

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: 1/17/17 **ONSITE SEWAGE DISPOSAL SYSTEM** P 560508

APPROVAL DATE: 2/14/17 **PERMIT: CONSTRUCTION** A _____

PROPERTY ADDRESS: 12665 Lime Kiln Road

SUBDIVISION: _____ LOT: _____ TAX ID: _____

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

CONTRACTOR ADDRESS: 4410 Salem Bottom Road, Westminster, MD 21157 PHONE: 301-480-4289

PROPERTY OWNER: Scott Hoglander EMAIL: _____

OWNER ADDRESS: 7694 Dorchester Boulevard #501 PHONE: 410-465-7755

SEPTIC TANK SIZE (GALLONS): 1500 gal TANK MANUFACTURER: _____

PUMP MODEL: _____ PUMP SIZE _____ PUMP TANK CAPACITY: _____

DISTRIBUTION SYSTEM: GRAVITY PRESSURE DOSED BEDROOMS: 5 APPLICATION RATE: 0.8

TRENCHES:	LINEAR FEET REQUIRED: <u>196</u>	INLET DEPTH: <u>4</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>6</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>11</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>4</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:		

ISSUED BY: Dana Bernard ISSUE DATE: 1/17/17 EXPIRATION DATE: 1/17/18

- 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 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: 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.**



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

To: Fisher, Collins, and Carter, Inc.
C/o Stephanie Tuite
Via E-Mail: tonyf@fcc-eng.com
10272 Baltimore National Pike
Ellicott City, Maryland 21042

RE: BAT Plan Revision
12665 Lime Kiln Road

DATE: October 20, 2016

The following comments apply to the plan prepared by Fisher, Collins, and Carter, Inc. Applicant is advised to revise and resubmit.

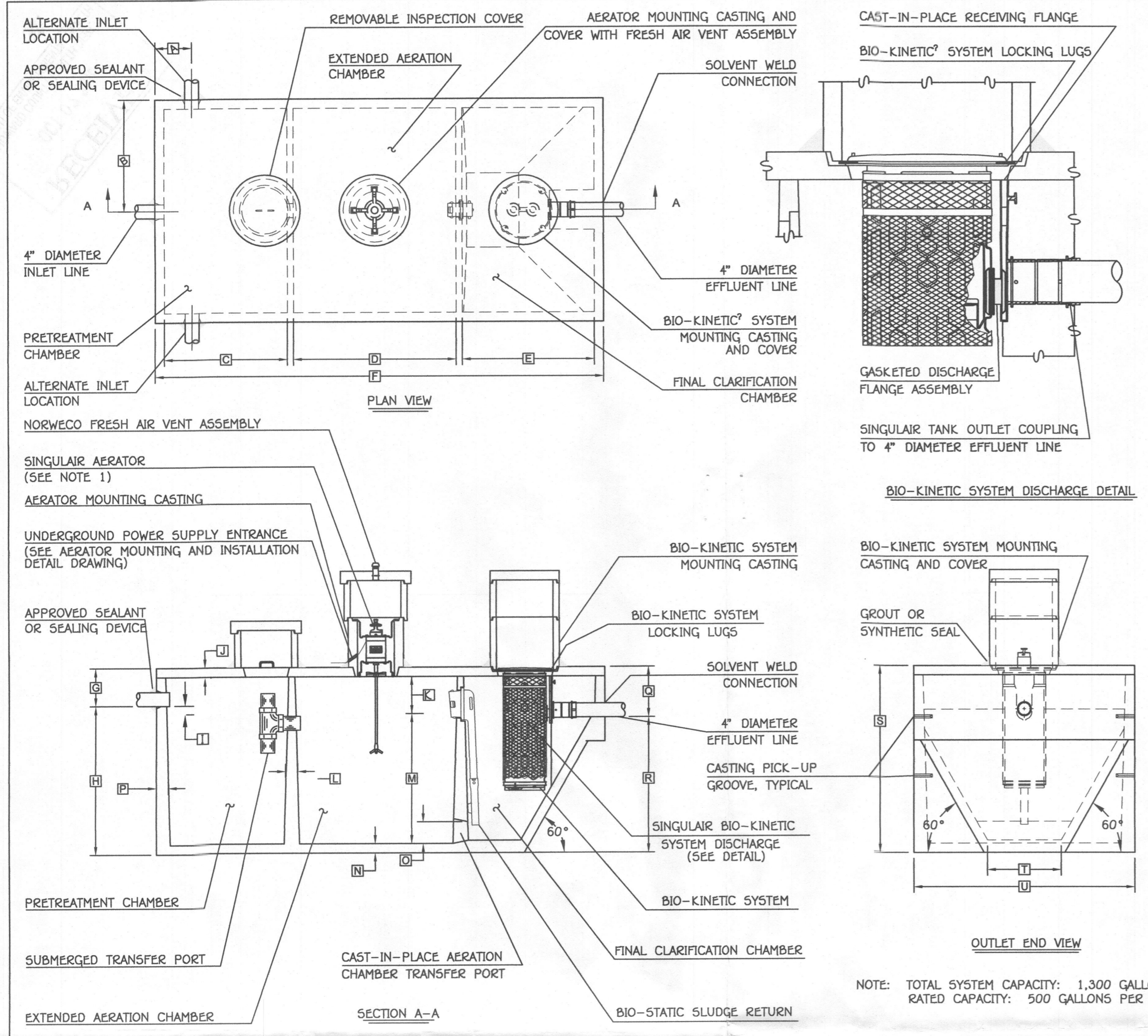
BAT Plan

- ✦ The floor plans submitted show 4 bedrooms, with possibly 5. Make sure that your calculations reflect the number of bedrooms you are proposing. If you are proposing a 4 bedroom house it must be reflected in your floor plans and you must state the building restriction note in the general notes. Your calculations should reflect a five bedroom house if you are proposing a 5 bedroom house.
- ✦ The tank must be upgraded to reflect a tank that can support a 5 bedroom house.
- ✦ Any grading must have a 25' setback from the septic area.
- ✦ The O and M agreement statement should be included in the general notes.
- ✦ The fall between the house and the tank should be between 2%-5% to create the best environment for gravity flow.

