

17601 DUE WEST DR

21719129

12/18/2007

duponbj

Groundwater and Wastewater Services File Imaging Project
May 2007
Barcode Font = IDAutomationHC39M

pd. 100.00 PD in full cash 3-10-99

CERTIFICATE OF COMPLETION/OPERATION PERMIT

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
700 NORTH TRYON ST., SUITE 211
CHARLOTTE, NC 28202
PHONE (704) 336-5102

FILE: 427B DATE: 10/23/98

TC: 217 19 29 ☒ L ☐ CRT

SERIAL Nº 17813

Name of Owner Cresent Resources INC Juris.: _____

Address of Property 17601 Due West Dr Lake Wylie

Inspection Data:

Tank Material PCC

Total Length of Drainfield 480

Number of Lines 5 @ 96'

Cover Depth 12"

Water Supply Source well

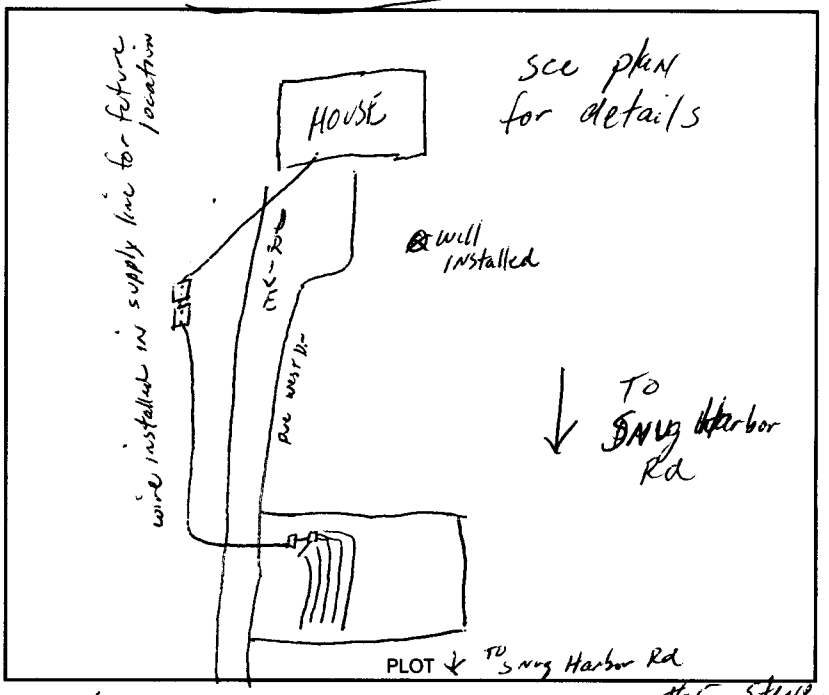
Distance to Water Source > 50'

Excavation Inspected 10/7/98

Tank(s) Inspected 10/23/98

Wash Line Inspected plumb to tank

High Water Alarm Inspected 10/23/98



Design 1998, 1500ST, 1000DT, P1, 480' chamber system Cecil CTR# #5 Steve Autry

The undersigned has inspected the Septic Tank System described above, and certifies it has been

☒ installed or constructed ☐ altered or repaired

☒ in accordance with the permit issued ☐ as detailed in the plot above

and meets the provisions of I5A NCAC 18A. 1900, "Laws And Rules For Sewage Treatment and Disposal Systems" in effect on the date of issuance of the permit. This issuance of this

☐ Certificate of Completion ☒ Operation Permit

does not in any way guarantee that the system will operate properly or relieve any person now or hereafter owning, controlling, or using such system from any liability resulting from the failure of the system to operate properly. This document is issued subject to those restrictions and conditions shown on the permit(s) and the provisions of I5A NCAC 18A. 1990 in addition to those listed below under "COMMENTS." This document shall be null and void if any information contained in the application is untrue or if any additions are made to the property which would increase the requirements for said system.

Notice: Disturbance of the designated repair area may result in the suspension/revocation of this permit.

COMMENTS: Septic System designed for a 4 bedroom residence Type IIIb Type IIIa. Septic system installed in accordance w/ approved plot plan

Phila S. Walker RS.

Environmental Health Specialist

Mecklenburg County services are available without regard to ethnic origin, sex, or disability.

INSTALLATION, CONSTRUCTION, ALTERATION, AND/OR REPAIR APPROVAL

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
700 NORTH TRYON ST., SUITE 211
CHARLOTTE, NC 28202
PHONE (704) 336-5102

FILE: 427B DATE: 9/23/98

TC: 217 191 29 L

SERIAL Nº 17814

Permission is hereby given to ✓ Install or Construct, _____ Alter or Repair the individual septic tank wastewater treatment system with subsurface, soil absorption, effluent discharge as specified herein at the described location. This permit is granted based upon the information supplied in the application dated 11/12/97. All work shall be completed on or before 10/23/98, after which date this permit shall be null and void. The system shall meet all of the construction requirements of 15A NCAC 18A. 1900 which are in effect on the date of the granting of this permit. A Certificate of Completion or an Operation Permit must be obtained from the Mecklenburg County Health Department before any system can be covered up or placed into service. The issuance of this permit does not in any way guarantee that the system anticipated to be constructed will operate properly, or relieve any person now or hereafter owning, controlling or using such system from any liability resulting from the failure of the system to operate properly.

Septic System shall be installed in accordance with approved plan

PLOT OF SYSTEM

Liquid Capacity of Septic Tank _____ gallons

Liquid Capacity of Dosing Tank _____ gallons

Tank Construction _____

Trench Depth _____

Absorption and/or Nitrification Lines: see plan

Trench Width _____ feet

Trench Walls Scored and Porous _____

Total Line Length _____ feet

Number of Lines _____

Depth of Stone _____ inches

Distance from House _____ feet

Distance from Property Line _____ feet

Distance from Well _____ feet

NOTICE: This system shall not be installed while soils are in a wet condition.

NAME OF OWNER Cresent Resources Inc

LOCATION OF PROPERTY 17601 Dve West Dr

Comments: Type IIIg Installation Approval, 5 lines x 96'long x 3'wd
Keep septic system > 50' from installed well

Philo A. Walker R.S.
Environmental Health Specialist

WHITE - HEALTH DEPARTMENT's COPY • CANARY - E.H.S. COPY • PINK - OWNER OR AGENT's COPY

Cash d/w

FEE: 100.00 **AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION**
DATE: 6-25-98 **VOID SIXTY (60) MONTHS FROM DATE OF ISSUANCE**

DATE: 6-25-98 **PERMIT NO:** 427-B
PARCEL NO: 217-191-29

JOB LOCATION ADDRESS: ~~17224~~ 17601 DUE WEST DR
PROPERTY OWNER: C.R.I
BUILDING CONTRACTOR: David Tyson 523-6521
SUBDIVISION NAME:
AUTHORIZATION ISSUED BY: Kelly R. Ott **DATE:** 6-25-98
DEHNR AUTHORIZED AGENT

AUTHORIZATION CONDITIONS

1. WASTEWATER SYSTEM CONSTRUCTION AND INSTALLATION MUST MEET ALL CONDITIONS AND SPECIFICATIONS AS SET FORTH IN IMPROVEMENT PERMIT NO. 427-B, AND THE ATTACHED SITE PLAN WITH SYSTEM DETAILS. CONSTRUCTION AND INSTALLATION MUST ALSO MEET ALL REQUIREMENTS SET FORTH IN THE RULES GOVERNING SANITARY SEWAGE COLLECTION, TREATMENT, AND DISPOSAL AND ANY OTHER APPLICABLE RULES AND LAWS.

2. AN INSTALLATION, CONSTRUCTION, ALTERATION AND/OR REPAIR APPROVAL MUST BE SECURED **PRIOR** TO INSTALLATION OF THE SEPTIC TANK SYSTEM. THE INSTALLER OF THE SYSTEM SHALL BE A REGISTERED SEPTIC TANK CONTRACTOR WITH MECKLENBURG COUNTY HEALTH DEPARTMENT.

3. ANY ALTERATION IN SITE OR SOIL CONDITIONS (INCLUDING LOCATION OF STRUCTURES AND APPURTENANCES) OR MODIFICATION IN USE, DESIGN WASTEWATER FLOW, OR WASTEWATER CHARACTERISTICS AS SPECIFIED IN THE ASSOCIATED IMPROVEMENT PERMIT AND APPLICATION, MAY SUBJECT THIS AUTHORIZATION AND ASSOCIATED PERMIT(S) TO REVOCATION.

4. OTHER CONDITIONS: -Use innovative System
- agreement forms on file.

OWNER CERTIFICATION

I CERTIFY THAT THERE HAVE BEEN NO ALTERATIONS IN SITE OR SOIL CONDITIONS OR MODIFICATIONS TO FACILITY, WASTEWATER FLOW, OR WASTEWATER CHARACTERISTICS FROM THOSE SPECIFIED IN THE ORIGINAL APPLICATION OR ASSOCIATED IMPROVEMENT PERMIT UNLESS AUTHORIZED IN WRITING BY THE MECKLENBURG COUNTY HEALTH DEPARTMENT. I ALSO UNDERSTAND THAT ANY SUCH ALTERATIONS, MODIFICATIONS, OR FALSE INFORMATION ARE GROUNDS FOR REVOCATION OF PERMITS AND AUTHORIZATION TO CONSTRUCT.

X David M. Tyson 6-26-98
SIGNATURE OF OWNER/OWNER'S REPRESENTATIVE DATE

CONDITIONS OF IMPROVEMENT PERMIT

Permit Number: 427-B

Tax Number: 217-191-89

- The IMPROVEMENT PERMIT is subject to revocation if site plans or the intended use change. There is to be NO grading, filling or disturbance of the soil in the area of the septic tank system or repair area.
- CONSTRUCTION AUTHORIZATION must be obtained prior to receiving a Building Permit. The Construction Authorization is NOT transferable. Do not clear, grade, fill or disturb soil prior to obtaining a Construction Authorization.
- Domestic-type wastewater only. No industrial process wastewater may be discharged into the system.

Basement offsite ___ Yes ___ No ___ Partial Basement

Type Primary Wastewater System
Type (circle one): I II (III) IV V VI

___ Conventional
___ Prefabricated, permeable block panel system
___ Shallow Placed Conventional
___ Low Pressure Pipe
___ Large Diameter Pipe
___ Fill
___ Other
✓ Innovative or Experimental:
___ IWWS-93-1
___ IWWS-93-2
___ IWWS-94-1

.25 Long-term acceptance rate	490 Max gallons/day wastewater flow	1440 Absorption Area (sq ft)	9 Trench spacing (min. on centers)
yes Serviced by private well	1500 Gallon septic tank	400' Total trench length (ft)	___ Maximum trench depth (At least 12" of provisionally suitable soil must remain between trench bottom and unsuitable soil conditions)
4 Bedrooms in residence	1000 Gallon pump tank	N/A Depth of stone	

Any surface waters present: yes Type: Lake Wylie Minimum separation distance: 50'

Site modifications required:

Additional Conditions: use innovative system agreement form on file

Repair Area System Type
Type (circle one): I II III (IV) V VI

___ Conventional
___ Prefabricated, permeable block panel system
___ Shallow Placed Conventional
✓ Low Pressure Pipe 1 LTAR
___ Large Diameter Pipe
___ Fill
___ Other
___ Innovative or Experimental:
___ IWWS-93-1
___ IWWS-93-2
___ IWWS-94-1

3600 Absorption Area (Sq ft) 720 Total Trench Length (Ft)	12" Depth of Stone Trench	5 Trench spacing (min. on centers)	24" Maximum Trench Depth

For existing system, enter the year originally installed:

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department has approved the Request for the Job Location contained in this document. This approval is granted in accordance with the provisions of Laws and Rules For Sewage, Treatment and Disposal in effect at the time of issuance of the permit and is subject to the following provisions:

- No work shall be conducted on the septic tank system until an Installation, Construction, Alteration and/or Repair Approval is granted by this Department.
- This Improvement permit is transferable.

6-25-98
DEHNR Authorized Agent Date

6/19/98
Owner/Agent Signature Date

MECKLENBURG COUNTY
HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
c/o HAL MARSHALL CTR.
SUITE 211
700 N. TRYON ST.
CHARLOTTE, N.C. 28202.
(704) 336-5102

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENTAL, HEALTH,
AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

DATE 6/26/98

TO: CHARLOTTE-MECKLENBURG BUILDING STANDARDS
PERMIT ISSUING SECTION

FROM: MECKLENBURG COUNTY ENGINEERING

JURISDICTION Meck

217 191 29
PARCEL NUMBER

17601 Doe West Dr
ASSIGNED STREET ADDRESS (ADDRESS OF RECORD)

EXISTING STREET ADDRESS (IF DIFFERENT FROM ASSIGNED)

PROJECT NAME (IF APPLICABLE)

THE ABOVE DESCRIBED LOCATION HAS BEEN CHECKED CONCERNING:

1. SUBDIVISION REGULATIONS	**_____APPROVED**	**_____NOT APPROVED**
2. FLOODWAY REGULATIONS	**_____APPROVED**	**_____NOT APPROVED**
3. WATERSHED PROTECTION	**_____APPROVED**	**_____NOT APPROVED**
4. COMMERCIAL DRAINAGE PLAN	**_____APPROVED**	**_____NOT APPROVED**
5. PUBLIC UTILITY EASEMENT	**_____PRESENT**	**_____NOT PRESENT**
6. PROPERTY FRONTS ON THOROUGHFARE	**_____YES**	**_____NO**
7. DRIVEWAY PERMIT REQUIRED	**_____YES**	**_____NO**
8. DOES PROJECT CONFLICT WITH ROAD PROJECT?	**_____YES**	**_____NO**

REMARKS: Address Verified for Env. Health

NOTE: THIS FORM MUST BE TURNED IN AT THE CASHIERS OFFICE WHEN PAYING PERMIT FEE. CERTIFICATE OF OCCUPANCY WILL NOT BE GRANTED UNTIL TRANSPORTATION DIVISION GRANTS FINAL APPROVAL ON DRIVEWAY(S).

ALL OTHER FORMS OBSOLETE

☐ NEW ADDRESS

SIGNED: _____

REVISED 1/91

FEE: 100.00 Ck# 075

DATE: 11/12/97 gc

APPLICATION FOR IMPROVEMENT PERMIT FOR RESIDENTIAL SITE INDIVIDUAL WATER AND WASTEWATER SYSTEMS PROGRAM

100

[ ] CRT

TYPE APPLICATION: __ NEW SYSTEM __ EXPANSION/ ALTERATION OF EXISTING SYSTEM __ REPAIR OF EXISTING SYSTEM

NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT,
HEALTH, AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

FILE #: 4278

PROPERTY INFORMATION (FROM ENGINEERING FORM) FOR JOB LOCATION:

TAX/PARCEL NUMBER: 217-191-29

STREET ADDRESS: ~~17224~~ Due West Dr. 17601

SUBDIVISION OR MOBILE HOME PARK NAME:

LOT NUMBER: 128

TYPE OF BUILDING (CHECK ONE):

__ SINGLE MOBILE HOME(S)
__ DOUBLE WIDE (D)
X HOUSE (H)
__ MODULAR HOME (M)
__ MULTIPLE FAMILY (U)
__ OTHER (O)

TOWNSHIP (CHECK ONE):

__ 0 MECKLENBURG
__ 1 CHARLOTTE
__ 2 DAVIDSON
__ 3 CORNELIUS
__ 4 PINEVILLE
__ 5 MATTHEWS
__ 6 HUNTERSVILLE
__ 7 MINT HILL

HEATED SQUARE FOOTAGE: 3600

NUMBER OF BEDROOMS: 4

NUMBER OF OCCUPANTS:

CLOSING DATE_____

FOUNDATION FOR RESIDENCE:

__ WITHOUT BASEMENT
__ ON SLAB
__ CRAWL SPACE
X WITH BASEMENT /PLUMBING
__ WITH BASEMENT /NO PLUMBING

IF EXPANSION/ALTERATION OF EXISTING SYSTEM, DESCRIBE THE PROPOSED BUILDING ADDITION:

WILL THERE BE A HOME BUSINESS IN THE RESIDENCE: __ YES X NO TYPE: _____

WATER SUPPLY (CHECK ONE):

__ COMMUNITY (C)
__ MUNICIPAL (M)
X PRIVATE WELL (P)
__ SHARED WELL (S)
__ OTHER 'SPRINGS' (O)

IF ANY OF THE FOLLOWING ARE LOCATED ON THE PROPERTY, PLEASE SHOW LOCATION ON PLAT:

BURIED CABLES, LANDFILLS, STUMPHOLES __ YES X NO
EXISTING WASTEWATER SYSTEMS __ YES X NO
EASTMENTS OR RIGHT-OF-WAYS __ YES X NO
WELL, SPRINGS OR WATERLINES __ YES X NO
DESIGNATED WETLANDS __ YES __ NO

PROPERTY OWNER: C

NAME: Crescent Resources INC (LAST) (FIRST) (MI)

ADDRESS: PO Box 1003

CITY: Charlotte STATE: NC ZIP 28201

DAYTIME PHONE: ( ) -6063695

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME: Jacobs Tracy C (LAST) (FIRST) (MI)

DAYTIME PHONE: ( ) 663-6905

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? _____

An Improvement Permit is subject to suspension or revocation if site plans or the intended use change or if information submitted in this application is falsified or changed. The undersigned, owner, or legal agent for the owner, of the property described above as the "Job Location" has read the foregoing application, acknowledges that the contents of same are true, and authorizes agents of the Mecklenburg County Health Department to enter onto the property for the purpose of processing this request.

SIGNED: Tracy C Jacobs CPSS Agent DATE: 11/12/97

MECKLENBURG COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
c/o HAL MARSHALL CTR., SUITE 211, 700 N. TRYON ST., CHARLOTTE, N.C. 28202., (704) 336-5102

BK: 09718 PG: 0882/0884 #:0395 12.35
JUDITH A GIBSON REG OF DEEDS MECK NC
FILED FOR REGISTRATION 06/04/98 13:37

STATE OF NORTH CAROLINA

COUNTY OF MECKLENBURG

WASTEWATER TREATMENT AND DISPOSAL SYSTEM DESIGN AGREEMENT: 15A NCAC 18A .1948 AND ANY OF THE FOLLOWING RULES: .1956; .1957(a); .1957(b); or .1957(c); OR .1969

FILE # 4298/8299A
PARCEL # 217-191-19

The undersigned, Crescent Resources, Inc., owner of property located at 17601 Due West DR., (the "site") and described in an instrument recorded in Book _____ at Page _____, Mecklenburg Public Registry, hereby acknowledges that the undersigned applied to the Mecklenburg County Health Department (the "Department") for a permit to install a septic tank sewage disposal system on the site; that the Department evaluated the site for suitability for such a system in accordance with the regulations promulgated by the North Carolina Commission for Health Services as 15A NCAC 18A .1900 et seq.; that the Department originally classified the site as "unsuitable" pursuant to the standards set forth in the regulations; that the undersigned requested that the Department reclassify the site as "provisionally suitable" in light of the particular septic tank system proposed by the undersigned; that the Department considered various studies, data, and other information which indicate to the Department that the septic tank system proposed by the undersigned is allowed by the rules; and that the Department therefore reclassified the site as "provisionally suitable" and issued an appropriate permit for such proposed septic tank system.

The undersigned further acknowledges that the proper design, construction, operation and maintenance of such septic tank system is the responsibility of the designer, owner, developer, installer, or user of the system, as applicable, and that neither the Department nor its officials, employees, or agents warrant or guarantee that the said system installed pursuant to the permit issued by the Department will function in a satisfactory manner for any given period of time or that the Department, its officials, employees or agents assume any liability for any damages of any kind which are caused, or which may be caused, by a malfunction of such system.

The undersigned further acknowledges that the following conditions will apply to the site:

- Any changes on the property may make the Improvement Permit Null and void and may make the Improvement Permit subject to revocation.

This instrument was prepared by: CRESCENT RESOURCES, INC.
Mail after recording to: Susie Williams, Crescent Resources, Inc.
P. O. Box 1003, Charlotte, NC 28201-1003

3

RBCWM 24751_1/8-30-95

- Do not grade, cut, fill, pave, construct a building or deck, dig a well, install a swimming pool or otherwise cover or disturb the soil (except for planting and maintaining grass or other ground covers) in a manner which will adversely affect the repair area or area where the septic tank system is located.

- When a private certified operator is required, no improvement permit for the designated repair shall be issued unless there is a private certified operator to carry out this management program in the service area where the proposed system is to be located. (Refer to Rule .1961, "Maintenance of Sewage Systems," for further information.)

