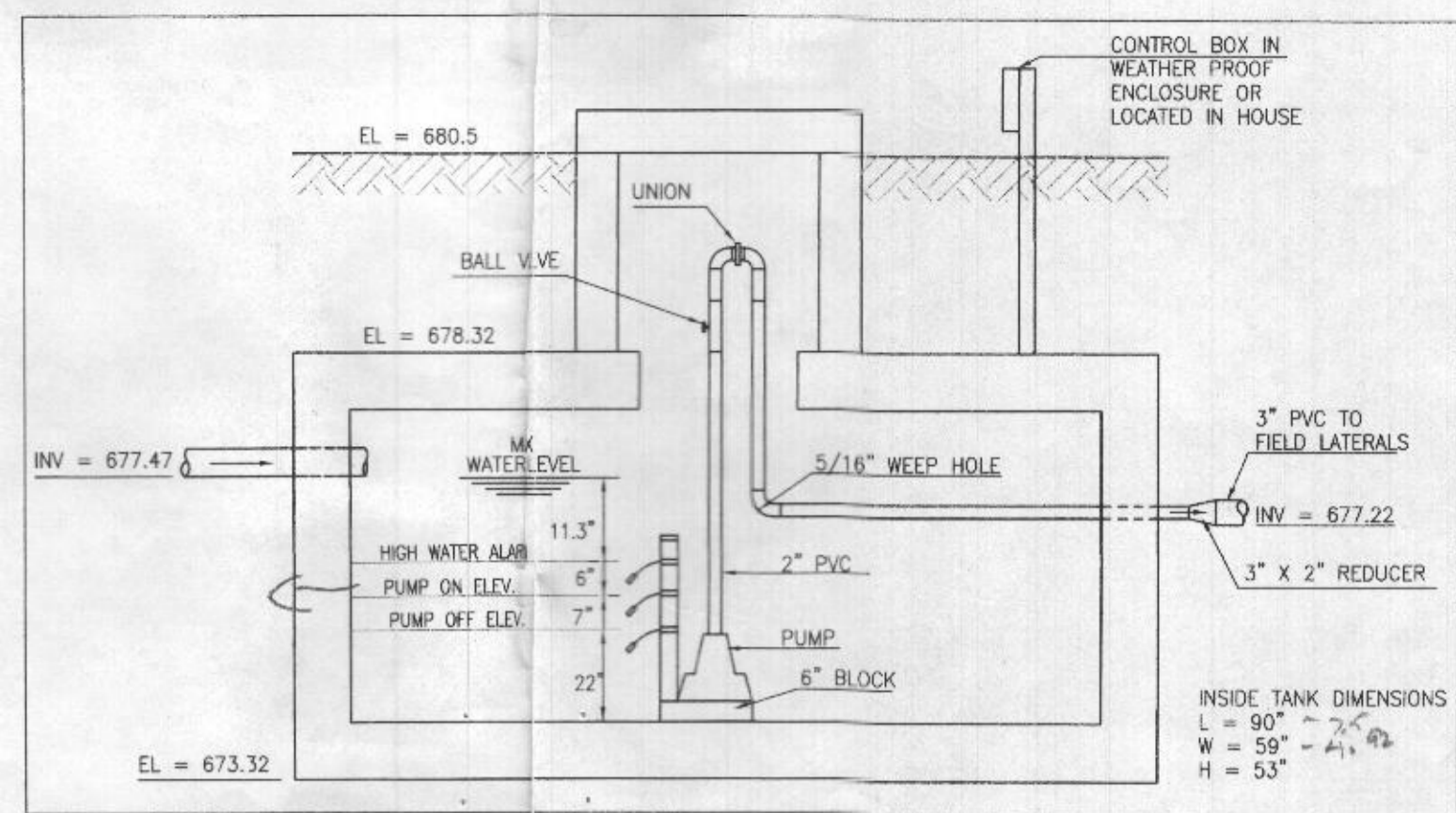
Plymouth Road Architects
 640 Plymouth Road, Baltimore, MD 21229, 410-788-0281
 PlymouthRoadArchitects.com



LATERAL END TURN-UP
USE ON LATERAL FARTHEST FROM PUMP AND ON LATERAL DIAGONALLY ACROSS BED
NOT TO SCALE



LATERAL DETAIL
NOT TO SCALE



125 GAL. PUMP CHAMBER
NOT TO SCALE

LOW PRESSURE DOSE SYSTEM SPECIFICATIONS

- ALL PIPING TO BE SCHEDULE 40 PVC OF SIZES SHOWN.
- A SUBMERSIBLE PUMP TO REMOVE 58.8 GPM AGAINST 6 TDH TO BE PROVIDED. PUMP TO BE A GOULDS MODEL 38-W40H OR EQUAL.
- A TEST OF THE PUMPSYSTEM AND DISTRIBUTION-PIPING IS REQUIRED PRIOR TO COVERING THE SYSTEM.
- THE HIGH WATER ALARM IS TO BE ON A SEPARATE CIRCUIT ALARM TO BE LOCATED IN THE HOUSE.

