

WAKE COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES WASTEWATER PERMIT

NO PERMIT(S) FOR CONSTRUCTION, LOCATION OR RELOCATION ACTIVITY SHALL BE ISSUED UNTIL AN AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION AUTHORIZATION HAS BEEN ISSUED

PERMIT VOID IF NOT IN COMPLIANCE WITH ZONING REGULATIONS AND/OR IF SITE IS ALTERED OR INTENDED USE CHANGED

OPERATIONS PERMIT

PERMIT # WRP-054226-2021 **APPLICATION DATE:** 02/22/2021 **BLDG. PERMIT#:** RBPR-053222-2021
PIN: 0890048140 **RECORDED:** Yes
TOWNSHIP: 02 - Bartons Creek **JURISDICTION:** Wake County **ZONING:** R-40W
APPLICANT: Raleigh Custom Homes Inc
Kyle Johnson
7708 Harps Mill RD **BUSINESS PHONE:** (919) 847-2664
HOME PHONE:
MOBILE PHONE: (918) 530-0197
HD USE: 101A CONVENTIONAL ONE-FAMILY HOUSE **EXISTING USE:**
SITE ADDRESS: 1640 ESTATE VALLEY LN
SUBDIVISION: SOUTHERN HILLS ESTATES **LOT:** 1 **ACRES:** 1.01
DIRECTIONS: Lot 1

Systems defined as either type III-b, III-g with a pump, IV, V or VI, in accordance with the North Carolina administrative code 15A NCAC 18a .1961, table V as adopted by reference in the "Regulations Governing Wastewater Treatment Dispersal Systems in Wake County", requires Wake County Environmental Services to conduct periodic inspections of the system type pursuant to 15A NCAC 18a. 1961 (j). Fees for these inspections will be charged as per the approved Fee Schedule. In addition, all systems are to be operated and maintained as specified in 15A NCAC 18A .1961. This permit is based in part on information provided by the homeowner and/or his/her representative in the application submitted for this permit. The Environmental Health Specialist is not responsible for false or misleading information contained in the application. The environmental health specialist is also not responsible for concealed conditions on the property or for statements in this report that may have resulted from false or misleading statements provided to him/her in the application. Neither Wake County nor the Environmental Health Specialist warrants that the septic tank system will continue to function satisfactorily in the future or that the water supply will remain potable.

OPERATION PERMIT VALID FOR: No Expiration

INSTALLED BY: BRANTLEY, CORY - 1036 - IV

PROPRIETARY SYSTEM: EZ1203HG - EZFlow EZ 1203H Geo **PRETREATMENT SYSTEM:**

SYSTEM TYPE INSTALLED: II A

OPERATION PERMIT: **STATUS:** Issued

ISSUED BY: James Adcock

ISSUED DATE: 06/15/2023

SEPTIC TANK: David Brantley & Sons - STB-323 - 1250 gallons **DATE OF MANUFACTURE:** 04/16/2021 **FILTER:** GAG SIM/TECH - STF-110

GREASE TRAP:

DATE OF MANUFACTURE:

FILTER:

DOSING PUMP TANK:

DATE OF MANUFACTURE:

FILTER:

CC1: **ETM1:** **CC2:** **ETM2:**

RECIRCULATION TANK:

DATE OF MANUFACTURE:

CC1: **ETM1:** **CC2:** **ETM2:**

SEPTIC TANK ELEVATION: 3.33

GREASE TRAP ELEVATION:

DOSING PUMP TANK ELEVATION:

RECIRCULATION TANK ELEVATION:

DISTRIBUTION DEVICE ELEVATION: 4

INSTALLED TRENCH DEPTH	INSTALLED AGGREGATE DEPTH	INSTALLED TRENCH LENGTH	INSTALLED TRENCH BOTTOM ELEVATION
24	12	135	5.91
24	12	135	6.5
24	12	135	7.08

ACTUAL PRESSURE HEAD:

ACTUAL FLOW RATE:

ACTUAL DOSE VOLUME: 0

SPECIFIC OPERATION REQUIREMENTS:

-4 bedroom home, having 480 GPD
 -Public Water
 -Future Repair is a Type III B system with a Max Trench depth of 24" and a 0.30 LTAR.
 -PT not required
 -ASDMS
 Book: 019358
 Page: 02446-02447

ISSUED BY:

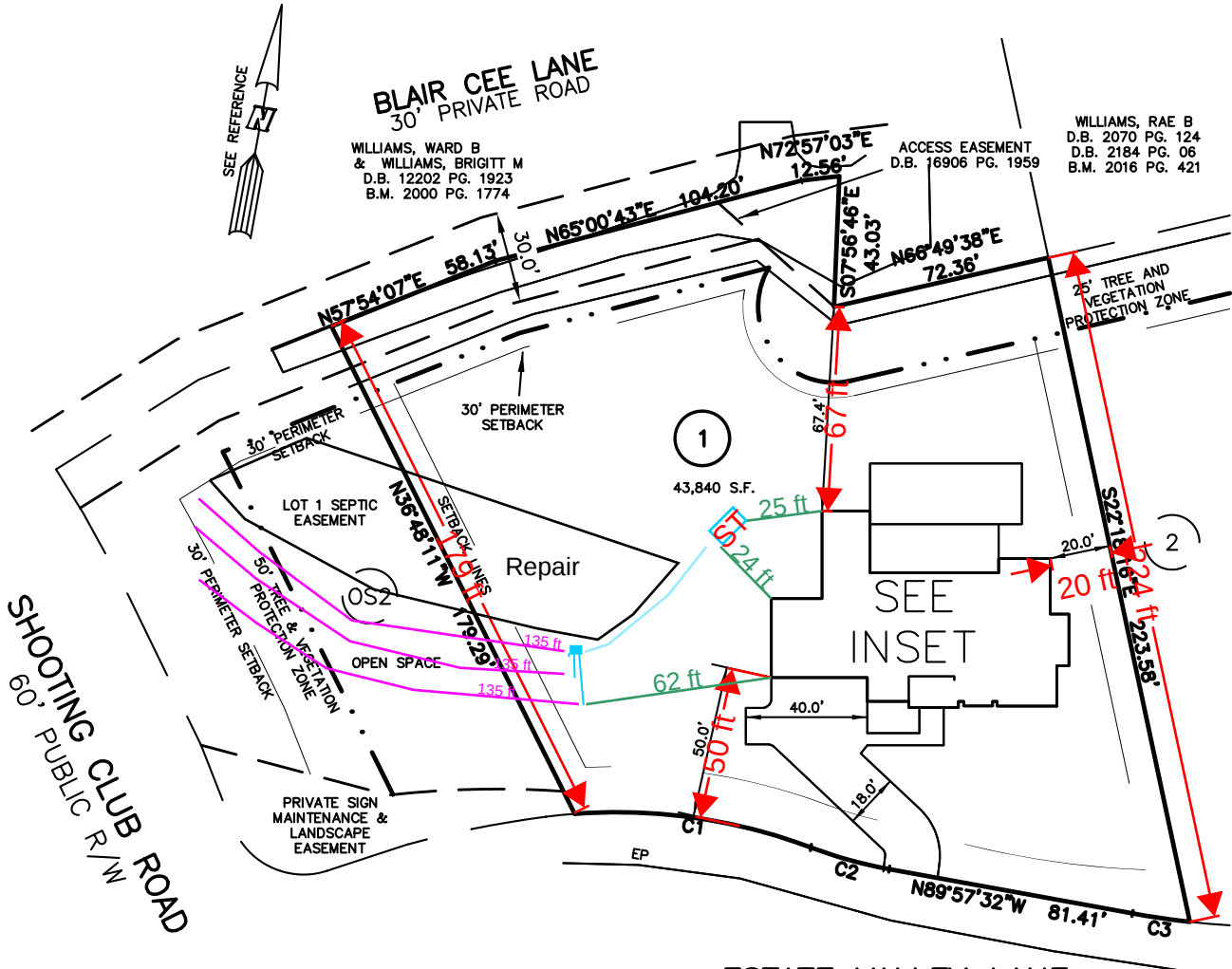


DATE: 06/15/2023

PLOT PLAN FOR
RALEIGH CUSTOM HOMES

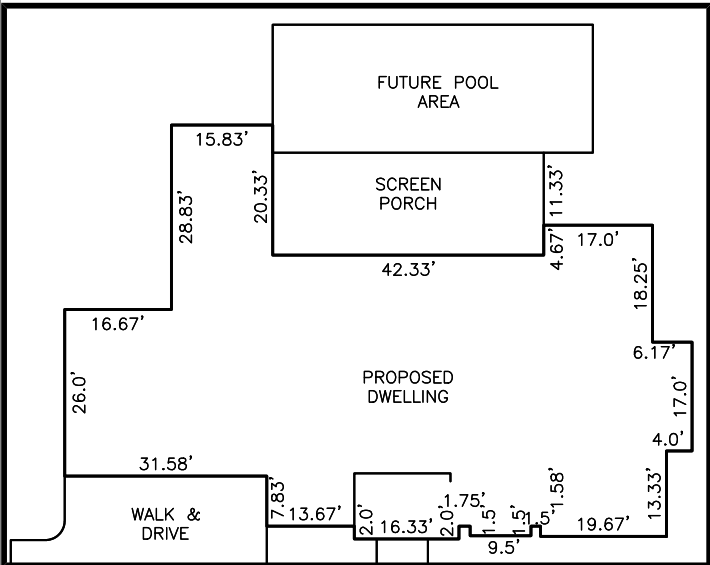
1640 ESTATE VALLEY LANE
LOT 1, SOUTHERN HILLS ESTATES
NEW LIGHT TOWNSHIP, WAKE COUNTY, NORTH CAROLINA

WAKE COUNTY N.C. P.D.I.
REVISED SITE PLAN



ESTATE VALLEY LANE
VARIABLE WIDTH PRIVATE R/W

CURVE	RADIUS	ARC	CHORD	BEG	END	CHORD	DELTA
C1	182.00'	79.17'	S87°49'21"W	78.55'	24°55'30"		
C2	150.00'	26.82'	S84°50'15"E	26.78'	10°14'34"		
C3	277.55'	19.04'	S88°04'30"W	19.04'	3°55'52"		



LEGEND

- AIR CONDITIONER
- BACK OF CURB
- BACK FLOW PREVENTER
- CLEANOUT
- CURB INLET
- DRILL HOLE SET
- EXISTING CONCRETE MONUMENT
- EXISTING DRILL HOLE
- EXISTING IRON STAKE
- EXISTING IRON PIPE
- ELECTRIC METER
- EXISTING PK NAIL
- ELECTRIC STUB
- FLARED END SECTION
- FIRE HYDRANT
- FIBER OPTIC PEDESTAL
- GAS METER
- GUY
- INVERT
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- IRON ROD SET
- LIGHT POLE
- MAGNETIC NAIL SET
- MANHOLE SANITARY SEWER
- MANHOLE STORM SEWER
- OVERHEAD WIRES
- PK NAIL SET
- POINT NOT SET
- RAIL ROAD SPIKE
- TELEPHONE PEDESTAL
- TRANSFORMER
- CABLE TV PEDESTAL
- UTILITY POLE
- WATER METER
- WATER VALVE
- YARD INLET
- FIELD MEASUREMENT

SITE PLAN APPROVED BY
WAKE COUNTY N.C. P.D.I.
Dawn Tripp
04/19/2021 10:57:52 AM

SETBACK INFO	
R-40W	
FRONT:	15'
REAR:	15'
SIDES:	7.5'
CORNER SIDE:	15'
AGGREGATE SIDE:	10'

REFERENCES:

B.M. 2018, PG. 372-377



SCALE: 1" = 60'

IMPERVIOUS SURFACE TABLE

HOUSE.....	4,110 S.F.
PORCH.....	680 S.F.
WALK & DRIVE.....	1,990 S.F.
TOTAL IMPERVIOUS.....	6,780 S.F.
ALLOWABLE IMPERVIOUS =	12,500 S.F.
PERCENTAGE IMPERVIOUS =	15.5%
FUTURE POOL.....	1,000 S.F.

NOTES

- THIS SURVEY SUBJECT TO ANY FACTS THAT MAY BE DISCLOSED BY A FULL AND ACCURATE TITLE SEARCH.
- THIS MAP MAY NOT BE A CERTIFIED SURVEY AND HAS NOT BEEN REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS AND HAS NOT BEEN REVIEWED FOR COMPLIANCE WITH RECORDING REQUIREMENTS FOR PLATS.

PLOT PLAN
PRELIMINARY PLAT- NOT FOR RECORDATION,
CONVEYANCE OR SALES

REV CODE: 1.FLIP, 2.PLAN, 3.ROTATE, 4.MOVE, 5.SS
6.SEVERAL OF ABOVE, 7.LAND FEATURE, 8. OTHER

REV4: APR. 15, 2021(8)
REV3: APR. 9, 2021(8)
REV2: MAR. 29, 2021(6,8)
REV1: MAR. 15, 2021(4,8)
DATE: JAN. 19, 2021

F.B. _____

RWK, PA
ENGINEERING ~ SURVEYING
CORPORATE LICENSE: C-1771
101 W. MAIN ST., SUITE 202
GARNER, NC 27529
PHONE (919) 779-4854
FAX (919) 779-4056

Return to:

RALEIGH CUSTOM HOMES, INC.
PO BOX 99639
RALEIGH, NC 27624

WAKE COUNTY, NC 53
TAMMY L. BRUNNER
REGISTER OF DEEDS
PRESENTED & RECORDED ON
06/13/2023 13:34:46

BOOK:019358 PAGE:02446 - 02447

OFF-SITE EASEMENT SEWAGE DISPOSAL SYSTEM MAINTENANCE SCHEDULE

To Be Recorded In The Register Of Deed's Office In Wake County.

Owner/Grantor Raleigh Custom Homes Inc Deedbook and Page 17944 2745
PIN No. 0890048140 Date Installed 4-1-2022
Subdivision Name Southern Hills Estates Lot No. 2
System Designed by Central Carolina Soil Consulting Installer Brantley and Sons

AN ALTERNATIVE OR NON-TRADITIONAL SEWAGE DISPOSAL SYSTEM HAS BEEN INSTALLED ON THIS PROPERTY. The design specifications and locations for alternative sewage disposal systems are specified or authorized in Regulations Governing Wastewater Treatment and Dispersal Systems in Wake County effective November 21, 1988, amended effective October 27, 2011. As A Condition Of Issuance Of This Improvements/Operation Permit, The Property Owner Hereby Grants The Wake County Department Of Environmental Services A Right Of Access To The System During Regular Working Hours For Purposes Of Monitoring Compliance With State And Local Regulations, Recorded Maintenance Agreements And Certified Operator Compliance. Experience and study have shown that sewage disposal systems located in adjacent offsite easement areas require routine maintenance in order to function satisfactorily. In as much as each system must be individually designed and sited, special maintenance requirements may apply to a specific installation; however, the following maintenance schedule is applicable to most systems. For additional information, technical assistance or if a malfunction of the system occurs, contact the Wake County Department of Environmental Services, Telephone: 919-856-7400.

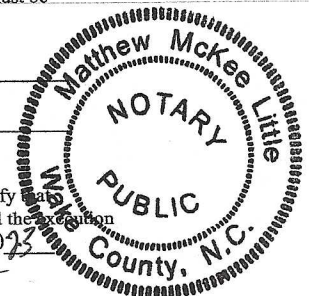
System Component	Frequency	Maintenance
1. Septic Tank	12 months 1-3 years	Check riser condition (must be accessible from ground surface), excess in/exfiltration, entry of water at riser, and solids accumulation. Pump septage.
2. Pump/Dosing Tank	12 months	Check riser conditions (must be accessible from ground surface), excess in/exfiltration, entry of water at riser, and solids accumulation. Pump sludge accumulation as required and when septic tank is pumped. Check pump(s), controls, floats, electrical connections, and alarm for proper operation. Wash (hose) sludge accumulation from pump housing.
3. Supply lines	12 months	Check for settling, pipe exposure, and leakage.
4. Drain Field(s)	1-4 weeks 12 months	Maintain vegetative cover (mow grass and remove weeds and brush). Check for settling, erosion and surfacing of effluent. Check site drainage, eliminate low or settled areas and divert surface or shallow groundwater movement around fields.
5. Pressure Manifold/ Distribution Box	12 months	Check and reset pressure head, flush sludge from pressure manifold (any discharge sludge and effluent is to be treated with a chlorine solution or lime). Check D-Box level.
6. General	At all times	Prohibit vehicular or equipment traffic on ground absorption field. Prohibit tillage(gardening) or other soil disturbance over ground absorption field. Practice water conservation to reduce waste water load on system. Do not permit entry of grease and non-domestic waste to system. Use of a garbage disposal is <u>prohibited</u> . Addition of chemical or biological additives has <u>not</u> been demonstrated to be necessary to maintain proper system function. Prevention of root intervention on lateral lines and trenches may be necessary on certain sites. Surface and groundwater diversion structures must be maintained.

