

Greg Edds, Chairman
Jim Greene, Vice-Chairman
Mike Caskey
Judy Klusman
Craig Pierce



Aaron Church, County Manager
Sarah Pack, Clerk to the Board
John W. Dees, II, County Attorney

Rowan County Board of Commissioners

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MINUTES OF THE MEETING OF THE ROWAN COUNTY BOARD OF COMMISSIONERS May 18, 2026 – 6:00 PM

**J. NEWTON COHEN, SR. ROOM
J. NEWTON COHEN, SR. ROWAN COUNTY ADMINISTRATION BUILDING**

PRESENT:

Greg Edds, Chairman
Jim Greene, Vice-Chairman
Craig Pierce, Commissioner
Mike Caskey, Commissioner

ABSENT:

Judy Klusman, Commissioner

County Manager Aaron Church, County Attorney Jay Dees, Chief Finance Officer Anna Bumgarner, and Deputy Clerk to the Board Rebecca Saleeby were also present. Clerk to the Board Sarah Pack was absent.

Call to Order

Chairman Edds called the meeting to order at 6:00 p.m. Chaplain Michael Taylor provided a solemnizing prayer. Chairman Edds lead the Pledge of Allegiance.

Consider Additions to the Agenda

The agenda was amended to add Regular Agenda Item F: Closed Session (Attorney-Client Privilege).

Consider Deletions From the Agenda

There were no deletions from the agenda.

Consider Approval of the Agenda

On motion of Commissioner Pierce, seconded by Vice-Chair Greene, the Board voted 4-0 to approve the amended agenda.

Consider Approval of the Consent Agenda

On motion of Commissioner Pierce, seconded by Vice-Chair Greene, the Board voted 4-0 to approve the Consent Agenda as presented, as follows:

- A. Consider Approval of the Minutes - 5/4/26 Regular Meeting*
- B. Budget Amendments, as follows:*

<i>Department</i>	<i>Description</i>	<i>Amount</i>
<i>5100- Health</i>	<i>Appropriate funds awarded from PDO Grant to project</i>	<i>\$10,000</i>

<i>Department</i>	<i>26009</i>	
<i>Fund 7020- Fines & Forefeitures</i>	<i>Appropriate funds to cover payments for fines & forefeitures</i>	<i>\$50,000</i>
<i>4260- Medical Examiner</i>	<i>Transfer funds to cover medical examiner fees for FY26</i>	<i>\$80,000</i>
<i>6200- Parks & Rec</i>	<i>Appropriate funds for donation to Sloan from TDA for Flags, Flag poles & sign-</i>	<i>\$16,159</i>
<i>4125- Finance</i>	<i>Transfer funds from GF to CP fund for the Train Project -</i>	<i>\$3,762,056</i>
<i>4125- Finance</i>	<i>Transfer funds from GF to CP fund for the Therapeutic Rec Project-</i>	<i>\$330,000</i>
<i>5100- Health Department</i>	<i>Appropriate funds to align CCHC budget with awarded amount</i>	<i>\$4,228</i>
<i>5100- Health Department</i>	<i>Appropriate funds to align with AA701 funding</i>	<i>\$984</i>
<i>5100- Health Department</i>	<i>Appropriate funds to align funding for AA117</i>	<i>\$57,932</i>
<i>4125- Finance</i>	<i>Appropriate funds to cover Edifice Contract for concourse main renovation Phase 5</i>	<i>\$330,000</i>

- C. Sole Source - Naval Surface Warfare Center FY26-31*
- D. Construction Management Services - Edifice - RCC Concourse & Exterior Renovation Project*
- E. Sloan Park Donation from TDA*
- F. GRANTS: Approve Woodson Grant Award - DSS/ROCO*
- G. Policy Exemption – Vanguard Professional Staffing (DSS) – FY26–30*
- H. Award/Approve - Consultant Services: Composition & Development of a Land Development Code—Inspire Placemaking Collective, Inc.*
- I. RSS Apple Lease Refresh*
- J. Capital Project Ordinance for Train at DNP*
- K. Proclamation - Shield-A-Badge Month, as follows:*

PROCLAMATION TO ESTABLISH MAY AS SHIELD-A-BADGE WITH PRAYER AWARENESS MONTH

WHEREAS, the Shield-A-Badge With Prayer program works to affirm the commitment of Rowan County Law Enforcement Officers and encourages citizen awareness and appreciation for these officers; and

WHEREAS, the program invites citizens to commit to pray for an officer every day for one year and to send birthday cards and notes of thanks to these officers; and

WHEREAS, through the generosity of individuals, businesses, and churches that have donated services and fundraisers, 10,500 Bibles, 4,000 Shield-A-Badge Bible Promise Books and 11,700 New Testaments have been purchased to be given away; and

WHEREAS, the Shield-A-Badge With Prayer program began in 1995 in Rowan County, by Chaplain Michael Taylor and has begun to expand statewide, reaching out to other counties, municipalities, colleges, hospitals, correctional facilities, 911 communicators, probations officers,

animal control officers, state highway patrol troopers, fire departments, Clerk of Court employees, magistrates, judges, District Attorney's Office, County Commissioners, sheriffs, and attorneys; and

WHEREAS, through the dedication and travels of Chaplain Taylor, counties from across the state are receiving encouragement and training for chaplains.

NOW, THEREFORE BE IT PROCLAIMED that the Rowan County Board of Commissioners does hereby establish the month of May as Shield-A-Badge With Prayer Awareness Month.

- L. Set Public Hearing-Road Naming-Cabin Dr*
- M. Set Public Hearing-Road Naming-Buttercup Ln*
- N. Change Order #3 - Lafave's Construction Co. - Recycling Roof Replacement*
- O. Policy Exemption - Contract 26236 – Neuroagile Leadership (Allies4Outcomes) FY26-31*
- P. LandDesign Inc. - Work Authorization - Parks & Recreation - Therapeutic Recreation Project*
- Q. Schedule Legislative Hearing for Z 03-26; Morgan Land Development, for June 1, 2026*
- R. Request for Public Hearing - EDC 'Project Rack'*
- S. Set Public Hearing for FY 2026-2027 Proposed Budget for June 1, 2026*
- T. Schedule Legislative Hearing for ZTA 01-26; James Newton, for June 1, 2026*
- U. GRANTS: Application to 2026 NC MIH Rural Health Transformation Program grant*

Public Comment Period

Chairman Edds opened the floor for Public Comment and closed it after everyone wishing to speak had done so.

Mr. Bobby Kemp expressed concerns regarding the proposed Google development on Old Beatty Ford Road, questioning whether future plans may involve a data center and requesting clarification on zoning permits and future development rights associated with adjacent property. He also raised concerns regarding property taxes and insurance implications.

Mr. Sal Cerbone spoke regarding environmental concerns, drought conditions, and opposition to data center development. During comments, the meeting briefly recessed twice to restore order after interruptions and exchanges occurred. Following the recesses, Mr. Cerbone continued his remarks, expressing concerns regarding Long Ferry Road residents, environmental impacts, water usage, and infrastructure issues.

Ms. Kat Nolan thanked the Board for approving the data center moratorium and requested additional protections during the moratorium period, specifically concerning air quality, water resources, utility rates, and tree preservation. She encouraged the Board to prioritize environmental sustainability and preservation of existing ecosystems.

Ms. Laura Fitzgerald addressed concerns regarding clear-cutting practices and encouraged the preservation of mature trees during future development projects. She referenced development practices in other states that preserve portions of old-growth forests and encouraged the Board to consider similar protections locally.

Special Recognitions

Chairman Edds recognized the players and coaches of the Faith Academy Girls Basketball team and presented them with a Proclamation as follows:

PROCLAMATION HONORING THE FAITH ACADEMY GIRLS BASKETBALL TEAM

WHEREAS, the Faith Academy Girls Basketball Team has demonstrated exceptional dedication, teamwork, sportsmanship, and athletic excellence throughout an outstanding season; and

WHEREAS, the success of this team is the result of the hard work and dedication of its student-athletes Ella Shank, Sara Taylor Reddick, Aubrey Crotts, Elizabeth Freeze, Brynlee Christie, Elaina Esposito-Knight, Zoey Rakes, Sawyer Burns, Grayce Strickland, and Paisley Austin; and

WHEREAS, the team achieved an impressive overall record of 14–2, including an undefeated 6–0 record in conference play; and

WHEREAS, the team earned the title of Central Carolina Charter Conference Tournament Champions through determination, perseverance, and strong competitive performance; and

WHEREAS, the team further distinguished itself by capturing the Carolina State Athletic Association Middle School Girls Division I State Championship, bringing great honor and recognition to Faith Academy and Rowan County; and WHEREAS, these accomplishments reflect the leadership, commitment, and guidance of Head Coach Howard D. Torrence II and Assistant Coach Hayes Smith.

NOW, THEREFORE, be it proclaimed that the Rowan County Board of Commissioners proudly recognizes and commends the Faith Academy Girls Basketball Team for their remarkable season, championship achievements, and outstanding representation of their school and community.

Clerk's note: This Proclamation was Ratified at the June 1, 2026, meeting.

Chairman Edds recognized Alyssa Harris, Public Health Director and her staff. Ms. Harris said Rowan County Public Health completed their Site Visit on February 13th, 2026, and were recommended for Accreditation with Honors meeting all 147 benchmarks. Further, the NC Local Health Department Accreditation Board approved the recommendation on May 1, 2026. The Board commended Public Health for a job well done.

Chairman Edds recognized TJ Brown, Emergency Services Chief, and his staff for their dedication to providing services for citizens.

On motion of Commissioner Caskey, seconded by Vice-Chair Greene, the Board voted 4-0 to adopt a Proclamation Recognizing Emergency Medical Services Week 2026, as follows:

Proclamation for Emergency Medical Services Week 2026

WHEREAS, emergency medical services is a vital public service; and

WHEREAS, the members of emergency medical services teams are ready to provide lifesaving care to those in need 24 hours a day, seven days a week; and

WHEREAS, access to quality emergency care dramatically improves the survival and recovery rate of those who experience sudden illness or injury; and

WHEREAS, emergency medical services fills healthcare gaps by providing important, outof-hospital care, including preventative medicine, follow-up care, and access to telemedicine; and

WHEREAS, the emergency medical services system consists of first responders, emergency medical technicians, paramedics, emergency medical dispatchers, firefighters, police officers, educators, administrators, pre-hospital nurses, emergency nurses, emergency physicians, trained members of the public, and other out of hospital medical care providers; and

WHEREAS, the members of emergency medical services teams, whether career or volunteer, engage in thousands of hours of specialized training and continuing education to enhance their lifesaving skills; and

WHEREAS, it is appropriate to recognize the value and accomplishments of emergency medical services providers by designating Emergency Medical Services Week, and to acknowledge that 2026 marks the 52nd anniversary of this observance, recognized under the theme "Improving Outcomes, Together."

NOW, THEREFORE, BE IT PROCLAIMED that the Rowan County Board of Commissioners recognizes the week of May 17 - 23, 2026, as EMERGENCY MEDICAL SERVICES WEEK.

Quasi-Judicial Hearing for SUP 03-26

The Board reconvened the Quasi-Judicial Hearing regarding an application submitted by Simona Cantrell for a canine training and boarding facility located at 1205 Mount Vernon Road in Woodleaf.

Chairman Edds formally reopened the hearing, outlining procedures and emphasizing that all testimony must be sworn and material to the record. When the Board enters into deliberations to decide the case, no further testimony may be presented, and will render one of the following three decisions: one, approve the permit as requested, or with additional conditions; two, continue the request; or three, deny the request.

All parties who plan to testify in this case must be sworn in. All material presented must be given to the Clerk and will become part of the record. This Board can only accept sworn testimony. No hearsay evidence is admissible.

Deputy Clerk to the Board Rebecca Saleeby swore in all those who wished to testify.

Aaron Poplin, Planning Technician, provided a recap of the proposal and previous proceedings, noting that the hearing had originally been opened in April and continued to allow time for the applicant to address community concerns. Mr. Poplin detailed modifications made to the site plan since the prior meeting. These included moving the larger proposed building farther from property boundaries, adding a row of trees for buffering, and replacing chain-link fencing with opaque materials to reduce visibility and potential noise impacts. The overall plan still included a phased development, beginning with a smaller structure and later expanding to a larger facility. Mr. Poplin confirmed that the application met the ordinance requirements for

setbacks, screening, and submission of a site plan, while also noting that dog training alone could occur on the property as a home occupation without a special use permit, whereas overnight boarding required approval.

Mr. Poplin also pointed out the Board could consider conditions for approving Phase One and then requiring applicant to come back and apply for a permit for Phase Two.

Commissioner Caskey asked if they would be able to kennel dogs they are training. Mr. Poplin answered no, and added the dogs would have to go home everyday.

Vice-Chair Greene asked if the applicant owns the dogs, could she kennel them onsite? Mr. Poplin answered yes, because then she would not need a permit. Vice-Chair Greene wanted clarification that she can train her dogs and other dogs. Mr. Poplin agreed and added the special use permit is for the kennel and allowing dogs to stay overnight.

Commissioner Pierce asked the difference between requirements to train dogs and to house dogs. Mr. Poplin answered the only difference between the two is that someone living on the property can train dogs as a home occupation, whereas dog kenneling requires a special use permit.

At 7:02 p.m. Chairman Edds opened the floor for Quasi-Judicial Hearing.

Katlin Rohl spoke about how she picked her home based on how peaceful it is and how she grew-up on a dairy farm. She also expressed concerns regarding increased noise, traffic, safety risks for children and pets, and potential impacts on the quiet rural character of the community

Aiden Selves said he is concerned about noise from dogs and increased traffic affecting neighborhood safety and recreation.