The next step in this process is to resubmit a Percolation Certification Plan to confirm the design of the septic reserve area. If you have any questions regarding this evaluation or requirements for the Percolation Certification Plan, please contact me at the above address or by telephone at (410) 313-2775.

Dana Bernard, R.E.H.S./L.E.H.S.
Environmental Specialist II
Bureau of Environmental Health
Well and Septic Program

Phone (410) 313-2775
E-mail: DBernard@howardcountymd.gov

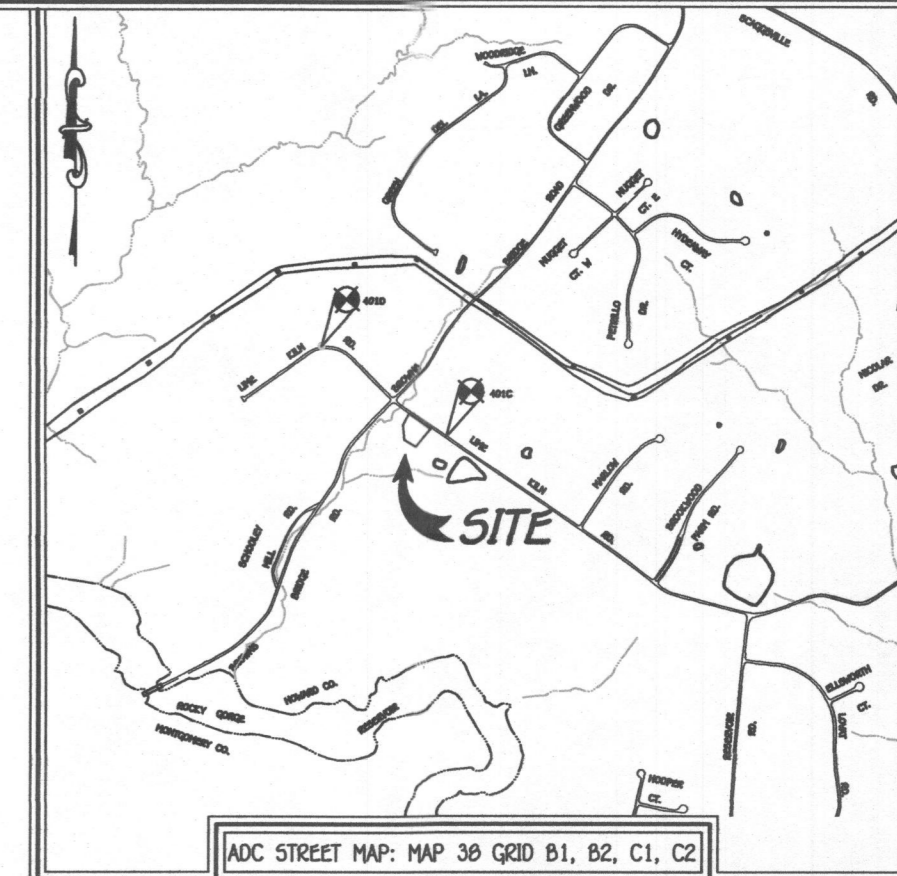
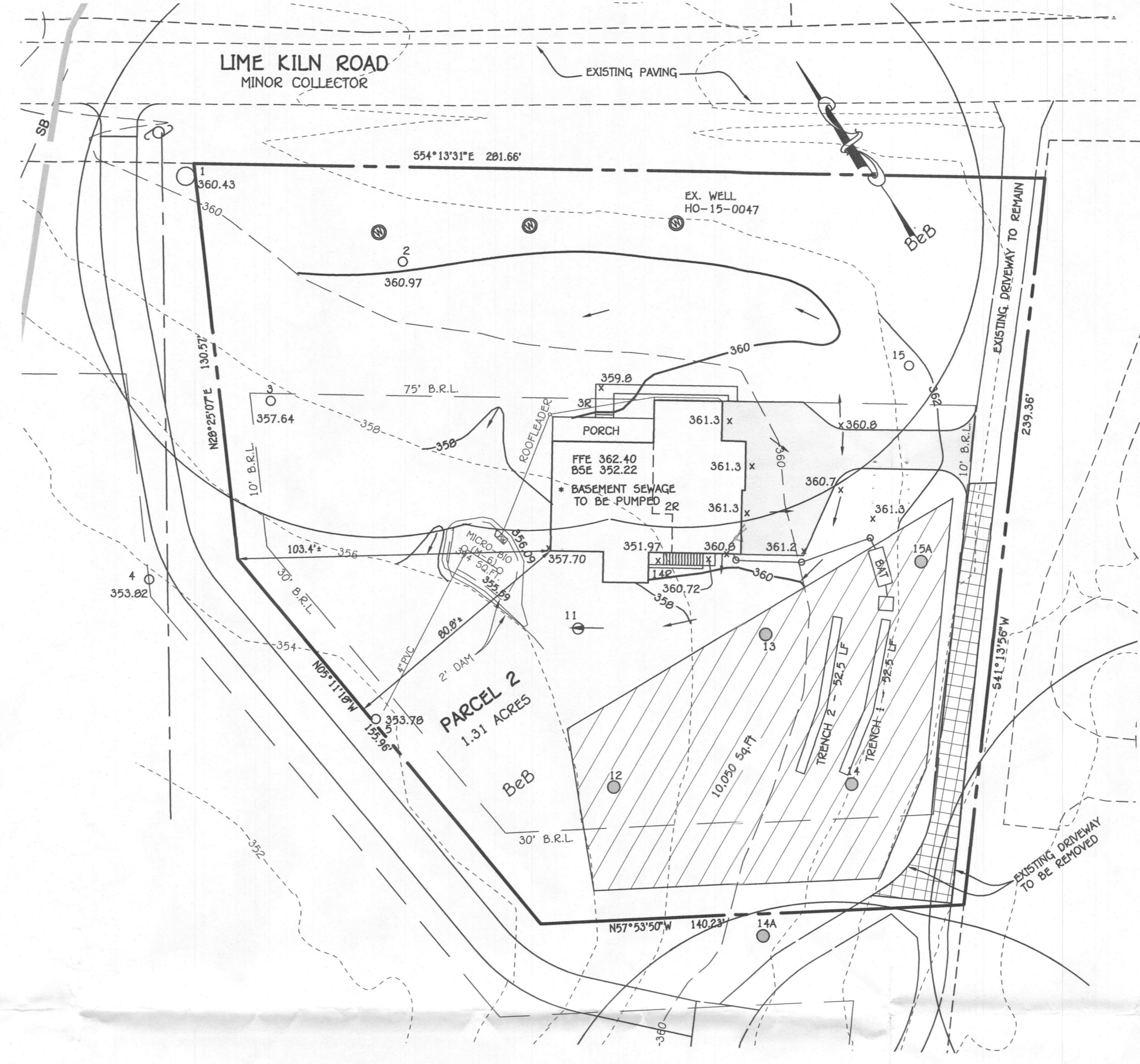


