REDESIGNED LOW PRESSURE MANIFOLD DOSING
FOR A
25% REDUCTION SEPTIC SYSTEM
FOR
SUBSURFACE WASTEWATER DISPOSAL
LOT 79 AT CHESAPEAKE POINT
274 COVE CREEK DRIVE
MOORESVILLE NC 28117

Prepared for
Jonathan Helms
Orleans Homebuilders
700 Forest Point Circle – Suite 102
Charlotte, North Carolina 28273
704 971-8838
jhelms@orleanshomes.com

Prepared by:
Toney C. Jacobs, LSS
Jacobs On-Site Development, Inc.
Mooresville, North Carolina 28117
704 662 9845
toneycjacobs@gmail.com

March 26, 2014
Revised April 17, 2014
Revised April 24, 2014

Copy: Brady Freeman, Supervisor, REHS
Iredell County Health Dept.
Mooresville NC 28117
bfreeman@co.iredell.nc.us
704 902-4491

DESIGN SPECIFICATIONS

Lot 79 at Chesapeake Point

Daily design flow	480 gpd.
Septic tank size	1000 gal. *(per phone call to Brady Freeman)*
Pumping tank size	1000 gal. (*per phone call to Brady Freeman*)
Initial system	400' of 25% reduction, 5 @ 80'
Effluent loading rate, Initial system	0.3 gpd/ft^2
Total length and diameter of supply pipe	approx. 100 ft. 2" SCH 40 PVC
Number and length of laterals	5 @ 80' end-fed
Flow rate through the system	27.5 gpm from 5 each ½" sch 80 taps from a 4" manifold
Elevation head	Approx. 14' (to be verified by installer)
Pressure head	2.0'
Friction head	3.2'
20% contingency	3.8'
Total head	23.0'
Pump requirements	27.5 gpm at 23.0' of head; use Goulds WE05H pump, pump and compatible panel or equivalent
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 gal.)
Pump run per dose	Approx. 8.7 min.
Check valve	yes
Siphon break hole	no
Effluent loading rate, Repair system	0.3 gpd/ft^2
Repair system	pressure distribution 50% reduction PPBPS varying lengths to 270'. Designated on site plan

Request to change system type to 25% reduction

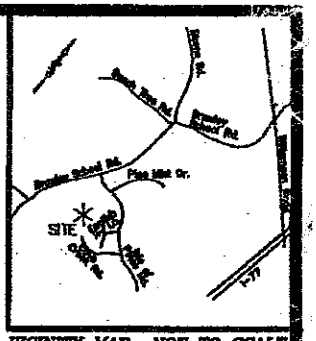
This lot was fast tracked by S&ME; however, the house footprint has decreased from 70' to 66' and was finally built at a 42' depth. This along with a more conservative site preparation has left enough space for a 25% reduction rather than the 50% preliminarily shown on the AC. This plan is requesting the 25% reduction. All lines are staked in the field. Everything is in the area previously evaluated and contours remain the same.

DRAWING IS A PRELIMINARY PLAT FOR VERIFICATION OF ZONING COMPLIANCE FOR HOME LOCATION AND SHALL NOT BE USED FOR THE SALE, CONVEYANCE OR CONSTRUCTION OF THE DEPICTED LOT.

PLOT PLAN DEPICTS THE CONCEPTUAL LOCATION OF THE PROPOSED HOME AND ALL INFORMATION SHOWN TAKEN FROM PRELIMINARY PLATS ON FILE WITH IREDELL COUNTY AND SHOWN IMPROVEMENTS HAVE NOT BEEN AS-BUILT BY R. JOE HARRIS & ASSOCIATES, PLLC.

LOT IS SUBJECT TO ANY DEED RESTRICTIONS, EASEMENT CONVEYANCES, RIGHTS-OF-WAY, UTILITIES AND RESTRICTIVE COVENANTS ON FILE WITH THE IREDELL COUNTY, NCDOT, HOMEOWNERS ASSOCIATION AND/OR OTHER GOVERNMENTAL AGENCIES.