Tim McDaniel presented concerns related to roadway width, traffic safety, emergency vehicle access, and road conditions on Mount Vernon Road. He also submitted photographs and documentation into the record (Comprehensive Evidence & Statutory Briefing Packet for SUP 03-26 (Attachment A)).

Debra McDaniel raised concerns regarding potential impacts on surrounding property values and requested clarification regarding site plan flexibility and construction sequencing. Ms. Daniel stated she had a petition with 33 names from neighbors, but did not submit the petition to the Board.

The applicant, **Simona Cantrell**, presented information regarding the proposed facility, emphasizing the primary focus on professional canine training rather than commercial Boarding. Ms. Cantrell outlined:

- Professional experience and certifications

- A business model designed to limit traffic through scheduled appointments and extended stays
- Noise mitigation measures, including insulated buildings and operational controls
- Site design incorporating setbacks, fencing, and vegetative buffers
- Safety measures and NCDOT-approved driveway access
- Waste management through an advanced septic treatment system

Ms. Cantrell stated she also has a partnership for service dog training for disabled veterans. She submitted an information packet “Applicants Credentials & Core Operations Summary” (*Attachment B*).

Gabby Parish, an attorney speaking on behalf of the applicant, affirmed that the proposal met or exceeded all regulatory criteria and highlighted the applicant’s efforts to address community concerns and operate as a responsible neighbor. She provided detailed testimony outlining mitigation measures, including limited operational capacity, soundproofing, advanced septic systems, controlled traffic patterns.

Tracy Suggs previously spoke at the April 20, 2026 meeting, and wanted to briefly restate and clarify her concerns. On her own property, which has a long driveway surrounded by dense, mature trees, she can still clearly hear neighbors talking and vehicles coming onto her driveway. Second, there are significant concerns about noise, odor, and the overall scale of this operation. The number of dogs has been unclear.

Ms. Suggs stated she personally has spoken with surrounding neighbors and helped gather a petition. Out of 33 residents contacted, 30 signed in opposition, and none expressed support. That’s over 90% of the immediate community opposed to the proposed permit. She did not submit the petition to the Board.

Hearing no further testimony, Chairman Edds closed the public hearing at 7:59 p.m.

Chairman Edds stated he could not support this permit.

Board members discussed the application, noting the need to balance property rights with community impacts. Discussion included concerns regarding noise and compatibility with surrounding residential and agricultural uses and consideration of infrastructure limitations, particularly roadway width and safety. The Board acknowledged that dog training would remain a permitted use regardless of the decision. Differing perspectives were shared among Board members regarding the adequacy of proposed mitigation measures.

Vice-Chair Greene stepped out of meeting at 8:12 p.m.

On motion of Chairman Edds, seconded by Commissioner Pierce, the Board voted 3-0 on the following Finding of Fact:

1. *The development of the property in accordance with the proposed conditions will not materially endanger the public health or safety.*

FACT: This request complies with all three (3) specific requirements identified in section 21-60 (1) for Boarding kennel facilities.

FACT: The proposed structure is subject to compliance with applicable building code standards.

On motion of Chairman Edds, seconded by Commissioner Pierce, the Board voted 3-0 on the following Finding of Fact:

- 2. That the development of the property in accordance with the proposed conditions will not substantially injure the value of adjoining or abutting property, or that the development is a public necessity, and;*

FACT: A report provided by Michael Elam indicated that homes within a three-mile radius have been appreciating in value.

FACT: Proximity to animal services has not resulted in decreased sales prices or increased sales times.

On motion of Chairman Edds, seconded by Commissioner Pierce, the Board voted 3-0 on the following Finding of Fact:

- 3. That the location and character of the development in accordance with the proposed conditions will be in general harmony with the area in which it is located and in general conformity with any adopted county plans.*

Conclusion: This standard was not met.

FACT: Three homes are located within 500 feet of the proposed dog runs and kennel area.

FACT: No material evidence was presented demonstrating that the site design would adequately mitigate noise from dogs when outside in the runs.

Chairman Edds clarified that each finding must be either accepted or rejected. Consensus formed that:

- Findings #1 and #2 were satisfied.
- Finding #3 was not satisfied, due to concerns about compatibility and insufficient noise mitigation evidence.

On motion of Chairman Edds, seconded by Commissioner Pierce, Board voted 3-0 (Greene was absent) to deny SUP 03-26.

Vice-Chair Greene return to the meeting at 8:14 p.m.

Commissioner Pierce stepped out to speak with the applicant of SUP 03-26.

Resolution Requesting Legislative Support for Assuming Kannapolis ETJ

Ed Muire, Director Planning and Development, discussed the proposed resolution to request a waiver of the down-zoning statute to allow Rowan County to apply its zoning to areas relinquished by Kannapolis. Mr. Muire explained the rationale behind Kannapolis's decision to rescind its ETJ and the potential impact on over 900 parcels. He stated that the Kannapolis Planning Board will be vote on May 19, 2026, with the effective date of June 30, 2026. Mr. Muire continued to explain that Rowan county has sixty days to apply zoning to those areas.

The Board discussed the importance of maintaining consistent zoning regulations and the challenges of applying municipal zoning to county areas.

Mr. Muire suggested that the Board authorize the Chairman to sign the resolution and forward it to the state legislature for consideration.

On motion of Chairman Edds, seconded by Vice-Chair Greene, the Board voted 3-0 to approve a Resolution of the Rowan County Board of Commissioners Requesting the North Carolina General Assembly to Waive or Suspend the Requirements of N.C. GEN. STAT. § 160D-601(d) in Connection with the Relinquishment of the City of Kannapolis's Extraterritorial Jurisdiction Pursuant to N.C. GEN. STAT. § 160D-202(h) and approve the Chairman to sign, as follows:

*A RESOLUTION OF THE ROWAN COUNTY BOARD OF COMMISSIONERS
REQUESTING THE NORTH CAROLINA GENERAL ASSEMBLY TO WAIVE OR
SUSPEND THE REQUIREMENTS OF N.C. GEN. STAT. § 160D-601(d) IN
CONNECTION WITH THE RELINQUISHMENT OF THE CITY OF
KANNAPOLIS'S EXTRATERRITORIAL JURISDICTION PURSUANT TO N.C.
GEN. STAT. § 160D-202(h)*

WHEREAS, N.C. Gen. Stat. § 160D-202(h) authorizes a municipality to relinquish its extraterritorial jurisdiction (ETJ) to a county; and

WHEREAS, the City of Kannapolis has taken action to effectively relinquish its ETJ located within Rowan County on June 30, 2026; and

WHEREAS, Rowan County is prepared to assume full planning, zoning, and development regulation authority over the relinquished ETJ area; and

WHEREAS, N.C. Gen. Stat. § 160D-202(h) stipulates a city's development regulations and powers of enforcement shall remain in effect until (i) the county has adopted such development regulation or (ii) a period of 60 days has elapsed following the action by which the city relinquished jurisdiction, whichever is sooner; and

WHEREAS, N.C. Gen. Stat. § 160D-601(d) requires that, "No amendment to zoning regulations or a zoning map that down-zones property shall be initiated, enacted, or enforced without the written consent of all property owners whose property is the subject of the down-zoning amendment" and further defines down-zoning in the following ways:

- (1) By decreasing the development density of the land to be less dense than was allowed under its previous usage.*
- (2) By reducing the permitted uses of the land that are specified in a zoning ordinance or land development regulation to fewer uses than were allowed under its previous usage.*
- (3) By creating any type of nonconformity on land not in a residential zoning district, including a nonconforming use, nonconforming lot, nonconforming structure, nonconforming improvement, or nonconforming site element.*

WHEREAS, the strict application of N.C. Gen. Stat. § 160D-601(d) in this situation would effectively require Rowan County to adopt and enforce the City of

Kannapolis's zoning regulations within the relinquished ETJ area, notwithstanding the fact that the area will no longer be under municipal jurisdiction; and

WHEREAS, the relinquished ETJ area is not proposed for annexation by the City of Kannapolis, and therefore continued application of their ordinances and policies is neither warranted nor appropriate; and

WHEREAS, the imposition of Kannapolis's zoning and development regulations after relinquishment would frustrate the clear policy objective that such areas be governed solely by Rowan County regulations; and

WHEREAS, such a requirement would be inconsistent with the intent and purpose of relinquishment under N.C. Gen. Stat. § 160D-202(h), which is to fully transfer planning and regulatory authority from a municipality to a county; and

WHEREAS, Rowan County has duly adopted and maintains a comprehensive set of land development regulations and zoning districts applicable to unincorporated areas of the County, and is equipped to apply such regulations to the relinquished ETJ area; and

WHEREAS, the Rowan County Board of Commissioners finds that it is in the best interest of the County, affected property owners, and the public to ensure a seamless regulatory transition in which County ordinances and zoning districts apply to the relinquished ETJ area.

NOW, THEREFORE, BE IT RESOLVED by the Rowan County Board of Commissioners that:

- 1. Request for Legislative Action. The Rowan County Board of Commissioners hereby respectfully requests that the North Carolina General Assembly enact legislation to waive or suspend the requirements of N.C. Gen. Stat. § 160D-601(d), specifically as applied to the relinquishment of extraterritorial jurisdiction by the City of Kannapolis to Rowan County pursuant to N.C. Gen. Stat. § 160D-202(h).*
- 2. Application of County Regulations. The requested legislative action should authorize Rowan County to apply its zoning designations and Page 305 of 314 development regulations to the relinquished ETJ within 90 days of Kannapolis's relinquishment. During this transition period, the City of Kannapolis's regulations shall remain in effect until Rowan County adopts its regulations or the 90-day period expires, whichever occurs first.*
- 3. Rationale for Waiver. The requested waiver is necessary and appropriate since:*
 - a. The essence of relinquishment is the complete transfer of regulatory authority from the municipality to the county;*
 - b. The continued application of municipal regulations would negate the practical effect of relinquishment;*
 - c. The subject area is not being annexed into the City of Kannapolis;*
 - d. Property owners should be governed solely by the jurisdiction with land use authority;*
 - e. Administrative efficiency and regulatory clarity require a single set of governing ordinances;*

- f. *Rowan County is fully capable of regulating the area under its existing ordinances and zoning districts.*
- g. *The ETJ area contains more than nine hundred (900) parcels of land and additional time is needed to study the area and apply appropriate zoning district designations.*

County Fund Balance Policy

Anna Bumgarner, Chief Finance Officer, presented a proposed fund balance policy, which aims to set a minimum unassigned fund balance and create a committed portion for future capital needs. She explained fund balance classifications:

- Nonspendable,
- Restricted,
- Committed,
- Assigned and
- Unassigned.

Ms. Bumgarner recommended that unassigned fund balance exceeding 20% of the next year's general fund budget be partially committed to future capital needs.

Ms. Bumgarner gave the following example:

Fund Balance Example	
2026 Budgeted Expenditures	216,350,623
20% Threshold	43,270,125
Unassigned FB	117,407,241
unassigned less 20%	74,137,116
50% Unassigned difference	37,068,558
Current Projects:	
Train	1,881,028
Concourse	3,553,149
Telecom	2,320,539
Balance	29,313,842
FY27 Capital Expenditures	17,860,266
Balance Committed Capital	11,453,576

Commissioner Pierce returned to meeting at 8:29 p.m.

Chairman Edds asked to consider adding debt retirement. Aaron Church, County Manager, explained that the next policy to bring before the Board is the debt policy and staff can work debt retirement into that policy. The Board discussed whether to include debt retirement as an allowable use and agreed to revisit this in a forthcoming debt policy.

Ms. Bumgarner explained that if fund balance policy is not passed by the the end of the fiscal year it could have an effect on the audit.

On motion of Commissioner Pierce, seconded by Vice-Chair Greene, the Board voted 4-0 to approve the Fund Balance Policy and approve the Chief Finance Officer to complete an entry moving funds to Committed Fund Balance.

FY 2026-2027 Proposed Budget

County Manager Aaron Church presented the proposed budget for the 2026-2027 fiscal year. The proposed budget was introduced as balanced and in compliance with the Local Government Fiscal Control Act. The prior fiscal year's budget totaled approximately \$216.35 million, while the requested budget for the current year had risen significantly to approximately \$385.21 million, representing a substantial increase. However, the recommended budget presented to the Board was \$246.96 million, reflecting a more moderate increase of approximately 14.15 percent, or just under \$30.7 million. Of this increase, nearly \$18 million was attributed to one-time capital expenditures funded from reserves.

Mr. Church explained revenue assumptions that were outlined, beginning with the property tax rate, which would remain unchanged at 58 cents. The tax collection rate was projected to remain steady at 98 percent. The county's tax base was expected to grow to \$22.39 billion, representing a 5.49 percent increase over the previous year, equating to approximately \$1.165 billion in additional value. Sales tax revenue was projected at \$42.9 million, comprising 17 percent of the general fund. This estimate was characterized as conservative, remaining below actual sales tax collections from 2025 despite showing a projected increase. Departmental fee increases were recommended for:

- Emergency Services,
- Parks and Recreation,
- Health Department.

Additional fee considerations for environmental management would be addressed separately.

Mr. Church reviewed one-time capital expenditures included in the budget. These included funding for courthouse water damage repairs, expansion of train tracks and station infrastructure, development of a therapeutic park, improvements to the nature center, and the establishment of an EMS South Station. Additional allocations were made for Board of Elections equipment, staff parking fencing, and Parks and Recreation equipment. It was noted that some of these projects might not be completed within the fiscal year, depending on project timelines. Overall, approximately \$17,860,266 million of the budget was allocated for one-time capital expenses, with total fund balance usage of \$33.55 million, of which approximately \$15.69 million supported recurring expenditures. A contingency fund of \$500,000 was also included to provide flexibility for unforeseen needs during the fiscal year.