PROJECT ENGINEER'S APPROVAL:
I (WE) HEREBY CERTIFY THAT THIS DRAWING HAS BEEN CHECKED AND IS APPROVED FOR USE IN CONFORMITY WITH THE CONTRACT DOCUMENTS.
DATE: _____
NAME: _____

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: _____

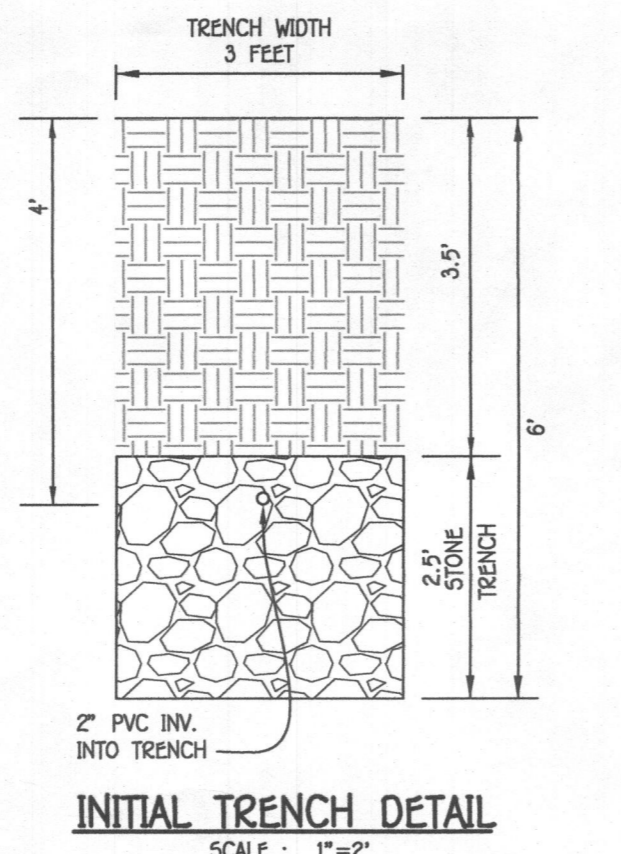
CRITICAL DIMENSIONS			
A	1'-0"	N	0'-3"
B	3'-0"	O	0'-6"
C	3'-4"	P	0'-3"
D	4'-5"	Q	1'-4"
E	3'-7"	R	3'-8"
F	12'-2"	S	5'-0"
G	1'-0"	T	2'-0"
H	4'-0"	U	6'-0"
I	0'-3"	V	
J	0'-3"	W	
K	1'-0"	X	
L	0'-2"	Y	
M	3'-6"	Z	

U.S. AND FOREIGN PATENTS PENDING
norweco 3-28-07 B
LOW-PROFILE SINGULAR[®] BIO-KINETIC WASTEWATER TREATMENT SYSTEM MODEL: WTL-400 (GPD)