A certified operator is recommended for the life of the system but is not required.

Timothy W. Anderson
Signature of Property Owner
6-12-23
Date

NORTH CAROLINA Wake County, I, a Notary Public of the County and State aforesaid, certify that Timothy W. Anderson Owner, Personally appeared before me this day and acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this 12 day of June 2023

My commission expires 6-5-2029 Notary Public Matthew McKee Little
WWDS 7/6/16



WAKE COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES WASTEWATER PERMIT

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AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION AUTHORIZATION HAS BEEN ISSUED

***PERMIT VOID IF NOT IN COMPLIANCE WITH ZONING REGULATIONS AND/OR IF SITE IS ALTERED OR
INTENDED USE CHANGED***

CONSTRUCTION AUTHORIZATION PERMIT**PERMIT # WRP-054226-2021****APPLICATION DATE:** 02/22/2021**BLDG. PERMIT#:** RBPR-053222-2021**PIN:** 0890048140**RECORDED:** Yes**TOWNSHIP:** 02 - Bartons Creek**JURISDICTION:** Wake County**ZONING:** R-40W

APPLICANT: RALEIGH CUSTOM HOMES
7708 Harps Mill RD
RALEIGH, NC 27615

BUSINESS PHONE: (919) 847-2664**HOME PHONE:****MOBILE PHONE:** (919) 395-1529**HD USE:** 101A CONVENTIONAL ONE-FAMILY HOUSE**EXISTING USE:****SITE ADDRESS:** 1640 ESTATE VALLEY LN**SUBDIVISION:** SOUTHERN HILLS ESTATES**LOT:** 1**ACRES:** 1.01**DIRECTIONS:** Lot 1

Contractors shall install system on contour. See attached SITE PLAN for wastewater system design and well location. No underground utilities, water lines or sprinklers systems may be located in the original system, or permit areas. A septic tank filter with two risers for access is required. The wastewater system shall not be covered or placed into use until inspected by the Wake County Department of Environmental Services and Operations Permit issued. An Accepted Status System may be used in place of conventional system, if it can be placed in the permitted/authorized trench footprint (except reduction in line length and/or number as allowed for in approval) and the installation in accordance with the accepted system approval, without unauthorized product alteration. If permit required use of an Accepted Status System, substitution with another accepted status system may be made, as long as no changes are necessary in the location of each nitrifications line (including any increase in line length), trench depth or effluent distribution method. If changes are necessary, prior approval by this office is required before system installation. Maximum depth of line is calculated using the downhill side of the trench and includes slope correction.

CONSTRUCTION AUTHORIZATION PERMIT VALID FOR: Five Years**CONSTRUCTION AUTHORIZATION PERMIT: CA STATUS:** Issued**BY:** Michael Seewald**DATE:** 04/22/2021**CA VALID FOR:** Five Years**DESIGN FLOW:** 480 GALLONS**BASEMENT:** No**BASEMENT FIXTURES:** No**SEPTIC TANK:** 1200 GALLONS**SEPTIC TANK FILTER:** Yes**DOSING PUMP TANK:** 1200 GALLONS**DOSING PUMP TANK FILTER:****GREASE TRAP:****GREASE TRAP FILTER:****RECIRCULATION PUMP TANK:****RECIRCULATION PUMP TANK FILTER:****PROPOSED SYSTEM:** 0.25 - 25% Reduction (Innovative or Accepted)**EXISTING SYSTEM:** No**DRAINFIELD SQ. FT:** 1,215**AGGREGATE DEPTH:** 12**MAX. TRENCH DEPTH:** 24 INCHES**DISTRIBUTION DEVICE:** PM - Pressure Manifold**TRENCH #:** 3**TRENCH LENGTH:** 135 135 135**TRENCH WIDTH:** 36 INCHES**TOTAL TRENCH LENGTH:** 405 FEET

FEET

CENTER SPACING: 9 FEET**MINIMUM SOIL COVER:** 6 INCHES

PRETREATMENT:
SUBFIELDS #: 1
PUMP TDH: 10.94 FEET

APPROVAL #:
PUMP DESIGN FLOW: 26.13
ZONE VALVE: No

ASDMS REQUIRED: Yes
P.E. SIGN OFF/ASBUILT REQUIRED: No

LINE OF CREDIT REQUIRED: No

OPERATOR REQUIRED: No

TRIPARTY AGREEMENT REQUIRED: No

SPECIFIC CONSTRUCTION AUTHORIZATION REQUIREMENTS:

- System designed for 4 bedroom home, having 480 GPD (DESIGN FLOW).
- Future Repair is a Type III B system with a Max Trench depth of 24" and a 0.30 LTAR.
- Site serviced by Municipal water.
- Any deviation from accepted design must be approved by CCSC & Wake County ES prior to system installation.
- If drain line flags are removed, please contact your consultant to re-flag.
- Maintenance Agreement (ASDMS) is needed before Operations Permit can be issued for the home.
- Maintain all required setbacks.
- All property lines must be fully marked at time of install or reinspection required.
- Please contact Michael Seewald 919-710-5389 with any questions prior or during install.

****IF GRAVITY CAN BE ACHIEVED, THEN A PUMP IS NOT REQUIRED****

Issued By:

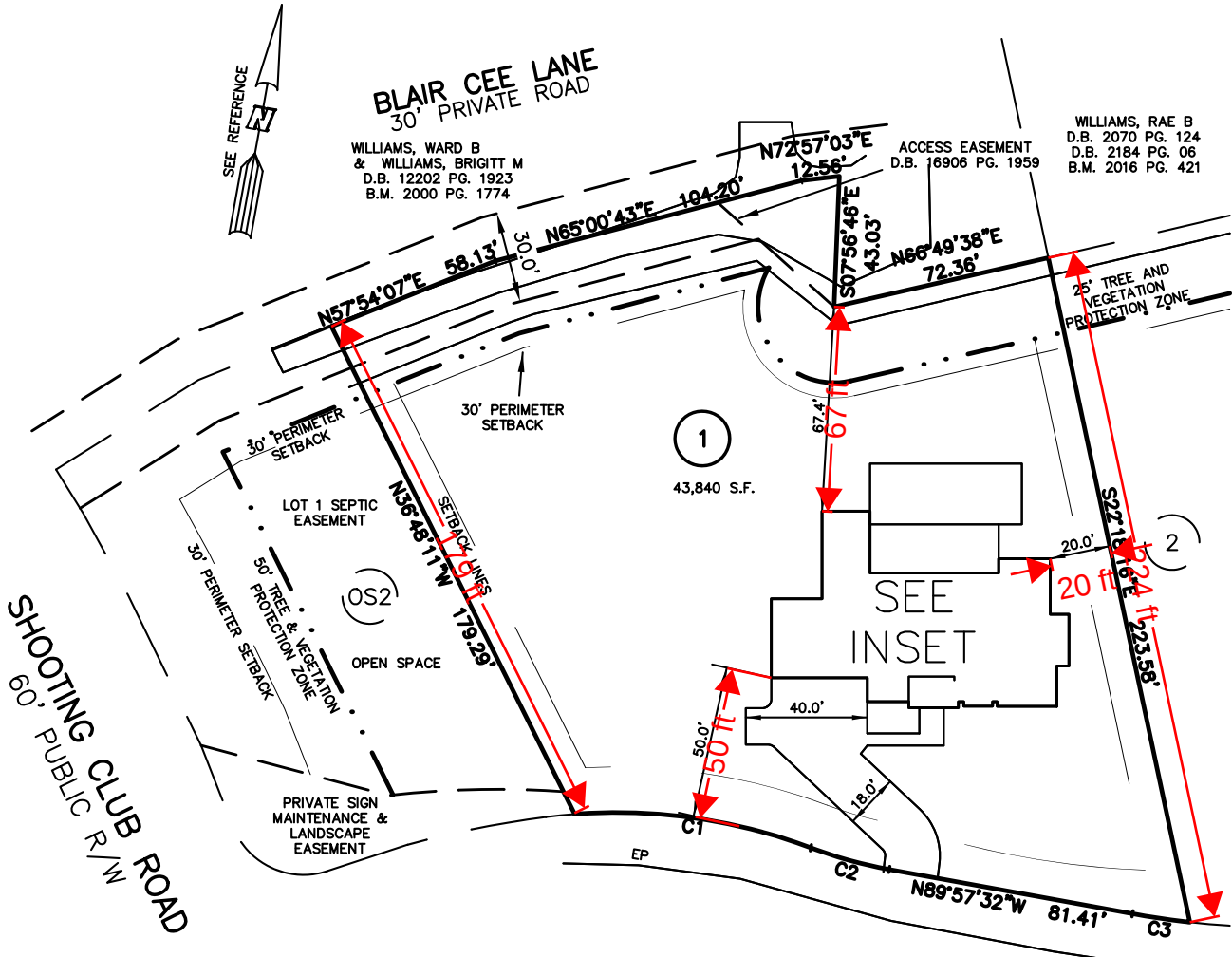


Date: 04/22/2021

PLOT PLAN FOR
RALEIGH CUSTOM HOMES

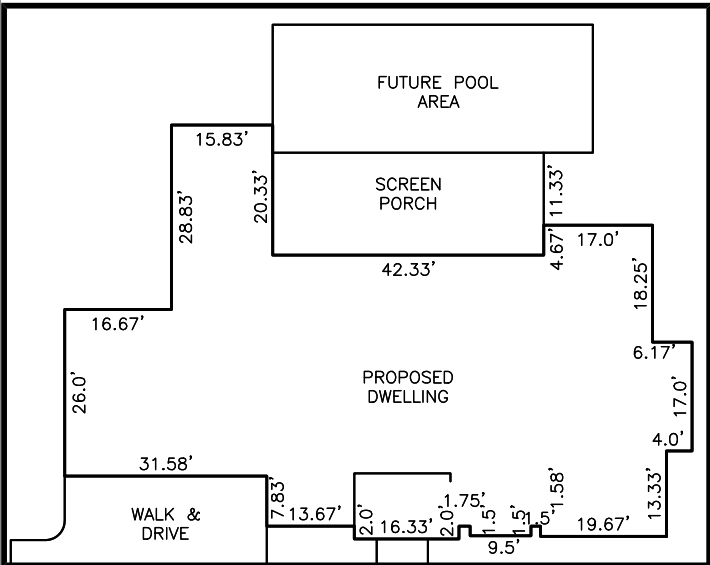
1640 ESTATE VALLEY LANE
LOT 1, SOUTHERN HILLS ESTATES
NEW LIGHT TOWNSHIP, WAKE COUNTY, NORTH CAROLINA

WAKE COUNTY N.C. P.D.I.
REVISED SITE PLAN



CURVE	RADIUS	ARC	CHORD BRG	CHORD	DELTA
C1	182.00'	79.17'	S87°49'21"W	78.55'	24°55'30"
C2	150.00'	26.82'	S84°50'15"E	26.78'	10°14'34"
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ESTATE VALLEY LANE
VARIABLE WIDTH PRIVATE R/W



LEGEND

- AIR CONDITIONER
- BACK OF CURB
- BACK FLOW PREVENTER
- CLEANOUT
- CURB INLET
- DRILL HOLE SET
- EXISTING CONCRETE MONUMENT
- EXISTING DRILL HOLE
- EXISTING IRON STAKE
- EXISTING IRON PIPE
- ELECTRIC METER
- EXISTING PK NAIL
- ELECTRIC STUB
- FLARED END SECTION
- FIRE HYDRANT
- FIBER OPTIC PEDESTAL
- GAS METER
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- MANHOLE STORM SEWER
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- TRANSFORMER
- CABLE TV PEDESTAL
- UTILITY POLE
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- WATER VALVE
- YARD INLET
- FIELD MEASUREMENT

SITE PLAN APPROVED BY
WAKE COUNTY N.C. P.D.I.
Dawn Tripp
04/19/2021 10:57:52 AM

SETBACK INFO	
R-40W	
FRONT:	15'
REAR:	15'
SIDES:	7.5'
CORNER SIDE:	15'
AGGREGATE SIDE:	10'

REFERENCES:

B.M. 2018, PG. 372-377



IMPERVIOUS SURFACE TABLE

HOUSE.....	4,110 S.F.
PORCH.....	680 S.F.
WALK & DRIVE.....	1,990 S.F.
TOTAL IMPERVIOUS.....	6,780 S.F.
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NOTES

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PLOT PLAN
PRELIMINARY PLAT- NOT FOR RECORDATION,
CONVEYANCE OR SALES

REV CODE: 1.FLIP, 2.PLAN, 3.ROTATE, 4.MOVE, 5.SS
6.SEVERAL OF ABOVE, 7.LAND FEATURE, 8. OTHER

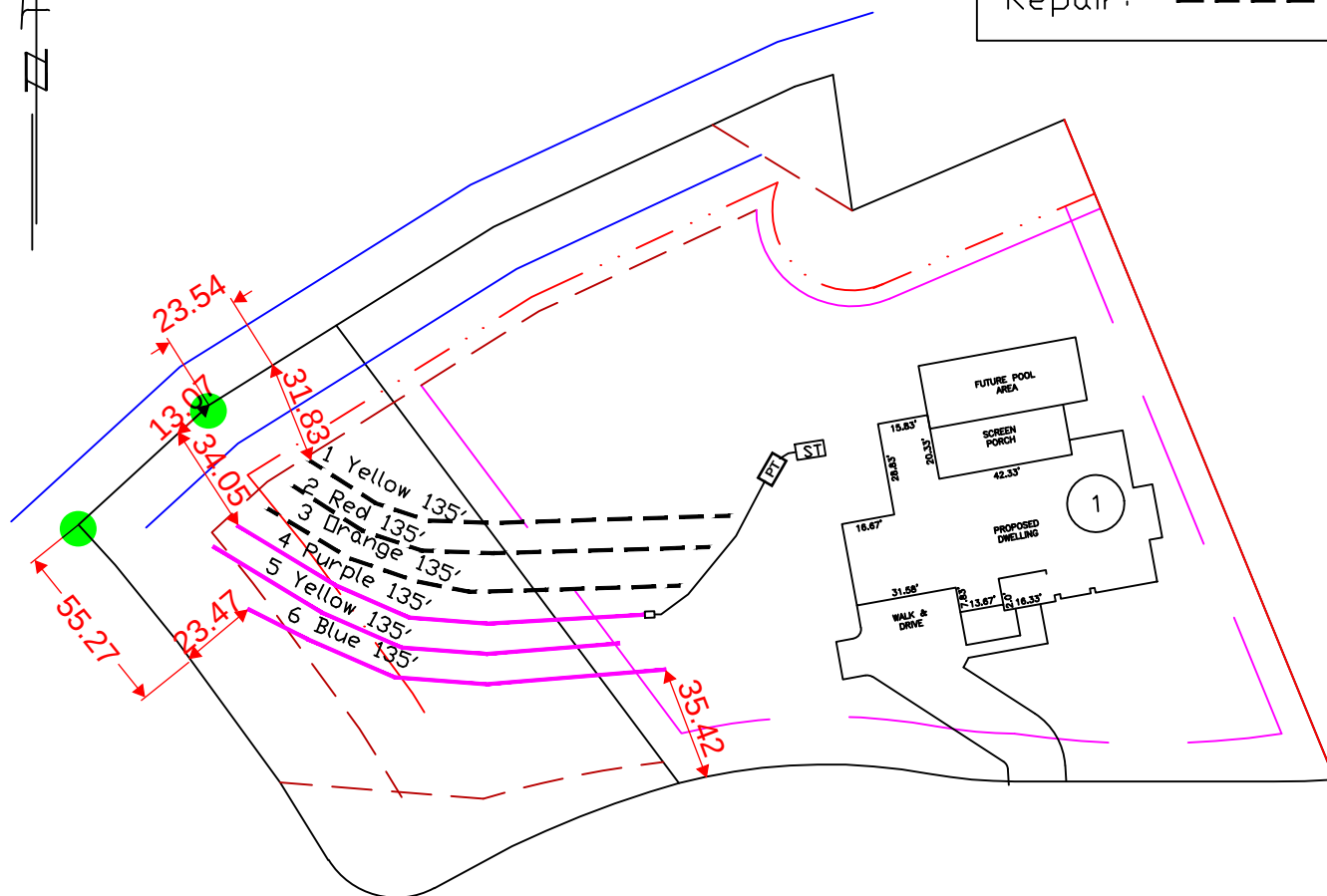
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REV1: MAR. 15, 2021(4,8)
DATE: JAN. 19, 2021