Mr. Church went on to explain a significant portion of the budget focused on expenditures for vehicles and public safety resources. The county planned to purchase 44 vehicles at a total cost of approximately \$4,420,616. These vehicles would support multiple departments, including

the Sheriff's Office, Emergency Services, Parks and Recreation, and other operational areas. The increase in vehicle purchases was largely attributed to the expansion of School Resource Officer (SRO) coverage and other public safety needs.

Personnel requests were addressed next. While 84 new positions had originally been requested, the recommended budget included 23 new full-time positions, totaling approximately \$2,697,571 million. These positions included a Deputy County Manager, a Communications Director, additional paramedics for expanded EMS services, and fire inspection staffing. A major component of the staffing plan involved the addition of school resource officers (SROs) in elementary schools. The budget proposed 11 new SRO positions, along with supervisory roles, to ensure full-time law enforcement presence in all elementary schools across the county. The total cost for implementing full elementary SRO coverage was estimated at approximately \$3,491,954. This initiative was highlighted as a significant investment in community safety, ensuring consistent officer presence in schools rather than relying on part-time or off-duty scheduling.

Mr. Church explained the budget also incorporated employee compensation adjustments. A pay study allocation of approximately \$350,000, plus benefits, was included to address salary adjustments based on years of service, along with grade changes for 47 positions. Additionally, a 3 percent cost-of-living adjustment (COLA), totaling approximately \$2,429,700 million, was recommended for all employees, including elected officials, with the option for commissioners to opt out. Longevity pay remained in place and would continue to be distributed annually. Cooperative Extension contracted employees will receive a 3 percent COLA increase on the county portion of their pay only.

The proposed budget included increased funding for Rowan-Salisbury Schools, Kannapolis City Schools, and charter schools. Rowan-Salisbury Schools were recommended to receive an increase of approximately \$2.64 million, supporting a rise in the local teacher supplement from 9 percent to 12 percent. Enrollment trends showed declining student populations in traditional public school systems and slight increases in charter school enrollment, which influenced the distribution of funding. It was clarified that school funding follows the student, meaning county funds are allocated to school systems and then distributed based on student enrollment, even if students attend schools outside the county.

Anna Bumgarner, Chief Finance Officer, discussed other funds, including fire district budgets. Several fire districts requested tax rate increases to support operational needs, including staffing and facility improvements. Concerns were raised by Board members about the proximity of certain fire stations and whether consolidation should be considered to improve efficiency and reduce costs. While the issue was acknowledged, it was noted that fire departments operate as independent entities and would need to initiate consolidation discussions themselves.

Attention then turned to the Landfill Fund, which operates as an enterprise fund and must remain financially self-sustaining. Proposed rate increases included raising tipping fees for Rowan County and Davie County customers, as well as significantly increasing rates for out-of-county users. These changes were based on comparisons with surrounding counties, where landfill fees were generally higher. The goal was to maintain competitiveness while ensuring

sustainability, recognizing that excessively high rates could reduce usage and negatively affect revenues. The landfill budget also required the use of approximately \$2.9 million in fund balance, partly due to recent expenditures for dirt hauling and anticipated capital needs.

Further discussion addressed operational details of the landfill, including variability in convenience site pricing and the challenges of balancing accessibility for residents with cost recovery. Comparisons were made to other counties that utilize flat fees or tax-based systems for waste disposal. The importance of maintaining affordability while discouraging illegal dumping was emphasized.

Brief discussions regarding American Rescue Plan Act (ARPA) funds occurred, which are maintained separately from the county's unrestricted fund balance. It was noted that remaining ARPA funds were expected to be allocated toward broadband-related expenses in the near future. Final remarks indicated readiness to proceed with additional fund presentations or address further questions as needed.

Financial Report

Chairman Edds asked Ms. Bumgarner to present the financial reports at the June 1, 2026 meeting.

Closed Session

At 9:18 p.m., on motion of Chairman Edds, seconded by Vice-Chair Greene, the Board voted 4-0 to enter into closed session pursuant to NCGS 143-318.11(a)(1) to consider approval of the minutes of the Closed Session held on May 4, 2026, as described by NCGS 143-318.10(e), and pursuant to NCGS 143.318.11(a)(3) to consult with an attorney.

Chair Edds stepped out of the meeting 9:18 p.m and did not return.

Resume Open Session

At 9:30 p.m., Open Session resumed.

Adjournment

At 9:32 p.m., on motion of Commissioner Pierce, seconded by Vice-Chair Greene, the Board voted 3-0 (Edds was absent) to adjourn.

Rebecca Saleeby, NCCCC
Deputy Clerk to the Board

COMPREHENSIVE EVIDENCE & STATUTORY BRIEFING PACKET

Rowan County Board of Commissioners Quasi-Judicial Proceeding

Case Reference:	SUP 03-26	Hearing Date:	April 20, 2026
UDO Criterion:	Finding #1: Public Health, Safety, & Welfare	Corridor Location:	Mt. Vernon Road, Rowan County

TAB 1: PROPOSED "FINDINGS OF FACT" & CASE SUMMARY

Under North Carolina law and the Rowan County Unified Development Ordinance (UDO), a Special Use Permit cannot be granted if competent, material, and substantial evidence establishes that the proposed use endangers public safety or welfare. This brief proves that the surrounding public infrastructure is physically unable to mitigate the operational risks introduced by a commercial traffic generator.

To deny the permit, the Board may formally adopt the following finding:

Proposed Finding of Fact: "The applicant has failed to satisfy the requirements of UDO Finding #1. Competent physical evidence proves that the primary access corridor, Mt. Vernon Road, features a paved continuous surface of only 14 feet, 8 inches. This substandard infrastructure width fails black-letter state fire apparatus access standards by over 5 feet, eliminates safe multi-vehicle two-way passing boundaries, and constitutes a direct, uncorrectable hazard to the Public Health, Safety, and General Welfare of the community and arriving emergency assets."

TAB 2: INFRASTRUCTURE DIMENSIONAL ANALYSIS

The physical layout of Mt. Vernon Road introduces a severe mathematical mismatch when introducing commercial client and delivery travel patterns. Standard highway and secondary rural design principles call for specialized clear lanes to maintain two-way flow without center line breaches.

Infrastructure Element	Measured Dimension	NCDOT / State Standard	Safety Status
Total Paved Travelway	14 Feet, 8 Inches	20 to 24 Feet Minimum	DEFICIENT (-5' 4")
Single Travel Lane Allocation	7 Feet, 4 Inches	10 to 12 Feet Minimum	DEFICIENT
Unpaved Shoulder Width	Negligible / Substandard	Stable Stabilized Recovery Zone	NON-COMPLIANT

The Operational Impact: A standard passenger vehicle tracks at 6.5 to 7 feet wide. Medium-duty utility trucks, commercial delivery vans, and vehicles towing trailers track at 8.0 to 8.5 feet wide. Because a single 8-foot vehicle physically exceeds the entire 7-foot, 4-inch lane capacity on Mt. Vernon Road, normal driving maneuvers demand constant, hazardous center line encroachment into oncoming traffic.

TAB 3: CERTIFIED COPIES OF STATE SAFETY REGULATIONS

This board is bound to align county infrastructure usage with the regulatory safety restrictions established under the North Carolina Administrative Code and State Building Code. The measured dimensions of Mt. Vernon Road legally violate these minimum public frameworks:

1. North Carolina State Building Code: Fire Code — Section 503.2.1 (Dimensions)

"Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm)."

Direct Safety Application: The State mandates 20 feet of clearance so that emergency apparatus can stage, run equipment, and permit secondary ambulances or mutual-aid support tankers to safely pass the scene during an active rescue or fire operations block. Mt. Vernon Road fails this threshold.

2. North Carolina Administrative Code — Title 19A NCAC 02C .0102

Establishes minimum engineering configurations for inclusion within the NCDOT secondary highway tracking system, identifying a mandatory minimum travelway expectation of 20 feet for safe local operations.

Direct Safety Application: The state formalizes that 20 feet is the baseline breaking point where two-way traffic can navigate a rural environment safely without forcing structural shoulder recovery maneuvers.

TAB 4: PROFESSIONAL MAPPING OF GEOMETRIC ROADWAY HAZARDS

A review of the localized parcel configuration and NCDOT tracking databases reveals that the risk is severely multiplied by local geography.

Topographical Constraints Along Mt. Vernon Road Corridor:

- **Blind Crests & Grades:** Vertical sight drops completely hide slow-moving vehicles attempting to identify and turn into rural entrance gates.
- **Drainage Ditch Proximity:** Because the pavement drops off instantly into a steep agricultural runoff system, vehicles forced off the road by lane encroachment face instant rollover or immobilization risks.
- **State Warning Array:** NCDOT has formally placed a **W1-5 Winding Road Warning Series** combined with an official **40 MPH Advisory Speed Plaque** directly on this corridor, validating that regular statutory speeds are unsafe due to geometric limitations.

[PLACE LOCAL GIS AERIAL OR GOOGLE EARTH TOPOGRAPHIC MAP HERE]

Please paste a localized aerial map printout in this block, marking the proposed facility gate, nearest hill crests, and known neighborhood blind curves for the Commissioners' visual review.



TAB 5: PHOTOGRAPHIC EVIDENCE INDEX

The following pages outline the explicit visual proof of infrastructure failures on Mt. Vernon Road. These records document that the physical dimensions do not represent an abstraction, but a constant, visible hazard to the community's residents and children.

EXHIBIT A: Commercial / Towing Vehicle Lane Encroachment

Source File: Truck.jpg

Factual Analysis: This photograph documents a wide-body, dual-rear-wheel utility vehicle operating on the Mt. Vernon Road corridor. Because a dually or a consumer vehicle pulling a standard trailer measures approximately 8 feet across, it completely overwhelms the localized 7-foot, 4-inch lane allocation. The left wheels are tracked directly over the double-yellow line into oncoming traffic lanes, while the right fender overhangs the unpaved road edge. Two-way passing is physically impossible.

EXHIBIT B: Vulnerable Fleet Asset Conflict

Source File: IMG_8300.jpg

Factual Analysis: This photograph documents a standard Rowan County public school bus operating on the Mt. Vernon Road corridor. The asset completely spans the width from the center paint to the exterior edge. There is zero structural margin for error. Introducing an active commercial traffic generator populated by clients unfamiliar with the road geometry creates a high-probability conflict envelope with a mass-transit asset carrying local children.

EXHIBITS C & D: Topographical Blind Horizons

Source Files: Road north.jpg / Road south.jpg

Factual Analysis: These photographs document the extreme rolling terrain, horizontal alignment curves, and dense tree lines defining the corridor right-of-way. The physical geometry results in deficient stopping sight distances. Any vehicle forced to brake or wait on the 14-foot, 8-inch pavement to make a turn creates an obscured, immediate crash hazard for over-the-crest traffic.

EXHIBIT E: Official NCDOT Hazard Recognition

Source File: Sign.jpg

Factual Analysis: Documents the active NCDOT sign infrastructure on Mt. Vernon Road warning of severe winding road patterns, verified by a 40 MPH Advisory Speed Plaque. This confirms that state traffic engineers recognize the underlying geometry as an active risk corridor.

Exhibit A



Exhibit B



Exhibit C



Exhibit D

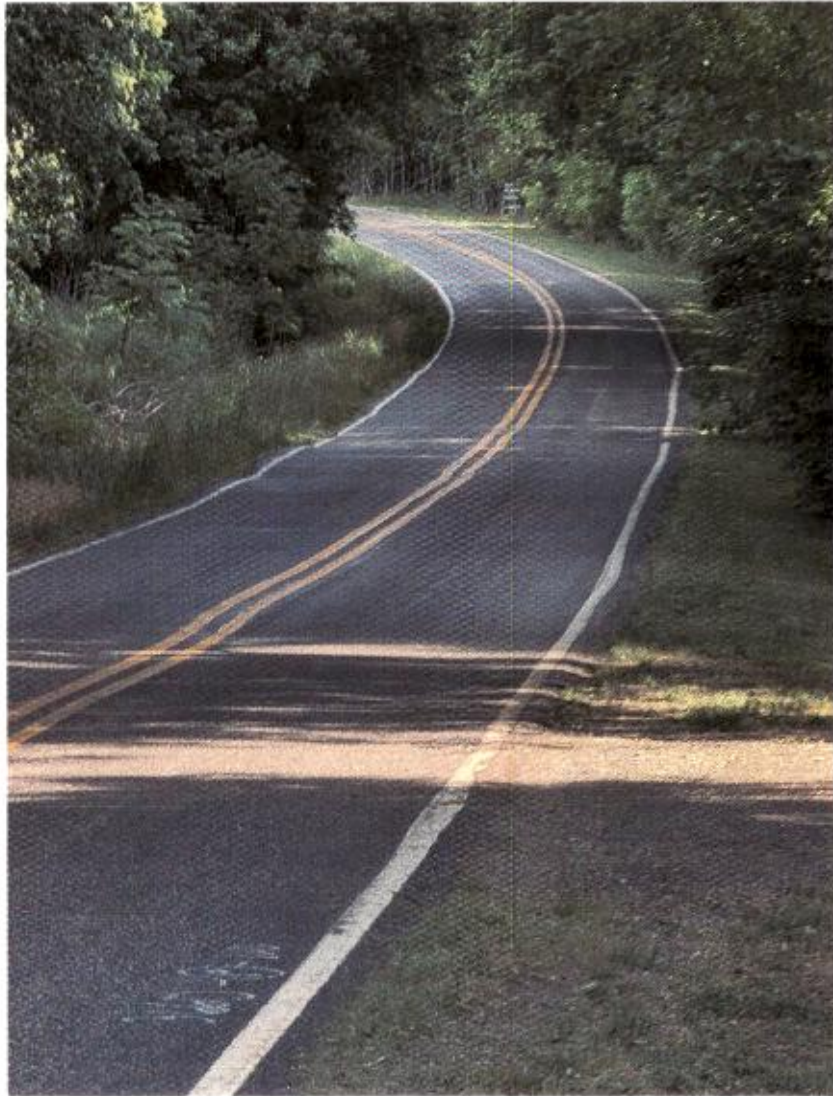


Exhibit E



Applicant :
Simona Cantrell
SUP 03-26

Applicant Credentials & Core Operations Summary

Industry Experience: Over 15 years of dedicated, professional expertise in high-end canine training, behavioral modification, and canine care.