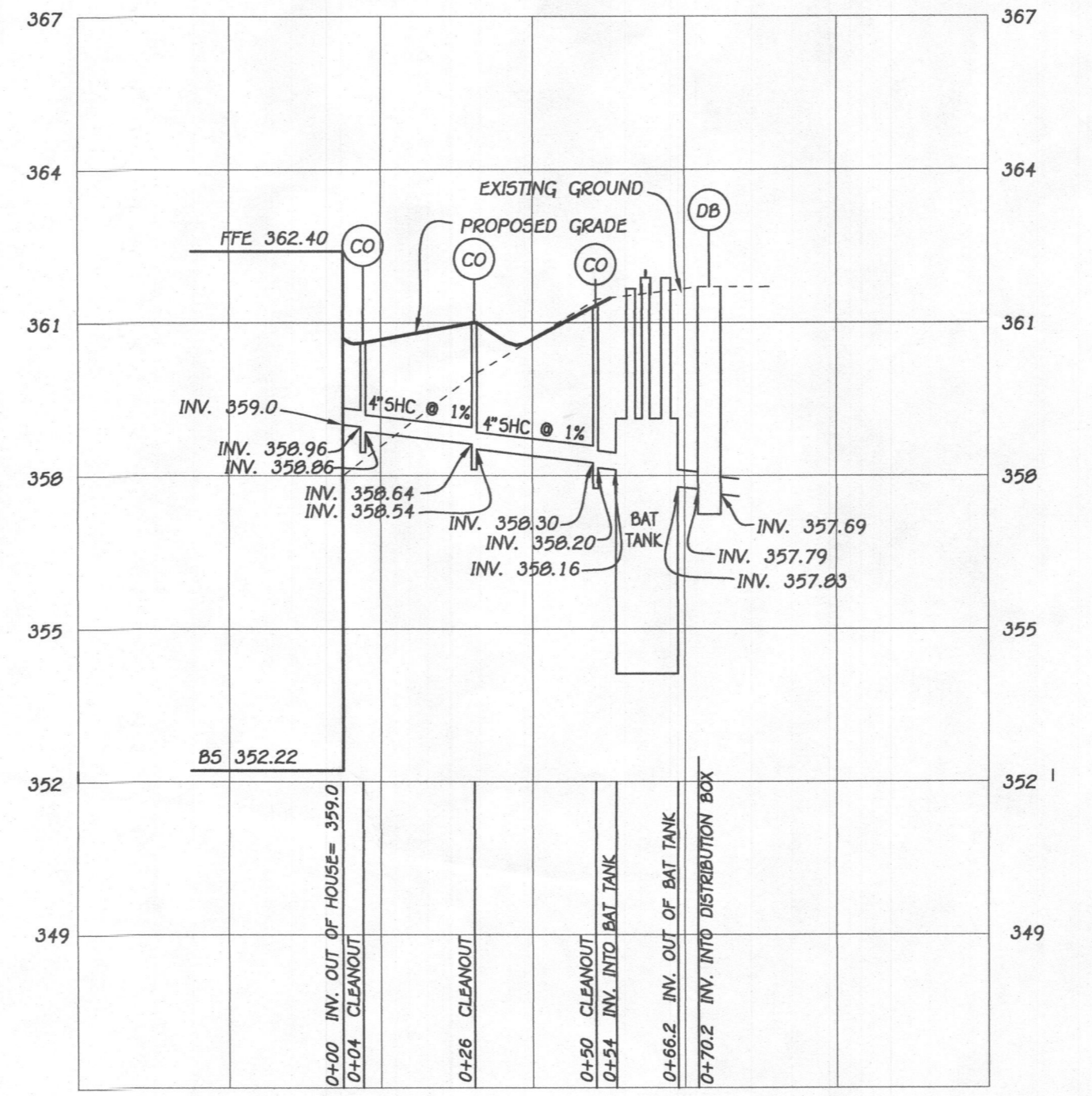
TRENCH DESIGN

TRENCH	GROUND ELEV.	TOP OF STONE ELEV.	PIPE INVERT ELEV.	DEPTH TO STONE FROM GROUND	DEPTH OF STONE (FT)	BOTTOM OF TRENCH ELEV.	EFFECTIVE DEPTH STREETS AT	EFFECTIVE DEPTH (0)	WIDTH OF TRENCHES (W)	TRENCH SPACING
1	361.6	356.1	357.6	3.5'	2.5'	356.6	4.0'	2.0'	3.0'	11'
2	360.4	356.9	356.4	3.5'	2.5'	354.4	4.0'	2.0'	3.0'	11'