- Additional fees will be required according to the Mecklenburg County user fee schedule applicable at the time for the issuance of a repair permit for any subsequent repairs to the sewage treatment and disposal system or for installation of a replacement system.

- At the time repairs to the sewage treatment and disposal system are to be made or a replacement system installed, the regulations in effect at that time will govern the repairs or installation of a replacement system.

The undersigned further agrees for himself, his heirs and assigns that he shall indemnify and hold harmless the Department, its employees, and officials, as well as Mecklenburg County and its employees and officials, for any damages or other claims of any person or persons whatsoever arising out of the installation, operation, or failure of said septic tank system.

Use of the singular masculine pronoun forms herein shall be deemed to also include the plural and feminine forms as the context may require.

This document shall be placed on the public records of the Register of Deeds of Mecklenburg County and indexed therein under the Grantor Index in the name or names of the undersigned, and the foregoing acknowledgements shall henceforth be binding on all persons claiming any right, title, or interest in the site.

IN WITNESS WHEREOF, the undersigned has hereunto set his hand and seal, or if corporate, has caused this instrument to be signed in its corporate name by its duly authorized officers and its seal to be hereunto affixed by authority of its Board of Directors, this 9th day of February, 1998.

CRESCENT RESOURCES, INC.
(Corporate Name)

By: James M. Short, Jr.
Vice President

ATTEST:
Ethelene G. Williams
Assistant Secretary

(Corporate Seal)

_____ (SEAL)

_____ (SEAL)

_____ (SEAL)

_____ (SEAL)

STATE OF NORTH CAROLINA
COUNTY OF MECKLENBURG

I, Linda Myers, a Notary Public for said County and State, do hereby certify that Ethelene G. Williams personally came before me this day and acknowledged that she is Assistant Secretary of CRESCENT RESOURCES, INC., a North Carolina corporation, and that by authority duly given and as the act and deed of said corporation, the foregoing instrument was signed in its name by its Vice President, sealed with its corporate seal and attested by herself as its Assistant Secretary.

WITNESS my hand and notarial seal, this 9th day of February, 1998.

_____
Notary Public

My Commission Expires:
February 2, 2002

LINDA MYERS
NOTARY
My Comm. Exp.
February 12, 2002
PUBLIC
MECKLENBURG COUNTY, N.C.

RBCWM:24751_1/8-30-95

DOSED GRAVITY INFILTRATOR SYSTEM (OFF-SITE)

LOT 128 - SECTION 43

17601
~~17224~~ DUE WEST DRIVE

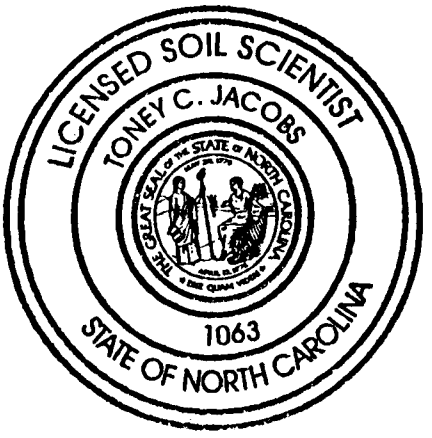
MECKLENBURG COUNTY - NORTH CAROLINA
MCHD FILE #427B/8299A TAX PARCEL 217-191-~~19~~ 29A

by

Toney C. Jacobs & Associates, Inc.
Consulting Soil Scientists
168 Broadbill Drive
Mooresville, N. C. 28115

ofc (704)663-6905
fax (704)662-9845
e-mail jacobs@i-america.net

January 29, 1998



Submitted to: ✓ Mr. Kelly Randall, R.S.
Mecklenburg County Health Dept.
Charlotte, N. C.

Ms. Susie Williams
Crescent Resources, Inc.
P. O. Box 1003
Charlotte, NC 28201-1003

Toney C. Jacobs, CPSS

Paul G. Penninger

RECEIVED 1/29/98

17224 Due West Drive (Lot 128 – Section 43)

GRAVITY DISTRIBUTION INFILTRATOR SYSTEM

Design Considerations

The proposed system is for a 4-bedroom waterfront home on a 1.24 acre lot in a rural area of single family homes in southern Mecklenburg County. The lot will not support an on-site septic system/ therefore, the seller, Crescent Resources, Inc., has added a second parcel of 0.51 acres and will transfer this as a septic area (maps enclosed). This provisionally suitable area is approximately 1100 feet from the lot and was the closest usable septic area. Because of soil quality, the LTAR for this parcel and system is 0.25, a conservative rate but applicable for this soil. The property was recorded prior to January 1983; however, because of the added septic the 100% repair area is required.

Soils were evaluated by both Mr. Kelly Randall of the Mecklenburg County Health Department and Toney C. Jacobs & Associates. The system layout was by Toney C. Jacobs & Associates. To best use the added easement the chambered system was considered as the best suited system for the tract. The chambers are for the initial system with the chamber or panel repair. The septic system drainfield was flagged in the field as shown in Figure 1. The system will be pumped to a surge tank, gravity to d-box, and chambered system, using 5' x 96' lines. During construction and tree removal precautions should be taken to prevent damaging the system area. The pump supply line is on the easement supplied by CRI and utilizes no part of the DOT right-of-way.

Location

The lot is on the right off Due West Drive down a long drive (approx. ½ mile). The system is in a wooded area approximately 1000' from any landmark.

Reference

(1) *Laws and Rules for Ground Absorption Sewage Disposal Systems 15A NCAC 18A. 1900,* NCDEHNR-DEH.

(2) Infiltrator product information

Recommendation

Four hundred and eighty (480) lineal feet of dosed Infiltrator lines using gravity distribution. (Product information sheet on Infiltrator System, Inc. enclosed)

Ownership Responsibility

Conservation measures should be undertaken in plumbing fixture specifications to minimize the volume of wastewater entering the disposal system, including, but not limited to the following precautions:

(a) Provide water conserving plumbing fixtures within the facility. Waterclosets must be 1.6 gal. flush (per code). Shower head should also have restrictions or be of low volume design.

(b) Develop conservative water use habits.

(c) Monitor and maintain the system as necessary for proper operation. An Operation Permit will not require a maintenance contract to be filed with the Mecklenburg County Health Department for the system.

System must be properly installed by a *qualified* and *competent* contractor following the requirements of the Mecklenburg County Department of Environmental Health, DEH, the N.C. Building Code, Plumbing Code, and the Electrical Code. This plan, as any, is a guide to a minimum standard, but cannot take the place of experience and common sense.

Components of System

1. Two compartment septic tank - 1500 gal.
2. Pump tank 1000 gallons
3. Supply pipe
4. Minimum 50 gal concrete surge tank
5. Speed lever box or D-box with speed levelers
6. 480' of chambers with sand backfill on the sides.

Construction Sequence

1. Lines have been flagged as noted on drawing and in specifications.

2. Clear the area of all organic material with minimum soil disturbance (do not grade). Backfill any low areas with clean sandy loam to natural compaction and look. This includes soil evaluation pits and stump holes. There is one minor gully to be smoothed or removed in site preparation.

3. Install trenches per cited reference material and this plan.

4. Carefully backfill distribution trenches to grade with clean clay or clay loam soil fill material which is carefully placed and compacted.

5. The installation contractor shall stabilize the area of construction by planting with Kentucky 31 tall Fescue and mulching. Area to be limed and fertilized with 0.5 tons lime, 75 units of N, 150 units P, and 100 units of K per disturbed acre.

6. The septic tank shall consist of an approved 1500 gallon capacity reinforced, precast watertight, concrete tank with full baffle and shall have easy access to each chamber from ground level for inspection. The first chamber of the septic tank shall consist of 2/3 to 3/4 of the volume of the total tank and the baffle shall contain a horizontal opening across the tank at about midway . Locate the septic tank at such height as to provide approximately 8" of cover soil over top of the tank.

7. Final Landscaping: After the system is installed, the absorption field should be reshaped to shed rainwater and be free of low areas to insure that the system will not be overloaded with excess rainwater and run-on.

8. Supply pipe should have a metal locator tape or wire should it have to be located. This is a recommendation and not required. Where this pipe goes under the drive, it must be greater than 36" deep. It could be sleeved in metal, but deeper is better and less expensive.

9. The dosing tank shall consist of an approved 1000 gallon capacity, reinforced, precast, watertight concrete tank without baffle and shall have a concrete mounting pad (concrete blocks) for accommodating the pump. Test for leakage per regulations. Provide access for entry into the tank directly over the pump location, and extending 6" above final grade. Use a 30" diameter concrete well casing or equivalent and concrete well cap or other approved type cover. There must be a seal (masonry or seal rope) between well tile and top of tank.

10. All piping and fitting shall be SCH 40 PVC. Glue for all PVC pipe joints shall be as recommended by the pipe manufacturer.

11. Pump: The submerged pump shall be Model 186/4186 manufactured by Zoeller or equal, 115 or 230 v/l phase; capable of pumping 16 gallons per minute at 91.3' of head.

12. Pump controls and alarm to meet specifications of .1952, all being compatible.

13. A "Warning Sign" shall be located within the house to inform the occupants of action to take in case the "High Water Alarm" is activated. This sign shall contain the name, address, telephone number, and emergency telephone number of the person to contact upon malfunction of the system.

14. Pump and Controls: Details of pump installation are shown in the plan. The pump must be placed on concrete blocks on the bottom of the tank. This prevents the pumping of any solid particles which can clog the pipe system. A piece of nylon rope or other non-corrodible material should be attached to the pump and the outlet pipe for lifting the pump in and out of the chamber. Controls should be fastened to a "tree" or the outlet pipe with clamps or brackets supplied by the manufacturer. The lower level control or "pump-off" must be positioned above the pump, so that the pump remains submerged at all times. The level control "pump-on" is positioned to pump a specified volume of effluent. The high water control float is then mounted about 3" above the upper pump-on control. (Note: Care must be taken to insure that floats do not become fouled by other components in the tank, such as the electric power cord or the lifting rope. It is highly recommended that a telescoping "tree" be used for floats to facilitate adjustments.) The pump outlet pipe should be connected to the supply manifold with a threaded PVC union (or dresser coupling) to allow quick removal.

15. Electrical Connections: The pump and high water alarm must be placed on separate electrical circuits. (If the pump circuit fails, the alarm must still be able to operate). Follow the manufacturers recommendations for the proper fuses or circuit breakers. All electrical connections must be made outside the pumping chamber. Power cords from the pumps and controls should be plugged into a NEMA 4X approved outdoor receptacle. This must not be located inside the pumping chamber due to the corrosive and explosive gasses that may form from the sewage. This box must be a minimum of 1' above finished grade. Some level control switches have a box built into the housing, but are more expensive than the plug-in devices. Wiring between the pumping chamber and the station should meet State and local code requirements. A lightning arrester is recommended to protect the pump and controls from electrical surges.

16. Proper Operation Check: After all components have been installed and connected, the system should be checked for proper operation. With electrical power turned off, fill the pumping chamber with water from garden hose until the liquid rises to the level of the high-water alarm float. Turn on the electrical power. The alarm light should go on in the house, and the pump should start operating. The alarm light should go off when the liquid reaches the lowest float control. Be sure the pump is still completely submerged.

17. With someone at the surge tank, turn pump on and set gate valve at surge tank to deliver 16 gpm.

18. With an open end box and this pump size, the calculation for a pressure release valve indicator is not needed. Should an air lock occur, the valve can be added on the high point of the supply line.

Concluding Note:

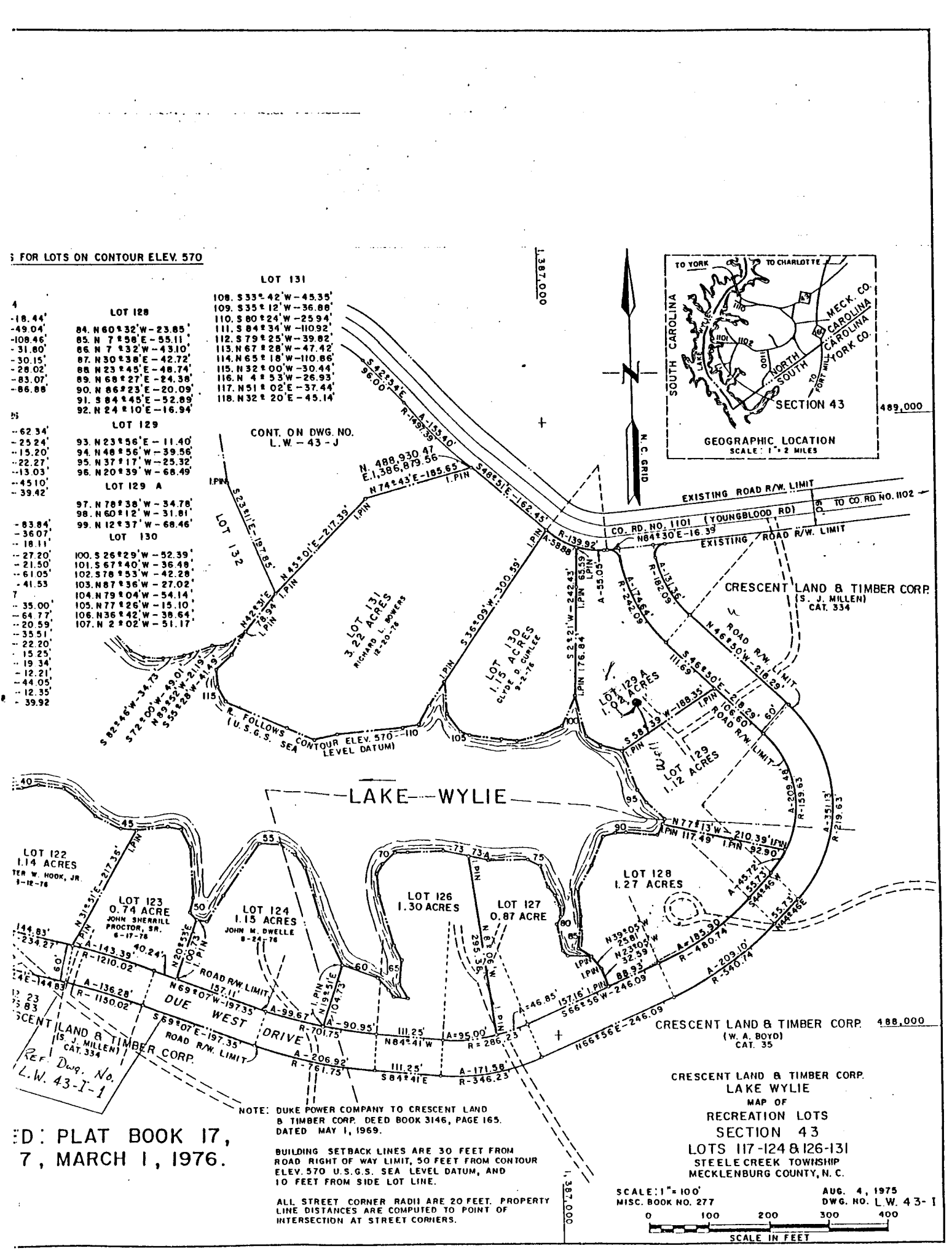
This plan was done to facilitate permitting by the Mecklenburg County Health Department by an agent of the seller (CRI). Because of the complexity of this system, a pre-installation meeting between Toney C. Jacobs & Associates and the installer is recommended if needed. This pre-construction meeting will be billed to the builder or client at current rates. At this time the pump size can be adjusted if necessary. Any additions, or additional requirement(s), or deletions to enhance design or workability which will facilitate a permit are welcomed and may be made by note on this plan without returning entire design. The designer realizes that a plan with as many details as this can be changed and/or improved upon. The installer must realize that this is an exact plan and must be followed and installed with exacting measurements. Should the installer desire a change, it must be approved by the health department in writing. Final inspection will also require more time and detail than a conventional system. If there are questions, please give me a call.

Design Specifications

17224 Due West Drive (Lot 128 – Section 43)

Daily design flow:	480gpd.
Septic tank size:	1500 gal. (2 compartments)
Pumping tank size:	1000 gal.
Effluent loading rate:	0.25gpd/sf initial system repair 0.1 LPP
Total length and diameter of supply manifold:	app. 1000 lf-2" 40 PVC
Number and length of laterals:	5 @ 96' long
Speed lever control:	5 required
Flow rate through the system:	20 gpm capability
Elevation head:	68' *
Pressure head:	3.0'
Friction head:	8.4'
15% contingency	11.9'
Total head:	91.3'
Pump requirements:	16 gpm at 91.3' of head; use Zoeller 186/4186 1½hp pump or equivalent with compatible electrical
Dosing volume:	240 gal. - 2.0 doses/day at design flow
Depth of water pumped per dose:	calculated to specific tank by measure or dealer engineering specifications(1 cubic ft. of water equals 7.48 gals.)
Pump run per dose:	approx. 15.0 min. (run time control of dose)
Check valve:	Yes
Siphon break hole:	No

* This is lowest pump tank placement. If house and tank are back from lake, this could be reduced and require a smaller pump. (Mecklenburg County topo enclosed)



ED: PLAT BOOK 17,
7, MARCH 1, 1976.

TCJ CONSULTING

SITE / SOIL EVALUATION

JOB: Lou Rathmell PHONE: DATE:

LOCATION: PIN: COUNTY: PROPERTY SIZE:

PROPOSED FACILITY: WATER SUPPLY: On-Site Well__ Community__ Public__ EVALUATION: Auger Boring__ Pit__ Cut__

WEATHER: ANTECEDENT MOISTURE: SURFACE WATER:

FACTORS	PROFILE 1	PROFILE 2	PROFILE 3	PROFILE 4
LANDSCAPE POSITION-%	L	L	L	L
HORIZON I DEPTH	0-10	0-9	0-22	0-10
Color - Munsell	bn	bn	bn	
Texture	scl	l/sil	scl	sil
Structure			gr	
Consistence			fr	
Boundary				
HORIZON DEPTH II	10-38	9-26	22-45	10-29
Color - Munsell	yell	red	red brn	yell brn
Texture	C	C	C gravelly	C
Mottles	C yell brn			
Structure	m f-msbk/abk	mmsbk	mm ABK	mmsbk
Consistence	fr s/p	fr s/p	fi s/p	fr s/p
Boundary				
HORIZON III DEPTH	38+	26-43		29-40
Color - Munsell		red		yell brn
Texture	C LS	C		L
Mottles		f-m SAO/yell brn		C-m SAO/red brn
Structure		wm sbk		mmABK
Consistence		fr vfr-s/p		fi s/p
Boundary				
HORIZON IV DEPTH				
Color - Munsell				
Texture				
Mottles				
Structure				
Consistence				
Boundary				
SOIL WETNESS				
RESTRICTIVE HORIZON				
SAPROLITE				
LTAR	.25	.3	.25	.25
CLASSIFICATION	PS	PS	PS	PS

LEGEND

LANDSCAPE POSITION
R - Ridge Interfluve
S - Shoulder
L - Linear slope
S - Foot slope
N - Nose slope
H - Head slope
Cc - Concave slope
Cv - Convex slope
T - Terrace
P - Flood Plain

TEXTURE
s - sand
ls - loamy sand
sl - sandy loam
l - loam
si - silt
sil - silt loam
sicl - silty clay loam
cl - clay loam
scl - sandy clay loam
sc - sandy clay
sic - silty clay
c - clay

CONSISTENCE
MOIST / WET
Ns - non-sticky
Ss - slightly sticky
S - sticky
Vs - very sticky

Np - non-plastic
Sp - slightly plastic
P - plastic
Vp - very plastic

MOIST
vfr - very friable
fr - friable
fi - firm
vfi - very firm
efi - extremely firm

STRUCTURE
sg - single grain
m - massive
cr - crumb
gr - granular
sab - subangular blocky
ab - angular blocky
pl - platy
pr - prismatic

"Quality Pumps Since 1939"

Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.