LOW PRESSURE DSE SYSTEM DESIGN CRITERIA

DOSE VOLUME

1. MINIMUM DOSE = X LATERAL PIPE VOLUME + (FORCE MAIN & MANIFOLD) → (5 X 14.84) + 25.7 = 109.7 gallons

2. 157.7 GALLONS IS 35% THAN 1/8 DESIGN FLOW (4 BEDS X 150 GALLONS)/6 = 100 GALLONS
USE 157.7 GALLON DOSE (2.7 MIN RUN TIME X 58.8 GPM FLOW)

PIPE VOLUMES

1. 93 LF (3" PIPE) X 8.4 GALLONS PER 100 LF = 78.12 GALLONS
2. 140 LF (2" PIPE) 17.4 GALLONS PER 100 LF = 24.36 GALLONS → 140 (1 1/2" Pipe) X 10.6 gal/100' = 14.84

FRICTION LOSS IN 3" PIPING

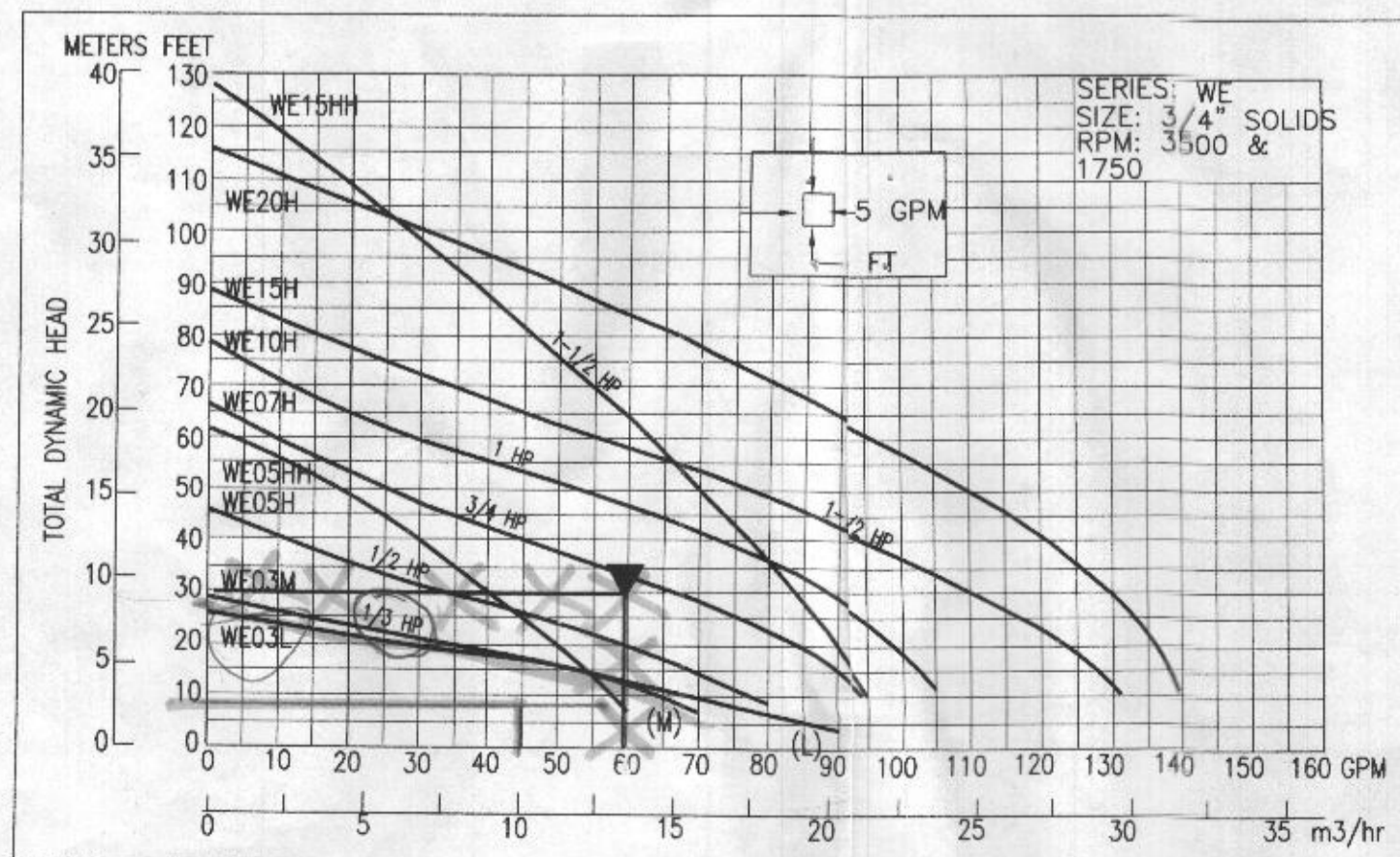
1 - 90° X 15 FT R FITTING = 15 EQUIVALENT FT OF PIPE
2 - 45° X 6 FT R FITTING = 12 EQUIVALENT FT OF PIPE
TOTAL EQUIVALENT FT OF PIPE = 27 FEET
TOTAL LINEAR FEET 3" PVC = 93 LF + 24 LF = 117 LF