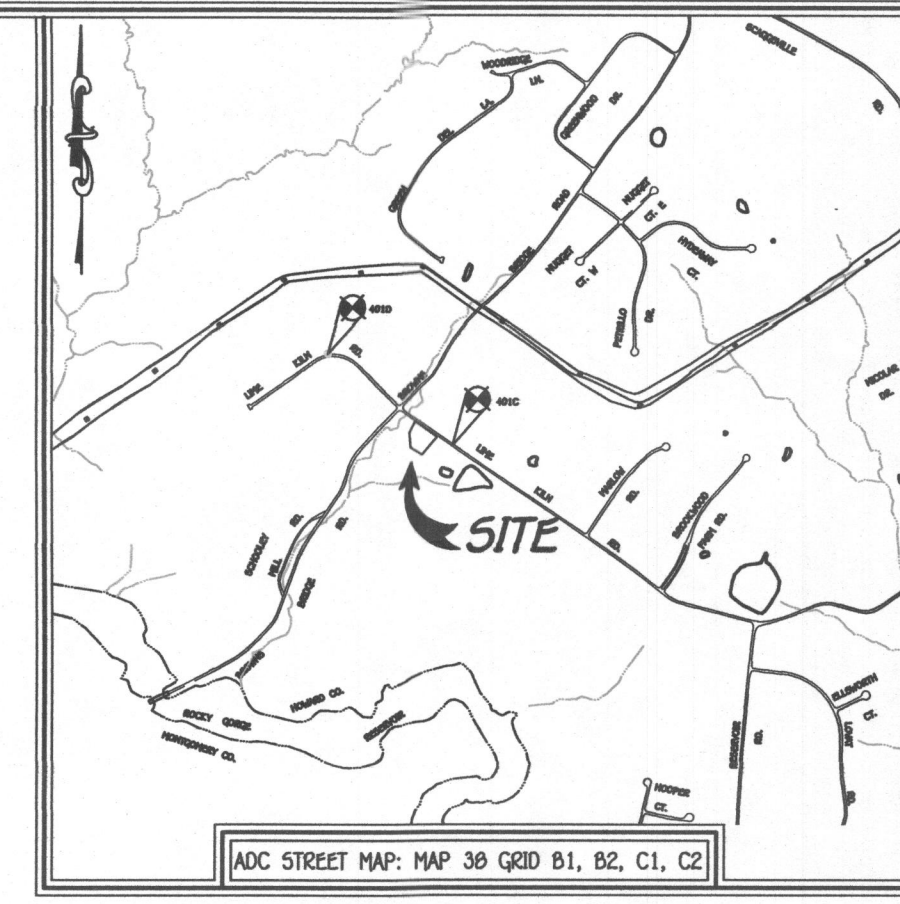
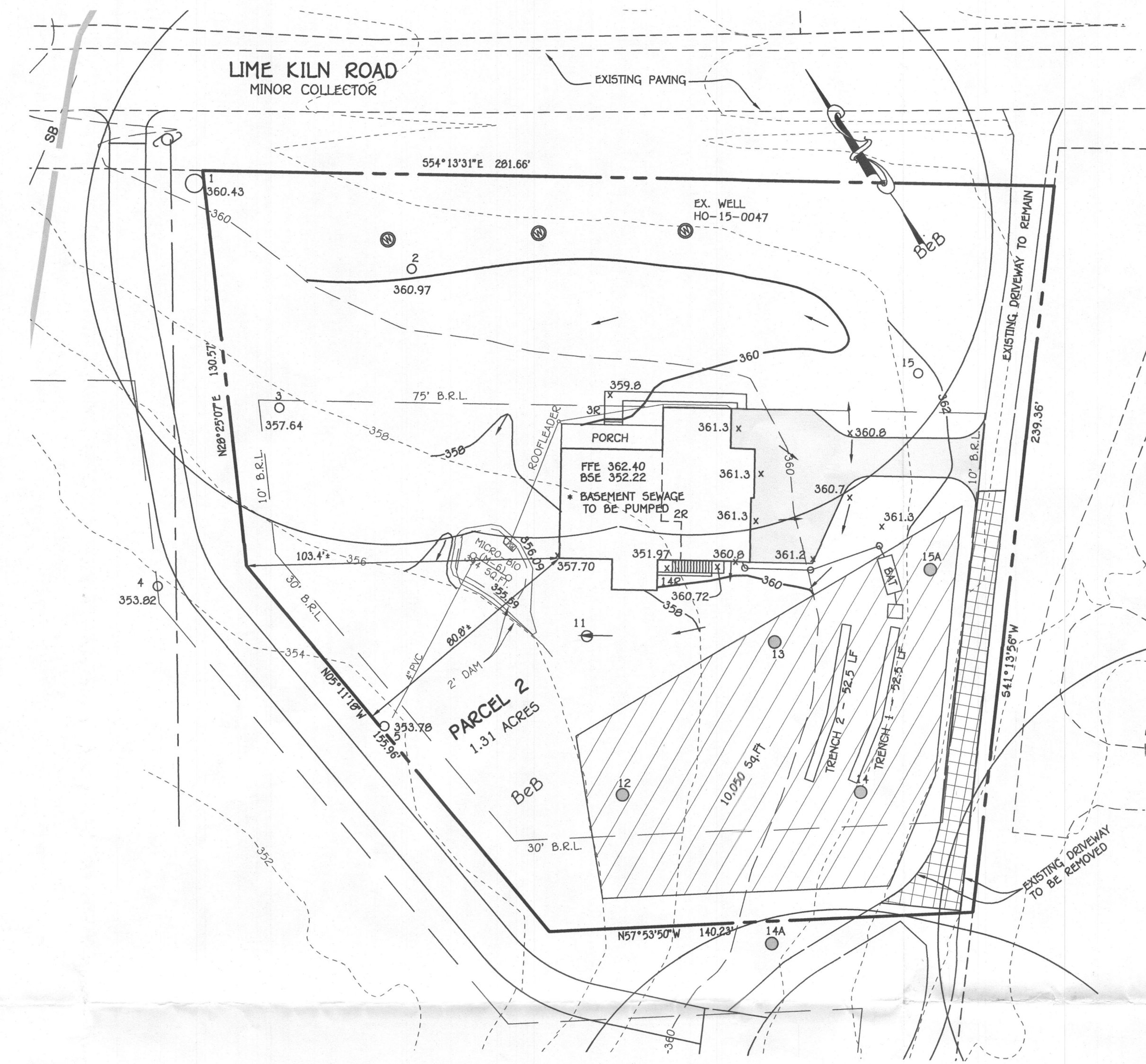
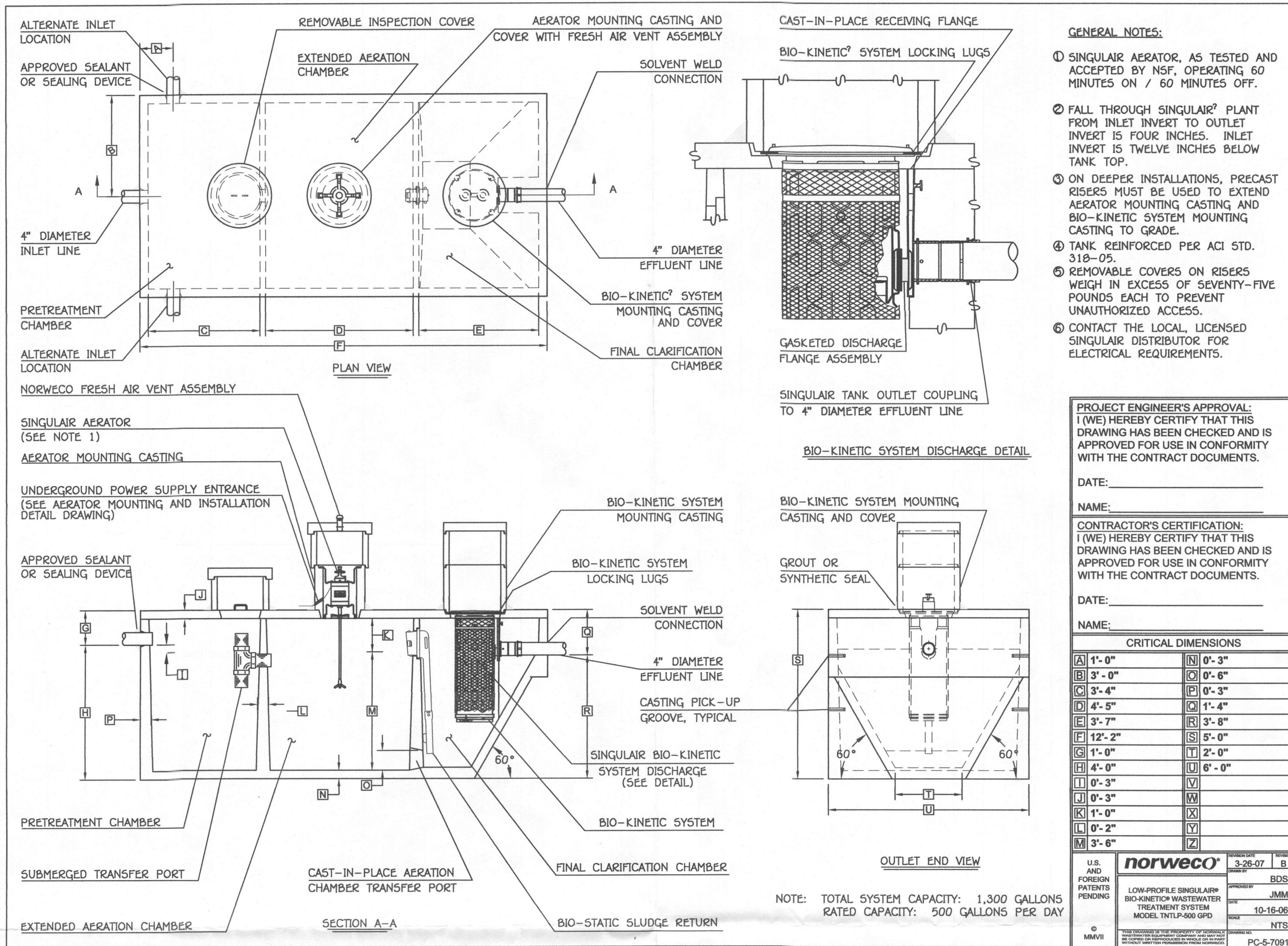
SEWAGE DISPOSAL SYSTEM DATA
4 BEDROOMS
LOADING RATE = 4 BEDROOMS X 150 GPD/BEDROOM = 600 GPD
APPLICATION RATE = 0.8
INITIAL EFFECTIVE SIDEWALL BEGINS AT 2 FEET
TRENCH DEPTH = 6 FEET
TRENCH WIDTH (W) = 3 FEET
COVER OVER BAT = 2.54
EFFECTIVE DEPTH (0) = 4 FEET
SF OF DRAINFIELD = 600 GPD / 0.8 = 750 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x4)) = 0.417
TRENCH LENGTH = 750 SF x 0.417 / 3 = 104.3 FEET (USE 105 FEET)
TRENCH SPACING = 2D+W = (2x4) + 3 = 11 USE 11'