MAIL TO: P.O. BOX 16347 • Louisville, KY 40256-0347
SHIP TO: 3649 Cane Run Road • Louisville, KY 40211-1961
(502) 778-2731 • 1 (800) 928-PUMP • FAX (502) 774-3624

SECTION: 2.20.060
FM0659
0296
Supersedes
0795

"185" - "186" - "188" - "189" Single Seal Series
"4185" - "4186" - "4188" - "4189" Double Seal Series
"191" Single Seal Drip Pump

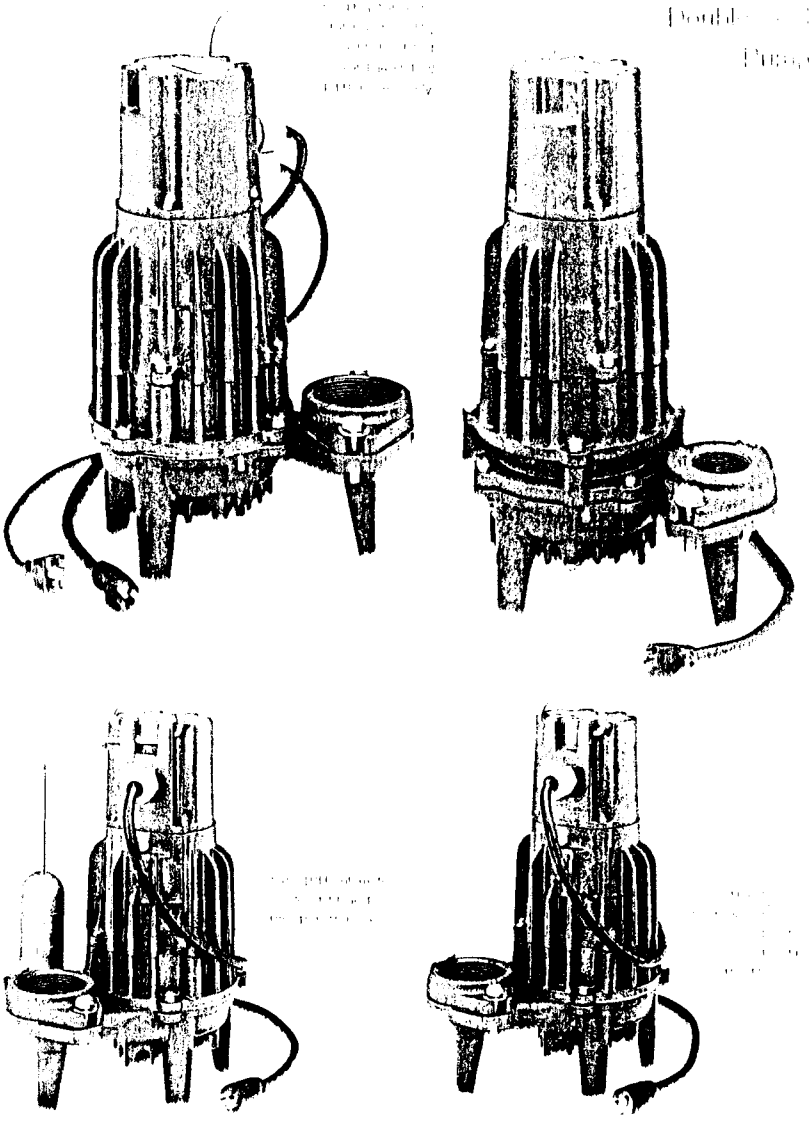
FOR SEPTIC TANK • LOW PRESSURE PIPE (LPP)
AND ENHANCED FLOW STEP SYSTEMS

EFFLUENT

OR DEWATERING PUMP • SUBMERSIBLE

1½" NPT DISCHARGE STANDARD • 2" or 3" FLANGE AVAILABLE

SSPMA Specification #SC-1225



- Non-clogging vortex impeller design bronze class 88-8-0-4 (180 Series).
- Closed impeller design (191 Series).
- Float operated, submersible (NEMA 6) 2 pole mechanical switch.
- Durable cast construction. Cast iron switch case, base, motor and pump housing. No sheet metal parts to rust or corrode.
- Stainless steel screws, bolts, float rod, handle, guard, arm and seal assembly.
- 20' UL-listed 3-wire neoprene cord and plug. Extra cord lengths available in 25-35-50 foot length only.
- Motor - 60 cycle, 3450 RPM, oil filled, hermetically sealed, automatic reset, thermal overload protected (1 PH only).
- Maximum temperature for effluent or dewatering 130° F. 54°. C.
- Variable level control systems available.
- Square Ring & Gasket - Neoprene.
- Shaft Seal - Stainless steel carbon & ceramic rotary.
- Upper sleeve bearing and lower ball bearing running in bath of oil.
- All 180/4180 series pass ¾-inch solids (sphere). Model 191 pump passes ⅞- inch solids (sphere).
- On point 14" • Off point 5" (automatic units).
- Major width 12¾" • Height 18 9/16". (Single seal pumps)
- 1½" NPT discharge with 2" or 3" flange available. (Model 191 is not availiable with 3" flange)

- Protects motor from seal leaks.
- Moisture sensors available for early warning of seal failure. (Optional)
- Improved bearing lubrication.
- Helps eliminate seal and bearing damage from dry runs.
- Major width 12 ¾". Height 20 7/16".

Note: The sizing of effluent systems normally requires variable level float(s) controls and properly sized basins to achieve required pumping cycles.

AUTOMATIC UNITS NOT RECOMMENDED FOR USE IN EFFLUENT SYSTEMS

*NOTE: No UL Listing for 200/208 1 Phase Pumps or Double Seal Series
See Back Page for UL & CSA Listings

Non-Automatic Model for variable level systems

42'16 /

62 994

State of North Carolina
Department of Environment, Health, and Natural Resources
Mooresville Regional Office

James G. Martin, Governor
William W. Cobey, Jr., Secretary

Albert F. Hilton, Regional Manager

DIVISION OF ENVIRONMENTAL HEALTH

July 22, 1992

MEMORANDUM TO: William Marlin
Soil Scientist
Mecklenburg County Health Department

FROM: Joe Lynn JL/kr
Regional Soil Specialist
On-Site Wastewater Section

SUBJECT: Cresent Resources
Lot #128 - Due West Drive

The above referenced property was evaluated for its suitability for a ground absorption sewage treatment and disposal system to serve a three bedroom house. The site is Unsuitable under current laws and rules, 15A NCAC .1900. The enclosed report gives a brief summary of the findings, conclusions, and recommendations.

If I can be of any assistance or you have any questions, contact me through the Mooresville Regional Office (704) 663-1699.

JL/kr

P.O. Box 950, 919 North Main Street, Mooresville, N.C. 28115-0950 • Telephone 704-663-1699 • FAX 704-663-6040

An Equal Opportunity Affirmative Action Employer

SOIL/SITE REPORT

GENERAL INFORMATION

COUNTY: Mecklenburg **DATE:** July 22, 1992

OWNER/APPLICANT: Ernest and Melene Edwards, applicant/Cresent Resources, Owner

LOCATION: Lot #128 Due West Drive

TYPE OF FACILITY: Residence **DESIGN UNIT:** 360 gpd

PROPOSED WATER SUPPLY: _X_ On-Site Well ____ Community Well
____ Public

EVALUATION BY: Joe Lynn and William Marlin using hand auger

DATE OF EVALUATION: July 9, 1992

OTHER(S) PRESENT: Mr. and Ms. Edwards

SITE INFORMATION

Area: 1.27 acres **Present Use:** Old home site, mostly wooded

Topography: (slope) 13 **to** 760 **percent**

Landscape Position: ____ ridge Nose and Linear slopes
____ flood Plain ____ terraces

Site Limitations: ___ well _X_ stream _X_ lake _X_ structure

SOIL INFORMATION

Soil Texture: surface Sandy loam to Clay loam
subsurface Sandy clay to Clay

Soil Structure: (subsurface) Subangular and Angular blocky
____ platy ____ prismatic _X_ massive

Clay Mineralogy: _X_ expansive ____ slightly expansive

Soil Depth 6 **to** 26 **inches to unsuitable soil condition**

Soil Wetness: 3 **locations at** 19 **to** 27 **inches**

Restrictive Horizons: N/A **none at** ____ **inches**

Saprolite: 23 **to** 31 **inches** ____ **Suitable** _X_ **Unsuitable**

Area of S or PS Soil: _X_ **none found** ____ **sq. feet**

CONCLUSIONS

This site is unsuitable for the installation of a conventional ground absorption sewage system due to:

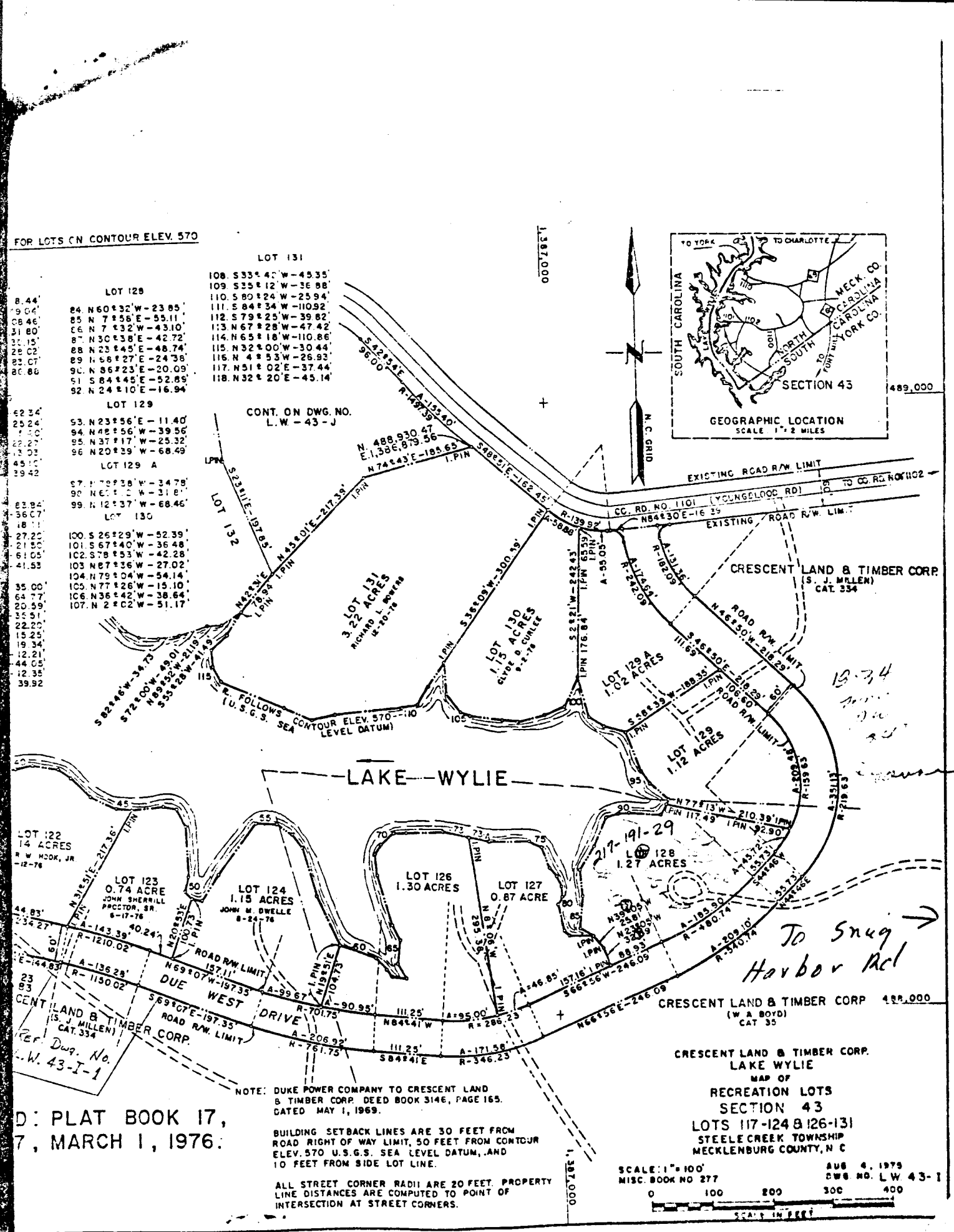
X	Unsuitable Topography and Landscape Position Slopes greater than 30%, depressions and gullies	Section .1940
X	Unsuitable Soil Characteristics Absence of soil structure (massive) and expansive clay mineralogy	Section .1941
X	Unsuitable Soil Wetness Chromas of two or less from Munsell Color Book	Section .1942
X	Insufficient Soil Depth Soil depths of less than 36 inches	Section .1943
___	Restrictive Horizons At depths of less than 36 inches	Section .1944
X	Insufficient Available Space Not enough area for an initial sewage system and a repair.	Section .1945

The site is Unsuitable under Rule .1956 Modifications to Septic Tank Systems. Shallow trenches, large diameter pipe, and porous block panel systems are not an option for this lot. The saprolite is unsuitable by this rule. Drainage will not be helpful.
The site is Unsuitable under Rule .1957 Alternative Sewage Systems. Low pressure pipe systems, fill systems, and aerobic treatment units are not an option for this lot.

RECOMMENDATIONS

The owner has the following options that might allow the use of this property as desired:

1. He may purchase other Suitable or Provisionally Suitable property to place the ground absorption sewage system on.
2. He may obtain an easement on a Suitable or Provisionally Suitable property to place the ground absorption sewage system on.
3. The Division of Environmental Management in Mooresville, N. C. at (704) 663-1699 may be contacted to pursue options available through this office.
4. A sewage system can be pursued under Rule .1957 (c). Written documentation must be submitted to your office showing that the proposed sewage system can be expected to function properly. The data must contain the following:
   a. The effluent must receive adequate treatment.
   b. The ground water and the surface water must not be contaminated by the effluent.
   c. The effluent must not be exposed to the ground surface or discharged to surface waters where it could come into contact with people, animals, or vectors.
5. The denial can be appealed under G.S. 130A-24 if requested within 60 days of the denial date.



D: PLAT BOOK 17,
7, MARCH 1, 1976.

Mecklenburg County
Health Department

Betty S. Snow, R.N., M.A.
Health Director

June 23, 1992

Mr. Ernest N. Edwards, Jr
P.O. Box 30157
Charlotte, NC 28230

RE: Property located at 17224 Due West Drive
FILE: 427B/8299A
PARCEL: 217-191-19

Dear Mr. Edwards, Jr:

At your request a soils investigation was conducted on the property designated above. Results of this investigation showed the site to be classified as **UNSUITABLE** under criteria as set forth in 15A NCA 18A .1900 of Laws and Rules for Sanitary Sewage Collection, Treatment, and Sisposal, August 1, 1991. Evaluation Report (Serial Number 12661) is enclosed.

The soil on this property is not suitable for use with any conventional, modified or alternative system of which I am aware. If you wish to exercise your right of appeal concerning the interpretation and enforcement of these rules you may do so in accordance with G.S. 150B-23.

If there are any questions, please contact Bill Marlin at 336-5574.

Sincerely,

Kelly Randall FOR GENE VAUGHAN

Gene Vaughan, R.S., Supervisor
Individual Water and Wastewater Systems

Enclosure

MECKLENBURG COUNTY ENVIRONMENTAL HEALTH
SITE EVALUATION REPORT
SERIAL NUMBER 12661

File: 4273/E2994 Action 3

Parcel: 217-191-19 ☐ PC

Location: 17224 Due West Dr.

Subdivision:

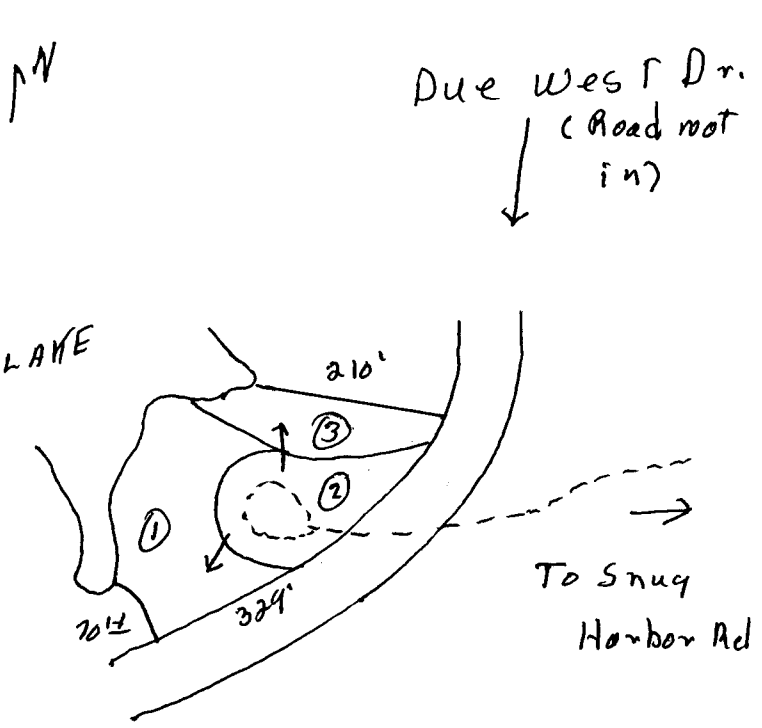
Lot: 128 Block: ~~[illegible]~~ Acres: 1.27

Owner: Ernest N. Edwards, Jr.
Address: PO Box 30157
Charlotte, N.C. 28230

Comments: _____

Described by: William R. Marlin

Date: 6-23-92

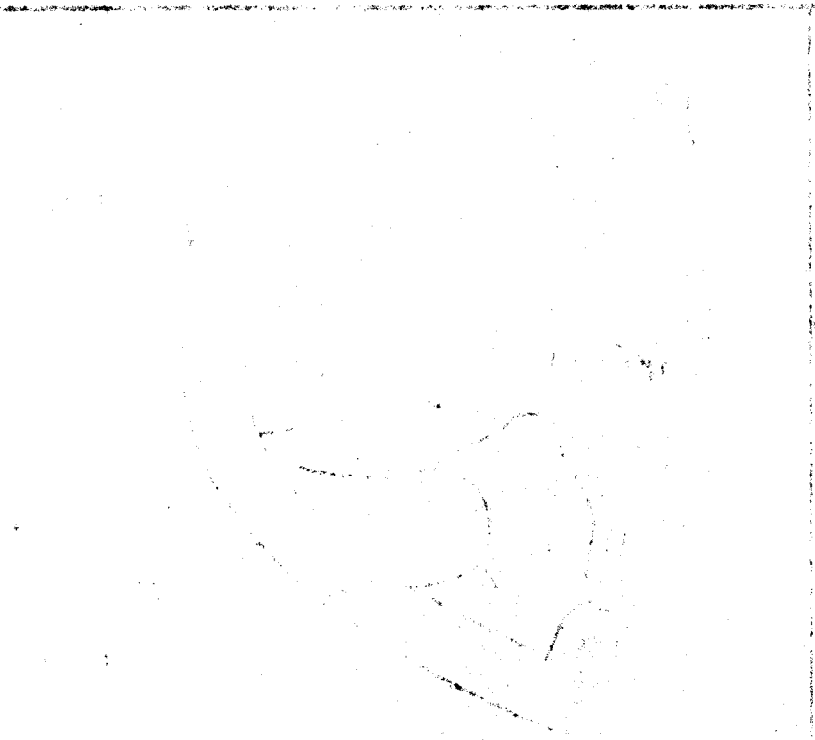


***** EVALUATION KEY *****

S = Suitable U = Unsuitable
PS = Provisionally Suitable
The "Area Classification" below indicates the suitability of areas in the diagram.

FACTORS	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	AREA 6
Topography	S (PS) U 15-30%	(S) PS U 8-15%	S PS (U) Complex Slopes	S PS U	S PS U	S PS U
Texture	S PS (U) Expansive clay	S PS (U) Expansive clay	S PS U	S PS U	S PS U	S PS U
Structure	S (PS) U Sub-Blocky	S (PS) U Sub-Blocky	S PS U	S PS U	S PS U	S PS U
Drainage	S PS (U) Some perched water 24"	S PS (U) Some perched	S PS U	S PS U	S PS U	S PS U
Depth	S PS (U) 18-34"	S PS (U) 18-34"	S PS U	S PS U	S PS U	S PS U
Restrictive Horizons	(S) PS U 736"	S (PS) U 736"	S PS U	S PS U	S PS U	S PS U
Available Space	S (PS) U	S (PS) U limited	S PS U	S PS U	S PS U	S PS U
Other (specify)	S PS U	S PS U	S PS U	S PS U	S PS U	S PS U
Soil Group/Series	Wilkes/ Helena	Wilkes/ Helena	Complex Slopes			
Area Classification	S PS (U)	S PS (U)	S PS (U)	S PS U	S PS U	S PS U

MECKLENBURG COUNTY ENVIRONMENTAL HEALTH
SITE EVALUATION REPORT
SERIAL NUMBER



VALUATION KEY
U = Unsuitable
Unsuitably Suitable
Area Classification below indicates the suitability of
area in the diagram.