Structured Workspace vs. Commercial Kennel: The proposed facility is explicitly engineered as a low-density, highly structured professional workspace for advanced training and behavior modification. It does **not** operate as a high-volume, high-turnover commercial boarding kennel.

Environmental Controls: Maintaining a calm, quiet, and strictly controlled environment is a mechanical necessity for advanced behavioral work. High-turnover traffic and nuisance barking are completely incompatible with the business model and are restricted through rigorous operational design.

Service Dog Partnership: Established training partnership with a non-profit organization dedicated to providing fully trained service dogs to disabled United States veterans at zero cost to the veteran.

1. Increased Property Buffers & Setbacks

Enhanced Spatial Buffers & Voluntary Setbacks: The Phase 1 building maintains a 100-foot front setback (placing it 250 feet from the nearest home), while the Phase 2 footprint has been voluntarily moved back an additional 50 feet; this guarantees a permanent, continuous 250-foot buffer from the closest residence to ensure the natural dissipation of all incidental sight and sound within property boundaries.



Traffic Engineering, Access, & Public Safety

- **NCDOT-Approved Infrastructure:** To guarantee the highest standard of public safety, the facility access has been fully reviewed, engineered, and approved by the North Carolina Department of Transportation (NCDOT) via an official commercial driveway permit (Permit No.: D091-080-26-00032).
- **Dedicated Commercial Entrance:** The state-approved plan establishes a brand-new commercial driveway entirely separate from the private residential entrance. It features a deep, paved setback that allows arriving vehicles to pull completely off the public right-of-way before stopping.
- **Unobstructed Sight Triangles:** In compliance with NCDOT mandates, extensive sight distances have been established in both directions. Frontage vegetation will be permanently cleared and maintained to ensure a wide-open safety triangle for drivers.
- **Low-Density Traffic Model:** Unlike high-turnover retail shops or standard commercial kennels, the business model relies on extended stays where dogs reside on-site for several days, consecutive weeks, or months at a time.
- **Staggered, Appointment-Only Access:** All client drop-offs and pick-ups are conducted strictly by appointment. This operational protocol explicitly staggers arrivals, minimizes standard daily vehicle trips, and ensures many days feature zero client traffic.

Safety

- **Comprehensive Perimeter Containment:** To guarantee absolute structural containment and maintain a clean neighborhood aesthetic, all designated outdoor areas will be fully enclosed by continuous, secure 6-foot fencing.
- **Structural Visual & Acoustic Barriers:** The exterior fencing facing the public right-of-way will feature 6-foot solid vinyl paneling to serve as a robust acoustic and visual buffer. Individual outdoor runs are separated internally by 6-foot-high, solid opaque privacy dividers to completely eliminate visual triggers and preserve site tranquility.
- **Direct Professional Supervision:** Dogs are only permitted in the outdoor exercise runs under the direct, physical supervision of trained canine professionals.
- **Controlled Isolation & Structural Security:** While utilizing individual runs, dogs remain structurally secured and isolated at all times to prevent any unsupervised animal interactions or potential safety hazards.
- **Double-Barrier Handling Mandate:** Daily operations strictly enforce a professional "double-barrier" handling protocol—ensuring a minimum of two closed doors or secure gates between any animal and an uncontained area—completely eliminating the risk of animal escape or public interference.

Acoustic Engineering & Behavioral Sound Mitigation Standards

- **Closed-Cell Spray Foam:** The entire facility utilizes high-density closed-cell spray foam throughout all wall cavities and ceiling penetrations, creating an industry gold-standard airtight acoustic seal.
- **425x More Effective:** This insulation method is mathematically 425 times more effective at blocking air-transmitted noise than standard fiberglass.
- **Frequency Targeting:** Scientifically engineered to target and absorb the specific frequency range and sharpness of a canine bark waves right at the source, exceeding National Institute of Standards and Technology (NIST) benchmarks for soundproof construction.
- **150-Foot Setback:** While the county requires a 100-foot buffer, the Phase 2 building footprint features a voluntary 150-foot setback to maximize natural sound dissipation.
- **Natural Ridge Line:** The property's rear topography slopes upward to a natural ridge line, serving as a massive physical sound shield.
- **500-Foot Private Buffer:** Backed by our own 500-foot private buffer of cleared land and dense, preserved woodland to completely prevent noise transmission.
- **6-Foot Vinyl Shield:** A solid vinyl privacy fence is installed along the roadside elevation of the outdoor runs to act as a dense acoustic barrier.
- **The "Green Wall":** Features a staggered, double-row planting of Green Giant Arborvitae trees. Forestry research demonstrates this configuration diffuses sound waves and reduces noise levels by up to 10 decibels.
- **Trigger Isolation:** Outdoor runs utilize solid internal dividers and opaque perimeter mesh to restrict lines of sight, removing the visual triggers that induce alarm-barking.
- **15+ Years Experience:** Daily operations rely on high-structure routines, professional handling, and mental stimulation to minimize stress and maintain a "Quiet Kennel" model.
- **Mandatory Behavioral Screening:** Non-training boarding clients must pass a strict behavioral evaluation prior to booking. High-stress animals or chronic barkers are excluded from admission.

Technical Specifications for Noise Control

Property	Open Cell Foam	Closed Cell Foam	Traditional Fiberglass
Noise Reduction Coefficient (NRC)	0.70	0.65	0.85
Sound Transmission Class (STC)	37-42	45-52	32-36
Air Permeability (L/s·m²)	2.4	0.02	8.5
R-Value per inch	3.6	6.2	3.1

Spray Foam Types and Acoustic Performance

Foam Type	Density (lbs/ft³)	Sound Reduction Rating	Best Applications
Open Cell	0.4-0.5	15-18 dB reduction	Interior walls, attics
Closed Cell	1.8-2.0	18-22 dB reduction	Exterior walls, basements
High-Density Closed Cell	2.5-3.0	20-25 dB reduction	Party walls, mechanical rooms

Odor & Environmental Protection

- **Advanced Level 3 Treatment:** Functions as a self-purifying, high-tech water-treatment plant rather than a standard septic tank.
- **99.9% Bacteria Elimination:** Multi-stage process uses heavy hair filtration, oxygen injection, and UV light to completely purify and deodorize wastewater.
- **Strict 'Dry-First' Protocol:** 100% of solid waste is collected manually, sealed airtight, and hauled completely off-site—bypassing the septic system entirely.
- **100% Biodegradable Sanitation:** Exclusively utilizes bio-enzymatic and hospital-grade cleaners that break down into nothing but pure water and oxygen.
- **Total Soil Protection:** Slow, subsurface dispersion of purified effluent guarantees an odor-free perimeter and protects local land health.



DOMESTICATED ANIMAL FACILITIES
SEE PAGES 2, 3 FOR DETAILS

~640' OVERALL
LENGTH ALONG
ROAD CENTERLINE

TREATMENT SYSTEM
SEE PAGE 5 FOR DETAILS

MT. VERNON ROAD

588'

289'

199'

POND

DRAIN FIELD &
REPAIR AREA
SEE PAGES 6, 7
FOR DETAILS

1743'

1950'

2BR HOUSE
SEE PAGE 3 FOR DETAILS

43'

"AE" FLOOD ZONE

MINOR STREAM

FOURTH CREEK



ROWAN COUNTY PIN # 720 032

**GROVES
ENGINEERING, PLLC**

NC FIRM P-2406
PO BOX 838
MATTHEWS, NC 28105

SITE OVERVIEW

TREATED DRIP SEPTIC SYSTEM DESIGN
IAN & SIMONA CANTRELL
251229 MT VERNON ROAD
WOODLEAF, NC 27054

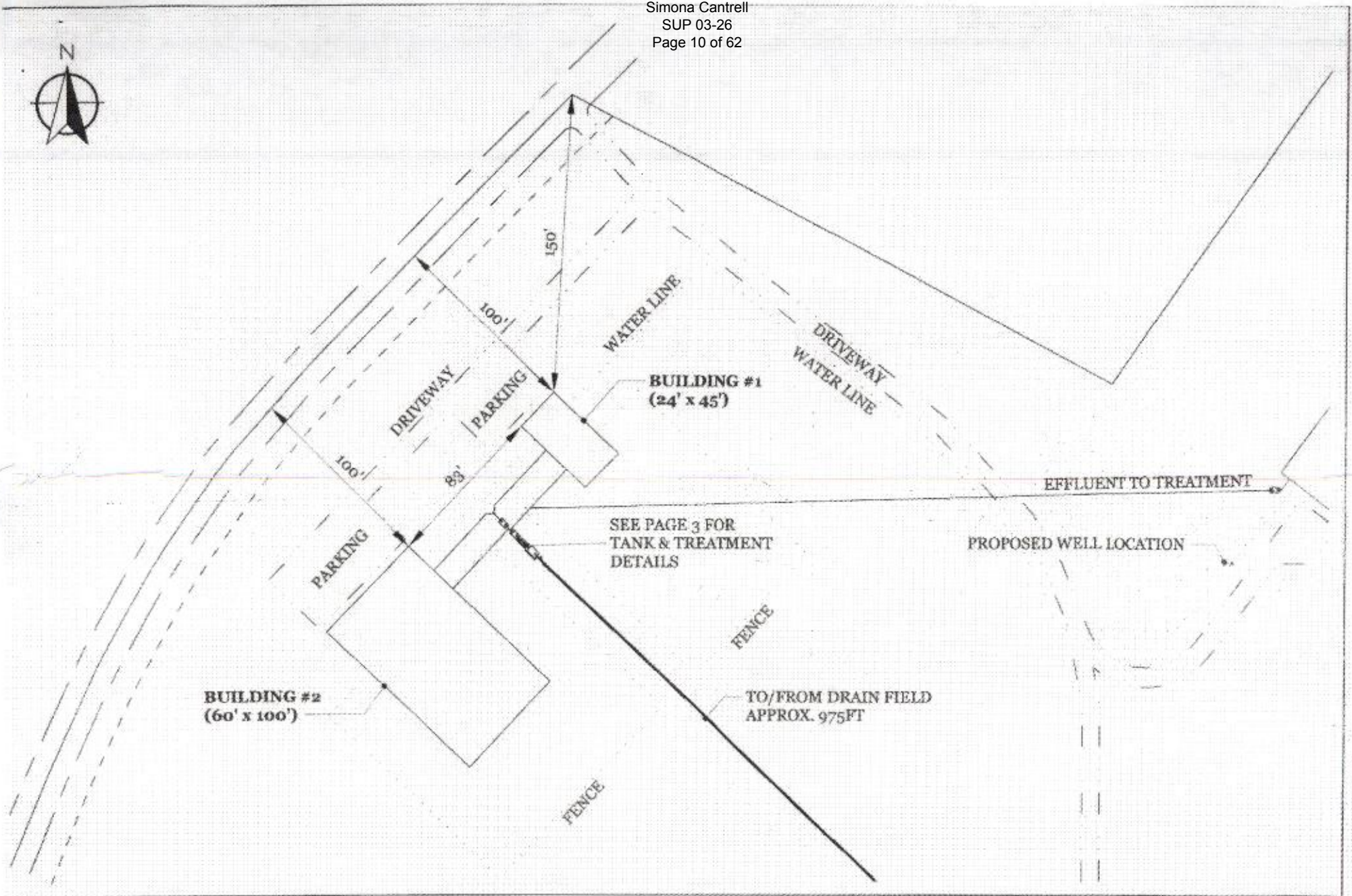
PROJECT: 2025-1186

REVISIONS

	DATE	DWG	CHK	REMARKS
1	01/10/2026	KDW	BNG	INITIAL DESIGN DRAWINGS.
2	01/24/2026	BNG	TEC	PRELIMINARY SITE LAYOUT.
3	01/27/2026	BNG	TEC	REVISED SITE LAYOUT.
4	02/16/2026	BNG	TEC	UPDATED SITE PLAN.
5	/ /	-	-	