SEPTIC SYSTEM ELEVATIONS
FFE = 362.40
BSE = 352.22
INV. OUT OF HOUSE = 359.0
EX. GROUND AT BAT = 361.7
TOP OF BAT = 359.16
COVER OVER BAT = 2.54
INV. INTO BAT = 356.16
INV. OUT OF BAT = 357.83
EX. GROUND AT DISTRIBUTION BOX = 361.7
INV. INTO DISTRIBUTION BOX = 357.79
INV. OUT OF DISTRIBUTION BOX = 357.69



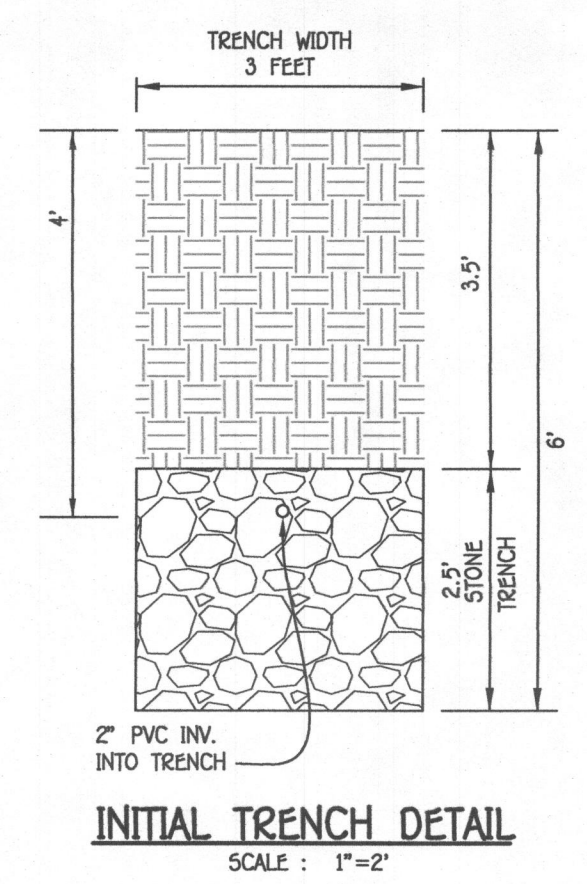
- BAT NOTES**
- ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
 - THE MAXIMUM COVER OVER THE BAT SHALL BE 3 FEET.
 - THE BAT SYSTEM SHALL BE MAINTAINED AND OPERATED 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.
 - 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.

THE EXISTING WELL SHOWN ON THIS PLAN, TAG NO. HO # 15-0047 HAS BEEN FIELD LOCATED BY FISHER, COLLINS & CARTER, INC., PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.