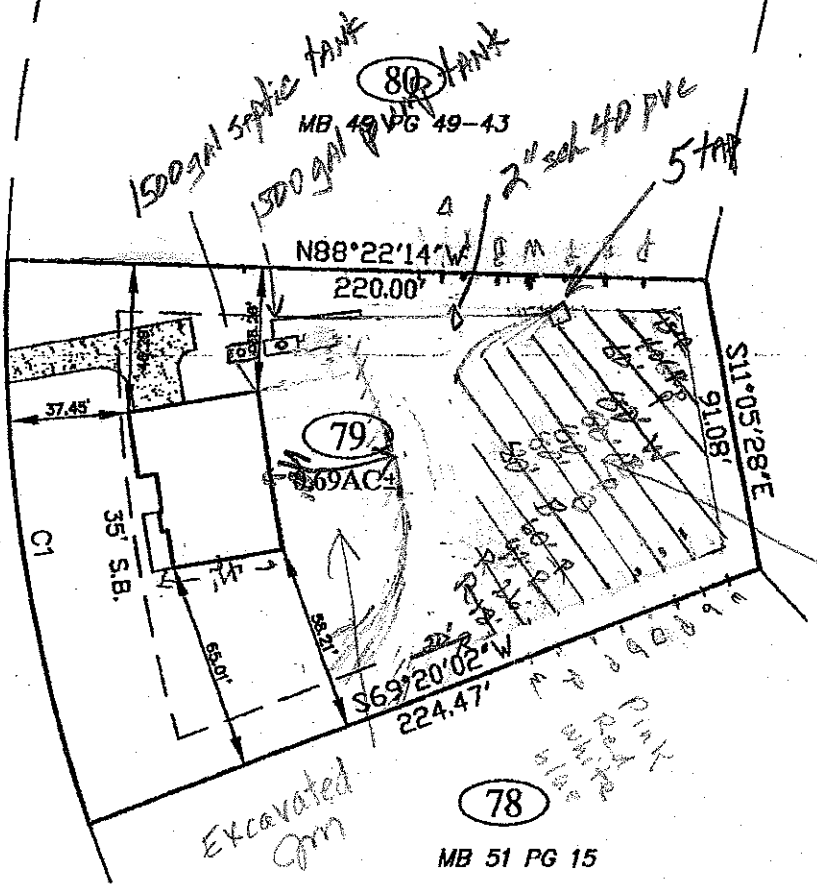
DRIVEWAY LOCATION APPROXIMATE ONLY. SUBJECT TO FIELD VERIFICATION AND LOCAL ORDINACES.



VICINITY MAP NOT TO SCALE

CHESAPEAKE POINTE LOT 79
PEARSON
FARMHOUSE

CURVE TABLE				
CURVE	LENGTH	RADIUS	CHORD	BEARING
C1	178.00	482.26	176.99	N08°54'30"W



Denied Due to:
1) All lines marked only with end flags. Not flagged on Contour.
2) up to ~2' or so fill material over center of drainfield 3-27-14

REV. 1 NOTE:
CHANGED HOUSE TO PEASON FARMHOUSE

PLAT REF: MB 51, PG 77
IREDELL COUNTY, NC

LOT IS NOT LOCATED WITHIN THE 100 YEAR FLOOD PER FEMA FLOOD INSURANCE RATE MAP (FIRM) #3710463600J DATED MARCH 18, 2008.

-60 0 30 60
SCALE: 1" = 60'

Preliminary Plot Plan - Lot 79

for

Orleans Homebuilders @ Chesapeake Pointe

Iredell County, North Carolina

Drawn By: R.O.B.	Date: 4-22-13	Rev: 10-10-13
Surveyed: K.M.C.	Scale: 1" = 60'	MB 49 PG 49-43