DYNAMIC HEAD

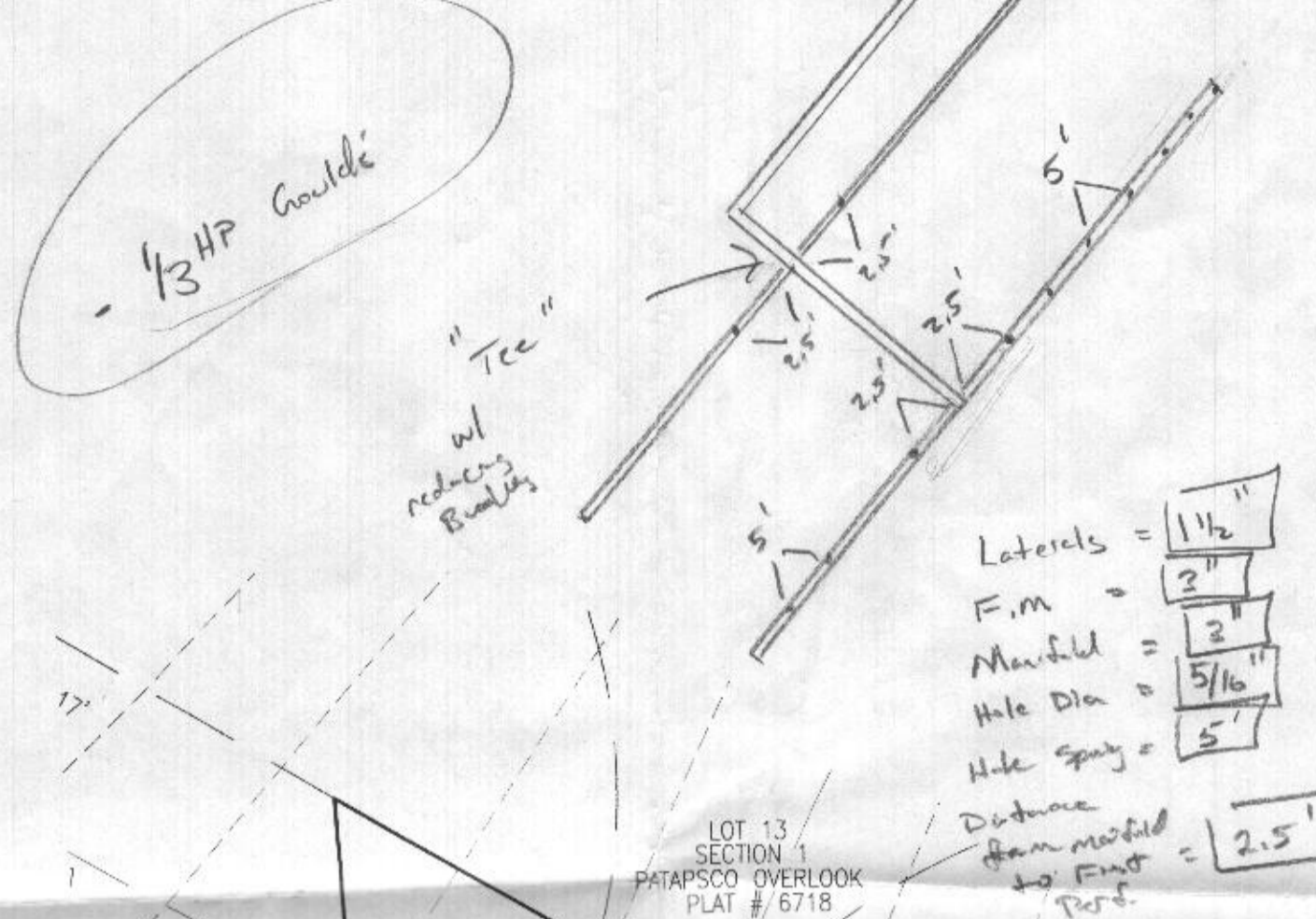
127 LF X 0.78 PER 100 FT OF PIPE = 0.99 FT OF FRICTION HEAD
TOTAL HEAD = 3.00 FT
VERTICAL FROM PUMP TO DISCHARGE = 1.19 FT
VERTICAL FROM DISCHARGE TO UPPER TRENCH = 2.38 FT
TOTAL DYNAMIC HEAD = 7.48 FT (USE 8 FT)