FACTORS	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	AREA 6
Topography	S PS U	S PS U	S PS U	S PS U	S PS U	S PS U
Texture	S PS U	S PS U	S PS U	S PS U	S PS U	S PS U
Structure	S PS U	S PS U	S PS U	S PS U	S PS U	S PS U
Drainage	S PS U	S PS U	S PS U	S PS U	S PS U	S PS U
Depth	S PS U	S PS U	S PS U	S PS U	S PS U	S PS U
Restrictive Horizons	S PS U	S PS U	S PS U	S PS U	S PS U	S PS U
Available Space	S PS U	S PS U	S PS U	S PS U	S PS U	S PS U
Slope Percent	S PS U	S PS U	S PS U	S PS U	S PS U	S PS U
Soil Group/Series						
Area Classification	S PS U	S PS U	S PS U	S PS U	S PS U	S PS U

$75.00 ~~$200.00~~ 06/04/92 Ck # 1039

427B/8299A

INDIVIDUAL WATER AND WASTEWATER SYSTEMS PROGRAM
APPLICATION FOR SERVICES

DRAFT

[] CRT

Mecklenburg County Health Dept.
Environmental Health Division
c/o Hal Marshall Ctr., Suite 211
700 N. Tryon St.
Charlotte, NC 28202

(704)336-5102

PERSON FILING APPLICATION:
NAME: ERNEST N. EDWARDS JR
(last) (first) (mi)
ADDRESS: P.O. Box 30157 PHONE: (704) 336-6764
CITY: CHARLOTTE STATE: N.C. ZIPCODE: 28230

Date: 6-1-92

PROPERTY OWNER:
NAME: _____
(last) (first) (mi)
ADDRESS: _____ PHONE: (__) _____
CITY: STATE: ZIPCODE:

PROPERTY INFORMATION (FROM ENGINEERING FORM):
TAX/PARCEL NUMBER: 217-191-29
STREET ADDRESS: 17224 Owen West Dr.
Charlotte, NC
ZONING: RR

SUBDIVISION OR MOBILE HOME PARK NAME:

Township (check one):
[x] 0 Mecklenburg County [] 2 Davidson [] 4 Pineville [] 6 Huntersville
[] 1 Charlotte [] 3 Cornelius [] 5 Matthews [] 7 Mint Hill

LOT NUMBER: SEC 43 LOT 128 LOT SIZE (in acres): 1.27

TYPE APPLICATION (check one):
[x] SOIL TEST - INDIVIDUAL LOT (D)
[x] NEW CONSTRUCTION ON VACANT LOT - 4 BEDROOMS OR LESS (N)
[] EXCHANGE MOBILE HOME - SAME # BEDROOMS (Y)
[] ADDITION - INCREASE ROOMS/OCCUPANCY/MOBILE HOME SIZE (A or M)
[] COMMERCIAL OR INDUSTRIAL (N)
[] SOIL TEST DEVELOPMENT (P)
[] ADDITION - GARAGE OR RENOVATION/NO MAJOR CHANGES (X)
[] MODIFIED /ALTERNATIVE/ OR RESIDENCE > 4 BEDROOMS (Z)
[] REPAIR TO SYSTEM (R)

RESIDENTIAL PROPERTY (Type Building, check one):
[] SINGLE MOBILE HOME (S) [x] HOUSE (H) [] MULTIPLE FAMILY (U)
[] DOUBLE WIDE (D) [] MODULAR HOME (M) [] OTHER _____ (O)

NUMBER BEDROOMS: NUMBER OCCUPANTS:
SYSTEM CLASSIFICATION:

COMMERCIAL/INDUSTRIAL PROPERTY:
Type Business _____ # Employees ___ Per Shift ___ ___ ___
Industrial Wastes (Y/N) ___
Underground Storage Tanks On Property (Y/N) ___ Type _____

WATER SUPPLY (check one):
[] Community (C) [] Shared Well (S)
[] Municipal (M) [] Other 'spring' (O)
[x] Private Well (P)

FUTURE ADDITIONS - ALL PLANNED ADDITIONS MUST BE ENTERED (check all that apply):
[] Swimming Pool [] Jacuzzi [] Stable/Barn [] Workshop [] None
[] Garage [] Storage Building [] Deck/Patio [] Bedrooms [] Other

The undersigned, owner, or legal agent for the owner, of the property described above as the "JOB LOCATION" has read the foregoing application, acknowledges that the contents of same are true, and authorizes agents of the MECKLENBURG COUNTY HEALTH DEPARTMENT to enter onto the property for the purpose of processing this request. By: CRESCENT RESOURCES, INC.

Signed: Ernest N Edwards Jr Date: 6-1-92 Ronald N. Bost

NOTICE:

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department has approved the the Request for the Job Location contained in this document. This approval is granted in accordance with the provisions of Laws And Rules For Sanitary Sewage Collection, Treatment And Disposal in effect at the time of issuance of the permit and is subject to the following provisions:

...No work shall be conducted on the septic tank system until an installation, Construction, Alteration and/or Repair approval is granted by this Department.

...This permit is not transferable.

...

[] IMPROVEMENT PERMIT - VALID 60 MONTHS FROM ISSUANCE
[] MOBILE HOME EXCHANGE APPROVAL - VALID 6 MONTHS FROM ISSUANCE
[] ADDITION/RENOVATION APPROVAL - VALID 1 YEAR FROM ISSUANCE

Environmentalist Date

Director or Authorized Section Head Date

WATER : 122791

PROPOSED PLOT PLAN

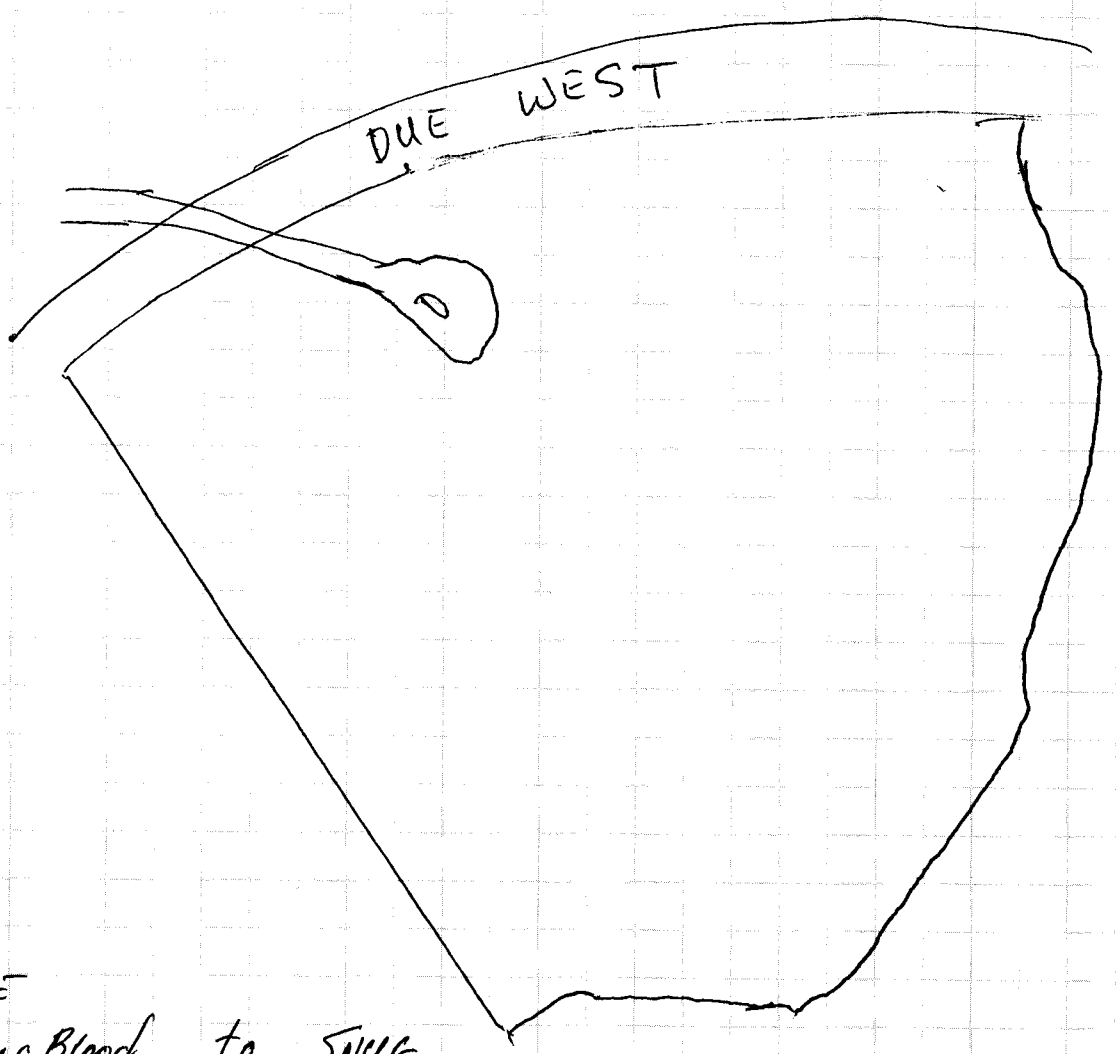
$75.00

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
1200 BLYTHE BOULEVARD
CHARLOTTE, NC 28203
PHONE (704) 376-4603

FILE: 429B | 829A

TC: _____

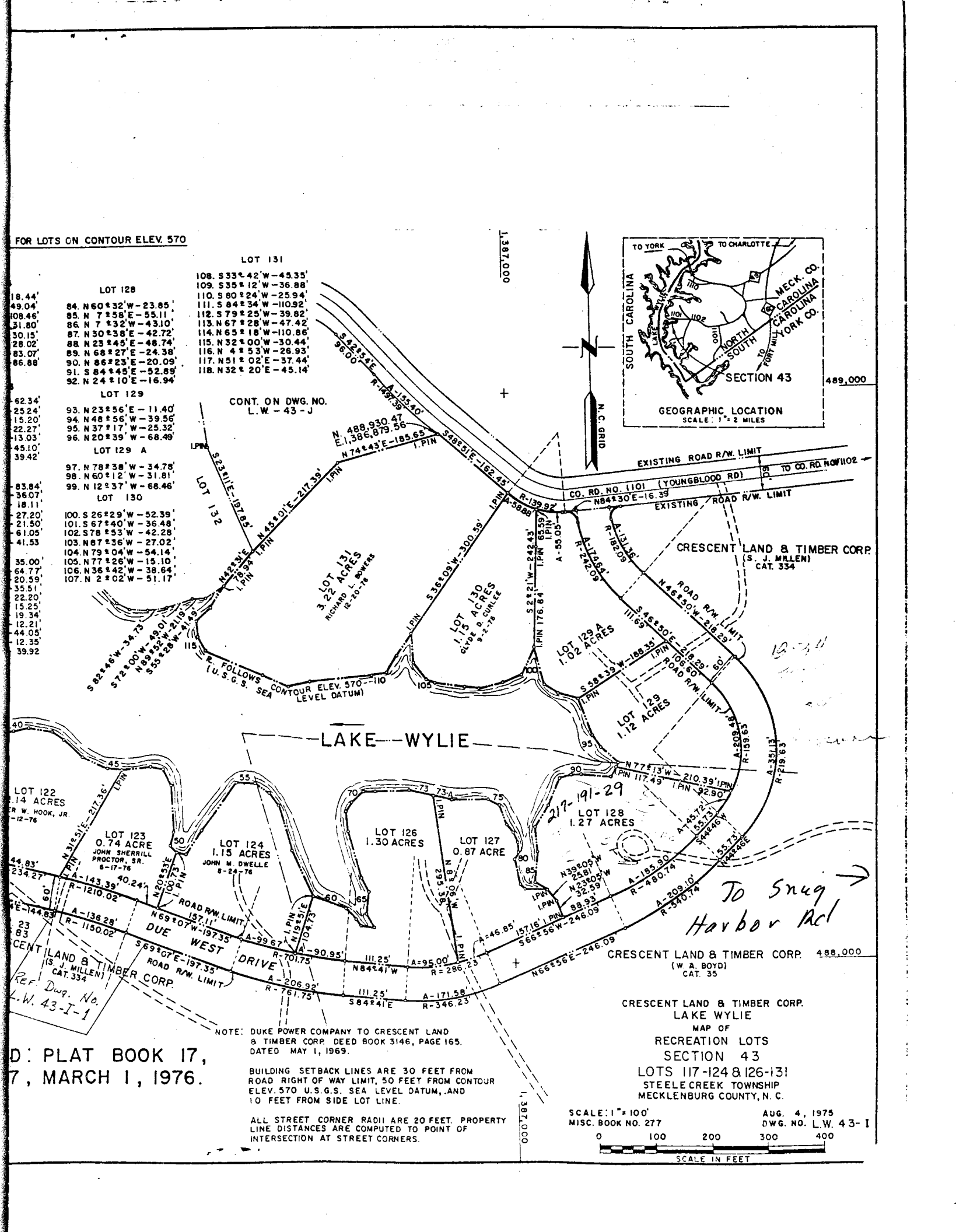
Draw in and name all roads adjoining the property. Draw in and accurately dimension the lot concerned. Accurately indicate property boundaries, proposed and/or existing structures and driveways, underground utilities, and wells and springs within 100 feet of the proposed building or drainfield.



TAKE
Young Blood to SNUG HARBOR, TURN LEFT ON SNUG HARBOR THEN TAKE THE FIRST RIGHT (OLD LOGGING ROAD) LOT IS AT END OF ROAD ACROSS RIGHT OF WA

Signed: _____

Date: _____


FOR LOTS ON CONTOUR ELEV. 570
LOT 128
84. N 60°32'W - 23.85'
85. N 7°58'E - 55.11'
86. N 7°32'W - 43.10'
87. N 30°38'E - 42.72'
88. N 23°45'E - 48.74'
89. N 68°27'E - 24.38'
90. N 86°23'E - 20.09'
91. S 84°45'E - 52.89'
92. N 24°10'E - 16.94'
LOT 129
93. N 23°56'E - 11.40'
94. N 48°56'W - 39.56'
95. N 37°17'W - 25.32'
96. N 20°39'W - 68.49'
LOT 129 A
97. N 78°38'W - 34.78'
98. N 60°12'W - 31.81'
99. N 12°37'W - 68.46'
LOT 130
100. S 26°29'W - 52.39'
101. S 67°40'W - 36.48'
102. S 78°53'W - 42.28'
103. N 87°36'W - 27.02'
104. N 79°04'W - 54.14'
105. N 77°26'W - 15.10'
106. N 36°42'W - 38.64'
107. N 2°02'W - 51.17'
LOT 131
108. S 33°42'W - 45.35'
109. S 35°12'W - 36.88'
110. S 80°24'W - 25.94'
111. S 84°34'W - 110.92'
112. S 79°25'W - 39.82'
113. N 67°28'W - 47.42'
114. N 65°18'W - 110.86'
115. N 32°00'W - 30.44'
116. N 4°53'W - 26.93'
117. N 51°02'E - 37.44'
118. N 32°20'E - 45.14'
CONT. ON DWG. NO. L.W. - 43 - J
1,387,000
N. 488,930.47
E. 1,386,879.56
SOUTH CAROLINA
TO YORK
TO CHARLOTTE
MECK. CO.
CAROLINA
CAROLINA
YORK CO.
NORTH
SOUTH
TO FORT MILL
SECTION 43
GEOGRAPHIC LOCATION
SCALE: 1" = 2 MILES
N.C. GRID
489,000
EXISTING ROAD R/W. LIMIT
CO. RD. NO. 1101 (YOUNGBLOOD RD)
TO CO. RD. NO. 1102
N84°30'E - 16.39'
EXISTING ROAD R/W. LIMIT
CRESCENT LAND & TIMBER CORP.
(S. J. MILLEN)
CAT. 334
LOT 131
3.22 ACRES
RICHARD L. BOWERS
12-20-76
LOT 132
LOT 130
1.15 ACRES
CLYDE D. CURLEE
9-2-76
LOT 129 A
1.02 ACRES
LOT 129
1.12 ACRES
ROAD R/W. LIMIT
R. FOLLOWS CONTOUR ELEV. 570 (U.S.G.S. SEA LEVEL DATUM)
LAKE WYLIE
LOT 122
.14 ACRES
R. W. HOOK, JR.
-12-76
LOT 123
0.74 ACRE
JOHN SHERRILL PROCTOR, SR.
6-17-76
LOT 124
1.15 ACRES
JOHN M. DWELLE
8-24-76
LOT 126
1.30 ACRES
LOT 127
0.87 ACRE
LOT 128
1.27 ACRES
217-191-29
DUE WEST DRIVE
ROAD R/W. LIMIT
CRESCENT LAND & TIMBER CORP.
(S. J. MILLEN)
CAT. 334
Ref. Dwg. No. L.W. 43-I-1
CRESCENT LAND & TIMBER CORP.
(W. A. BOYD)
CAT. 35
488,000
To Snug Harbor Rd
NOTE: DUKE POWER COMPANY TO CRESCENT LAND & TIMBER CORP. DEED BOOK 3146, PAGE 165. DATED MAY 1, 1969.
BUILDING SETBACK LINES ARE 30 FEET FROM ROAD RIGHT OF WAY LIMIT, 50 FEET FROM CONTOUR ELEV. 570 U.S.G.S. SEA LEVEL DATUM, AND 10 FEET FROM SIDE LOT LINE.
ALL STREET CORNER RADII ARE 20 FEET. PROPERTY LINE DISTANCES ARE COMPUTED TO POINT OF INTERSECTION AT STREET CORNERS.
D: PLAT BOOK 17,
7, MARCH 1, 1976.
CRESCENT LAND & TIMBER CORP.
LAKE WYLIE
MAP OF
RECREATION LOTS
SECTION 43
LOTS 117-124 & 126-131
STEELE CREEK TOWNSHIP
MECKLENBURG COUNTY, N. C.
SCALE: 1" = 100'
MISC. BOOK NO. 277
AUG. 4, 1975
DWG. NO. L.W. 43-I
0 100 200 300 400
SCALE IN FEET

$75.00 ~~$200.00~~ 06/04/92 Ck# 1039

INDIVIDUAL WATER AND WASTEWATER SYSTEMS PROGRAM
APPLICATION FOR SERVICES

427B/8299A

[] CRT

Mecklenburg County Health Dept.
Environmental Health Division
c/o Hal Marshall Ctr., Suite 211
700 N. Tryon St.
Charlotte, NC 28202

(704)336-5102

PERSON FILING APPLICATION:
NAME: ERNEST N. EDWARDS JR
~~(last)~~ F(S) ~~(first)~~ L(AS) (mi)
ADDRESS: P.O. Box 30157 PHONE: (704) 336-6764
CITY: CHARLOTTE STATE: N.C. ZIPCODE: 28230

Date: 6-1-92

PROPERTY OWNER:
NAME: _____
(last) (first) (mi)
ADDRESS: _____ PHONE: (__) _____
CITY: STATE: ZIPCODE:

PROPERTY INFORMATION (FROM ENGINEERING FORM):
TAX/PARCEL NUMBER: 217-191-29
STREET ADDRESS: 17628 Owe West Dr
Charlotte, NC
ZONING: RR

SUBDIVISION OR MOBILE HOME PARK NAME:

Township (check one):
[X] 0 Mecklenburg County [] 2 Davidson [] 4 Pineville [] 6 Huntersville
[] 1 Charlotte [] 3 Cornelius [] 5 Matthews [] 7 Mint Hill

LOT NUMBER: SEC 43 LOT 128 LOT SIZE (in acres): 1.27

TYPE APPLICATION (check one):
[X] SOIL TEST - INDIVIDUAL LOT (D)
[] NEW CONSTRUCTION ON VACANT LOT - 4 BEDROOMS OR LESS (N)
[] EXCHANGE MOBILE HOME - SAME # BEDROOMS (Y)
[] ADDITION - INCREASE ROOMS/OCCUPANCY/MOBILE HOME SIZE (A or M)
[] COMMERCIAL OR INDUSTRIAL (N)
[] SOIL TEST DEVELOPMENT (P)
[] ADDITION - GARAGE OR RENOVATION/NO MAJOR CHANGES (X)
[] MODIFIED /ALTERNATIVE/ OR RESIDENCE > 4 BEDROOMS (Z)
[] REPAIR TO SYSTEM (R)

RESIDENTIAL PROPERTY (Type Building, check one):
[] SINGLE MOBILE HOME (S) [X] HOUSE (H) [] MULTIPLE FAMILY (U)
[] DOUBLE WIDE (D) [] MODULAR HOME (M) [] OTHER _____ (O)

NUMBER BEDROOMS: NUMBER OCCUPANTS:
SYSTEM CLASSIFICATION:

COMMERCIAL/INDUSTRIAL PROPERTY:
Type Business _____ # Employees ___ Per Shift ___ ___ ___
Industrial Wastes (Y/N) ___
Underground Storage Tanks On Property (Y/N) ___ Type _____

WATER SUPPLY (check one):
[] Community (C) [] Shared Well (S)
[] Municipal (M) [] Other 'spring' (O)
[X] Private Well (P)

FUTURE ADDITIONS - ALL PLANNED ADDITIONS MUST BE ENTERED (check all that apply):
[] Swimming Pool [] Jacuzzi [] Stable/Barn [] Workshop [] None
[] Garage [] Storage Building [] Deck/Patio [] Bedrooms [] Other

The undersigned, owner, or legal agent for the owner, of the property described above as the "JOB LOCATION" has read the foregoing application, acknowledges that the contents of same are true, and authorizes agents of the MECKLENBURG COUNTY HEALTH DEPARTMENT to enter onto the property for the purpose of processing this request. By: CRESCENT RESOURCES, INC.