F.B. _____

RWK, PA
ENGINEERING ~ SURVEYING
CORPORATE LICENSE: C-1771
101 W. MAIN ST., SUITE 202
GARNER, NC 27529
PHONE (919) 779-4854
FAX (919) 779-4056

Southern Hills Lot 1 4-bedroom Layout

System: ———
Repair: - - - -



- *Keep tanks and drain lines 10' from property lines.
- *Not a survey.
- *Not a guarantee of a septic permit.
- *Keep supply lines >5' from property lines.
- *Some lines are flagged longer in the field than lengths indicate.
- *No grading septic area.

GRAPHIC SCALE
1" = 60'



System: Gravity to D-Box
Lines: 4-6, (405')
Accepted Status System
0.3 Soil LTAR

Repair: Pressure Mani-Tee
Lines: 1-3, (405')
Accepted Status System
0.3 Soil LTAR



Central Carolina Soil Consulting, PLLC
1900 South Main Street, Suite 110
Wake Forest, North Carolina 27587
Phone (919)569-6704 Fax (919)569-6703

SEPTIC SITE PLAN
Lot 1 Southern Hills Subdivision
Wake County, North Carolina

Job# : 3669
Drawn By : AH
Date : 04/7/2021
Revision:

OFF-SITE EASEMENT SEWAGE DISPOSAL SYSTEM MAINTENANCE SCHEDULE
To Be Recorded In The Register Of Deed’s Office In Wake County.

Owner/Grantor _____ Deedbook and Page _____
PIN No. _____ Date Installed _____
Subdivision Name _____ Lot No. _____
System Designed by _____ Installer _____

AN ALTERNATIVE OR NON-TRADITIONAL SEWAGE DISPOSAL SYSTEM HAS BEEN INSTALLED ON THIS PROPERTY. The design specifications and locations for alternative sewage disposal systems are specified or authorized in Regulations Governing Wastewater Treatment and Dispersal Systems in Wake County effective November 21, 1988, amended effective October 27, 2011. As A Condition Of Issuance Of This Improvements/Operation Permit, The Property Owner Hereby Grants The Wake County Department Of Environmental Services A Right Of Access To The System During Regular Working Hours For Purposes Of Monitoring Compliance With State And Local Regulations, Recorded Maintenance Agreements And Certified Operator Compliance. Experience and study have shown that sewage disposal systems located in **adjacent offsite easement areas** require routine maintenance in order to function satisfactorily. In as much as each system must be individually designed and sited, special maintenance requirements may apply to a specific installation; however, the following maintenance schedule is applicable to most systems. For additional information, technical assistance or if a malfunction of the system occurs, contact the Wake County Department of Environmental Services, Telephone: 919-856-7400.

<u>System Component</u>	<u>Frequency</u>	<u>Maintenance</u>
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A certified operator is recommended for the life of the system but is not required.

Signature of Property Owner

Date

NORTH CAROLINA _____ County. I, a Notary Public of the County and State aforesaid, certify that _____ Owner, Personally appeared before me this day and acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this ____ day of _____ 20____.

My commission expires _____ Notary Public _____
WWDS 7/6/16



Environmental Services

TEL 919 856 7400
FAX 919 856 7407

Water Quality Division
336 Fayetteville St. • P.O. Box 550 • Raleigh, NC 27602
www.wakegov.com/water/

Application Revision Form

Wastewater Permit: WRP-054226-2021 Building Permit: RBPR-053222-2021

Parcel PIN: 0890048140

☒ Change Number of Bedrooms from 5 to 4

☐ Change Applicants Name to _____
Must have account in permit portal

☐ Change Number of Employees _____

☐ Change Basement: Circle one: Yes No Partial (Demonstrate location on attached site plan)

☐ Change project Address _____

☐ Other _____

Applicant Signature: _____

Date: 4/19/2021

WAKE COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES

3 TAP PRESSURE MANI-TEE DESIGN

Name: RALEIGH CUSTOM HOMES P.I.N. #: 0890048140 Permit #: WRP-054226-2021

Address: 1640 ESTATE VALLEY LANE Subdiv: SOUTHERN HILLS Lot#: 1

of BDR: 4 Daily Flow: 480 gal/day L.T.A.R.: 0.30 gal/day/sq.ft

Septic Tank: 1200 gals Pump Tank: 1200 gals Sq. Foot: 1215 Aggregate Depth: 12

Number of Taps: 3 Length of Trenches: 405 ft(See Tap Chart for Details)

Depth of Trenches: 24 in Manifold Length: 36 in

Manifold Diameter: 2in sch 40pvc Mani-Tee Tap Configuration: 6 in spacing 1 side(s) of manifold

Supply Line: length: 50 ft Diameter: 2 in sch 40pvc

Friction Loss + Fitting Loss: 1.94 ft(supply line length + 70' for fittings in pump tank)

Design Head: 3 ft Elevation Head: 6 ft

Total Head: 10.94 ft Pump to Deliver: 26.13 gals/min at 10.94 ft head

Dosing Volume: 174 gals,

Drawdown: 174 gals divided by 20 gals/in = 8.7 inches

Simplex Control Panel required; elapsed time meter and cycle counter required; Floats to be determined by type of pump tank used. A septic tank filter is required, see permit details for specifics.