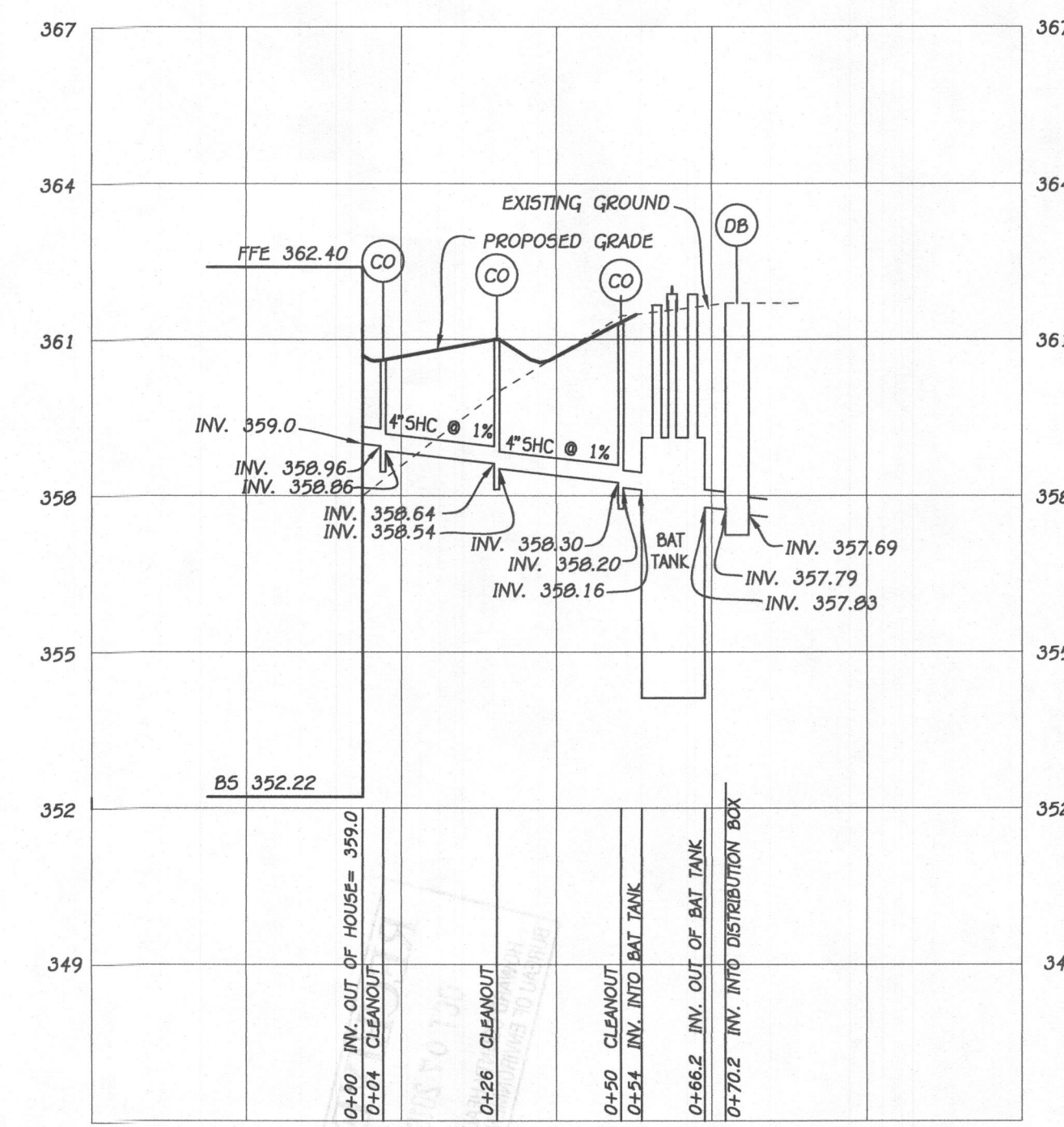
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FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL FILE
 ELICOTT CITY, MARYLAND 21042
 (410) 661-2222

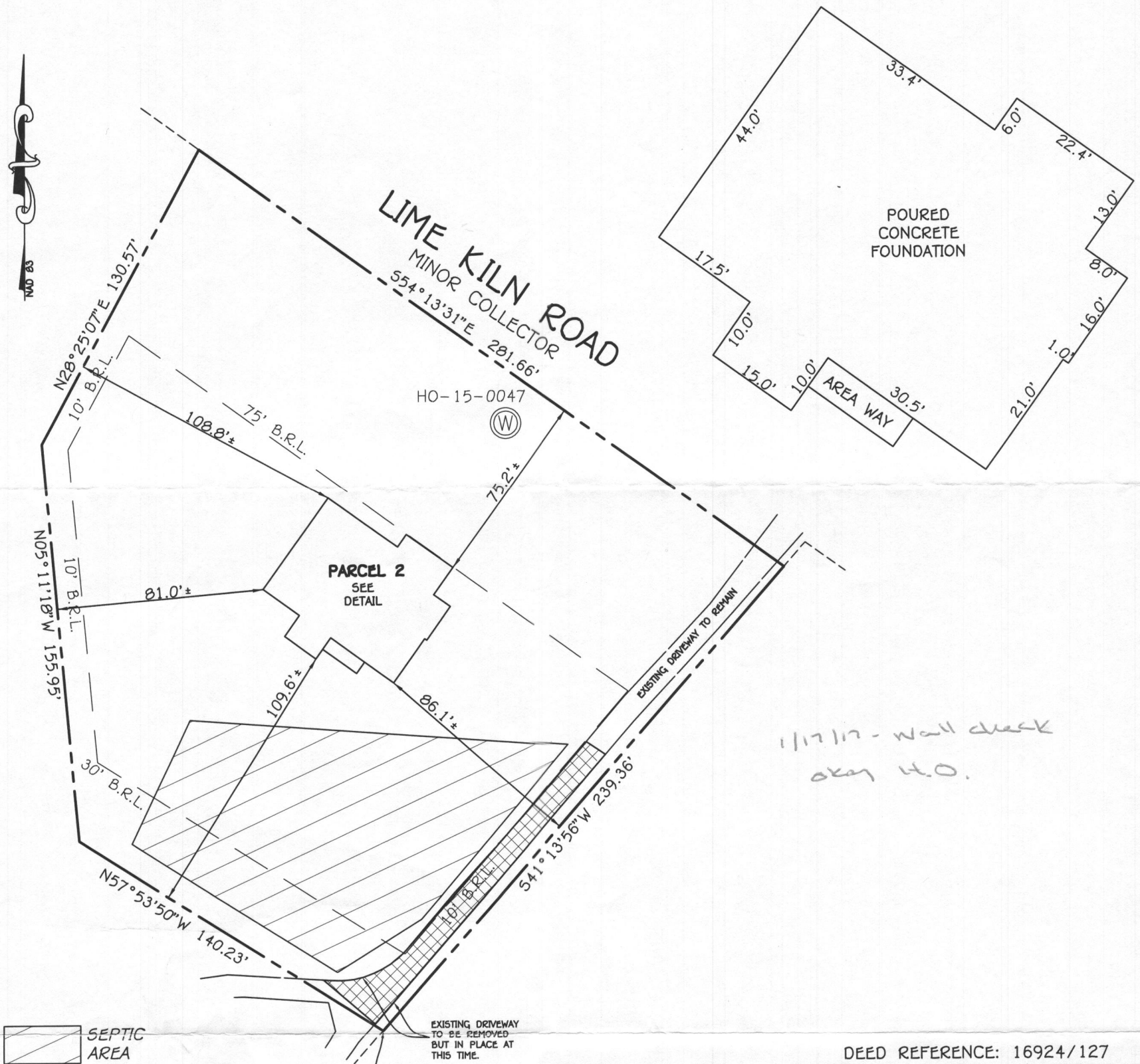
BUILDER
 CARRIGAN HOMES
 ATTN: OWEN KELLY
 1812 CANTONS COURT
 ELICOTT CITY, MD 21042
 410-465-7755