TRENCH	GROUND ELEV.	PIPE INVERT ELEV.	TRENCH LENGTH (FT)	2" LATERAL PIPE LENGTH (FT)	PERFORATION DIAMETER (IN)	PERFORATION SPACING (FT)	NUMBER OF ORIFICES	TRENCH FLOW RATE (GPM)
T-L1	683.6	679.6	35.0'	33-25'	5/16	1.63	7 @ 10	147.163
T-L2	683.6	679.6	35.0'	33-25'	5/16	1.63	7 @ 10	147.163
T-L3	682.8	678.8	35.0'	33-25'	5/16	2	7 @ 10	147.103
T-L4	682.8	678.8	35.0'	33-25'	5/16	2	7 @ 10	147.103
								TRENCH FLOW RATE: 586.52

TRENCH	GROUND ELEV.	TOP OF STONE ELEV.	PIPE INVERT ELEV.	DEPTH OF STONE FROM GROUND	DEPTH OF STONE (FT)	BOTT. OF TRENCH ELEV.	EFFECTIVE DEPTH BEGINS AT	EFFECTIVE DEPTH (D)	WIDTH OF TRENCHES (W)	TRENCH SPACING (FT)
T-L1	683.6	679.6	679.6	4.0'	4.5'	675.1	678.1	5.5'	3.0'	10
T-L2	683.6	679.6	679.6	4.0'	4.5'	675.1	678.1	5.5'	3.0'	10
T-L3	682.8	678.8	678.8	4.0'	5.5'	674.3	679.3	5.5'	3.0'	10
T-L4	682.8	678.8	678.8	4.0'	5.5'	674.3	679.3	5.5'	3.0'	10