01

M



**GROVES
 ENGINEERING, PLLC**
 NC FIRM P-2406
 PO BOX 838
 MATTHEWS, NC 28105

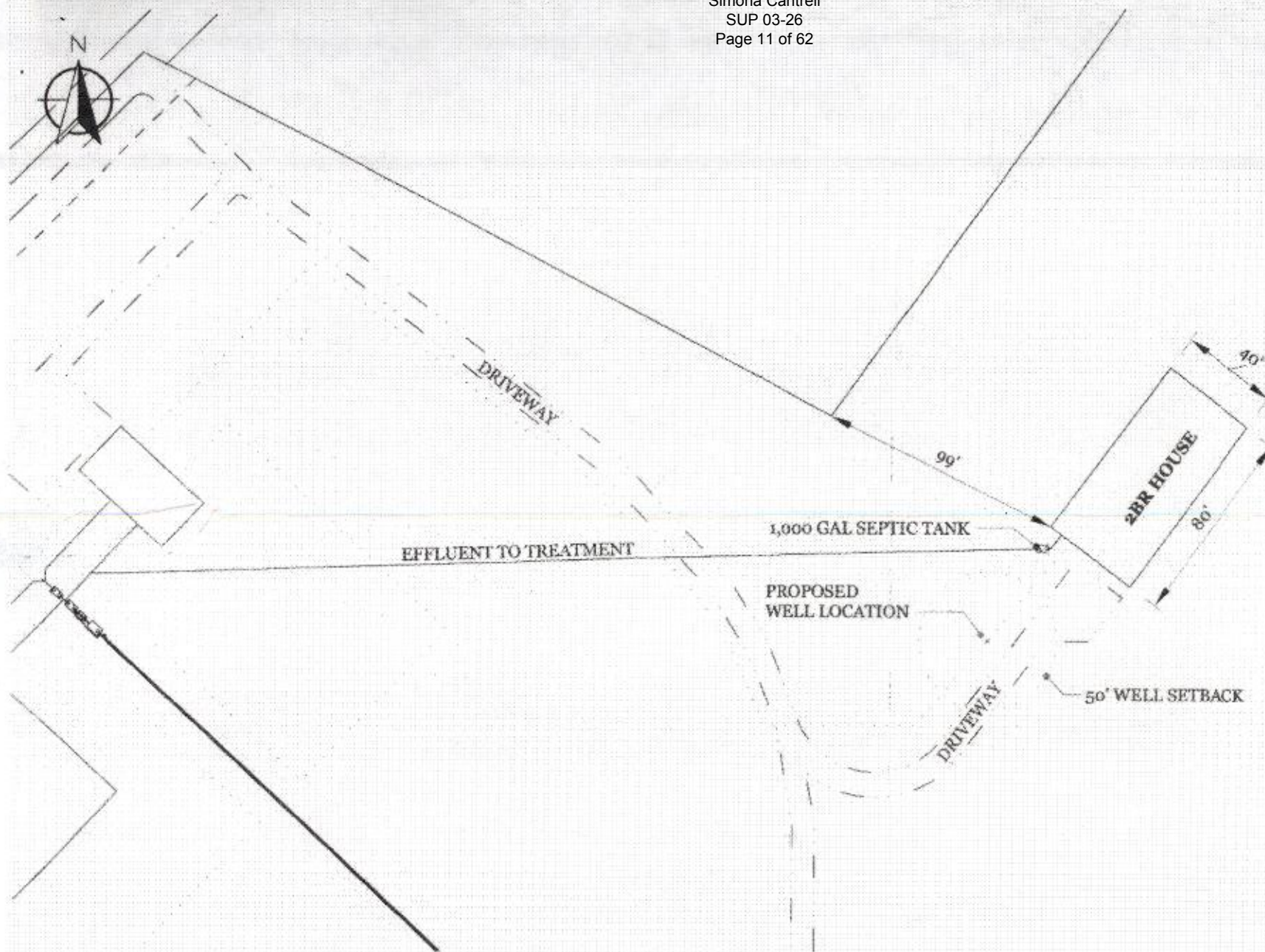
HOUSE LOCATION DETAIL
TREATED DRIP SEPTIC SYSTEM DESIGN
 IAN & SIMONA CANTRELL
 251229 MT VERNON ROAD
 WOODLEAF, NC 27054

PROJECT: 2025-1186

REVISIONS

	DATE	DWG	CHK	REMARKS
1	01/10/2025	KDW	RNG	INITIAL DESIGN DRAWINGS.
2	01/24/2026	RNG	TEC	PRELIMINARY SITE LAYOUT.
3	01/27/2026	RNG	TEC	REVISED SITE LAYOUT
4	02/16/2026	RNG	TEC	UPDATED SITE PLAN.
5				

M 02



**GROVES
ENGINEERING, PLLC**

NC FIRM P-2406
PO BOX 838
MATTHEWS, NC 28105

HOUSE LOCATION DETAIL

TREATED DRIP SEPTIC SYSTEM DESIGN
IAN & SIMONA CANTRELL
251229 MT VERNON ROAD
WOODLEAF, NC 27054

PROJECT: 2025-1186

REVISIONS

	DATE	DWG	CHK	REMARKS
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2	01/24/2026	BNG	TRC	PRELIMINARY SITE LAYOUT.
3	01/27/2026	BNG	TEC	REVISED SITE LAYOUT.
4	02/16/2026	BNG	TEC	UPDATED SITE PLAN.
5				

M 03

Glare & Dust

- **'Dark Sky' Compliant Lighting:** All exterior fixtures are fully shielded and directed strictly downward to eliminate light spillover and protect the night sky.
- **Zero Road Glare:** Strategic lighting design prevents blind spots and visual glare for passing motorists, neighbors, and handlers.
- **All-Weather 12-Foot Driveway:** Constructed and regularly maintained with durable materials engineered to handle heavy vehicle use without degradation.
- **Proactive Dust Suppression:** Routine driveway maintenance prevents fine particulate matter from airborne travel, keeping neighboring properties dust-free.
- **Neighborhood Comfort First:** Every aesthetic and structural detail is operationalized to preserve the quiet, rural character of the community.

Visual Impact & Landscape Screening

- **Residential Aesthetic & 100-150 ft Setback:** Buildings feature a low-profile residential design tucked 100-150 feet back from the public right of way, utilizing the structures themselves to block active dog runs from public view.
- **Staggered Evergreen 'Green Wall':** Installing a dense, year-round buffer of native Green Giant Arborvitae or Eastern Red Cedar 40 feet from the road in a double-row, zig-zag pattern.
- **Complete Perimeter Screening:** Property parking and facility footprints are fully screened from passing motorists and neighboring properties.
- **Preserved Natural Buffers:** The left and right boundaries are permanently protected by existing, mature wood lines that will remain completely untouched.
- **Topographical Concealment:** The land naturally slopes upward to a rear ridge line, entirely hiding the facility from view on three sides and guaranteeing zero negative visual impact.

Personal Commitment & Site Management

- **Owner-Occupied Accountability:** The property serves as our primary residence and "forever home." Living on-site ensures 24/7 professional oversight, immediate accountability, and a personal vested interest in the peace and quiet of the neighborhood.
- **Active Farmland Preservation:** Currently enrolled in the county's agricultural program; this low-profile business model provides the resources to maintain and protect the acreage as green space for decades.
- **Mission-Driven Workspace:** Designed specifically to increase our capacity for training service dogs for U.S. veterans (Leashes of Valor) and hosting free community behavioral workshops.
- **Rural Character Protection:** Every system—from residential-style architecture to self-purifying septic technology—was selected to serve the community without altering the natural landscape.
- **Exemplary Local Neighbor:** We are dedicated to being a low-impact, long-term asset to the county, providing elite professional services while maintaining the integrity of our shared rural environment.

To whom it may concern,

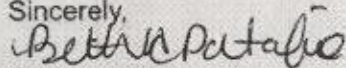
I am writing this letter to express my enthusiastic support for the Special Use Permit application submitted by Simona Cantrell. As a client who has worked directly with her, I can state with certainty that her elite, high-end training operation, rooted deeply in canine psychology and behavioral science, is entirely distinct from a standard, high-volume boarding kennel.

The resource management training methodology she practices fundamentally eliminates the chaotic, high-arousal behaviors—such as demand barking, barrier frustration, and fence-running—that are typically associated with traditional kennels.

Her advanced programs specialize in structural obedience, total public neutrality, and flawless off-leash control. Because her training requires a calm, low-distraction environment for the dogs to process information and learn complex tasks, maintaining a silent, strictly managed facility is a baseline requirement for her business model to succeed.

Simona is a highly credentialed, elite professional who demands absolute control, emotional regulation, and structure from every animal in her training. I have complete confidence that her facility will be a quiet, low-impact, and prestigious addition to the county.

Sincerely,



Beth Patafio

Kannapolis, NC

+1 (704) 258-7721

bethpatafio@icloud.com



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

DANIEL H. JOHNSON
SECRETARY

April 24, 2026

Rowan County – SR 1986 (Mt Vernon Rd)

Permit No.: D091-080-26-00032

Subject: Cantrell's Gundogs Inc – Driveway Permit Approval

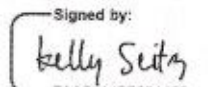
Simona Cantrell
203 Gurley St
Kannapolis, NC 28081
simonacantrell@gmail.com

Dear Simona Cantrell,

Enclosed, please find the approved driveway permit application for the Cantrell Gundogs Inc site onto Mt Vernon Road in Rowan County. This permit is contingent upon compliance with the attached provisions.

- Please see Standard Provisions Attachment.
- Please contact County Maintenance Engineer, Scott Smith prior to construction.
- A copy of this approval package should be on site at all times.
- All Utilities will need to be approved under separate encroachments.
- Approval of this driveway permit application allows the applicant to establish a connection to an existing state-maintained roadway and does not constitute approval of the proposed commercial site plan or subdivision design.

Sincerely yours,

Signed by:

Kelly Seitz, P.E.
District Engineer

PKS/cmh

Attachments(s)

pc: Mr. John Rhyne, PE, Division Engineer
Mr. Scott Smith, Rowan County Maintenance Engineer
Mr. Shane Stewart, Rowan County Planning Department

STANDARD PROVISIONS

1. The Rowan County Maintenance Engineer's Office shall be notified at least five (5) days prior to the actual start of work and upon completion of all the work. A pre-construction meeting with the County Maintenance Engineer, Telephone (704-630-3240), shall be held in order that he may schedule his inspections accordingly.
2. An executed copy of this driveway permit shall always be present at the site during construction. If safety, traffic conditions, or absence of an approved permit warrant such an action, the Department reserves the right to further limit, restrict or suspend operations within the right-of-way.
3. All materials and construction shall be in accordance with current NCDOT standards and specifications, including, but not limited to, the NCDOT Standard Specifications of Roads and Structures dated January 2018, the NCDOT Roadway Standard Drawings, and NCDOT Utilities Accommodations Manual.
4. Strict compliance with the Policy on Street and Driveway Access to North Carolina Highways and Subdivision Roads Minimum Construction Standards manuals shall be required.
5. It shall be the responsibility of the developer to acquire or dedicate new right-of-way for all roadway improvements associated with the driveway permit. This shall include any and all construction easements, utility easements, sidewalk maintenance easements, etc. The Department of Transportation will not approve or take on maintenance of any facility that is located outside of recorded right-of-way. The developer shall identify the need for additional right-of-way or easements and officially record those with the respective county's register of deeds office.
6. Traffic control devices, lane closures, road closures, positive protection and/or any other warning devices shall be used in accordance with the latest NCDOT Roadway Standard Drawings, Standard Specifications for Roads and Structures, and/or any additional amendments. If there is no guidance provided in the above mentioned standards all traffic control devices shall comply with the latest Manual on Uniform Traffic Control Devices for Streets and Highways. The Department reserves the right to require a written traffic control plan for encroachment operations. Standard lane closure restrictions requires contractors close no lane between the hours of 7:00AM-9:00AM and 4:00PM-6:00PM. Additional holiday or special event lane closure restrictions may be enforced. The permittee shall be responsible for notifying the Department and/or any other necessary agencies a minimum of 72 hours prior to the traffic control installation.
7. During construction, ingress and egress shall be maintained to all businesses and dwellings affected by the project. Special attention shall be paid to police and fire stations, fire hydrants, and hospitals. Work requiring lane or shoulder closures shall not be performed on both sides of the road simultaneously within the same area.
8. The Department reserves the right to modify, remove, or relocate any access point if it is deemed necessary to maintain the safety, mobility, and efficiency of the roadway. The applicant may be held liable for the redesigning any necessary modifications, including but not limited to, medians, auxiliary lanes, and turning movement restrictions.
9. All permanent driveway connections shall be paved for a minimum of fifty (50) feet along the centerline of the new driveway, unless otherwise directed by the District Engineer.
10. It shall be the responsibility of the Permittee to determine the location of existing utilities and coordinate the relocation of any utilities within the encroachment area. The Permittee shall be responsible for notifying utility owners, providing protection and safeguards to prevent damage or interruption to existing facilities and for maintaining accessibility to existing utilities. Relocation costs of any utilities shall be the responsibility of the permittee.
11. Individual encroachment agreements shall be obtained for all work within the right-of-way, including but not limited to; utility connections, public extensions, widening, sidewalk, etc. For direction on submittal guidelines and requirements review the NCDOT Policies and Procedures for Accommodating Utilities on Highway Rights of Way. Approvals must be obtained prior to beginning any work within the right-of-way.
12. All erosion control devices and measures shall be constructed, installed, maintained, and removed by the Permittee in accordance with all applicable Federal, State, and Local laws, regulations, ordinances, and policies. All earth areas

shall be regarded and seeded in accordance with NCDOT Standard Specifications for Roads and Structures dated January 2018.