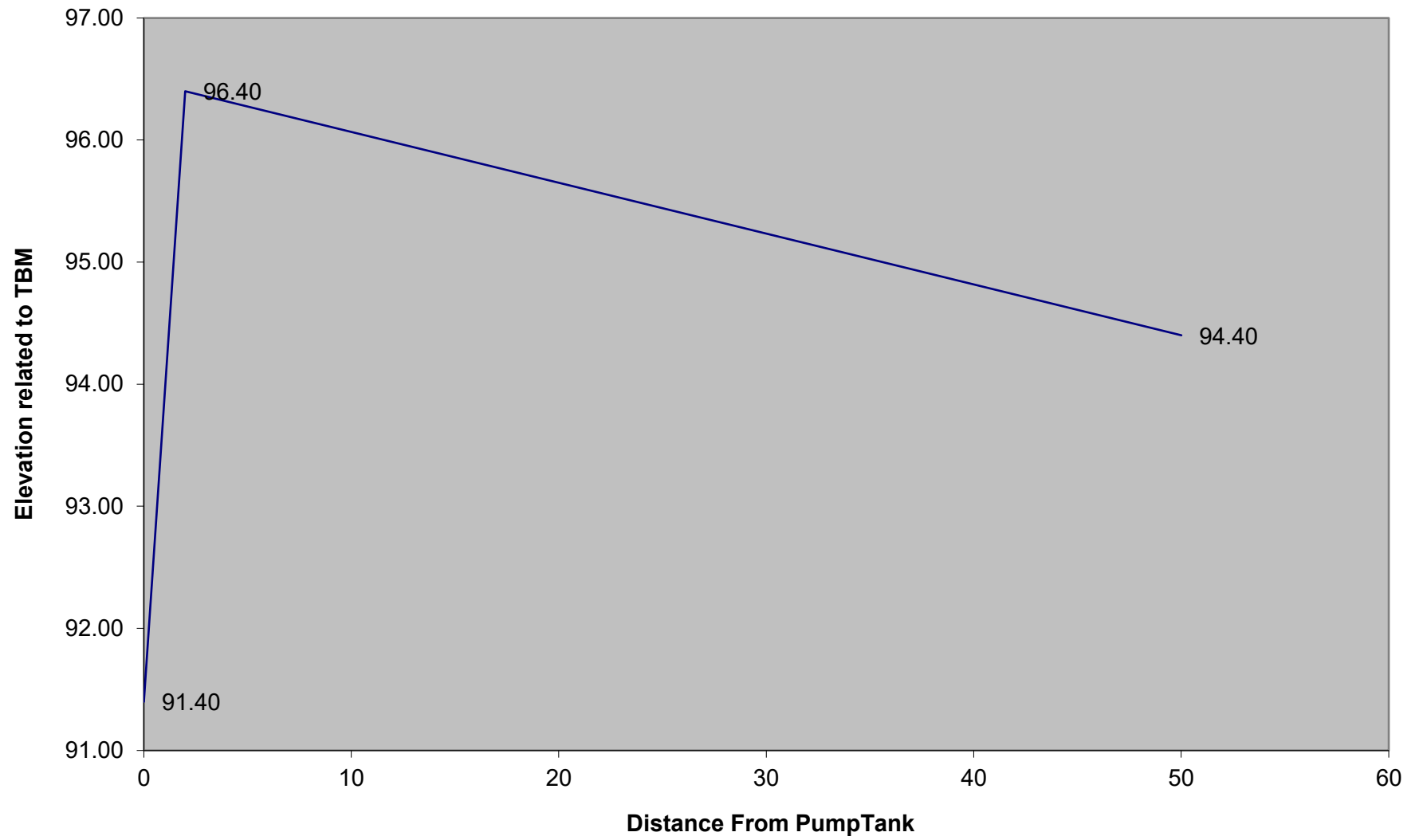
TAP CHART

Bench Mark		is = 100.00	set at				Design Head:	3	
Pump tank elev.		3.6	96.40	Pump elev.	91.40		Manifold elev.	94.40	
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR
1	PU	6.6	93.40	135	1/2in SCH 40	8.71	160.00	405	0.395
2	Y	7.1	92.90	135	1/2in SCH 40	8.71	160.00	405	0.395
3	B	7.9	92.10	135	1/2in SCH 40	8.71	160.00	405	0.395
		total	feet =	405	gal/min =	26.13		LTAR =	0.30
% of Dose Vol.		66		Des. Flow	480			(ltar + 5%)	0.32
Dose Volume		174		Pump Run=	18.37			(ltar W/ INOV)	0.40
Dose Pump Time		6.65		Tank Gal/IN	20			(ltar + 5%)	0.42
Drawdown in Inches		8.7		Elev. Head	6				
Supply Line Length		50							
Comments:									

Hydraulic Profile

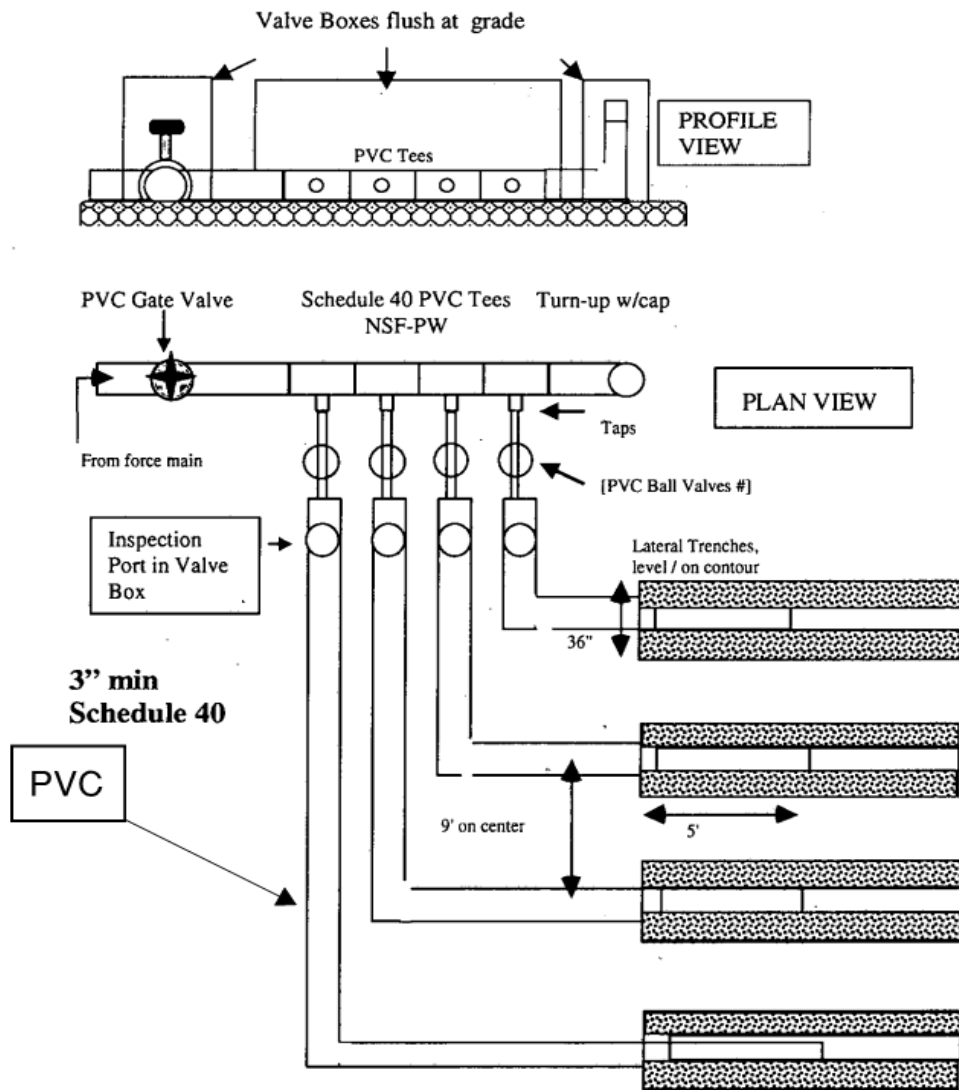
Manifold Elevation	94.40	50
Pump tank elev.	96.40	2
Pump elev.	91.40	0

Hydraulic Profile



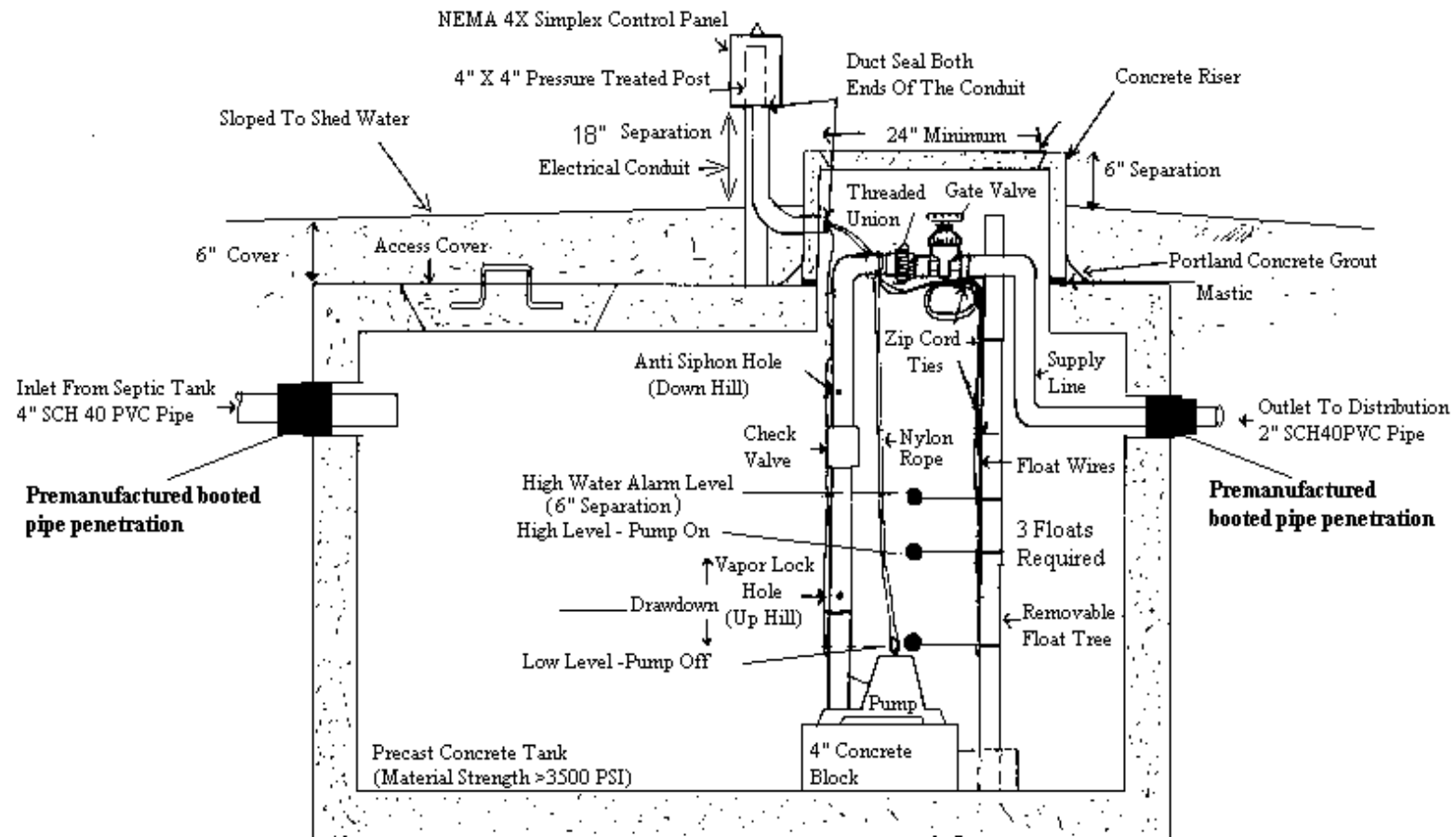
	Line 1	Line 2	Line 3
Taps	1/2in SCH 40	1/2in SCH 40	1/2in SCH 40
Flow	8.71	8.71	8.71