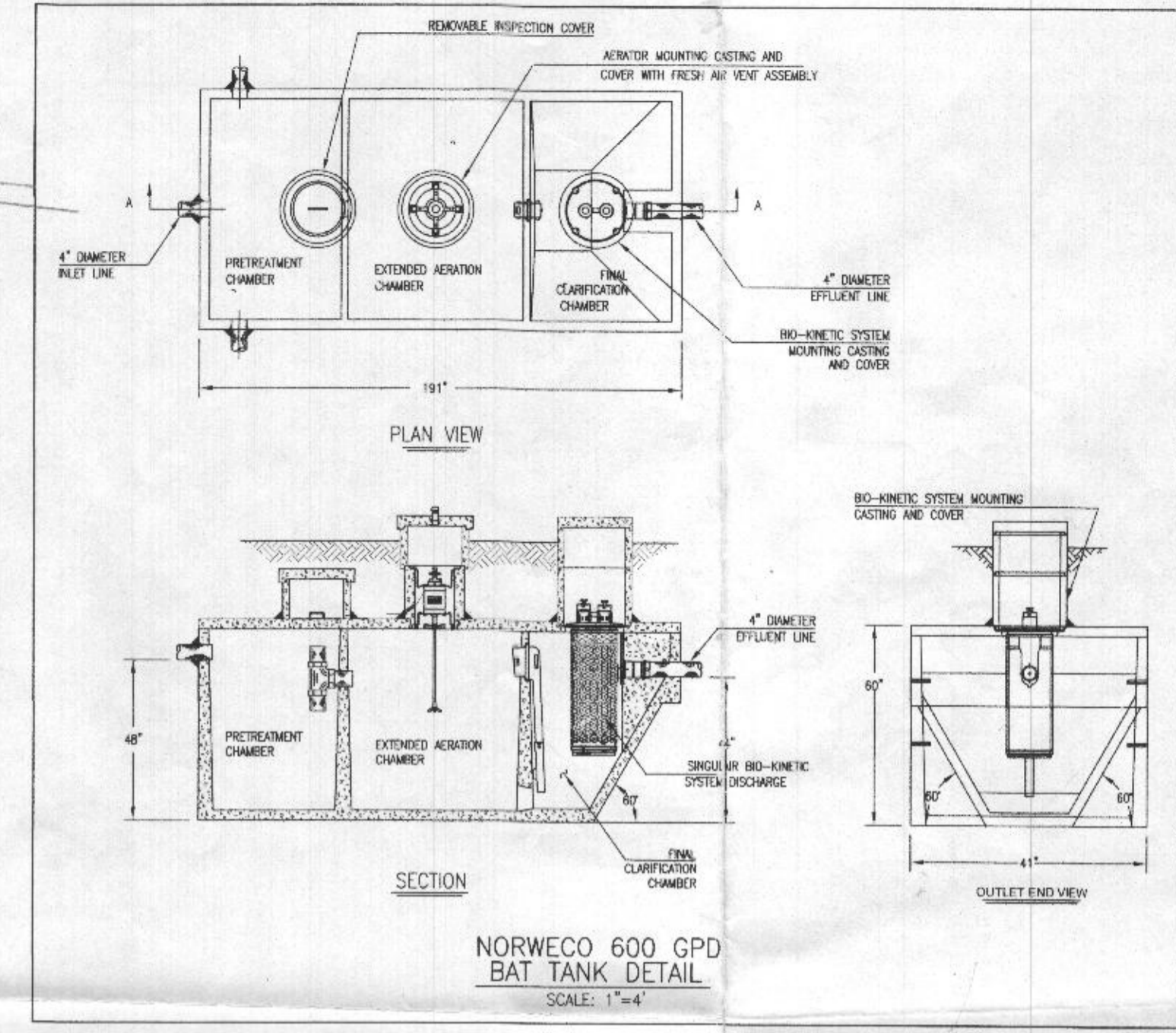
HYDRAULIC GRAPH



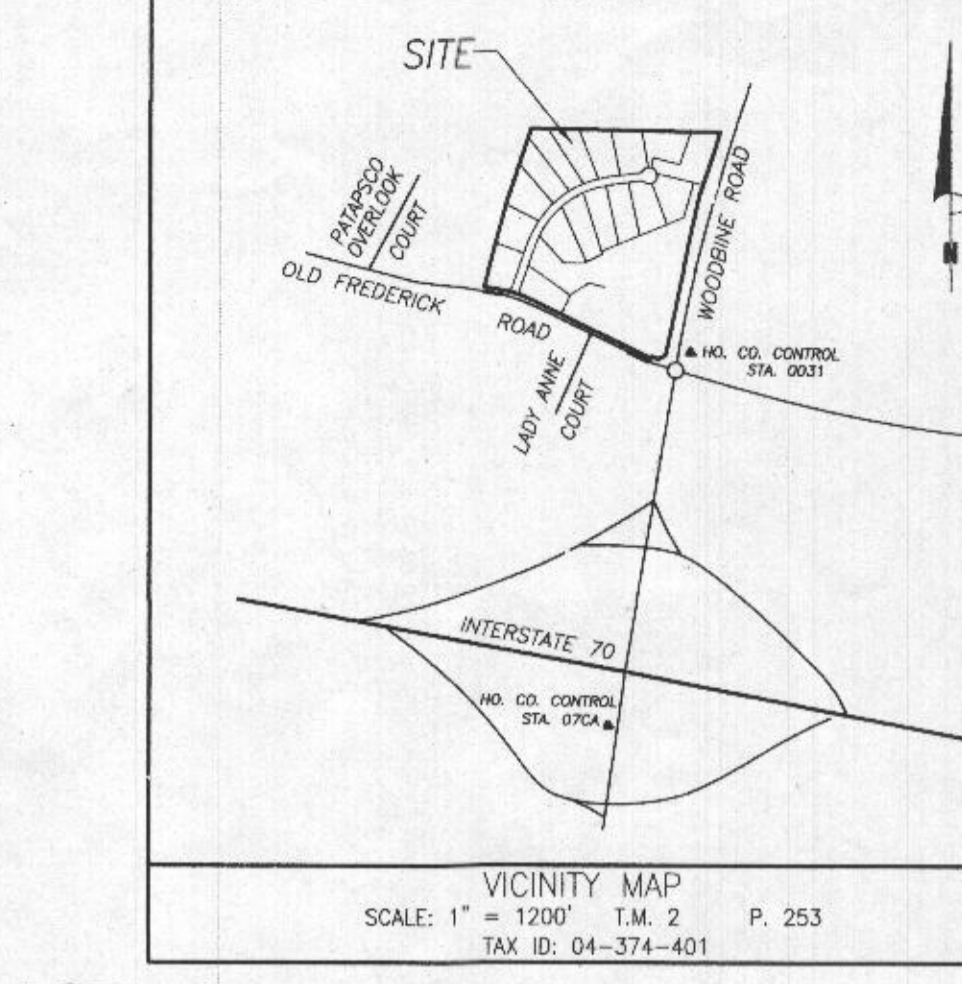
Pump on Elev = 675.22
x 100' of 3" F.M. + Manifold.