Signed: Ernest N Edwards Jr Date: 6-1-92 Ronald M. Bost

NOTICE:

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department has approved the the Request for the Job Location contained in this document. This approval is granted in accordance with the provisions of Laws And Rules For Sanitary Sewage Collection, Treatment And Disposal in effect at the time of issuance of the permit and is subject to the following provisions:

...No work shall be conducted on the septic tank system until an installation, Construction, Alteration and/or Repair approval is granted by this Department.

...This permit is not transferable.

...

[] IMPROVEMENT PERMIT - VALID 60 MONTHS FROM ISSUANCE
[] MOBILE HOME EXCHANGE APPROVAL - VALID 6 MONTHS FROM ISSUANCE
[] ADDITION/RENOVATION APPROVAL - VALID 1 YEAR FROM ISSUANCE

Environmentalist Date

Director or Authorized Section Head Date

WWATER : 122791

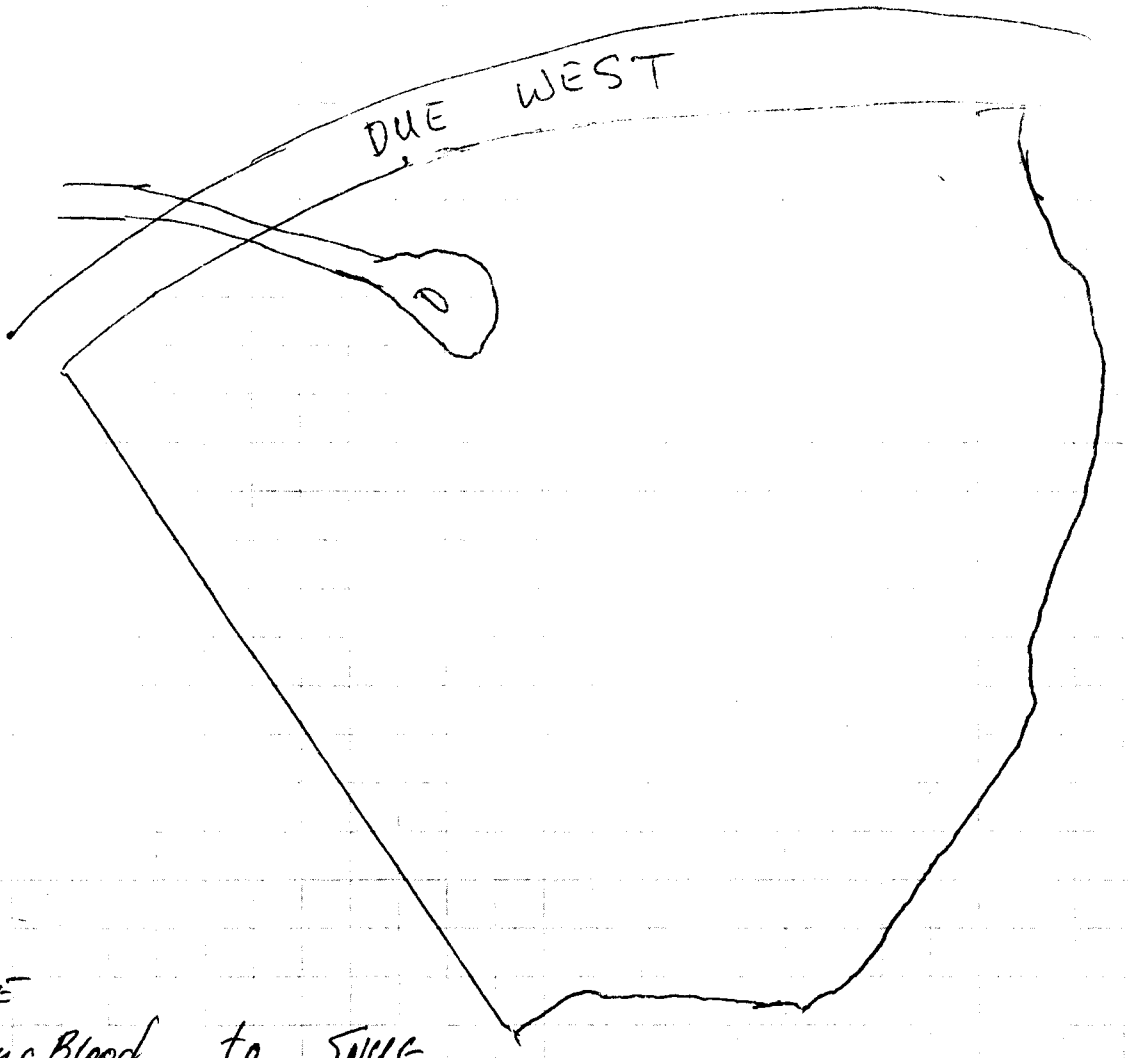
HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
1200 BLYTHE BOULEVARD
CHARLOTTE, NC 28203
PHONE (704) 376-4603

#1

FILE: 429B | 829A

TC: _____

Draw in and name all roads adjoining the property. Draw in and accurately dimension the lot concerned. Accurately indicate property boundaries, proposed and/or existing structures and driveways, underground utilities, and wells and springs within 100 feet of the proposed building or drainfield.



TAKE
Young Blood to SNUG HARBOR, TURN LEFT ON SNUG HARBOR THEN TAKE THE FIRST RIGHT (OLD LOGGING ROAD) LOT IS AT END OF ROAD ACROSS RIGHT OF WA

Signed: _____

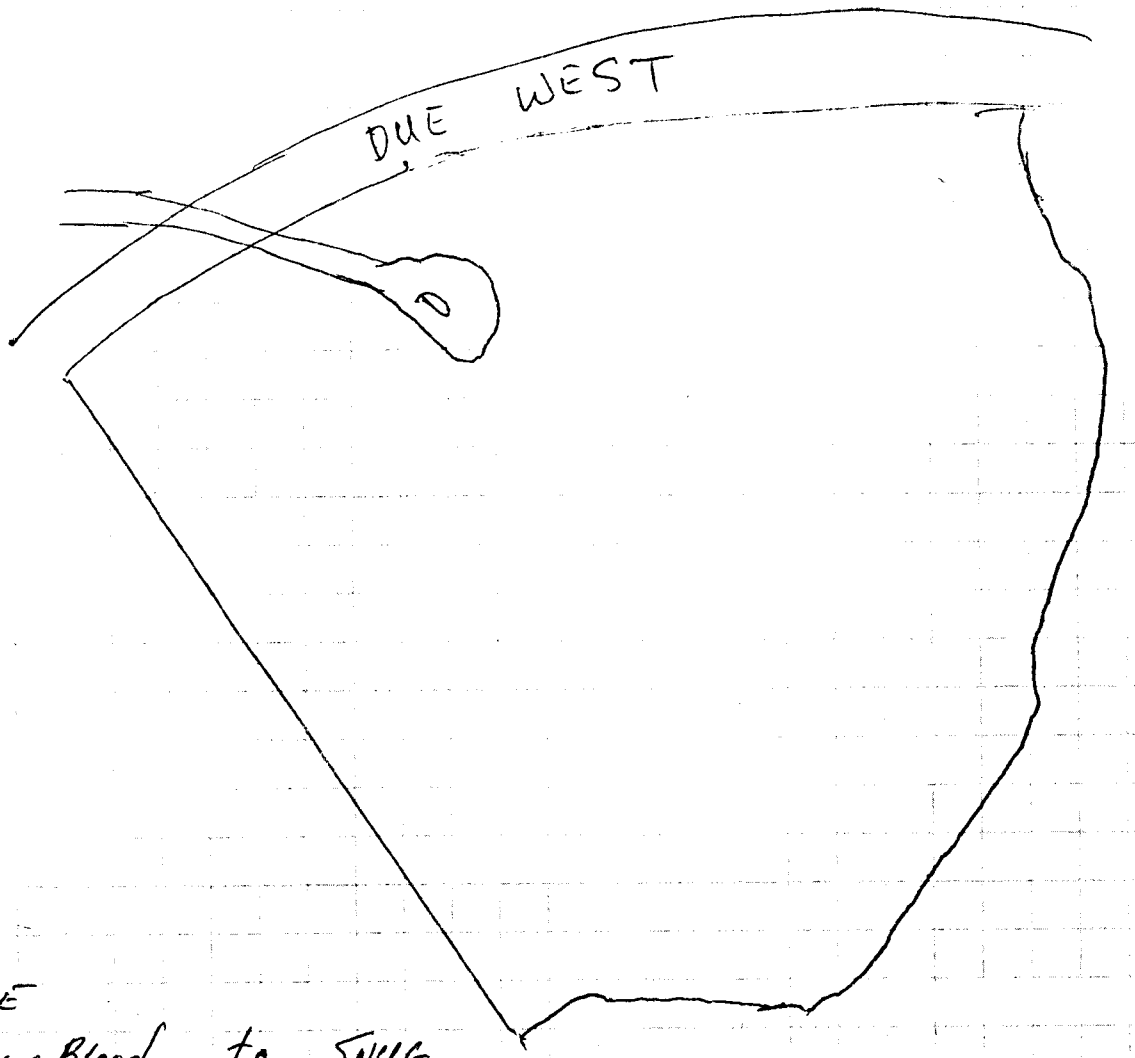
Date: _____

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
1200 BLYTHE BOULEVARD
CHARLOTTE, NC 28203
PHONE (704) 376-4603

FILE 429B | 8299A

TC: _____

Draw in and name all roads adjoining the property. Draw in and accurately dimension the lot concerned. Accurately indicate property boundaries, proposed and/or existing structures and driveways, underground utilities, and wells and springs within 100 feet of the proposed building or drainfield.



TAKE
Young Blood to SNUG HARBOR, TURN LEFT ON SNUG HARBOR THEN TAKE THE FIRST RIGHT (OLD LOGGING ROAD) LOT IS AT END OF ROAD ACROSS RIGHT OF WA

Signed: _____

Date: _____

Mecklenburg County
Health Department

Application for
Inspection of Public Records

By completing the following form, the undersigned does hereby make application to inspect the specified public records under the supervision of authorized personnel. This inspection is in accordance with North Carolina General Statute 132-6.

Name of person making request: Tim Whittaker

Address: 1728 Armstrong Park Dr.

Description of public record requested: 1433-A 427-B, 3413-B

Street Name (or County Road): _____

Lot: _____ **Block:** _____

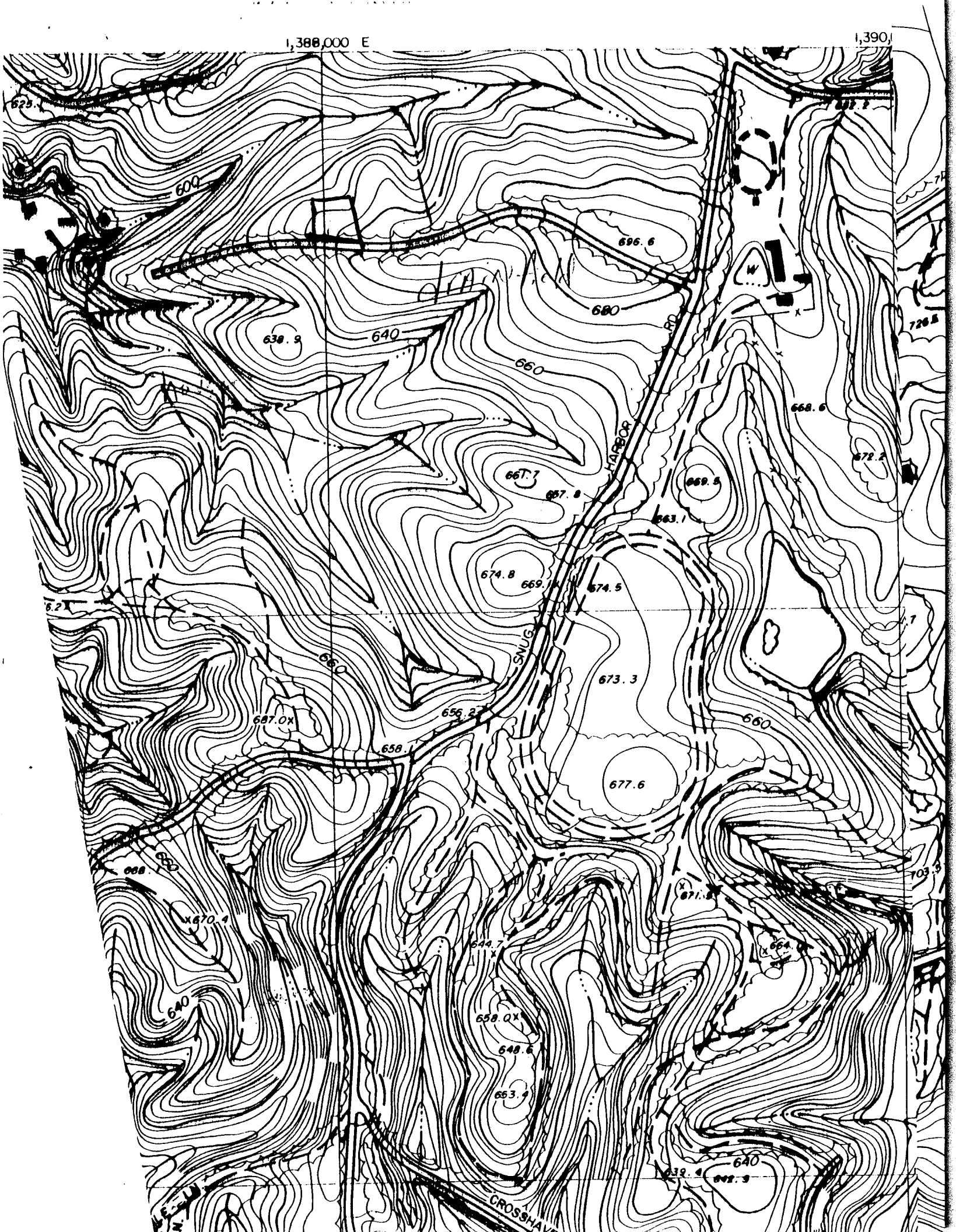
Parcel Number: _____

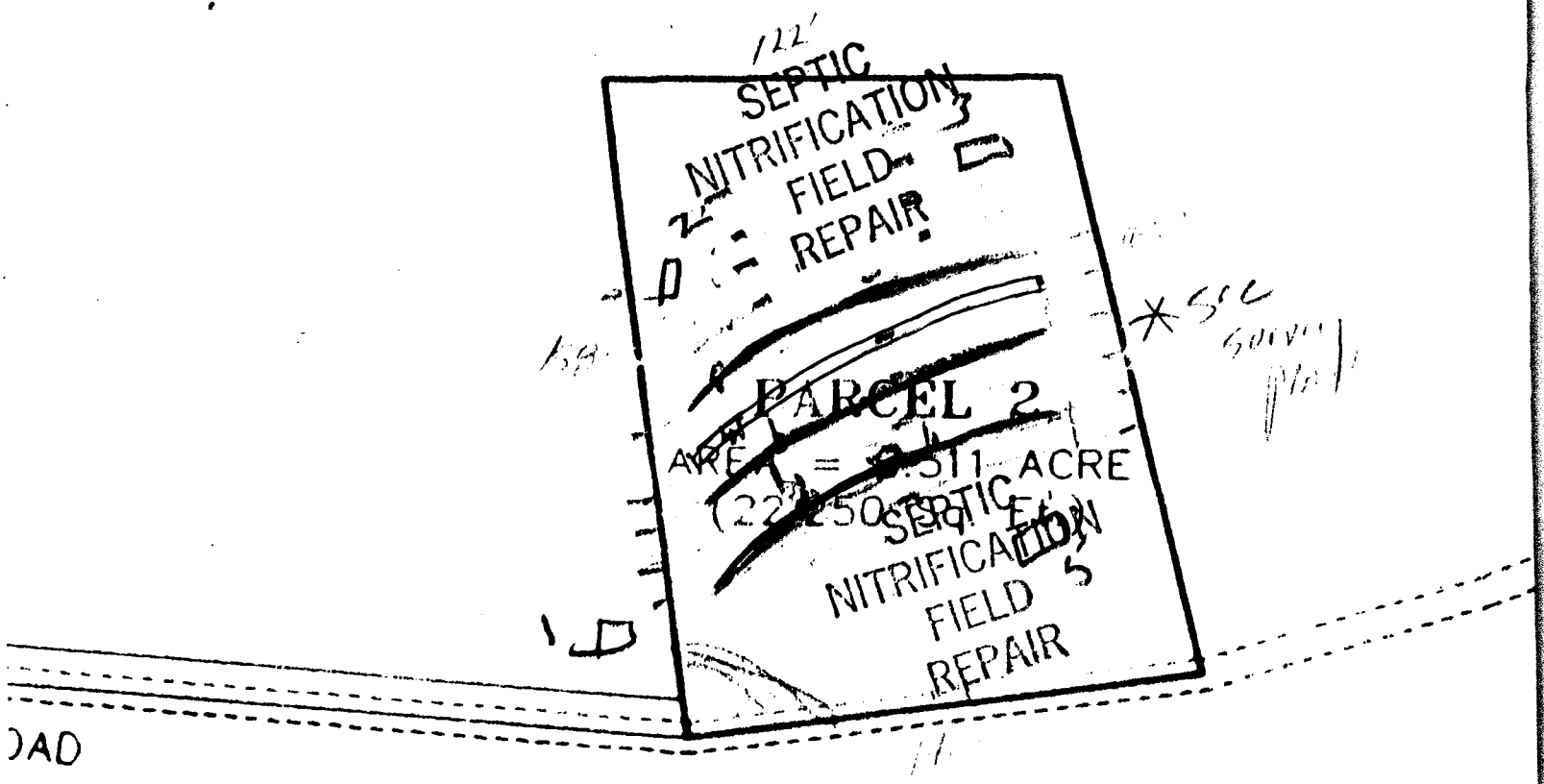
Owner's Name: _____

Reason for Request:
REVIEW

Signature of Person Making Request: Tim Whittaker
2/21/96

Supervisory Person: ~~Environmental Health Division~~

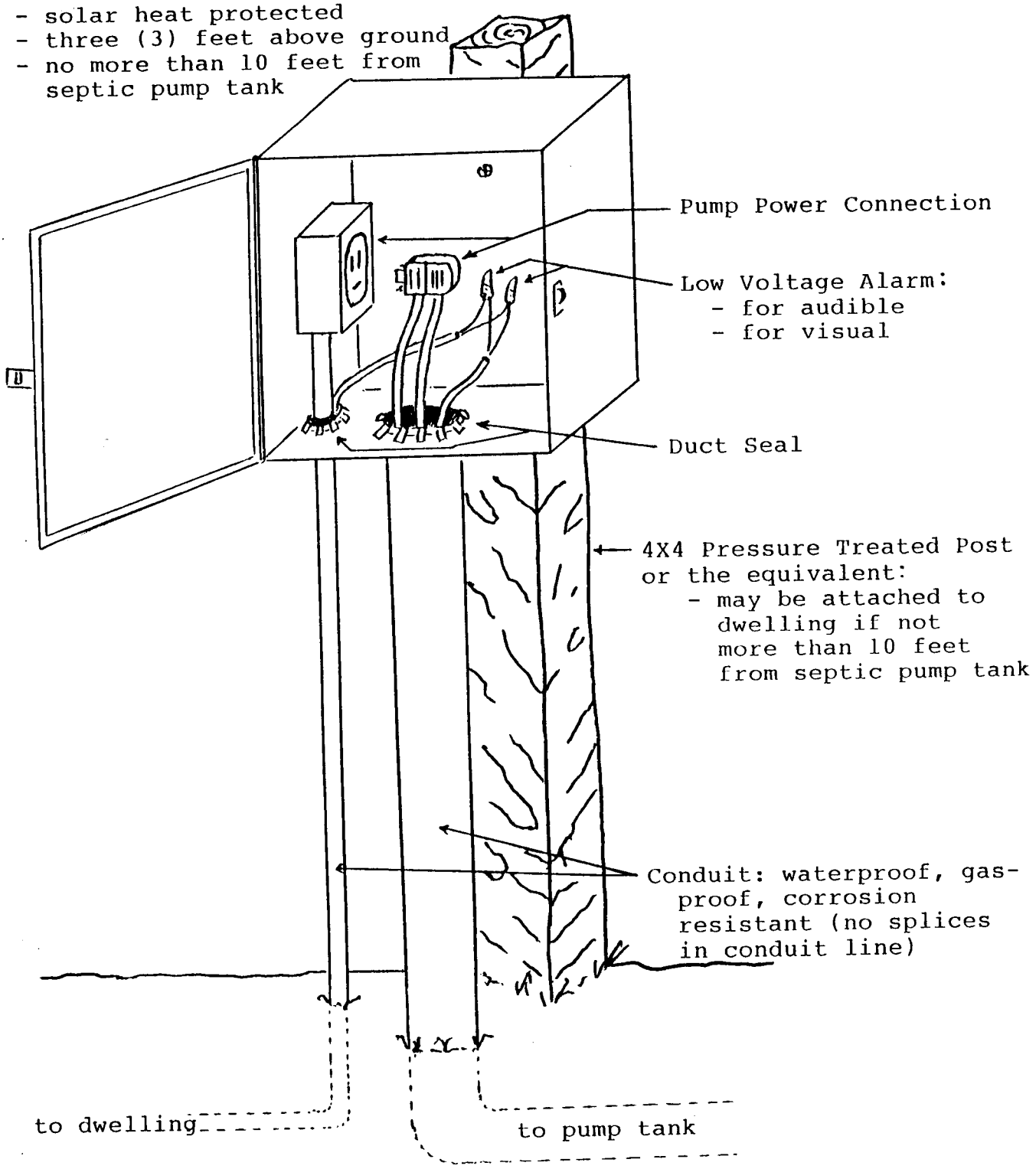

1,388,000 E
1,390,
600
640
660
680
696.6
638.9
668.6
672.2
669.5
663.1
667.8
667.7
674.8
669.1
674.5
673.3
656.2
687.0
658
677.6
670.4
644.7
658.0
648.6
663.4
639.4
692.9
HARBOR RD
SNUG
CROSSHAV