13. It shall be the responsibility of the developer to install all necessary regulatory traffic signage, pavement markings, etc. in accordance with the latest NCDOT Roadway Standard Drawings. Any existing signage or control-of-access (C/A) fencing that is removed or damaged as a result of construction, shall be replaced at no cost to the Department.
14. When surface areas in excess of one acre will be disturbed, the Permittee shall submit a Sediment and Erosion Control Plan which has been approved by the appropriate regulatory agency or authority prior to beginning any work on the Right of Way. Failure to provide information shall be grounds for suspension of operations.
15. Driveways and/or roadway improvements must be constructed so that they do not adversely affect highway drainage or drainage of adjacent properties. Drainage and stability of the highway subgrade must not be impaired by construction or roadside development. In no case may construction cause water to flow across the highway pavement, to pond on the shoulders or in the ditch, or result in erosion within the right-of-way. Any modification of existing drainage facilities will require prior notification and approval by the Department.
16. It shall be the responsibility of the owner to maintain a sight distance triangle being measured seventy (70) feet in length, along the right of way, in each direction from the edges of the proposed or existing driveway and being measured ten (10) feet in width along each side of the drive from its intersection with the right of way and being in addition to the right of way. It is further understood that no structures, signage or vegetation over fifteen (15) inches in height shall be placed within the above described sight distance triangles.
17. It shall be the responsibility of the developer to ensure adequate sight distance in both directions at the driveway connection. Sight distance shall be based upon ten (10) feet of clear sight distance for each one (1) mile per hour of the prevailing speed limit.
18. While the Department of Transportation permits sidewalk construction within the right-of-way, behind curb and gutter sections only, the liability and maintenance of the sidewalk remains the responsibility of the permittee/property owners. All newly constructed sidewalk and curb ramps within NCDOT right-of-way must be constructed in compliance with the Americans with Disabilities Act (ADA) standards. See STD 848.05
19. In the event that plantings require relocation or removal for highway construction, reconstruction, maintenance or safety, such removal or relocation will be done immediately by the permittee (municipality/civic group/individual) upon notification by the Division of Highways, entirely at the expense of the permittee. The Division of Highways will not be responsible for any damage to the planting which may be done by third parties. Maintenance of the plantings will be the responsibility of the permittee. All plantings shall be maintained in a condition that will not interfere nor endanger vehicular or pedestrian traffic. Sightlines to roadway signs must be visible and unobstructed. No planting shall be taller than 24" above roadway elevations. All vegetation must maintain a minimum 5' setback from all ditches and drainage structures.
20. All temporary construction entrances are to be stoned and maintained at all times to prevent mud from being tracked onto the highway. Any mud/dirt which may collect on the roadway from equipment and/or truck traffic on site shall be removed in a timely manner to avoid any unsafe traffic conditions.
21. The driveway connection must be completed within one (1) year from the above approval date. Once this time has expired, a reapplication will be required unless otherwise directed by the District Engineer.
22. All work completed within the NCDOT right-of-way shall be completed by a pre-qualified NCDOT approved contractor. If a contractor is not pre-qualified they must be approved by the District Engineer prior to beginning any work. For a list of approved contractors visit the link below:
(<https://www.cbs.nc.gov/VendorDirectory/search.html?s=fn&a=new>)
23. All personnel performing any activity inside the highway right-of-way are required to be familiar with the NCDOT Maintenance/Utility Traffic Control Guidelines. All flagging, spotting, or operating Automated Flagger Assist Devices (AFAD) inside the highway right-of-way requires qualified and trained work zone flaggers. Training for this

certification is provided by NCDOT training resources and pre-approved private entities. All personnel in charge of overseeing work zone traffic control are required to be qualified work zone supervisors. For any questions regarding proper work zone flagger or supervisor training please refer to our website at <http://connect.ncdot.gov/projects/WZTC/pages/Training.aspx>. You may also contact Kenneth Thornwell, P.E. at (919-814-5037) or kethornwell@ncdot.gov

24. Prior to completing any work within five hundred (500') feet of a signalized intersection, please contact Division Traffic Engineer Ryan Newcomb at 336-747-7800. The developer will be held liable for any damages to existing signal loops or other components.
25. **Failure to comply with these set forth provisions will void your driveway access permit and may result in the removal of your driveway entrances. Any change of use and/or modification to the site operation may require submittal and approval of a new driveway permit.**

PROJECT SPECIAL PROVISIONS

26. **Vegetation must be kept low enough to provide adequate sight distance of 550' in both directions from driveway.**

APPLICATION IDENTIFICATION

Driveway Permit No. _____ Date of Application 03/09/2025
County: Rowan County
Development Name: Cantrell's Cundogs Inc.

N.C. DEPARTMENT OF TRANSPORTATION**STREET AND DRIVEWAY ACCESS
PERMIT APPLICATION****LOCATION OF PROPERTY:**

Route/Road: SR-1986 Mt Vernon Rd

Exact Distance 0.7 ☒ Miles ☐ Feet
N S E W
☐ ☐ ☐ ☒

From the Intersection of Route No. NC-801 and Route No. SR-1986 Toward Cool Springs Rd.

Property Will Be Used For: ☐ Residential /Subdivision ☒ Commercial ☐ Educational Facilities ☐ TND ☐ Emergency Services ☐ Other
Property: ☐ is ☒ is not within City Zoning Area.

AGREEMENT

- I, the undersigned property owner, request access and permission to construct driveway(s) or street(s) on public right-of-way at the above location.
- I agree to construct and maintain driveway(s) or street entrance(s) in absolute conformance with the current "Policy on Street and Driveway Access to North Carolina Highways" as adopted by the North Carolina Department of Transportation.
- I agree that no signs or objects will be placed on or over the public right-of-way other than those approved by NCDOT.
- I agree that the driveway(s) or street(s) will be constructed as shown on the attached plans.
- I agree that that driveway(s) or street(s) as used in this agreement include any approach tapers, storage lanes or speed change lanes as deemed necessary.
- I agree that if any future improvements to the roadway become necessary, the portion of driveway(s) or street(s) located on public right-of-way will be considered the property of the North Carolina Department of Transportation, and I will not be entitled to reimbursement or have any claim for present expenditures for driveway or street construction.
- I agree that this permit becomes void if construction of driveway(s) or street(s) is not completed within the time specified by the "Policy on Street and Driveway Access to North Carolina Highways".
- I agree to pay a \$50 construction inspection fee. Make checks payable to NCDOT. This fee will be reimbursed if application is denied.
- I agree to construct and maintain the driveway(s) or street(s) in a safe manner so as not to interfere with or endanger the public travel.
- I agree to provide during and following construction proper signs, signal lights, flaggers and other warning devices for the protection of traffic in conformance with the current "Manual on Uniform Traffic Control Devices for Streets and Highways" and Amendments or Supplements thereto. Information as to the above rules and regulations may be obtained from the District Engineer.
- I agree to indemnify and save harmless the North Carolina Department of Transportation from all damages and claims for damage that may arise by reason of this construction.
- I agree that the North Carolina Department of Transportation will assume no responsibility for any damages that may be caused to such facilities, within the highway right-of-way limits, in carrying out its construction.
- I agree to provide a Performance and Indemnity Bond in the amount specified by the Division of Highways for any construction proposed on the State Highway system.
- The granting of this permit is subject to the regulatory powers of the NC Department of Transportation as provided by law and as set forth in the N.C. Policy on Driveways and shall not be construed as a contract access point.
- I agree that the entire cost of constructing and maintaining an approved private street or driveway access connection and conditions of this permit will be borne by the property owner, the applicant, and their grantees, successors, and assignees.
- I AGREE TO NOTIFY THE DISTRICT ENGINEER WHEN THE PROPOSED WORK BEGINS AND WHEN IT IS COMPLETED.**

SIGNATURES OF APPLICANT

PROPERTY OWNER (APPLICANT)		WITNESS	
COMPANY	<u>Cantrell's Gundogs Inc.</u>	NAME	<u>DARLEEN CANTRELL</u>
SIGNATURE	<u>Simona Cantrell</u>	SIGNATURE	<u>Darleen Cantrell</u>
ADDRESS	<u>203 Gurley St, Kannapolis</u> <u>NC 28084</u> Phone No. <u>985-714 6942</u>	ADDRESS	<u>1119 CRESCENT CT, WINSTON-SALEM</u> <u>NC 27127</u>

AUTHORIZED AGENT		WITNESS	
COMPANY	_____	NAME	_____
SIGNATURE	_____	SIGNATURE	_____
ADDRESS	_____	ADDRESS	_____
Phone No. _____			

APPROVALS

APPLICATION RECEIVED BY DISTRICT ENGINEER

<u></u>	<u>06/10/2006</u>
SIGNATURE	DATE

APPLICATION APPROVED BY LOCAL GOVERNMENTAL AUTHORITY (when required)

<u></u>	<u>Assistant City Clerk</u>	<u>06/10/2006</u>
SIGNATURE	TITLE	DATE

APPLICATION APPROVED BY NCDOT

<u></u>	<u>Travis Engstrom</u>	<u>06/10/2006</u>
SIGNATURE	TITLE	DATE

INSPECTION BY NCDOT

_____	_____	_____
SIGNATURE	TITLE	DATE

COMMENTS:

This application is for a driveway to serve a professional canine training and boarding facility (owner-operated, owner lives on site). Approximately the first 15 yards of the driveway will be shared (residential use); a new commercial branch will then turn right to serve the facility. The business will operate by 1-on-1 appointment only, ensuring low-volume traffic.

Commercial Driveway Notes for NCDOT Review

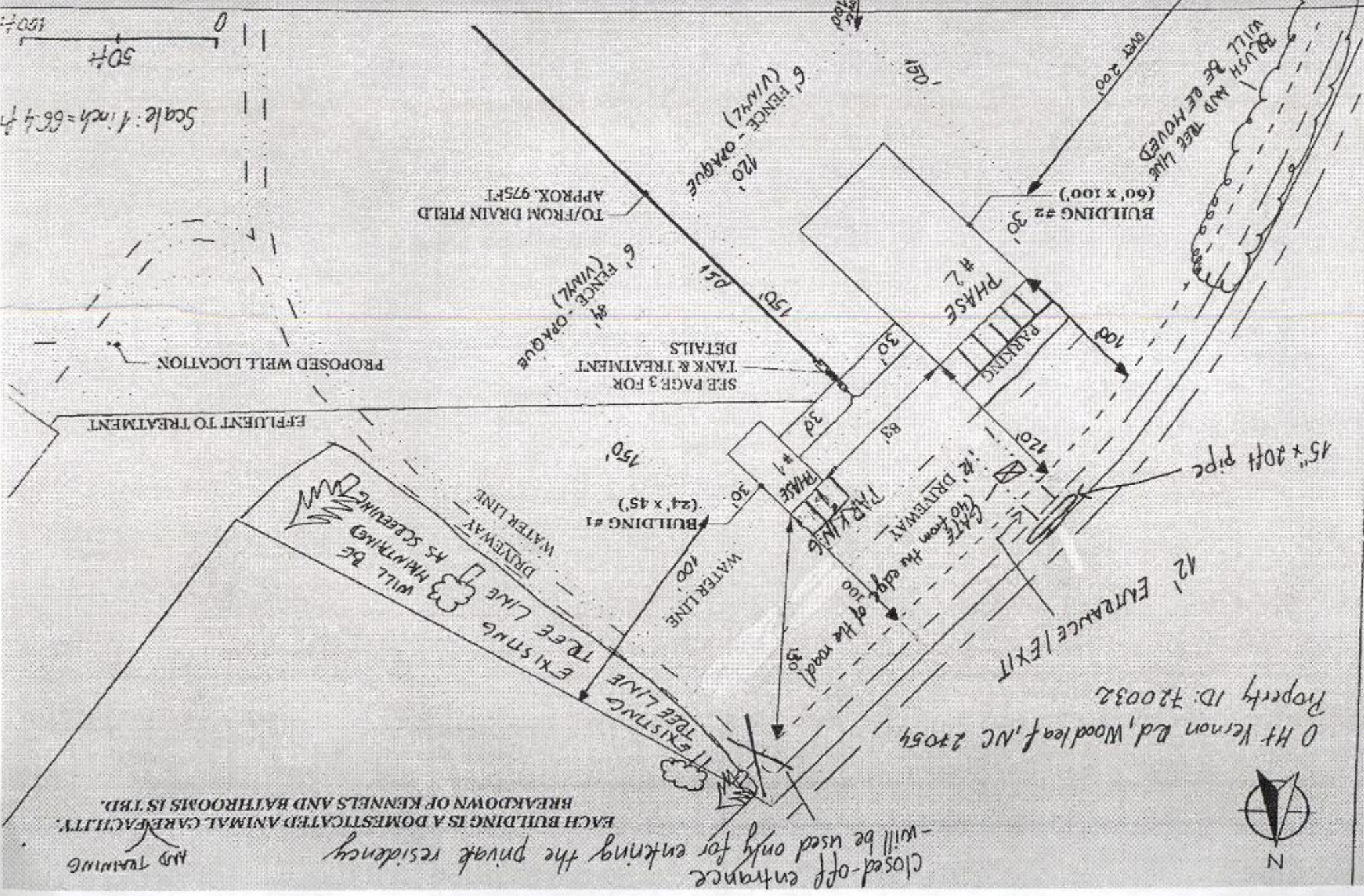
- **Proposed Access:** A new 12' wide commercial driveway shall be established approximately 290' south of the existing residential entrance. The existing driveway is to be restricted to private residential use only.
- **Sight Distance:** A minimum unobstructed sight distance of 550' shall be provided and maintained in both directions, measured from a decision point 18' from the edge of the travel lane.
- **Vegetation Mitigation:** All brush and vegetation within the NCDOT right-of-way and along the property frontage (South side) shall be cleared and maintained by the owner to ensure the required 550' sight triangle remains unobstructed.
- **Pavement Specifications:** The first 50' of the commercial driveway, measured from the edge of the public pavement, shall be surfaced with asphalt or concrete.
- **Gate Setback:** Any proposed gates or manual/automated entry systems shall be set back a minimum of 40' from the edge of the travel lane to provide adequate vehicle storage outside the public right-of-way.
- **Drainage/Cross-Culvert:** A 15" diameter, 20' length double-wall HDPE (plastic) pipe shall be installed.