@ 4.5 GPM Flow (laterals)
100' = 0.48' Friction loss
1 x 100' = 1 x .48 = .48'

3' Subl Δ + 4.38' Total Δ + 1.27' Pump Δ = 8.75' TDH
(1.63 x 7 = 11.41)
(4.5 x 5 = 22.5)



NORWECO 600 GPD BAT TANK DETAIL
SCALE: 1"=4'



VICINITY MAP
SCALE: 1" = 1200' T.M. 2 P. 253
TAX ID: 04-374-401

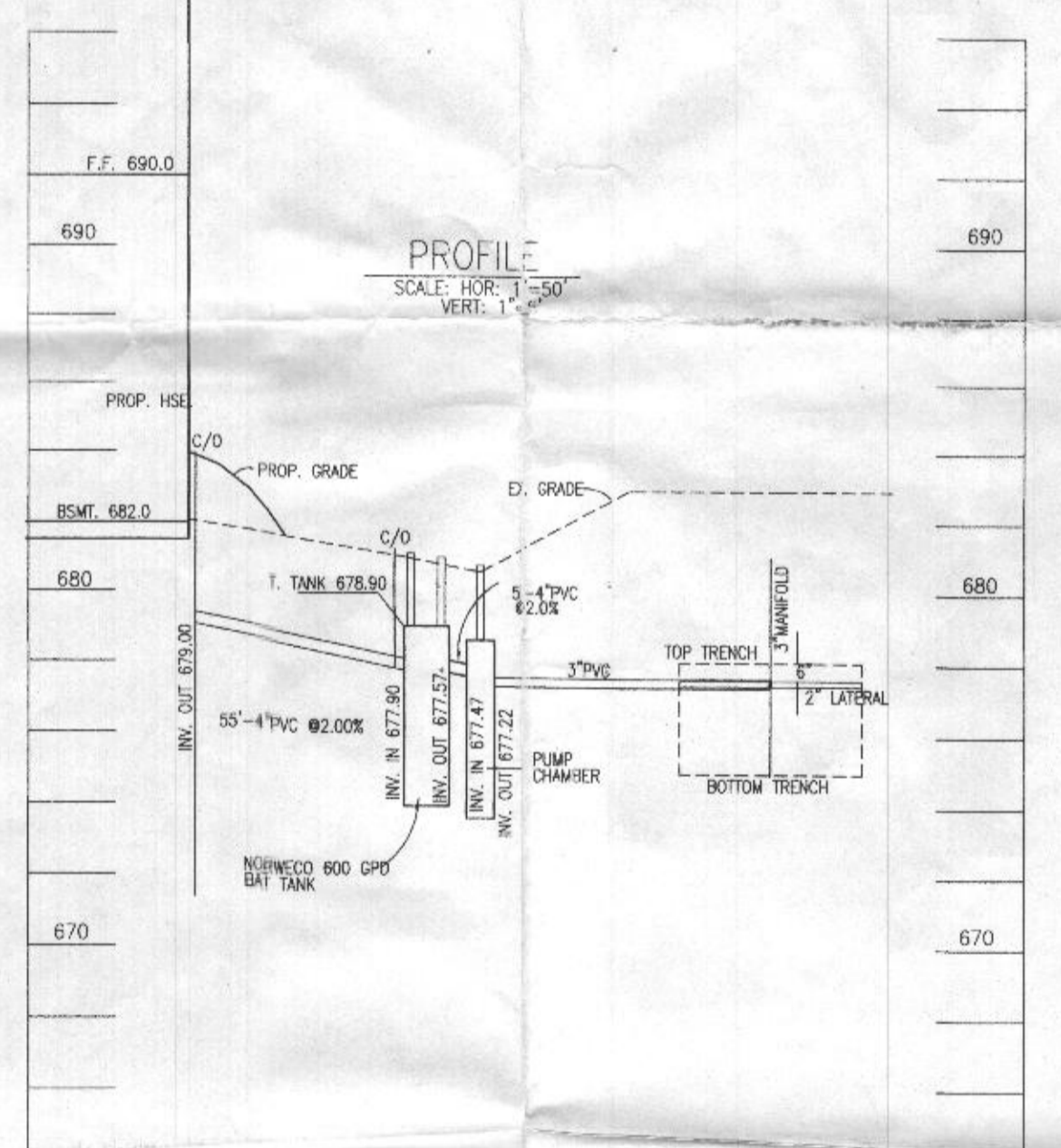
- GENERAL NOTES:**
- TOPOGRAPHY & PLANIMETRIC FEATURES SHOWN HEREON TAKEN FROM COPYRIGHTED GIS DATA FROM HOWARD COUNTY, SUPPLEMENTED WITH FIELD LOCATIONS BY VANMAR ASSOCIATES, INC. CONTOUR INTERVAL IS 2 FEET. VERTICAL DATUM IS NAVD83.
 - THE EXISTING WELLS SHOWN ON THIS PLAN HAVE BEEN FIELD LOCATED BY VANMAR ASSOCIATES OR TAKEN FROM AVAILABLE RECORDS AND ACCURATELY SHOWN.
 - ZONING DISTRICT: RC-DEO
 - LIMIT OF DISTURBANCE (LOD) = 19,750 SQ.FT.
 - THERE ARE NO STREAMS, PONDS, FLOODPLAINS OR WETLANDS ON THIS LOT.
 - STORM WATER MANAGEMENT FOR THIS LOT IS PROVIDED BY EXISTING WOODBINE CROSSING STORM WATER MANAGEMENT FACILITIES PROVIDED FOR AND CONSTRUCTED BY THE DEVELOPER UNDER PLAN F-07-103.
 - DRIVEWAY CULVERT: DESIGNED BY THE DEVELOPER UNDER PLAN F-07-103.