R. Joe Harris & Associates, P.L.L.C.

Engineering • Land Surveying • Planning Management

1698 W. Hwy 160, Suite 130, Fort Mill, S.C. 29708 P: (803) 802-1799

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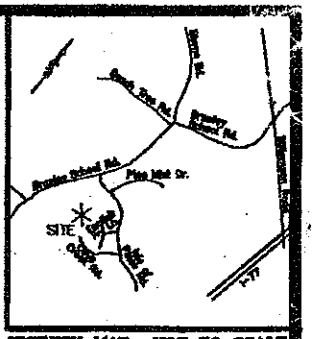
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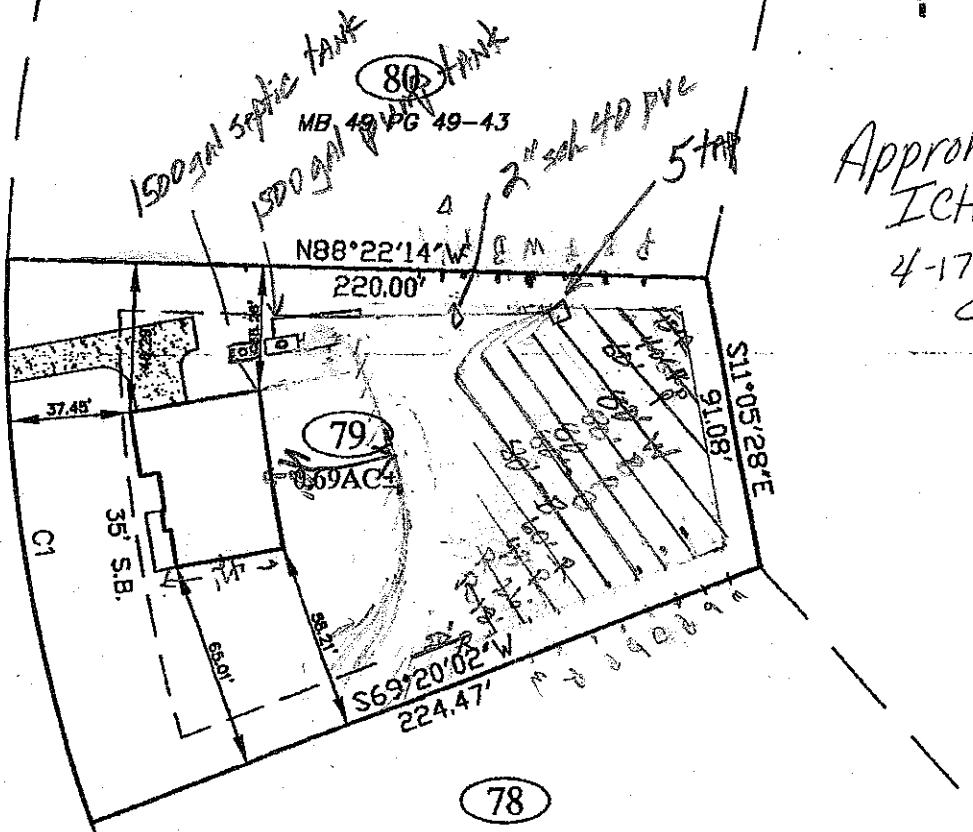