Wake County Mani-Tee Design



*** Manifold sizing may need to be altered after installer layout. The installer must layout the system prior to the pre-construction conference ***

Wake County Department Of Environmental Services



_____ GALLON PUMP TANK

1200 Gals Pump Tank

Minimum Panel Requirements

The following items will be considered the minimum for all pump systems:

1. It must be a NEMA 4X Box.
2. It must use a HOA (Hand, Off, Auto) switch to control the pump. No more use of piggyback plugs!
3. It must have a motor contactor to prevent high voltage electricity in the water at all times.
4. It must have an audible and visual alarm.
5. **All Pressure Manifold and LPP Systems must have an elapsed time meter and cycle counter installed in the panel.**
6. It must have 2 separate power supplies, wired from the fuse panel at the house.
7. All panels must have 2 circuit breakers installed in the panel to allow for disconnecting of power, so that the pump or switches maybe serviced.
8. Panels and pumps are to be wired at the time of our inspection. Power must be supplied by use of generators or from the house temporary meter, if the builder applied for it and has had all required inspections and the temporary meter has been set. **We will no longer inspect any system that has been hot wired from the temporary power pole or jumped through the house wiring without a meter being set.**

Pressure Manifolds

1. A float tree or hanging floats must be used.
2. A Simplex Control Panel with a Hand - Off - Auto switch and alarm in a NEMA - 4X box is required. See the plans or CA comments for further details on the panel.
3. 2 separate power supplies are needed. Try to look and make sure they have not used a 120V only panel with a 240V pump.
4. The taps and pipes for the taps must be of the same material! If it is a sch80 tap (usually gray plastic) then the tap, pipe and valve (the valve can be sch40pvc if there is an adequate amount of sch80 pipe used) must be constructed of sch80pvc. The same goes for sch40 taps, you cannot use sch80 pieces with the sch40.
5. The taps must go directly to the 3" pipe; no elbows can be used in the tap connections.
6. All of the tap must be the same size or larger. 3/4" pipe cannot have a 1/2" valve, but a 1/2" pipe could have a 3/4" valve, if at there is at least 6" total 1/2" pipe used.
7. Should the wrong size or material be used in the tap itself, the flow to the line can be corrected by using an adequate amount of the proper pipe material and size. The amount of pipe needed to control the flow is dependent on the size pipe/tap. If 1/2" pipe is needed, then at least 6" of total pipe is needed. A 3/4" size requires at least 9" of pipe to be used. A 1" size needs 12" of total pipe length to control the flow.

WAKE COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES WASTEWATER PERMIT

NO PERMIT(S) FOR CONSTRUCTION, LOCATION OR RELOCATION ACTIVITY SHALL BE ISSUED UNTIL AN AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION AUTHORIZATION HAS BEEN ISSUED

PERMIT VOID IF NOT IN COMPLIANCE WITH ZONING REGULATIONS AND/OR IF SITE IS ALTERED OR INTENDED USE CHANGED

IMPROVEMENT PERMIT

PERMIT #: WRP-054226-2021

APPLICATION DATE: 02/22/2021

BLDG. PERMIT #: RBPR-053222-2021

PIN: 0890048140

RECORDED: Yes

TOWNSHIP: 02 - Bartons Creek

JURISDICTION: Wake County

ZONING: R-40W

APPLICANT: RALEIGH CUSTOM HOMES
7708 Harps Mill RD

BUSINESS PHONE: (919) 847-2664

HOME PHONE:

MOBILE PHONE: (919) 395-1529

HD USE: 101A CONVENTIONAL ONE-FAMILY HOUSE

EXISTING USE:

SITE ADDRESS: 1640 ESTATE VALLEY LN

SUBDIVISION: SOUTHERN HILLS ESTATES

LOT: 1

ACRES: 1.01

DIRECTIONS: Lot 1

Permit is subject to revocation if the Site Plan or Plat changes or the intended use changes.

*Maximum depth of line is calculated using the downhill side of the trench and includes slope correction.

IP VALID FOR: Five Years AS PER GS 130A-335 (f)

DESIGNED BY: CCSC

SYSTEM LAYOUT: Private Sector

SITE CLASSIFICATION: Provisionally Suitable

IP STATUS: Issued

BY: Michael Seewald

DATE: 04/22/2021

NUMBER OF BEDROOMS: 4

OR TOTAL NUMBER OF OCCUPANTS: 8

PERMITTED DESIGN FLOW: 480 GPD

BASEMENT: No

BASEMENT PLUMBING: No

WASTEWATER STRENGTH: Domestic

SYSTEM TYPE: III B

LTAR: 0.300

EXISTING SYSTEM UTILIZED:

PRETREATMENT STRENGTH REQUIRED: None

EASEMENT FOR WW SYSTEM ASSOCIATED WITH PARCEL: Adjacent

MAXIMUM TRENCH DEPTH: 24 INCHES

PUMP REQUIRED: Yes

SPECIFIC SYSTEM REQUIREMENTS: - System designed for 4 bedroom home, having 480 GPD (Design Flow).

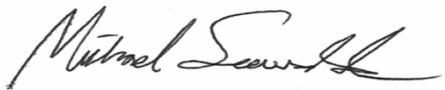
- Future Repair is a Type III B system with a Max Trench depth of 24" and a 0.30 LTAR.

- Site serviced by Municipal water.

- No cutting, grading, alterations, or utilities in septic area.

- Maintain all required setbacks.