SEPTIC SYSTEM TRENCH DESIGN

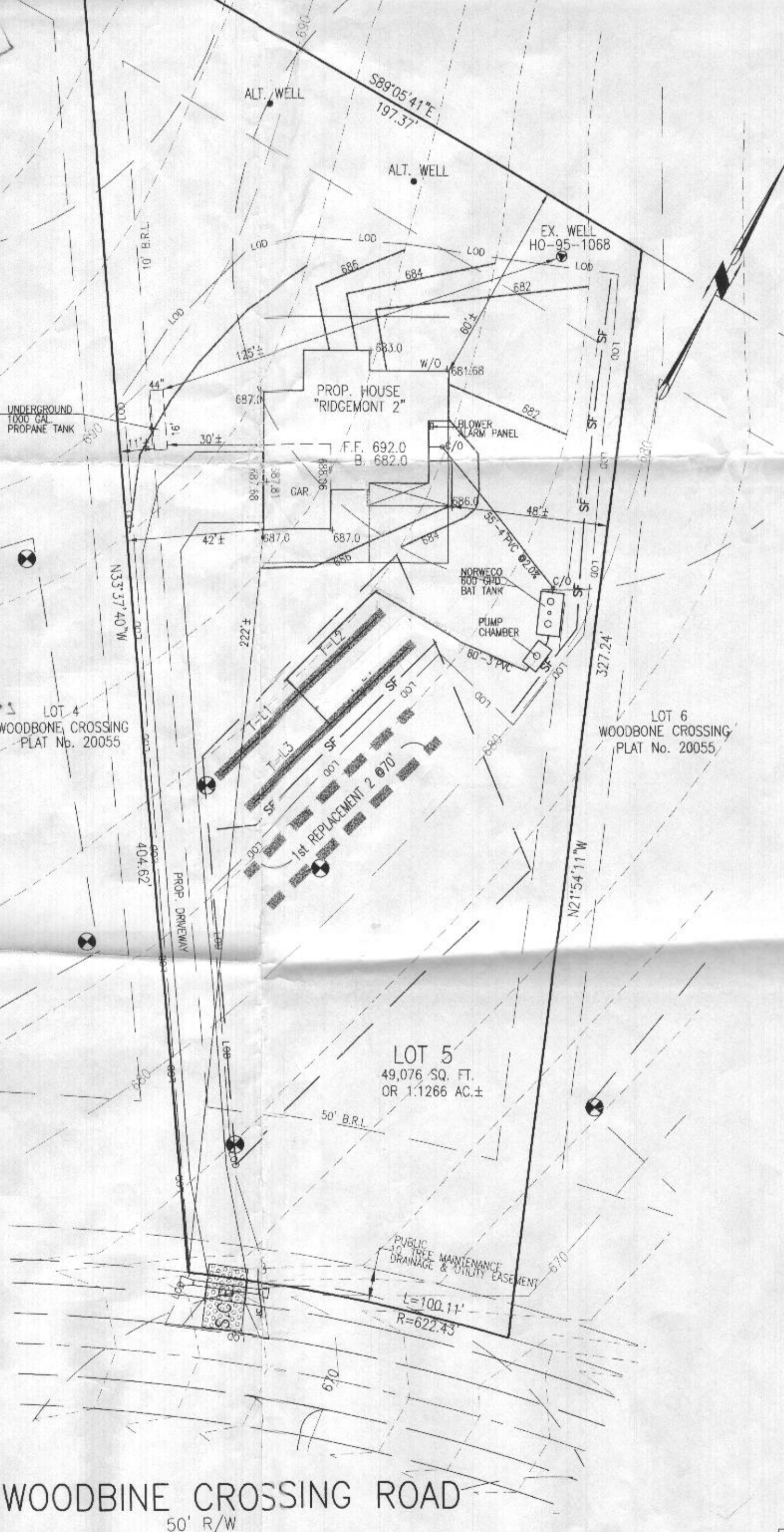
INITIAL NUMBER OF BEDROOMS = 4
APPLICATION RATE = 0.8 GPD / sq.ft.
DESIGN FLOW: 150 GPD X 4 BEDROOMS = 600 GPD
600 GPD / 0.8 GPD/sq.ft. = 750 sq.ft.
750 sq.ft. / 3 ft. WIDE TRENCH = 250 LF TRENCH
250 LF TRENCH X 0.55 REDUCTION CREDIT = 139 LF TRENCH