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Approved
ICHD
4-17-14
JM

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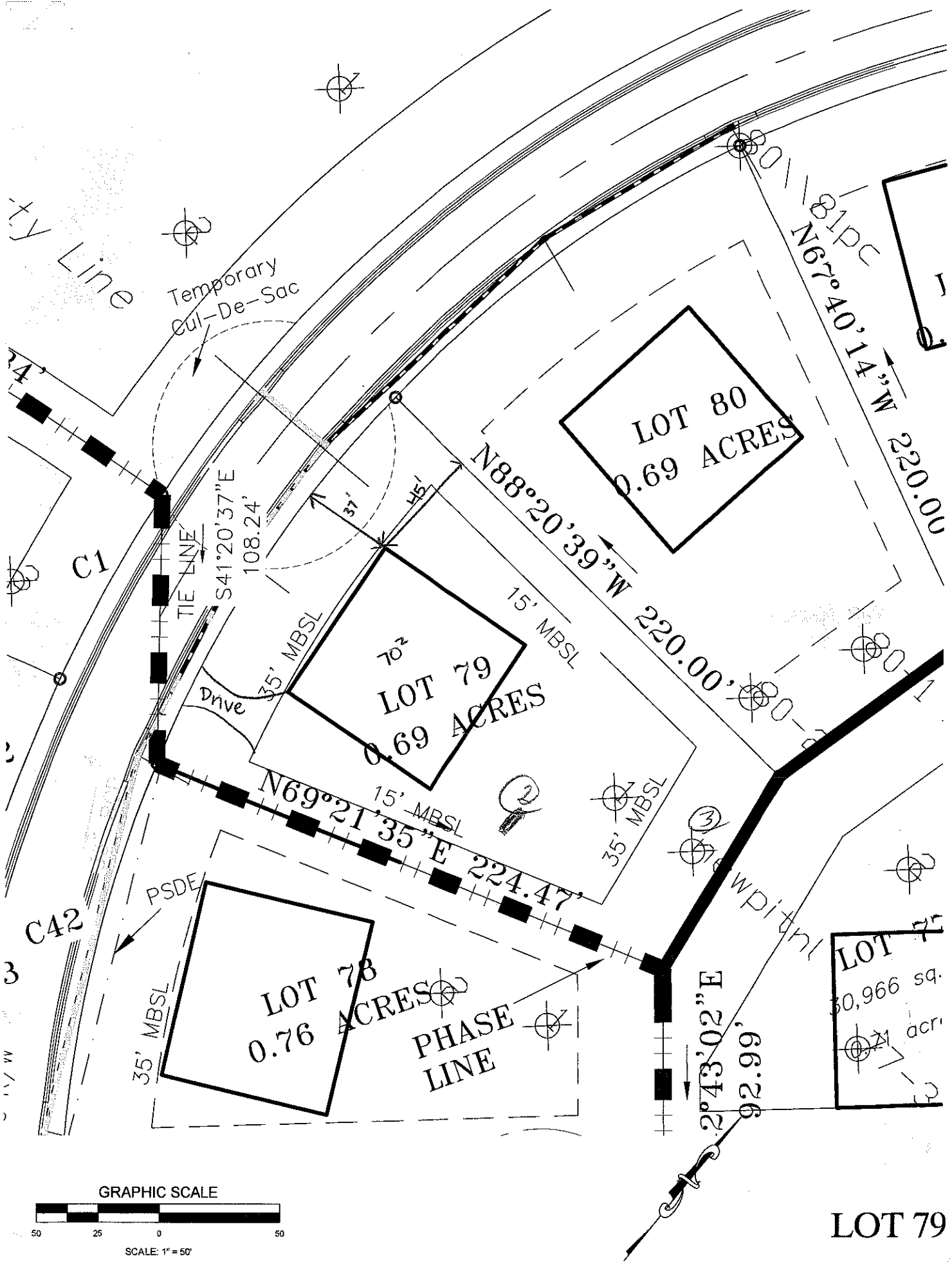
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Temporary
Cul-De-Sac
C1
C42
TIE LINE
S41°20'37"E
108.24'
37'
45'
N88°20'39"W 220.00'
N67°40'14"W 220.0
LOT 80
0.69 ACRES
LOT 79
0.69 ACRES
LOT 78
0.76 ACRES
35' MBSL
15' MBSL
Drive
PSDE
N69°21'35"E 224.47'
PHASE
LINE
2°43'02"E
92.99'
GRAPHIC SCALE
50 25 0 50
SCALE: 1" = 50'
LOT 79

TMENT OF ENVIRONMENT AND NATURAL RESOURCES
N OF ENVIRONMENTAL HEALTH
WASTEWATER SECTION

Sheet ____ of ____
PROPERTY ID #: _____
COUNTY: _____

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: _____ APPLICATION DATE _____
ADDRESS: _____ DATE EVALUATED: 4/27/06
PROPOSED FACILITY: _____ PROPOSED DESIGN FLOW (.1949): _____ PROPERTY SIZE: _____
LOCATION OF SITE: Lot 79 PROPERTY RECORDED: _____
WATER SUPPLY: ☑ Private ☐ Public ☐ Well ☐ Spring ☐ Other _____
EVALUATION METHOD: ☐ Auger Boring ☒ Pit ☐ Cut TYPE OF WASTEWATER: ☐ Sewage ☐ Industrial Process ☐ Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	OTHER PROFILE FACTORS .1943 SOIL DEPTH	OTHER PROFILE FACTORS .1956 SAPRO CLASS	OTHER PROFILE FACTORS .1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	L 5%	0-5	mgr sl	FR SS/SP	DKbr				PS 0.3
		5-10	wsbk scl	FR SS/SP	Br				
		10-26	msbk c	FR SS/SP	R				
		26-56	wsbk cl	FR SS/SP	R Cj 2% Inch				
2		0-3	gr brnsl	fr ss sp					.3
		3-8	wksbk sl	fr ss sp					
		8-32	m sbk red c	fr ss sp SS/P					
		32-52	wk sbk red c sap	fr ss sp	Dw gray mott				
			(BC)						
3	5% V	0-13	wksbk scl	fr ss sp					.3
		13-37	m sbk red c	fr ss sp SS/P					
		37-43	wk sbk red c	fr ss sp	Dw mid sap				
4									

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)		
System Type(s)		
Site LTAR		

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): _____
EVALUATED BY: Martin Mahr
OTHER(S) PRESENT: _____

COMMENTS: _____