GROVES
 ENGINEERING, PLLC
 NC PIRM P-2406
 PO BOX 838
 MATTHEWS, NC 28105

HOUSE LOCATION DETAIL

PROJECT: 2025-1186

REV	DATE	DWG	CHK	REMARKS
1	01/10/2025	BDW	BNG	INITIAL DESIGN DRAWINGS
2	01/23/2025	BNG	TFC	PRELIMINARY SITE LAYOUT
3	01/27/2025	BNG	TFC	REVISED SITE LAYOUT
4	02/16/2025	BNG	TFC	UPDATED SITE PLAN



0 Mt Vernon Rd, Woodleaf, NC 27054
 Property ID: 720032





DOMESTICATED ANIMAL FACILITIES
 SEE PAGES 2, 3 FOR DETAILS

-640' OVERALL
 LENGTH ALONG
 ROAD CENTERLINE

TREATMENT SYSTEM
 SEE PAGE 5 FOR DETAILS

BRUSH AND
 TREE LING WILL
 BE REMOVED

MT. VERNON ROAD -
 EXISTING
 TREE LING

588'

DRAIN FIELD &
 REPAIR AREA
 SEE PAGES 6, 7
 FOR DETAILS

MINOR STREAM

POND

1950'

FOURTH CREEK

"AB" FLOOD ZONE

2BR HOUSE
 SEE PAGE 3 FOR DETAILS

0 Mt. Vernon Rd, Woodleaf
 NC 27054

Parcel ID: 720032

**GROVES
 ENGINEERING, PLLC**

NC FIRM P-2406
 PO BOX 838

SITE OVERVIEW

TREATED DRIP SEPTIC SYSTEM DESIGN
 IAN & SIMONA CANTRELL
 251229 MT VERNON ROAD
 WOODLEAF, NC 27054

PROJECT: 2025-1186

REVISIONS

	DATE	DWG	CHK	REMARKS
1	01/16/2026	KDW	ENG	INITIAL DESIGN DRAWINGS
2	01/24/2026	ENG	TBC	PRELIMINARY SITE LAYOUT
3	01/27/2026	ENG	TBC	REVISED SITE LAYOUT
4	02/16/2026	ENG	TBC	UPDATED SITE PLAN
5				



NC DEPARTMENT OF
**HEALTH AND
HUMAN SERVICES**

ROY COOPER • Governor

KODY H. KINSLEY • Secretary

MARK BENTON • Chief Deputy Secretary for Health

SUSAN KANSAGRA • Assistant Secretary for Public Health

Division of Public Health

COMMON FORM FOR ENGINEERED OPTION PERMIT

LHD USE ONLY: Initial submittal of this NOI received: 2/18/20 by YMLS
Date Initials

PART 1: Notice of Intent to Construct (NOI) - Please check all that apply.

☒ Single System or ☐ Multiple Systems

AND

☒ New ☐ Expansion ☐ Relocation of all or part of the Existing System ☐ Relocation of Repair Area

☐ Repair - LHD Permit Number _____ ☐ Repair - EOP/LSS COVID 19/AOWE Permit Number _____

1. Facility Owner's name: (Owner, Company Name, Utility, Partnership, Individual, etc.): _____
Simona and Ian Cantrell

Mailing address: 203 Gurley Street City: Kannapolis State: NC Zip: 28081

Telephone number: 985-714-8912 E-mail Address: simonacantrell@gmail.com

2. Professional Engineer (PE) name: Brian Groves, PE License number: 44489

Mailing address: PO Box 838 City: Matthews State: NC Zip: 28105

Telephone number: 704-443-8961 E-mail Address: brian@groveseng.com

3. Licensed Soil Scientist (LSS) name: Larry Thompson, LSS License number: 1287

Mailing address: PO Box 541 City: Midland State: NC Zip: 28107

Telephone number: 704-301-4881 E-mail Address: larry@thompsonenv.com

4. Licensed Geologist (LG) (if applicable) name: N/A License number: _____

Mailing address: _____ City: _____ State: _____ Zip: _____

Telephone number: _____ E-mail Address: _____

5. On-Site Wastewater Contractor name: Juan Carlos Rocha License number: 5240

Mailing address: 1902 New Salem Road City: Monroe State: NC Zip: 28110

Telephone number: 704-242-3402 E-mail Address: carlosseptic@gmail.com

6. Proof of Errors and Omissions or other appropriate liability insurance for the following persons is attached that includes the name of the insurer, name of the insured and the effective dates of coverage:

☒ PE ☒ LSS ☐ LG ☒ On-site Wastewater Contractor

7. Property location (physical address, tax parcel identification number or subdivision lot, block number of the property to be permitted): Mt. Vernon Road, Woodleaf, NC 27054 (PID: 720 032)

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES • DIVISION OF PUBLIC HEALTH

LOCATION: 5605 SIX FORKS RD, RALEIGH NC 27609

MAILING ADDRESS: 1642 MAIL SERVICE CENTER, RALEIGH NC 27699-1642

www.nodhhs.gov • TEL: 919-707-5874 • FAX: 919-845-3972

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

Engineer Option Permit Common Form

LHD Reference: 467254

County Name: Union

8. Type of facility: ☒ Place of residence No. Bedrooms: 2 No. Occupants: 4
☒ Place of business Basis for flow calculation: 25 kennels at 10 gallons per kennel
☐ Place of public assembly Basis for flow calculation: _____
9. Factors that would affect the wastewater load: Design covers industrial process as well as domestic wastewater generated by the home and kennels.
10. Type and location of proposed wastewater system: Type Va - Pretreated Drip Dispersal
Drainfield is located south of the house and kennels.
11. Design wastewater flow: 490 gpd (For flow > 3,000 gpd and industrial process, duplicate plans shall be sent to the State.)
Design wastewater strength: ☐ domestic ☐ high strength ☒ industrial process
12. A plat as defined in G.S. 130A-334(7a) is attached: ☒ Yes ☐ No Site plan as defined in G.S. 130A-334(13a)
13. Location of proposed or existing wells (drinking water, irrigation, geothermal, groundwater monitoring, sampling, etc.) and any potable and non-potable water conveyance lines is indicated on attached plans and complies with 15A NCAC 18E .0601: ☒ Yes ☐ No
This is a saprolite system. ☐ Yes ☒ No
14. Evaluation(s) of soil conditions and site features in accordance with G.S. 130A-335(a1) signed and sealed by a LSS is attached: ☒ Yes ☐ No
15. Evaluation of geologic and hydrogeologic conditions signed and sealed by a LG is attached ☐ Yes ☒ NA
16. Proposed landscape, site, drainage, or soil modifications are attached: ☐ Yes ☒ NA

Attestation by Professional Engineer licensed in North Carolina pursuant to G.S. 89C

I, Brian Groves, PE hereby attest that the information required to be included with
Registered Professional Engineer (Print Name)
this Notice of Intent to Construct is accurate and complete to the best of my knowledge and that the proposed system shall meet applicable federal, State, and local laws, regulations, rules, and ordinances in accordance with G.S. 130A-336.1(e)(6).

Brian Groves
Brian Groves (Feb 17, 2026 17:15:33 EST)

Signature of Licensed Professional Engineer

Feb 17, 2026

Date

Designation of Registered Professional Engineer as legal representative of Owner for this Notice of Intent:

I, Simona and Ian Cantrell hereby designate Brian Groves, PE
Print Name of Owner *Print Name of Registered Professional Engineer*
as my legal representative for purposes of this Notice of Intent pursuant to G.S. 130A-336.1.

Simona Cantrell
Simona Cantrell (Feb 17, 2026 17:18:41 EST)

Signature of Owner

Feb 17, 2026

Date

Owner self-submittal of NOI:

I, _____ hereby submit this NOI prepared by _____
Print Name of Owner *Print Name of Licensed PE*
pursuant to G.S. 130A-336.1.

Signature of Owner

Date

Engineer Option Permit Common Form

LHD Reference: 467254

PART 3: Authorization to Operate (ATO)

LHD USE ONLY: Initial submittal of this ATO received: _____ by _____
Date Initials

The following items are included in this Authorization to Operate for an EOP:

- | | | |
|---|------------------------------|-----------------------------|
| 1. Signed and sealed copy of the Engineer's report that includes the information in G.S. 130A-336.1(k)(1) | ☐ Yes | ☐ No |
| 2. Operation and management program and ORC contract, if applicable | ☐ Yes | ☐ No |
| 3. Letter documenting Owner's acceptance of the system from the PE | ☐ Yes | ☐ No |
| 4. Owner meets requirements control of the system per 15A NCAC 18E .0301(b) | ☐ Yes | ☐ No |
| 5. Easement, right of way, or encroachment agreement required per 15A NCAC 18E .0301(c) | ☐ Yes | ☐ No |
| 6. Multi-party agreements required, as applicable, per 15A NCAC 18E .0204(g) | ☐ Yes | ☐ No |
- If yes, agreements filed in _____ County Register of Deeds in Deed Book _____ Page _____

Attestation by the Owner or the PE for Authorization to Operate

I, _____ hereby attest that all items indicated above have been provided
Print name of Owner or Professional Engineer
and the system meets applicable federal, State, and local laws, regulations, rules, and ordinances in accordance with G.S. 130A-336-1(e)(6).

Signature of Owner or Professional Engineer

Date

NOTES:

LIABILITY: The Department, the Department's authorized agents, or local health departments shall have no liability for wastewater systems designed, constructed, and installed pursuant to an Engineer Option Permit (G.S. 130A-336.1(f))



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
1/14/2026

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Higginbotham Insurance Agency, Inc. 401 S. Boston Ave. Ste #300 Tulsa OK 74103		CONTACT NAME: David Vaughan, Jr. PHONE (A/C, No. Ext): 918-779-7884 E-MAIL: dlvr@higginbotham.net ADDRESS:		FAX (A/C, No.):
INSURED Brian Groves POBOX 838 Matthews NC 28106-0838		INSURER(S) AFFORDING COVERAGE INSURER A: Mid-Continent Casualty Company INSURER B: INSURER C: INSURER D: INSURER E: INSURER F:		NAIC # 23418

COVERAGES **CERTIFICATE NUMBER:** 2043595499 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR ☒ Professional GEN'L AGGREGATE LIMIT APPLIES PER: ☒ POLICY ☐ PROJECT ☐ LOC ☐ OTHER		04-GL-001148030	1/1/2026	1/1/2027	EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$100,000 MED EXP (Any one person) \$ Excluded PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$3,000,000 PRODUCTS - COMPROP AGG \$3,000,000 \$
	AUTOMOBILE LIABILITY ☐ ANY AUTO ☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS ☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY					COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	UMBRELLA LIAB ☐ OCCUR EXCESS LIAB ☐ CLAIMS-MADE ☐ DED ☐ RETENTION \$					EACH OCCURRENCE \$ AGGREGATE \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N ☐ N/A				☐ PER STATUTE ☐ OTHER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
A	Professional Liability		04-GL-001148030	1/1/2026	1/1/2027	Occurrence Aggregate \$1,000,000 \$3,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER For Informational Purposes	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE
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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
9/16/2025

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

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PRODUCER Higginbotham Insurance Agency, Inc. 500 W. 13th Street Fort Worth TX 76102		CONTACT NAME: David Vaughan PHONE (A/C, No. Ext.): 9187797880 FAX (A/C, No.): 817-882-9284 E-MAIL: divjr@higginbotham.net ADDRESS: divjr@higginbotham.net															
INSURED Thompson Environmental Consulting, Inc. PO Box 541 Midland NC 28107-0541		INSURER(S) AFFORDING COVERAGE <table border="1"> <tr> <th>INSURER</th> <th>NAIC #</th> </tr> <tr> <td>INSURER A: Mid-Continent Casualty Company</td> <td>23418</td> </tr> <tr> <td>INSURER B: Property & Casualty Ins. Co of Hartford</td> <td>34690</td> </tr> <tr> <td>INSURER C:</td> <td></td> </tr> <tr> <td>INSURER D:</td> <td></td> </tr> <tr> <td>INSURER E:</td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> </tr> </table>		INSURER	NAIC #	INSURER A: Mid-Continent Casualty Company	23418	INSURER B: Property & Casualty Ins. Co of Hartford	34690	INSURER C:		INSURER D:		INSURER E:		INSURER F:	
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COVERAGES

CERTIFICATE NUMBER: 953779638

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR ☒ Professional GEN'L AGGREGATE LIMIT APPLIES PER ☒ POLICY ☐ PROJECT ☐ LOC ☐ OTHER		04-GL-001143141	9/25/2025	9/25/2026	EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$100,000 MED EXP (Any one person) \$ Excluded PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$3,000,000 PRODUCTS - COMP/CP AGG \$3,000,000 \$
	AUTOMOBILE LIABILITY ☐ ANY AUTO ☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS ☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY					COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	UMBRELLA LIAB ☐ OCCUR EXCESS LIAB ☐ CLAIMS-MADE DED \$ RETENTION \$					EACH OCCURRENCE \$ AGGREGATE \$ \$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N ☒ N ☐ N/A	38WECNW6175	10/17/2025	10/17/2026	☒ PER STATUTE ☐ OTH-ER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

CANCELLATION

For Informational Purposes

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE



CERTIFICATE OF LIABILITY INSURANCE

LAGOVIS-01

MCRAIG

DATE (MM/DD/YYYY)

4/22/2025

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

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PRODUCER Robbins & Associates Insurance Agency, Inc. PO Box 1488 Monroe, NC 28111		CONTACT PHONE (704) 226-1300 FAX (704) 226-1320 E-MAIL cert@robbinsandassociates.com	
INSURED Lago Vista Landscaping Manuel Rocha 2817 Pageland Highway Monroe, NC 28112		INSURER(S) AFFORDING COVERAGE INSURER A: Erie Insurance Exchange INSURER B: INSURER C: INSURER D: INSURER E: INSURER F:	
		NAIC # 26271	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

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OVER LTA	TYPE OF INSURANCE	ADDITIONAL INSURED	POLICY NUMBER	POLICY EFF. DATE (MM/DD/YYYY)	POLICY EXP. DATE (MM/DD/YYYY)	LIMITS
A	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☒ POLICY ☐ ISO ☐ LOG ☐ OTHER		Q26-0521176	2/5/2025	2/5/2026	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Per occurrence) \$ MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMPOF AGE \$ 2,000,000
	AUTOMOBILE LIABILITY ☐ ANY AUTO ☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS ☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY					COMBINED SINGLE LIMIT (Per accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	UMBRELLA LIAB ☐ OCCUR EXCESS LIAB ☐ CLAIMS-MADE DED ☐ RETENTION \$					EACH OCCURRENCE \$ AGGREGATE \$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/OWNER EXCLUDED? (Mandatory in RI) If yes, describe under DESCRIPTION OF OPERATIONS below.	Y/N Y N/A	Q89-3000667	5/30/2025	5/30/2026	☒ PER STATUTE ☐ OTHER E.L. EACH ACCIDENT \$ 100,000 E.L. DISEASE - EA EMPLOYEE \$ 100,000 E.L. DISEASE - POLICY LIMIT \$ 500,000
A	Leased/Rented Equip		Q26-0521176	2/5/2025	2/5/2026	Limit 105,000
A	Leased/Rented Equip		Q26-0521176	2/5/2025	2/5/2026	Deductible 500

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER Thompson Environmental Consulting Inc. PO Box 541 Midland, NC 28107	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE
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**Commercial Subsurface Wastewater
Treatment and Disposal System Engineered Option Permit**

for

**251229 Mt. Vernon Road
Woodleaf, NC 27054**

**Tax Parcel Number: 720 032
February 16, 2026**

Prepared for:

Simona and Ian Cantrell
203 Gurley St
Kannapolis, NC 28081
985-714-6912

Prepared by:

Brian Groves, PE
Larry Thompson, REHS, LSS
PO Box 541
Midland, NC 28107-0541
Phone: 704-443-8961 (Brian)
Phone: 704-301-4881 (Larry)
brian@groveseng.com
larry@thompsonenv.com



251229 Mt. Vernon Road

Details

The following wastewater treatment and disposal system design is submitted to the local health department as part of an Engineered Option Permit package for a 2-bedroom single-family residence and a 25-run dog kennel to be located on Mt. Vernon Road, Woodleaf, North Carolina (Rowan County Tax Parcel Number: 720 032). The property will be served by a private well.