1st REPLACEMENT APPLICATION RATE = 0.8 GPD / sq.ft.
DESIGN FLOW: 150 GPD X 4 BEDROOMS = 600 GPD
600 GPD / 0.8 GPD/sq.ft. = 750 sq.ft.
750 sq.ft. / 3 ft. WIDE TRENCH = 250 LF TRENCH
250 LF TRENCH X 0.55 REDUCTION CREDIT = 139 LF TRENCH

- 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.
 - MAXIMUM COVER OVER THE BAT PER MANUFACTURERS SPECIFICATION IS 3 FEET.
 - THE BLOWER MAY NOT BE LOCATED MORE THAN 100 FEET FROM THE TANK BASED ON MANUFACTURERS SPECIFICATIONS.
 - THE BAT SYSTEM SHALL BE MAINTAINED AND OPERATED FOR THE LIFE OF THE SYSTEM.
 - THE BAT SHALL BE OPERATED 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 TYPE OF BAT INSTALLED.
 - ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICAL.
 - AN AGREEMENT AND EASEMENT MUST BE COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN LAND RECORDS OF HOWARD COUNTY.
 - THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF INSTALLATION.



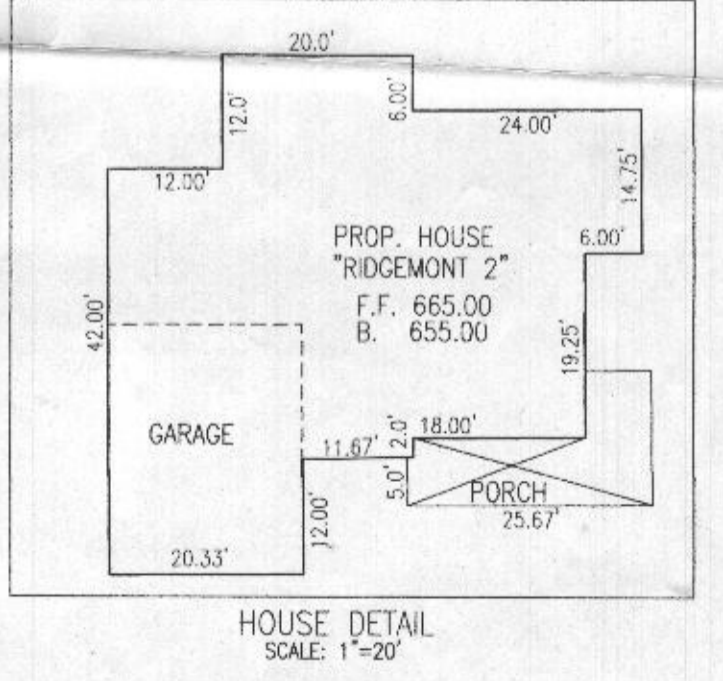
PROFILE
SCALE: HORIZ. 1"=50'
VERT. 1"=5'



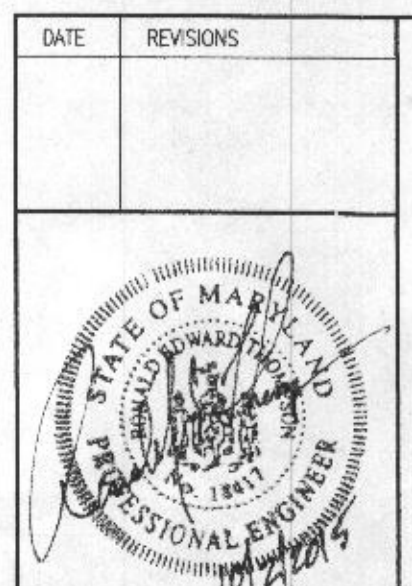
WOODBINE CROSSING ROAD
50' R/W

Approved Septic System Plan
Howard County Health Department
Hans Oswald 10/17/13
Signature

Date
OWNER:
LFG INC.
LEE PLAZA, SUITE 200
8601 GEORGIA AVENUE
SILVER SPRING, MD, 20910
301-585-7000
DEVELOPER:
CATONVILLE HOMES
11175 STRATFIELD CT.
MARRIOTTVILLE, MD, 21104
410-442-2211



HOUSE DETAIL
SCALE: 1"=20'



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. 18412, Expiration Date: 9-18-17.

PLOT PLAN
SITE PLAN FOR BAT TECHNOLOGY
LOT 5
WOODBINE CROSSING
PLAT No. 20055
727 WOODBINE CROSSING ROAD
FOURTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' SEPTEMBER, 2015

VANMAR ASSOCIATES, INC.
Engineers Surveyors Planners
210 South Main Street Mount Airy, Maryland 21771
(301) 929-2890 (301) 831-5015 (410) 545-2751
Fax (301) 831-5603 © Copyright, Latest Date Shown