OWNER
 SCOTT HOGLANDER
 7694 DORCHESTER BOULEVARD #501
 HANOVER, MD 21076
 C/O OWEN KELLY (410-465-7755)

BAT SITE PLAN
12665 LIME KILN ROAD
 ZONED: RR-DEO
 TAX MAP #40 GRID #23 PARCEL: 244 (2ND PARCEL)
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MD
 SCALE: 1"=30' DATE: OCTOBER, 2016 SHEET 1 of 1

GENERAL NOTES:

- 1) THIS LOCATION DRAWING IS PREPARED FOR THE BENEFIT OF THE CLIENT SIGNING THE HOUSE LOCATION SURVEY APPROVAL FORM INsofar AS IT IS REQUIRED BY A LENDER OR TITLE INSURANCE COMPANY OR ITS AGENTS IN CONNECTION WITH THE CONTEMPLATED TRANSFER, FINANCING OR REFINANCING OF THE PROPERTY SHOWN HEREON. UNLESS INDICATED AS BEING A BOUNDARY SURVEY, THIS LOCATION DRAWING IS NOT INTENDED FOR USE IN THE ESTABLISHMENT OF PROPERTY LINES AND IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OR LOCATIONS OF FENCES, GARAGES, BUILDINGS OR OTHER EXISTING OR FUTURE IMPROVEMENTS. AS A RESULT, THIS LOCATION DRAWING DOES NOT PROVIDE FOR ACCURATE IDENTIFICATION OF PROPERTY LINES, BUT SUCH IDENTIFICATION MAY NOT BE REQUIRED FOR THE TRANSFER OF TITLE OR SECURING FINANCING FOR RE-FINANCING.
- 2) SUBJECT PROPERTY IS SHOWN IN ZONE X ON THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP OF HOWARD COUNTY, MARYLAND, COMMUNITY PANEL No. 24027C0140D EFFECTIVE NOV. 6, 2013.
- 3) THE OFFSETS FROM BUILDING LINE TO PROPERTY LINE AS SHOWN ON THE PLAT HEREON ARE TO AN ACCURACY OF PLUS OR MINUS 0.1'.
- 4) NO TITLE REPORT FURNISHED. SUBJECT TO ALL EASEMENTS, RIGHTS OF WAY AND CONDITIONS OF RECORD.
- 5) PROFESSIONAL CERTIFICATION: 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. 339, EXPIRATION DATE OCTOBER 4, 2018.
- 6) THE EXISTING WELL(S) SHOWN ON THIS PLAN (IDENTIFIED WITH THE ATTACHED WELL TAG NUMBER HO-15-0047 HAS BEEN FIELD LOCATED BY FISHER, COLLINS AND CARTER, INC. PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.
- 7) BUILDING PERMIT NUMBER: B-16003979 TOGETHER WITH THE RIGHT TO USE IN COMMON WITH OTHERS ENTITLED THERETO, THAT STRIP OF LAND DESIGNATED AS "FUTURE RIGHT OF WAY" AS SHOWN ON PLAT ENTITLED, "EXHIBIT A TO ACCOMPANY A DESCRIPTION OF 1.309 ACRES OF LAND, PROPERTY OF THOMAS H. MONROE AND KIM MONROE", RECORDED AMONG THE LAND RECORDS OF HOWARD COUNTY, MARYLAND IN LIBER 16150, FOLIO 261, AS A MEANS OF INGRESS/EGRESS TO LIME KILN ROAD UNTIL SUCH TIME SAID STRIP IS DEDICATED/CONVEYED TO HOWARD COUNTY, MARYLAND.

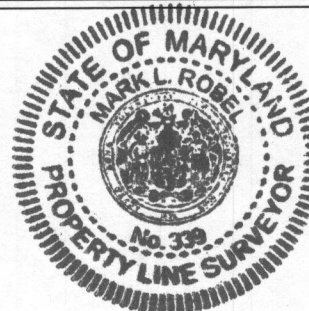


#12665 LIME KILN ROAD
TOP OF FOUNDATION ELEVATION = 362.2'±

(POB ~ DEED LIBER 16924, FOLIO 127) AT A POINT AND DISTANCE OF 487.76 FEET FROM A REBAR & CAP FOUND (#21074) AND HELD AT THE END OF THE FIRST OR SOUTH 47° 14' WEST, 741.87 FOOT LINE OF DEED LIBER 14361, FOLIO 001, PARCEL 1.

DEED REFERENCE: 16924/127
PROPERTY OF THOMAS H. MONROE & KIM MONROE
TAX MAP 40 ~ GRID 23 ~ PARCEL 244
FIFTH ELECTION DISTRICT
HOWARD COUNTY MARYLAND

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLCOTT CITY, MARYLAND 21042
(410) 461 - 2855



Mark L. Robel
PROPERTY LINE SURVEYOR
REG. #339
DATE: 11/21/16

HOUSE LOCATION DRAWING

FOUNDATION LOCATION: 11/18/16
FINAL LOCATION: _____
BOUNDARY SURVEY: _____

SCALE: 1"=50'
DATE: 11/21/16
DRAWN BY: GAD
CHECKED BY: MLR
PROJECT No.: 13014-6002