SEPTIC
NITRIFICATION
FIELD
REPAIR
PARCEL 2
SEPTIC
NITRIFICATION
FIELD
REPAIR

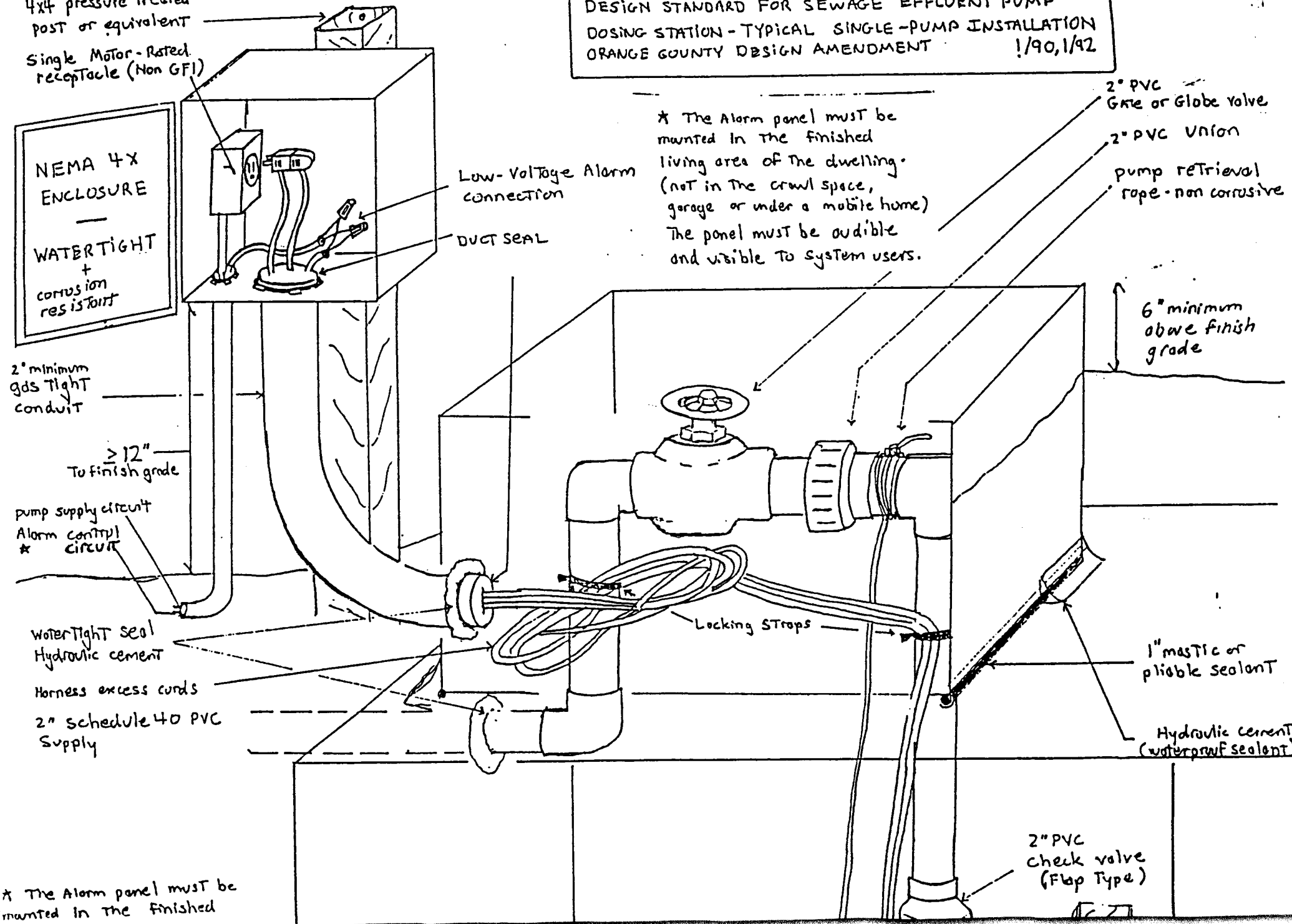
1" = 50'

NEMA 4X ENCLOSURE must be:

- water tight
- corrosion resistant
- solar heat protected
- three (3) feet above ground
- no more than 10 feet from septic pump tank

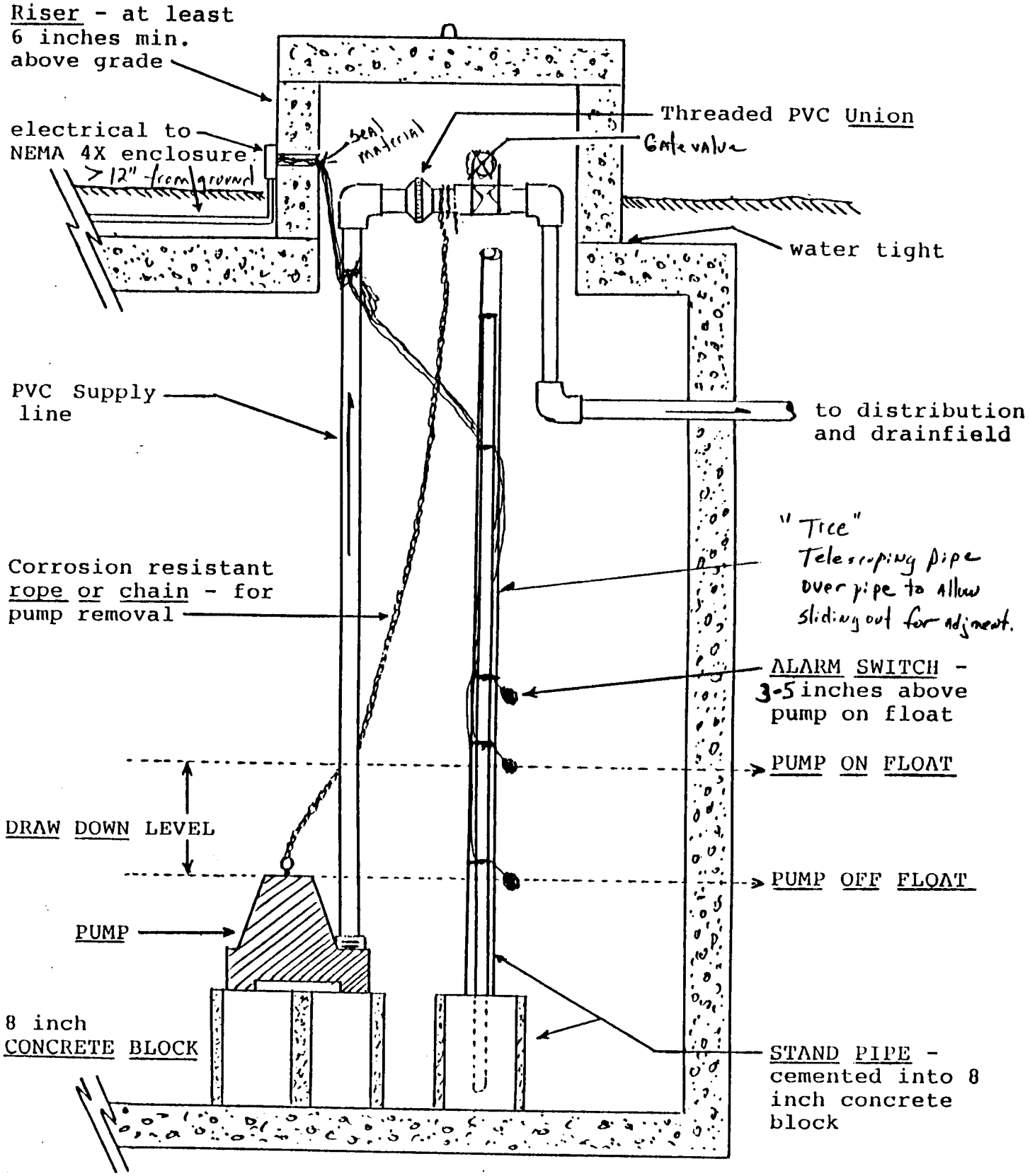


DESIGN STANDARD FOR SEWAGE EFFLUENT PUMP DOSING STATION - TYPICAL SINGLE-PUMP INSTALLATION ORANGE COUNTY DESIGN AMENDMENT 1/90, 1/92



* The Alarm panel must be mounted in the finished

PUMP DIAGRAM



[illegible] COUNTY ENVIRONMENTAL HEALTH

File: 4215/5219M Action: 2 1 15

SITE EVALUATION REPORT

SERIAL NUMBER: NE 12661

Parcel: 219-191-19 ☐ PC

Location: 19324 Due West Dr.

Subdivision:

Lot: 125 Block: [illegible] Acres: 1.29

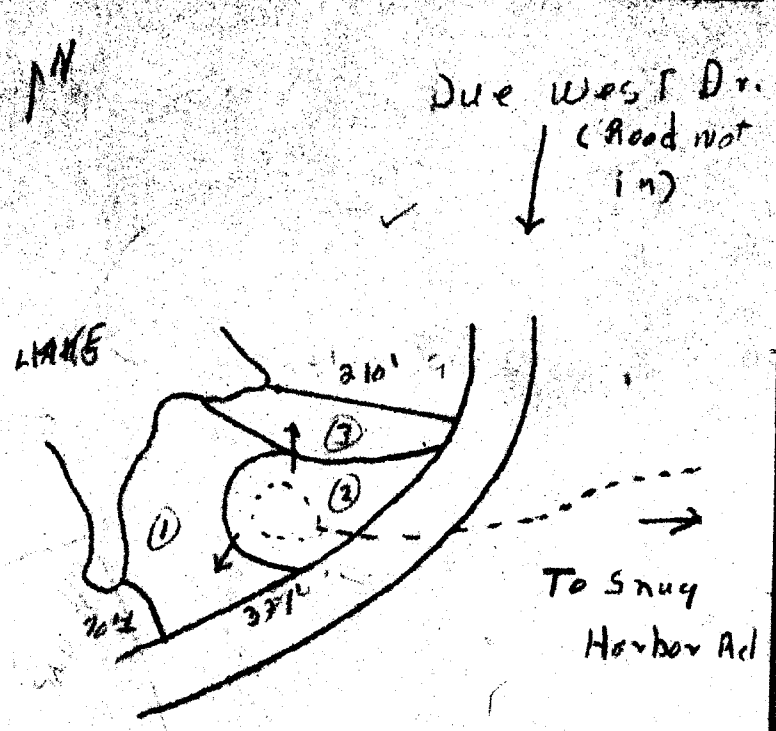
Owner: Ernest N. Edwards, Jr.

Address: PO Box 30151
Charlotte, N.C. 28230

Comments: 4

Described by: William R. Martin

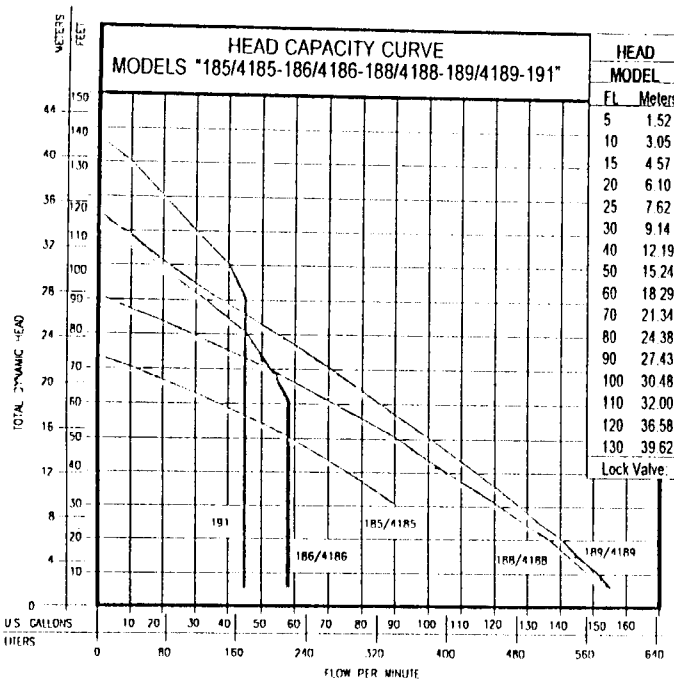
Date: 6-23-92



***** EVALUATION KEY *****

S = Suitable U = Unsuitable
PS = Provisionally Suitable
The "Area Classification" below indicates the suitability of areas in the diagram.

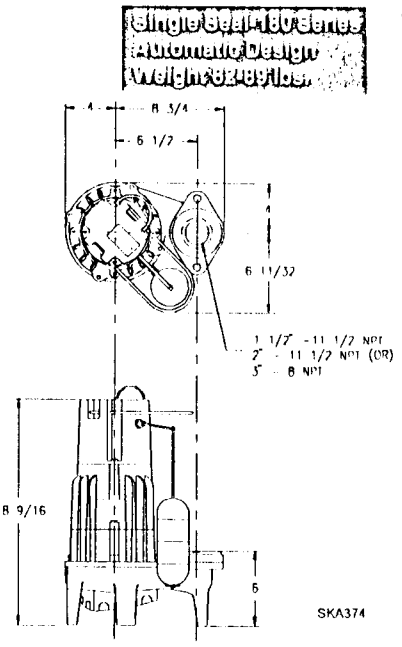
FACTORS	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	AREA 6
Topography	S (PS) U 15-30%	(S) PS U 6-15%	S PS (U) complex slopes	S PS U	S PS U	S PS U
Texture	S PS (U) Expansive clay	S PS (U) Expansive clay	S PS U	S PS U	S PS U	S PS U
Structure	S (PS) U subangular	S (PS) U subangular	S PS U	S PS U	S PS U	S PS U
Drainage	S PS (U) some perched water	S PS (U) some perched	S PS U	S PS U	S PS U	S PS U
Depth	S PS (U) 16-24"	S PS (U) 16-24"	S PS U	S PS U	S PS U	S PS U
Restrictive Horizons	S PS U >36"	S PS U >36"	S PS U	S PS U	S PS U	S PS U
Available Space	S (PS) U	S (PS) U limited	S PS U	S PS U	S PS U	S PS U
Other (specify)	S PS U	S PS U	S PS U	S PS U	S PS U	S PS U
Soil Group/Series	Wilkes Helena	Wilkes Helena	Complex Slopes			
Area Classification	S PS (U)	S PS (U)	S PS (U)	S PS U	S PS U	S PS U

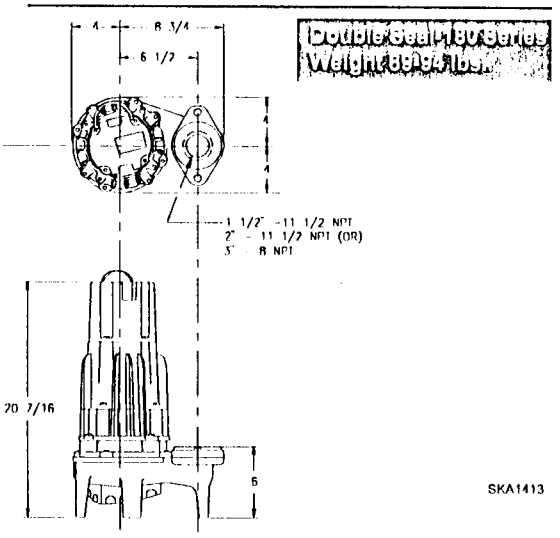


HEAD		CAPACITY UNITS/MIN									
MODEL		185/4185		186/4186		188/4188		189/4189		191	
FL	Meters	Gal	Ltr	Gal	Ltr	Gal	Ltr	Gal	Ltr	Gal	Ltr
5	1.52			58	220	155	587	155	587	45	170
10	3.05			58	220	148	560	151	572	45	170
15	4.57			58	220	142	537	145	549	45	170
20	6.10			58	220	136	515	140	530	45	170
25	7.62			58	220	128	484	133	503	45	170
30	9.14	90	340	58	220	121	458	127	481	45	170
40	12.19	75	283	58	220	105	397	114	431	45	170
50	15.24	58	219	58	220	90	341	100	379	45	170
60	18.29	36	136	58	220	71	269	85	322	45	170
70	21.34	10	38	52	197	51	193	70	265	45	170
80	24.38			45	170	28	106	54	204	45	170
90	27.43			32	121	2	8	37	140	45	170
100	30.48			18	68			21	79	40	151
110	32.00			7	26			8	30	30	114
120	36.58									20	76
130	39.62									10	38
Lock Valve		73'		115'		91'		112'		137'	

009903

WARNING: Model 185 should not be subjected to heads less than 30 feet TDH.