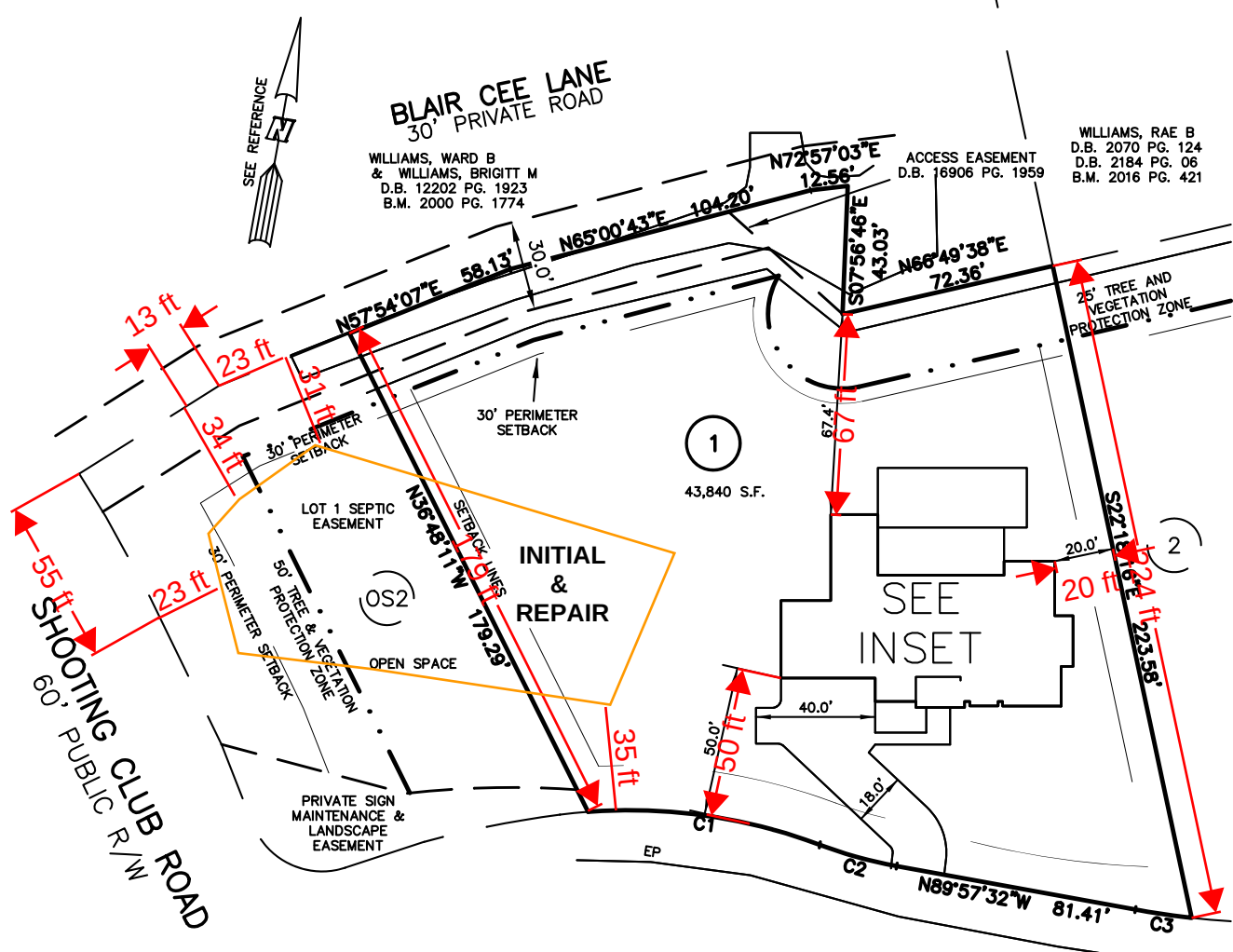
ISSUED BY:

A handwritten signature in black ink, appearing to read "Michael Smith". The signature is fluid and cursive, with a large initial "M" and a long, sweeping underline.

DATE: 04/22/2021

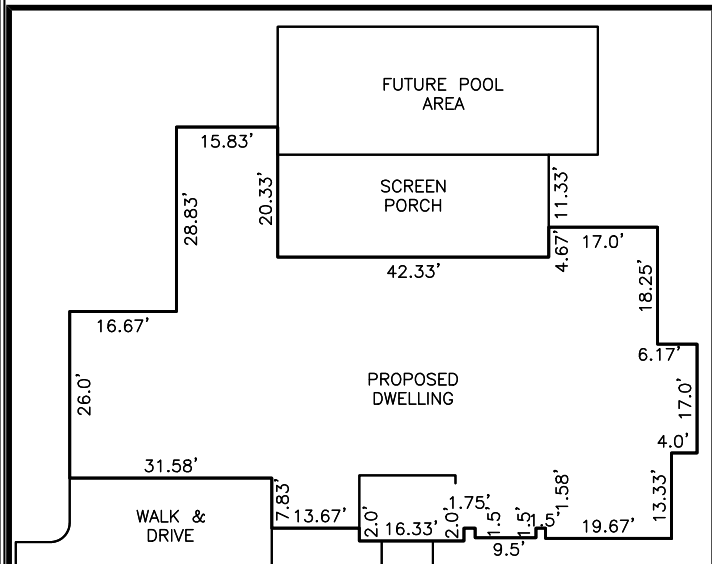
PLOT PLAN FOR
RALEIGH CUSTOM HOMES
1640 ESTATE VALLEY LANE
LOT 1, SOUTHERN HILLS ESTATES
NEW LIGHT TOWNSHIP, WAKE COUNTY, NORTH CAROLINA

WAKE COUNTY N.C. P.D.I.
REVISED SITE PLAN



CURVE	RADIUS	ARC	CHORD	BEG	END	CHORD	DELTA
C1	182.00'	79.17'	S87°49'21"W	78.55'	24°55'30"		
C2	150.00'	26.82'	S84°50'15"E	26.78'	10°14'34"		
C3	277.55'	19.04'	S88°04'30"W	19.04'	3°55'52"		

ESTATE VALLEY LANE
VARIABLE WIDTH PRIVATE R/W



- LEGEND
- AIR CONDITIONER
 - BACK OF CURB
 - BACK FLOW PREVENTER
 - CLEANOUT
 - CURB INLET
 - DRILL HOLE SET
 - EXISTING CONCRETE MONUMENT
 - EXISTING DRILL HOLE
 - EXISTING IRON STAKE
 - EXISTING IRON PIPE
 - ELECTRIC METER
 - EXISTING PK NAIL
 - ELECTRIC STUB
 - FLARED END SECTION
 - FIRE HYDRANT
 - FIBER OPTIC PEDESTAL
 - GAS METER
 - GUY
 - INVERT
 - IRON PIPE SET
 - IRON ROD SET
 - LIGHT POLE
 - MAGNETIC NAIL SET
 - MANHOLE SANITARY SEWER
 - MANHOLE STORM SEWER
 - OVERHEAD WIRES
 - PK NAIL SET
 - POINT NOT SET
 - RAIL ROAD SPIKE
 - TELEPHONE PEDESTAL
 - TRANSFORMER
 - CABLE TV PEDESTAL
 - UTILITY POLE
 - WATER METER
 - WATER VALVE
 - YARD INLET
 - FIELD MEASUREMENT

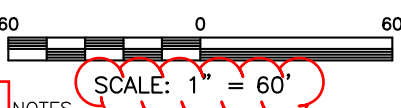
SITE PLAN APPROVED BY
WAKE COUNTY N.C. P.D.I.
Dawn Tripp
04/19/2021 10:57:52 AM

SETBACK INFO

R-40W

FRONT:	15'
REAR:	15'
SIDES:	7.5'
CORNER SIDE:	15'
AGGREGATE SIDE:	10'

REFERENCES:
B.M. 2018, PG. 372-377



IMPERVIOUS SURFACE TABLE

HOUSE.....	4,110 S.F.
PORCH.....	680 S.F.
WALK & DRIVE.....	1,990 S.F.
TOTAL IMPERVIOUS.....	6,780 S.F.
ALLOWABLE IMPERVIOUS =	12,500 S.F.
PERCENTAGE IMPERVIOUS =	15.5%
FUTURE POOL.....	1,000 S.F.

- NOTES
1. THIS SURVEY SUBJECT TO ANY FACTS THAT MAY BE DISCLOSED BY A FULL AND ACCURATE TITLE SEARCH.
 2. THIS MAP MAY NOT BE A CERTIFIED SURVEY AND HAS NOT BEEN REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS AND HAS NOT BEEN REVIEWED FOR COMPLIANCE WITH RECORDING REQUIREMENTS FOR PLATS.

PLOT PLAN
PRELIMINARY PLAT- NOT FOR RECORDATION,
CONVEYANCE OR SALES

REV CODE: 1.FLIP, 2.PLAN, 3.ROTATE, 4.MOVE, 5.SS
6.SEVERAL OF ABOVE, 7.LAND FEATURE, 8. OTHER

REV4: APR. 15, 2021(8)
REV3: APR. 9, 2021(8)
REV2: MAR. 29, 2021(6,8)
REV1: MAR. 15, 2021(4,8)
DATE: JAN. 19, 2021
F.B. _____

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GARNER, NC 27529
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