185 MODELS	4185 MODELS	Standard all models - 20 ft. cord - 1 H.P.			Control Selection		Listings***	
Single Seal	Double Seal**	Volts -	Ph	Mode	Amps	Simplex	Duplex	CSA	UL
D185	---	230	1	Auto	9.8	1 or 1 & 9		Y	Y
E185	E4185	230	1	Non	9.8	2 or 2 & 8	3 or 5 & 6	Y(2)	Y
* H185	---	200-208	1	Auto	11.5	1 or 1 & 9		N	N
* I185	* I4185	200-208	1	Non	11.5	2 & 8	3 or 5 & 6	N	N
* F185	* F4185	230	3	Non	7.4	2 & 4	3 & 4 or 5 & 6	Y	Y
* J185	* J4185	200-208	3	Non	7.5	2 & 4	3 & 4 or 5 & 6	Y	Y
* G185	* G4185	460	3	Non	3.7	2 & 4	3 & 4 or 5 & 6	Y	Y
* BA185	---	575	3	Non	3.3	2 & 4	3 & 4 or 5 & 6	Y	N

186 MODELS	4186 MODELS	Standard all models - 20 ft. cord - 1½ H.P.			Control Selection		Listings***	
Single Seal	Double Seal**	Volts -	Ph	Mode	Amps	Simplex	Duplex	CSA	UL
D186	---	230	1	Auto	13.7	1 or 1 & 9		N	N
E186	E4186	230	1	Non	13.7	2 or 2 & 8	3 or 5 & 6	N	N
* F186	* F4186	230	3	Non	8.6	2 & 4	3 & 4 or 5 & 6	N	N
* G186	* G4186	460	3	Non	4.6	2 & 4	3 & 4 or 5 & 6	N	N

188 MODELS	4188 MODELS	Standard all models - 20 ft. cord - 1½ H.P.			Control Selection		Listings***	
Single Seal	Double Seal**	Volts -	Ph	Mode	Amps	Simplex	Duplex	CSA	UL
D188	---	230	1	Auto	13.3	1 or 1 & 9		N	Y(1)
E188	E4188	230	1	Non	13.3	2 or 2 & 8	3 or 5 & 6	Y(2)	Y(1)
* H188	---	200-208	1	Auto	16.8	1 or 1 & 9		N	N
* I188	* I4188	200-208	1	Non	16.8	2 & 7	3 or 5 & 6	N	N
* F188	* F4188	230	3	Non	8.9	2 & 4	3 & 4 or 5 & 6	Y	Y
* J188	* J4188	200-208	3	Non	10.3	2 & 4	3 & 4 or 5 & 6	Y	Y
* G188	* G4188	460	3	Non	4.6	2 & 4	3 & 4 or 5 & 6	Y	Y
* BA188	---	575	3	Non	3.5	2 & 4	3 & 4 or 5 & 6	Y	N

189 MODELS	4189 MODELS	Standard all models - 20 ft. cord - 1½ H.P.			Control Selection		Listings***	
Single Seal	Double Seal**	Volts -	Ph	Mode	Amps	Simplex	Duplex	CSA	UL
(3) D189	---	230	1	Auto	16.6	1 or 1 & 9		N	Y(1)
(3) E189	(3) E4189	230	1	Non	16.6	2 & 7	3 or 5 & 6	Y(2)	Y(1)
(3) XE189	(3) XE4189	230	1	Auto	16.6	2 & 8		Y	Y
* H189	---	200-208	1	Auto	20.5	1 & 9		N	N
* I189	* I4189	200-208	1	Non	20.5	2 & 7	3 or 5 & 6	N	N
* F189	* F4189	230	3	Non	11.2	2 & 4	3 & 4 or 5 & 6	Y	Y
* J189	* J4189	200-208	3	Non	13.2	2 & 4	3 & 4 or 5 & 6	Y	Y
* G189	* G4189	460	3	Non	6.0	2 & 4	3 & 4 or 5 & 6	Y	Y
* BA189	---	575	3	Non	5.8	2 & 4	3 & 4 or 5 & 6	Y	N

191 MODEL	Standard all models - 20 ft. cord - 2 H.P.			Control Selection		Listings***	
Single Seal	Volts -	Ph	Mode	Amps	Simplex	Duplex	CSA	UL
E191 ---	230	1	Non	14.5	2 or 2 & 8	3 or 5 & 6	N	N

* No Molded Plug

** Double Seal pumps are available with optional moisture sensors. Seal Fail indicator light available in NEMA 1 or NEMA 4X control panels.

*** Currently no UL or CSA listing on Double Seal Pumps.

(1) UL Listed unit available with 20 Amp Plug.

(2) CSA Approval without plug cap.

(3) 20 Amp Outlet, P/N 10-0060 must be used.

SELECTION GUIDE

1. Integral float operated mechanical switch, no external control required.
2. Single piggyback wide angle variable level switch, or double piggyback variable level switch. Refer to FM0477.
3. Mechanical alternator "M-Pak" 10-0072 or 10-0075
4. Combination starter. Refer to FM0514.
5. See FM0712 for correct model of Electrical Alternator "E-Pak".
6. Variable level control switch 10-0225 used as control activator with E-Pak duplex (3) or (4) float system.
7. See FM0486 for correct control panel model.
8. 4 hole "J-Pak", junction box, for watertight connection or wired-in simplex or 2 pump operation. P/N 10-0002.
9. 2 hole "J-Pak", junction box, for watertight connection or splice. P/N 10-0003.

CAUTION

All installation of controls, protection devices and wiring should be done by a qualified licensed electrician. All electrical and safety codes should be followed including the most recent National Electric Code (NEC) and the Occupational Safety and Health Act (OSHA).

For information on additional Zoeller products refer to catalog on Combination Starter, FM0514; Piggyback Variable Level Switches, FM0477; Electrical Alternator, FM0486; Mechanical Alternator, FM0495; Alarm Package, FM0513; Sump/Sewage Basins, FM0487; and Simplex Control Box, FM0732.

RESERVE POWERED DESIGN

For unusual conditions a reserve safety factor is engineered into the design of every Zoeller pump.

TCJ CONSULTING

SITE / SOIL EVALUATION

JOB:_____

LOCATION:_____ PHONE:_____ DATE:_____

PROPOSED FACILITY:_____ PIN:_____ COUNTY:_____ PROPERTY SIZE:_____

WEATHER: _____ ANTECEDENT MOISTURE:_____ SURFACE WATER: _____

FACTORS	PROFILE_ 5	PROFILE_ 6	PROFILE_	PROFILE_
LANDSCAPE POSITION-%	L	L		
HORIZON I DEPTH	0-8	0-8		
Color - Munsell				
Texture		SAnd		
Structure				
Consistence				
Boundary				
HORIZON DEPTH II	8-32	8-31		
Color - Munsell				
Texture				
Mottles		SAnd		
Structure				
Consistence				
Boundary				
HORIZON III DEPTH	32-45	31-42		
Color - Munsell				
Texture				
Mottles				
Structure				
Consistence				
Boundary				
HORIZON IV DEPTH				
Color - Munsell				
Texture				
Mottles				
Structure				
Consistence				
Boundary				
SOIL WETNESS				
RESTRICTIVE HORIZON				
SAPROLITE				
LTAR	3	3		
CLASSIFICATION	PS	PS		

LEGEND

LANDSCAPE POSITION
R - Ridge
S - Shoulder
L - Linear slope
S - Foot slope
N - Nose slope
H - Head slope
Cc - Concave slope
Cv - Convex slope
T - Terrace
P - Flood Plain

TEXTURE
s - sand
ls - loamy sand
sl - sandy loam
l - loam
si - silt
sil - silt loam
sicl - silty clay loam
cl - clay loam
scl - sandy clay loam
sc - sandy clay
sic - silty clay
c - clay

CONSISTENCE
WET
Ns - non-sticky
Ss - slightly sticky
S - sticky
Vs - very sticky

Np - non-plastic
Sp - slightly plastic
P - plastic
Vp - very plastic

MOIST
vfr - very friable
fr - friable
fi - firm
vfi - very firm
efi - extremely firm

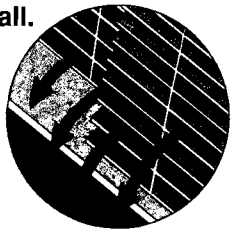
STRUCTURE
sg - single grain
m - massive
cr - crumb
gr - granular
sab - subangular blocky
ab - angular blocky
pl - platy
pr - prismatic

Original Standard and High Capacity Infiltrator chambers provide up to twice the infiltrative capacity of stone and pipe systems.

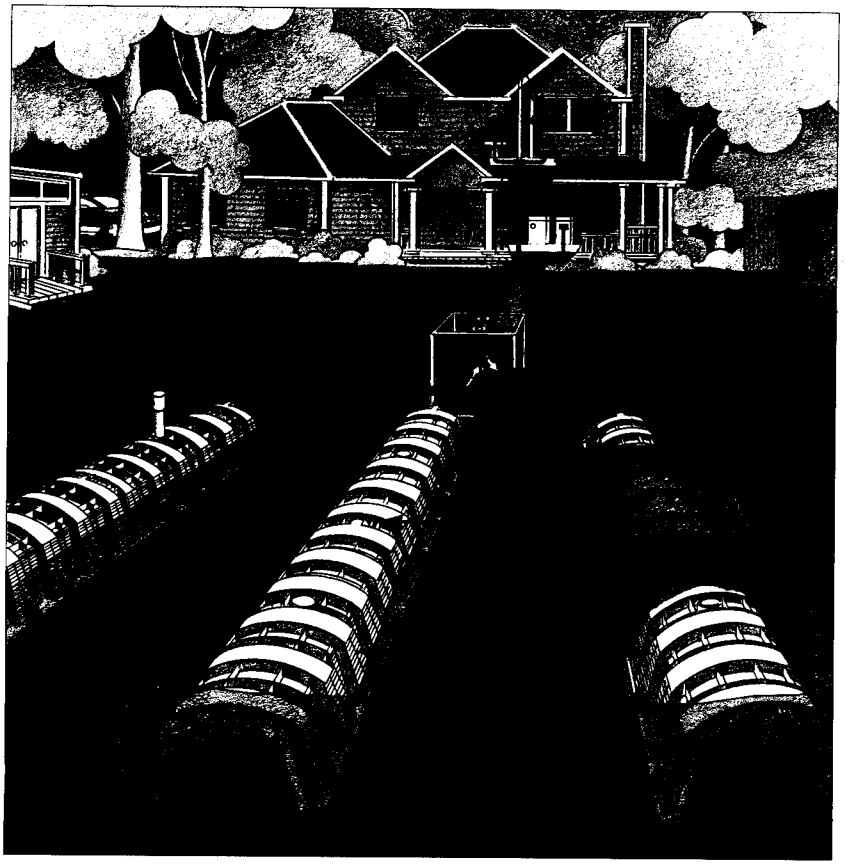
The Infiltrator Chamber System replaces old-fashioned stone and pipe leachfields with patented, high-strength polymer chambers. Both the original Standard and High Capacity chambers are designed to fit in a typical 36" wide trench. Infiltrator chambers sit directly on the trench bottom. The patented interlocks add strength and latch the chambers together quickly, end to end, so installation takes less than half the time of a laborious stone and pipe job.

Infiltrator chambers may be used for any application that is suitable for stone and pipe. However, by offering greater infiltrative capacity per linear foot, chamber systems can require as little as half the space as conventional systems.*

Patented MicroLeaching™ sidewall.
The Infiltrator chamber has an engineered, louvered sidewall that allows effluent to pass laterally into the soil. The angled louvers prevent backfill intrusion into the chamber while 1/4" slots allow lateral leaching.



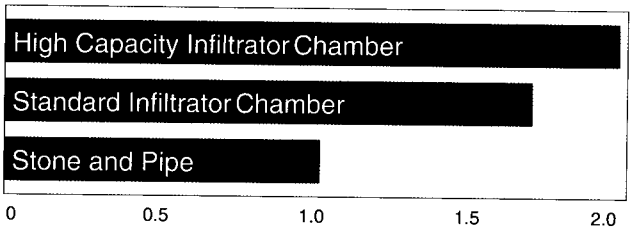
MicroLeaching sidewall



* Subject to state and local regulations.

Open chamber bottom boosts infiltration.
The chamber bottom is completely open, promoting effluent infiltration into the soil with 100% efficiency. The open-bottom area, in combination with the MicroLeaching sidewall, provides maximum infiltrative capacity for long-term, trouble-free service.

LTAR (Long-Term Acceptance Rate).



This graph demonstrates the dramatic efficiency improvement in LTAR of Infiltrator chambers over stone and pipe trenches. The LTAR is a measure of the long-term ability of the system to pass effluent into the soil. For example, the High Capacity Infiltrator chamber infiltrates up to twice the effluent of a same-size stone and pipe trench. This efficiency is recognized by many state and local jurisdictions, who in turn may allow up to 50% shorter trenches.

High-density polyethylene construction.
Infiltrator chambers are molded of high-density PolyTuff™ polyethylene. This proprietary blend, including recycled resins, is formulated for optimum strength and chemical resistance. It's impervious to wastewater constituents and is stabilized to resist ultraviolet rays. Infiltrator chambers are manufactured using an exclusive patented process to assure consistent high quality.

AASHTO H-10 and H-20 load ratings.
Infiltrator chambers have been structurally tested by a registered professional engineer. Both Standard and High Capacity chambers are available with AASHTO ratings of H-10 (16,000 lb/axle with 12" of compacted cover) or H-20 (32,000 lb/axle with 18" of compacted cover).

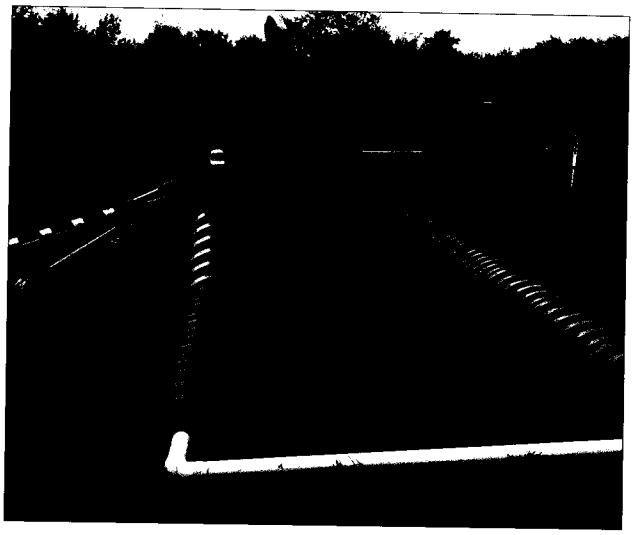
Nominal chamber specifications.

	Standard Chamber	High Capacity Chamber
Size, W x L x H	3' x 6-1/4' x 1'	3' x 6-1/4' x 1-1/3'
Weight	27 lb.	33 lb.
Capacity	77 gal. (10.3 cu. ft.)	122 gal. (16.3 cu. ft.)

Compare the installation and operating advantages.

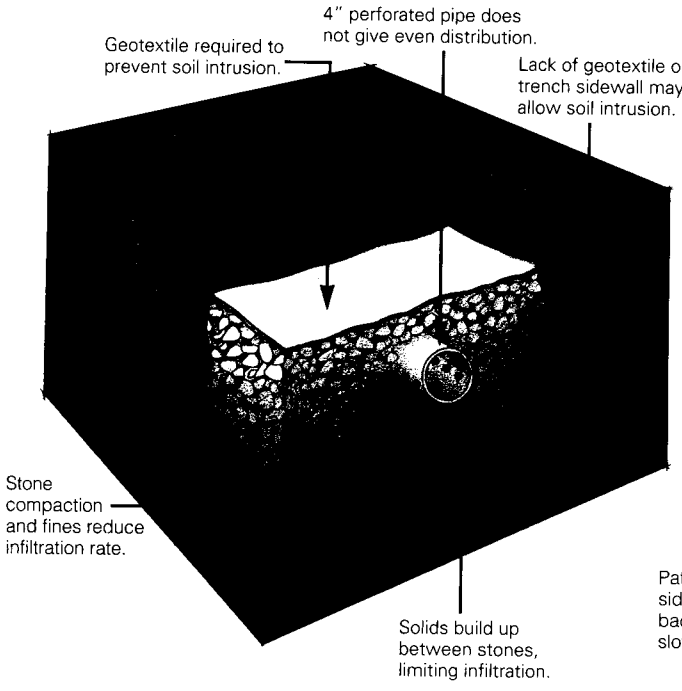


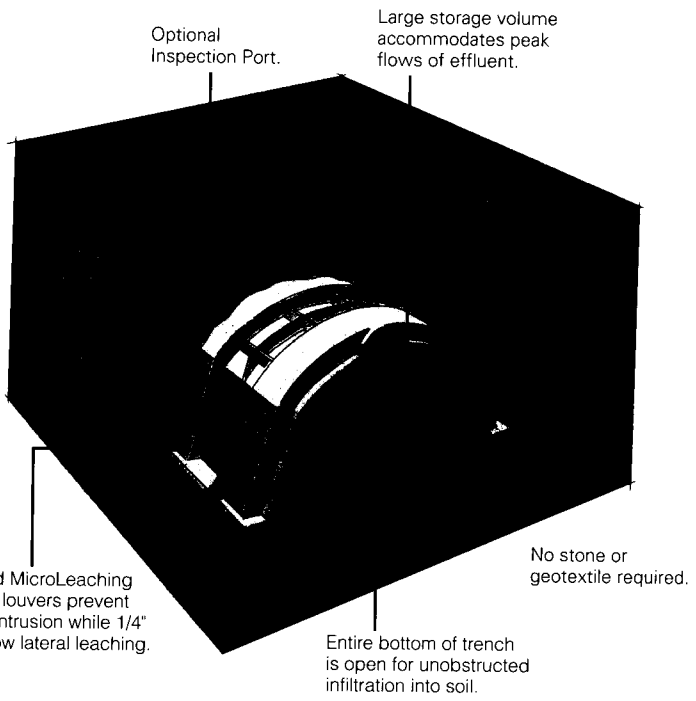
Conventional stone and pipe system



Infiltrator Chamber System

• Labor-intensive, lengthy installation.	• Easy assembly and installation by two people.
• Dump truck needed for stone delivery.	• Only a backhoe and pickup truck are required.
• Stone hauling adds expense and time, and increases soil compaction.	• Lightweight chambers can be delivered in one pickup truck load and hand-carried into position.
• Stone in trench reduces Long-Term Acceptance Rate by more than 50%.	• Entire trench bottom is open for effluent infiltration with 100% efficiency.
• Heavy traffic across yard and spilled stone mean there is more site repair needed after installation.	• There is less regrading, tree damage and landscape repair involved, and no stone cleanup.
• System lacks easy inspection and monitoring of leachfield without digging up the yard.	• Inspection port is available for easy access to leachfield with no site disruption.
• Geotextile required on top of stone.	• Solid-topped chambers need no geotextile.
• Greater overall cost.	• Lower overall cost.



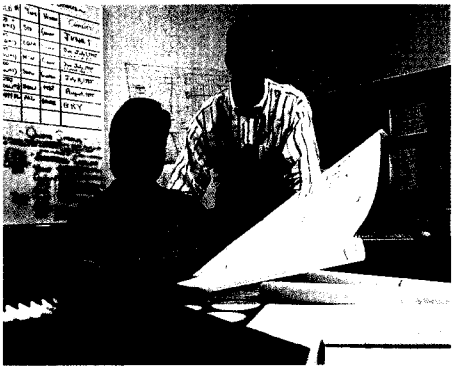


Infiltrator Systems Inc., the industry leader in septic and stormwater chamber system technology.

Five million chambers already in service.
In just ten years, the innovative leaching chambers of Infiltrator Systems have drastically changed the technology of on-site septic and stormwater disposal. Already, 5 million chambers have been installed in 46 states, Canada and other countries, forming over 90 million square feet of chamber systems with a success rate of 99.5%. And, we're expanding at the rate of 9,000 new systems a month.

Environmentally concerned company.
Infiltrator Systems devotes over $500,000 a year to research and development, creating new products that operate more and more efficiently and conserve natural resources. Besides using recycled resins, Infiltrator Systems' products take better care of the environment by avoiding the mining, crushing, grading, washing and hauling of stone, as well as the environmental impact and site disruption that stone causes. That's one of our "greener" ideas for septic and stormwater disposal that just makes sense.

Infiltrator stormwater management.
Besides our septic chamber systems, Infiltrator Systems is on the leading edge of the emerging stormwater management field. The subsurface Maximizer™ Chamber System, with its unmatched strength and practically 100% void volume, replaces ponds, large diameter pipe and stone, vaults, and dry wells. This system gives designers better solutions for both retention and detention projects, so they can fully utilize valuable above-ground land.







For a free copy of the septic installation instructions and video, call 1-800-221-4436.

Distributed By:

INFILTRATOR® SYSTEMS INC

Leading the way in septic and stormwater chamber systems℠

4 Business Park Road, P.O. Box 768
Old Saybrook, CT 06475
800-221-4436 860-388-6639 FAX 860-388-6810

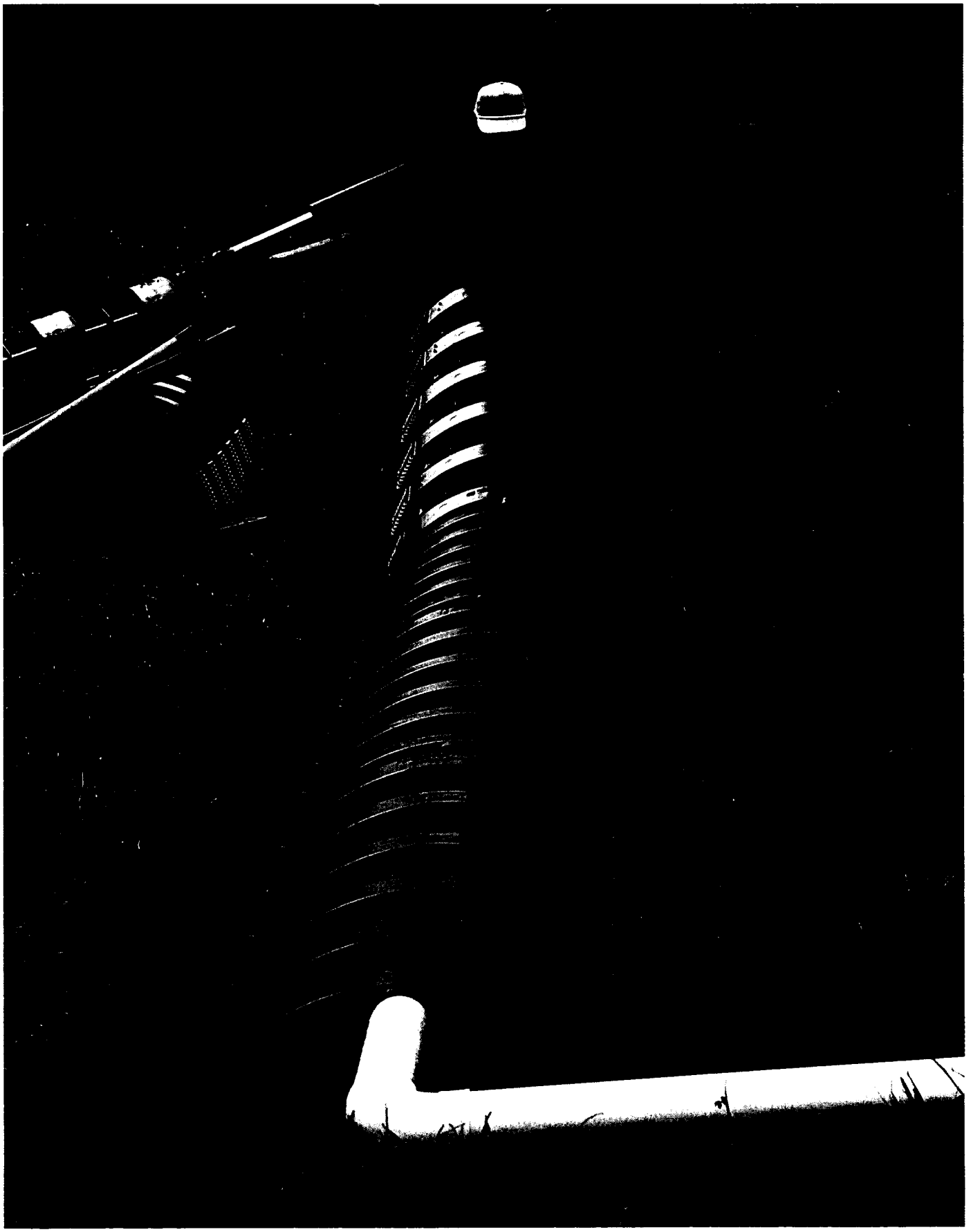
U.S. Patents: 4,759,661; 5,017,041; 5,156,488; 5,336,017; 5,401,116; 5,401,459; 5,511,903; 5,588,778; 1,815,925; 1,974,938; 1,729,383; 448,338
Canadian Patents: 1,329,959; 2,004,564 Other U.S., Canadian, and foreign patents pending.

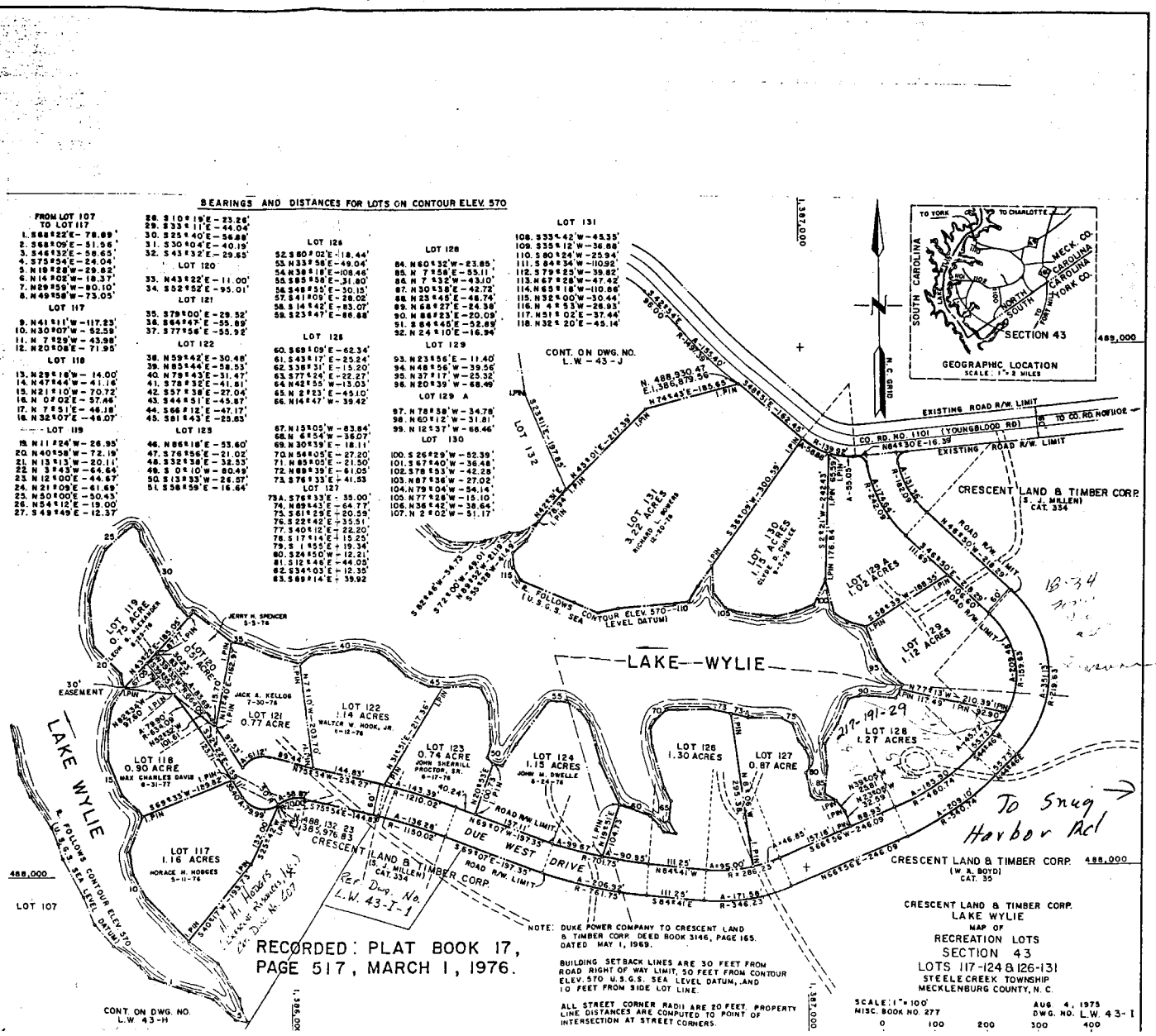
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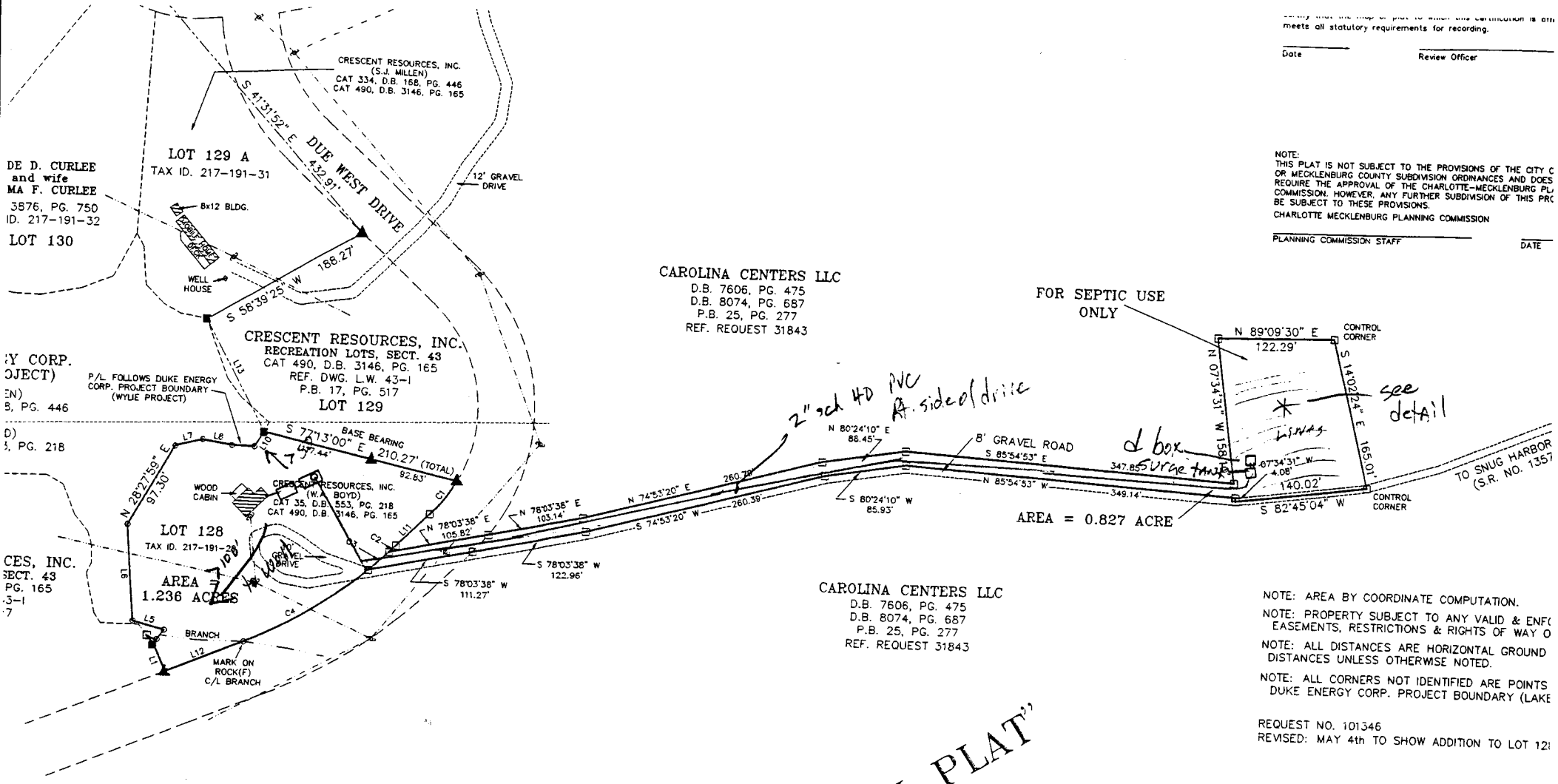
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The Original Infiltrator® Chamber System for Septic Leachfields.

INFILTRATOR® SYSTEMS INC




BEARINGS AND DISTANCES FOR LOTS ON CONTOUR ELEV. 570
FROM LOT 107 TO LOT 117
1. S 68°22'E - 78.89'
2. S 68°09'E - 51.56'
3. S 46°32'E - 58.65'
4. S 75°56'E - 24.04'
5. N 19°28'W - 29.82'
6. N 14°02'W - 18.37'
7. N 29°59'W - 90.10'
8. N 49°58'W - 73.05'
LOT 117
9. N 41°11'W - 117.25'
10. N 30°07'W - 52.58'
11. N 7°23'W - 43.98'
12. N 20°08'E - 71.95'
LOT 118
13. N 29°18'W - 14.00'
14. N 47°44'W - 41.16'
15. N 21°10'W - 70.72'
16. N 0°02'E - 57.46'
17. N 7°51'E - 46.18'
18. N 32°07'E - 48.07'
LOT 119
19. N 11°24'W - 26.95'
20. N 40°58'W - 72.19'
21. N 13°13'W - 20.11'
22. N 3°43'W - 64.64'
23. N 12°00'E - 44.67'
24. N 21°09'E - 61.69'
25. N 50°00'E - 50.43'
26. N 54°12'E - 19.00'
27. S 49°49'E - 12.37'
28. S 10°19'E - 23.26'
29. S 33°11'E - 44.04'
30. S 25°40'E - 56.88'
31. S 30°04'E - 40.19'
32. S 43°32'E - 29.65'
LOT 120
33. N 43°22'E - 11.00'
34. S 52°52'E - 95.01'
LOT 121
35. S 79°00'E - 29.52'
36. S 64°47'E - 55.89'
37. S 77°58'E - 55.92'
LOT 122
38. N 59°42'E - 30.48'
39. N 85°44'E - 56.53'
40. N 78°43'E - 31.47'
41. S 78°32'E - 41.81'
42. S 57°38'E - 27.04'
43. S 44°51'E - 45.87'
44. S 66°12'E - 47.17'
45. S 81°43'E - 25.83'
LOT 123
46. N 86°18'E - 55.60'
47. S 76°56'E - 21.02'
48. S 32°38'E - 32.53'
49. S 0°10'W - 80.49'
50. S 13°33'W - 28.57'
51. S 58°59'E - 16.64'
LOT 126
52. S 80°02'E - 18.44'
53. N 33°58'E - 49.04'
54. N 38°18'E - 108.46'
55. S 85°58'E - 31.80'
56. S 48°55'E - 30.15'
57. S 41°09'E - 28.02'
58. S 14°42'E - 83.07'
59. S 23°47'E - 86.88'
LOT 128
60. S 69°09'E - 62.34'
61. S 43°17'E - 25.24'
62. S 38°31'E - 15.20'
63. S 77°24'E - 22.27'
64. N 42°55'W - 13.03'
65. N 2°23'E - 45.10'
66. N 14°47'W - 39.42'
67. N 15°05'W - 83.84'
68. N 6°54'W - 36.07'
69. N 30°39'E - 18.11'
70. N 56°05'E - 27.20'
71. N 85°05'E - 21.50'
72. N 89°39'E - 61.05'
73. S 76°13'E - 41.53'
LOT 127
73A. S 76°33'E - 35.00'
74. N 89°43'E - 64.77'
75. S 61°29'E - 20.59'
76. S 22°42'E - 35.51'
77. S 40°12'E - 22.20'
78. S 17°14'E - 15.25'
79. S 1°55'E - 19.34'
80. S 24°50'W - 12.21'
81. S 12°46'E - 44.08'
82. S 34°03'E - 12.35'
83. S 69°14'E - 39.92'
LOT 128
84. N 80°32'W - 23.85'
85. N 7°58'E - 55.11'
86. N 7°32'W - 43.10'
87. N 30°38'E - 42.72'
88. N 23°45'E - 48.74'
89. N 68°27'E - 24.38'
90. N 86°23'E - 20.09'
91. S 84°45'E - 52.85'
92. N 24°10'E - 16.94'
LOT 129
93. N 23°56'E - 11.40'
94. N 48°56'W - 39.56'
95. N 37°17'W - 25.32'
96. N 20°39'W - 68.49'
LOT 129 A
97. N 78°38'W - 34.78'
98. N 60°12'W - 31.81'
99. N 12°37'W - 68.46'
LOT 130
100. S 26°29'W - 52.39'
101. S 67°40'W - 36.48'
102. S 78°53'W - 42.28'
103. N 87°36'W - 27.02'
104. N 79°04'W - 54.14'
105. N 77°28'W - 15.10'
106. N 36°42'W - 38.64'
107. N 2°02'W - 51.17'
LOT 131
108. S 33°42'W - 45.35'
109. S 35°12'W - 36.88'
110. S 80°24'W - 25.94'
111. S 84°34'W - 110.92'
112. S 79°25'W - 38.82'
113. N 67°28'W - 47.42'
114. N 65°18'W - 110.88'
115. N 32°00'W - 30.44'
116. N 4°53'W - 26.93'
117. N 51°02'E - 37.44'
118. N 32°20'E - 45.14'
CONT. ON DWG. NO. L.W. - 43 - J
LOT 132
LOT 131 3.22 ACRES RICHARD L. BOWERS
LOT 130 1.16 ACRES CLYDE P. CONLEE
LOT 129 A 1.02 ACRES
LOT 129 1.12 ACRES
LOT 128 1.27 ACRES
LOT 127 0.87 ACRE
LOT 126 1.30 ACRES
LOT 124 1.15 ACRES JOHN M. DWELLE 8-24-76
LOT 123 0.74 ACRE JOHN SHERRILL PROCTOR, SR. 8-17-76
LOT 122 1.14 ACRES WALTER W. HOOK, JR. 8-12-76
LOT 121 0.77 ACRE
LOT 120 0.51 ACRE JACK A. KELLOG 7-30-76
LOT 119 0.75 ACRE LEON A. ALEXANDER 8-25-76
LOT 118 0.90 ACRE MAX CHARLES DAVIS 8-31-77
LOT 117 1.16 ACRES HORACE H. HODGES 5-11-76
JERRY H. SPENCER 5-3-76
CONTOUR ELEV. 570 - 110 LEVEL DATUM
R. FOLLOWS U.S.G.S. SEA
LAKE WYLIE
LAKE WYLIE
30' EASEMENT
DUE WEST DRIVE
ROAD R/W LIMIT
EXISTING ROAD R/W LIMIT
CO. RD. NO. 1101 (YOUNGBLOOD RD)
TO CO. RD. NO. 1102
CRESCENT LAND & TIMBER CORP. (S. J. MILLEN) CAT. 334
CRESCENT LAND & TIMBER CORP. (W. A. BOYD) CAT. 35
CRESCENT LAND & TIMBER CORP. (S. J. MILLEN) CAT. 334
N. 488,930.47 E. 1,386,879.56
N. C. GRID
488,000
489,000
LOT 107
CONT. ON DWG. NO. L.W. 43-H
Ref. Dwg. No. L.W. 43-I-1
W. H. Hodges (Lake W. Dwg. No. 407)
NOTE: DUKE POWER COMPANY TO CRESCENT LAND & TIMBER CORP. DEED BOOK 3146, PAGE 165. DATED MAY 1, 1969.
BUILDING SETBACK LINES ARE 30 FEET FROM ROAD RIGHT OF WAY LIMIT, 50 FEET FROM CONTOUR ELEV. 570 U.S.G.S. SEA LEVEL DATUM, AND 10 FEET FROM SIDE LOT LINE.
ALL STREET CORNER RADII ARE 20 FEET. PROPERTY LINE DISTANCES ARE COMPUTED TO POINT OF INTERSECTION AT STREET CORNERS.
RECORDED: PLAT BOOK 17, PAGE 517, MARCH 1, 1976.
TO YORK CO.
TO CHARLOTTE
SOUTH CAROLINA
MECK. CO.
CAROLINA
YORK CO.
NORTH
SOUTH
FORT MILL
SECTION 43
GEOGRAPHIC LOCATION
SCALE: 1" = 2 MILES
To Snug Harbor Rd
217-191-29
CRESCENT LAND & TIMBER CORP.
LAKE WYLIE
MAP OF
RECREATION LOTS
SECTION 43
LOTS 117-124 & 126-131
STEELE CREEK TOWNSHIP
MECKLENBURG COUNTY, N. C.
SCALE: 1" = 100'
AUG. 4, 1975
MISC. BOOK NO. 277
DWG. NO. L.W. 43-1
0 100 200 300 400



meets all statutory requirements for recording.

Date

Review Officer

NOTE:
THIS PLAT IS NOT SUBJECT TO THE PROVISIONS OF THE CITY C
OR MECKLENBURG COUNTY SUBDIVISION ORDINANCES AND DOES
REQUIRE THE APPROVAL OF THE CHARLOTTE-MECKLENBURG PL
COMMISSION. HOWEVER, ANY FURTHER SUBDIVISION OF THIS PRC
BE SUBJECT TO THESE PROVISIONS.

CHARLOTTE MECKLENBURG PLANNING COMMISSION

PLANNING COMMISSION STAFF

DATE

NOTE: AREA BY COORDINATE COMPUTATION.

NOTE: PROPERTY SUBJECT TO ANY VALID & ENF(EASEMENTS, RESTRICTIONS & RIGHTS OF WAY O

NOTE: ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES UNLESS OTHERWISE NOTED.

NOTE: ALL CORNERS NOT IDENTIFIED ARE POINTS DUKE ENERGY CORP. PROJECT BOUNDARY (LAKE

REQUEST NO. 101346
REVISED: MAY 4th TO SHOW ADDITION TO LOT 12

NOTE:
THIS PLAT IS OF A SURVEY THAT CREATES A SUBDIVISION OF LAND WITHIN THE AREA OF A COUNTY OR MUNICIPALITY THAT HAS AN ORDINANCE THAT REGULATES PARCELS OF LAND.

"PRELIMINARY PLAT"
(NOT FOR RECORDATION, CONVEYANCES, OR SALES)

TOTAL AREA = 2.063 ACRES

TAX ID 217-191-29

SOURCE OF TITLE: D.B. 3146, PG. 165, D.B. 7606, PG. 475 & D.B. 807

PROPERTY OWNED BY
CRESCENT RESOURCES, INC. & CAROLINA CENTER:
WYLIE DEVELOPMENT

REVISED BOUNDARY SURVEY OF
ADDITION TO

RESOURCES

STATE OF NORTH CAROLINA
MECKLENBURG COUNTY

I, JAMES R. HOBBS, certify that this plat was drawn under my supervision from an actual survey made under my supervision (deed description recorded in Book AS, page SHOWN, etc.) (other); that the boundaries not