Based upon a soil and site evaluation performed by Thompson Environmental Consulting, Inc. (TEC), it has been determined that there is a sufficient amount of "Suitable" Group IV soils available for the installation, and repair, of a pre-treated drip dispersal system for a 490 gallon per day system at a 0.1 gpd/sq/ft long-term acceptance rate. The proposed system will be comprised of FujiClean CEN5 advanced wastewater treatment unit with ultraviolet light disinfection and Anua's Geoflow subsurface drip dispersal drainfield.

The following design is being submitted under NC General Statute 130A-336.1 (Engineered Option Permit).

Location

From Salisbury, take Woodleaf Road/Cool Springs Road to Mt. Vernon Road. Turn right onto Mt. Vernon Road, travel 1.2 miles and the property will be located on the right.

References

Laws and Rules for Sewage Treatment and Disposal Systems, 15A NCAC 18E, Department of Environment and Natural Resources, Division of Environmental Health, On-Site Wastewater Section, effective September 30, 2024.

Innovative Wastewater System Approval No: IWWS 2024-03; Fuji Clean Advanced Wastewater Treatment System, November 6, 2024.

Innovative Wastewater System Approval No: IWWS 2000-02-R3; Geoflow's Subsurface Drip System, December 31, 2024.

Primary Investigator's Credentials

NC Registered Sanitarian No. 1208
NC Licensed Soil Scientist No. 1287
NC Authorized Onsite Wastewater Evaluator No. 10016E
SC Professional Soil Classifier No. 111
NC Subsurface Septic System Operator No. 22199
NC Grade IV Wastewater System Installer/Inspector No. 1762/17621

251229 Mt. Vernon Road

Primary Designer's Credentials

NC Professional Engineer No. 44489

Plans and Specifications

A. Septic Tanks

1. Two state-approved 1,000-gallon septic tanks, with access openings extended to finished grade shall be installed in series at the dog kennel facility. The first septic tank shall receive only effluent generated at the kennels (IPWW). The second septic tank shall receive effluent from the first tank, in addition to any domestic sewage. The effluent ends of both septic tanks shall be fitted with 8-inch x18-inch Zabel A600 Filter Cartridge with Housing capable of filtering 1/64-inch solids.
2. There will be one 1,000-gallon septic tank installed at the primary residence which will gravity flow to the kennel area and connect to the second septic tank at this location.
3. The septic tanks shall be state approved, watertight, and structurally sound.
4. It is the responsibility of the septic contractor to thoroughly inspect the septic tank prior to accepting delivery to assure that the tanks have had time to properly cure and are free of cracks or other structural deficiencies.

B. Treatment Unit

1. The specified treatment unit for this project is the FujiClean CEN5. The CEN5 is factory tested for watertightness and will not require additional testing once installed.
2. The septic installer is responsible for thoroughly inspecting the CEN5 treatment unit at delivery and prior to installation.
3. Wastewater from the treatment unit will be disinfected by an ultraviolet light disinfection unit prior to entering the drainfield pump tank.
4. Septic installer shall be a certified FujiClean USA installer.

C. Dripfield Dosing Tank

1. The dripfield dosing tank shall be of one-piece construction, watertight, structurally sound, and 1,000 gallons in capacity. It is the responsibility of the septic tank contractor to thoroughly inspect the pump tank prior to accepting delivery.
2. The pump tank shall have access risers that extend, at a minimum, 6 inches above finished grade and must have less than 36 inches of fill over its top once finished grade has been established (a reinforced concrete tank will be required if finished soil cover is 36 inches or greater in depth).
3. A high-head submersible effluent pump meeting the specifications listed in the design details will be required.
4. Floats, pump control circuits and the control panel shall meet all state requirements. Panel and control equipment shall include lightning protection, be

251229 Mt. Vernon Road

protected from unauthorized access, and always remain accessible to the system operator.

5. The pump and alarm controls shall be provided with manual circuit disconnects within the same watertight, corrosion resistant, Nema 4x rated FC-10 control panel.
6. The peak enable float shall be located at or above the high-water alarm activation level.
7. Float switch tie downs must be made of a corrosion resistant material (all metal in the tanks shall be stainless steel). Floats should be mounted on a separate "float tree" rather than the pump supply line (see pump tank detail).
8. The pump removal system will be via a pump tether made of nylon rope or its equivalent. The tether material should be resistant to mildew and rot.
9. The effluent sample port shall be installed on the discharge line from the drain-field pump tank and shall be comprised of a ball or gate valve, with a downturn mounted within arm's length of the riser top, to allow for convenient sampling.

D. Pipe and Fittings

1. All discharge piping, supply lines, valves, and disconnects shall be made of Schedule 40 PVC with pressure fittings.
2. All joints must be properly "welded" utilizing appropriate PVC cement for each application unless otherwise noted by the manufacturer of the part.
3. Connection pipes between tanks shall be 4-inch Schedule 40 PVC.
4. Supply lines and manifolds shall be 1.5-inch Schedule 40 PVC.
5. Return line shall be 1.25-inch Schedule 40 PVC.
6. The washback line from the headworks unit to the septic tank shall be 1.25-inch Schedule 40 PVC.

E. Anua Geoflow Pre-Engineered Dripfield Installation

1. The drainfield has been previously laid out on-site utilizing metal stemmed flags. The property owner/builder should mark this area and isolate from construction traffic. Prior to the system installation, the septic contractor shall contact the system designer for a preconstruction conference at which time the drainfield area will be re-verified. Installer shall be a certified Geoflow installer.
2. Under no circumstances shall any construction take place within the drainfield area while the soil is in a wet condition. If the installer has doubts as to whether the drainfield area is dry enough to begin construction, the system designer should be contacted for permission to proceed with the installation.
3. The specified system is a Geoflow Pre-Engineered drip dispersal system.
4. The Geoflow system headworks shall be self-contained within a single vault and include valves and spin clean filter.
5. **The dripfield consists of 2 zones, with 4 laterals of Geoflow drip tubing measuring 306 feet each. Total length of drip tubing is 2,450 linear feet.**
6. **The proposed trench depth for this system is 6 inches.**

251229 Mt. Vernon Road

7. The drip line shall consist of a nominal size ½ inch linear low-density polyethylene tubing with turbulent flow drip emitters bonded to the inside wall.
8. The laterals are to be installed on contour with the land and per the detail shown in the attached drawings.
9. The air/vacuum relief valves provide instant and continuous vacuum relief and non-continuous air relief and must be installed at the highest point on the drainfield on both supply and return lines.
10. Connections to the manifold shall be made with PVC tees and lockslip adapters.
11. Connections lines (solid tubing) shall be conveyed over earthen dams constructed at least 2 inches higher than the driplines served to retain effluent in the lines at the end of each dose cycle.
12. Connections from solid tubing to the GeoFlow drip tubing shall be made utilizing lockslip fittings.
13. The trenches should be left open for the final inspection by the system designer.

F. Final Landscaping

1. Final cover over the drainfield will be 6 inches deep.
2. The drainfield shall be shaped to shed rainwater and be free from low spots.
3. The drainfield area should be planted with grass as soon as possible to prevent erosion. The soil should be properly tilled, limed (if necessary) and fertilized prior to planting. After applying grass seed, the area should be heavily mulched with straw or other suitable material.

G. Utility Conflicts

1. The builder and property owner must take special care in planning for water, power, gas, telephone, and cable lines. These utilities shall be kept clear of all parts of the septic system. Improper planning for underground utilities can negatively impact the installation and, in some cases, cause irreparable damage and permit revocation. If there are any questions regarding preferred routes, contact the system designer.
1. Lawn irrigation should not be placed over the drainfield area.

Maintenance

H. In General

FujiClean USA systems shall be classified, at a minimum, as a Type Va/h system in accordance with 15A NCAC 18E .1301(b), Table XXXII. Management and inspection shall be in accordance with 15A NCAC 18E, Section .1300.

All FujiClean USA systems require an operation and maintenance agreement between the system owner and FujiClean USA, its authorized representative, or with an authorized operator in accordance with 15A NCAC 18E .1302(c). The authorized operator must have proper equipment and training to access and program the control panels on site. The authorized operator shall be a North Carolina certified subsurface operator (Operator in

251229 Mt. Vernon Road

Responsible Charge); and either an employee of FujiClean USA or authorized in writing by FujiClean USA.

All FujiClean USA systems shall be operated and maintained according to the latest version of FujiClean USA O&M manual. At each FujiClean USA system inspection, the authorized operator shall follow service procedure steps identified in the FujiClean USA O&M Manual and, at a minimum, observe, monitor, and record the following:

1. Wastewater, sludge, and scum levels in all tanks;
2. Proper operation of system aerator, noting any unusual sounds or physical appearance;
3. Solids level in the first and second compartments;
4. Clarity of system effluent;
5. Watertightness of all tanks, risers, and pipe connections at the tanks;
6. Operation of pumps, floats, valves, electrical controls, and alarms, including record of alarms since last visit and troubleshooting actions;
7. Dispersal field pump delivery rate based on a drawdown test, determination of the average pump run time, and dispersal field dosing volume;
8. Readings from pump cycle counters and elapsed time meters or water meter;
9. Any structural damage, accessibility issues, adequate ventilation, excess odors, ponding of effluent, insect infestations, vegetative growth over the dispersal field, or surfacing of effluent on the dispersal field; and
10. Effluent sample collected from the disinfection unit inside the third compartment or the sampling port. An influent sample shall only be collected if needed.

I. Sampling

1. All sampling shall be done in accordance with 15A NCAC 18E .1302 and .1709. FujiClean USA systems shall be sampled annually when the design daily flow is less than or equal to 1,500 gpd. Systems with design daily flows greater than 1,501 gpd and less than or equal to 3,000 gpd shall be sampled twice a year.
2. Effluent for all systems shall be tested for BOD₅, TSS, and NH₃. Systems designed to meet the TS-II standard shall also have the effluent analyzed for TN (TKN and NO₃-N). Sampling is not required for fecal coliforms when the site is found to be compliant with all other constituents in Table XXV of 15A NCAC 18E .1201(a)
3. Influent samples, if needed, shall be taken from the influent chamber of the treatment system.
4. Effluent samples shall be collected from the disinfection unit inside the third compartment of the unit or a tap on the dispersal field force main. The tap should be located before the spin filter for drip systems.

J. Notification and Performance of Maintenance and Repairs

251229 Mt. Vernon Road

1. The authorized operator shall alert FujiClean USA, the LHD, and the system owner within 48 hours of needed maintenance or repair activities including but not limited to landscaping, tank sealing, tank pumping, pipe or control system repairs, media or aerator replacement, and/or adjustments to any other system component.
2. The authorized operator shall notify the system owner, FujiClean USA, and the LHD whenever the pump delivery rate efficiency or average pump run times are not within 25 percent of the initial measurements conducted prior to system start-up.
3. System troubleshooting and needed maintenance shall be provided to maintain the pump delivery rate and average pump run time within 25 percent of initial measurements conducted during system start-up.
4. Tank compartments will be pumped as needed upon recommendation of the authorized operator and in accordance with the FujiClean USA system Operation and Maintenance instructions.
5. The tanks shall be pumped by a permitted septage management firm, and the septage handled in accordance with 15A NCAC 13B .0800.
6. All maintenance activities shall be logged and recorded in the authorized operator reports provided to the LHD.

K. FujiClean Reporting

1. The authorized operator shall provide a written report to the system owner, FujiClean USA, and the LHD within 30 days of each inspection. At a minimum, this report shall specify:
2. The date and time of inspection;
3. System operating conditions measured and observed according to VIII.D and VIII.E;
4. Results from laboratory analyses of effluent samples, and influent samples as needed;
5. Maintenance activities performed since the last inspection report;
6. An assessment of overall system performance;
7. A list of any improvements or maintenance needed;
8. 7- and 30-day readings as required in 15A NCAC 18E .1702(a)(2)(I);
9. A determination of whether the system is malfunctioning, and the specific nature of the malfunction; and
10. Any changes made in system settings based on recommendations of the manufacturer.

L. Anua Geoflow Drip Dispersal Operation and Maintenance

1. At each inspection, the Geoflow authorized operator shall, at a minimum, observe, monitor, and record the following:
2. Visual inspection of the drip dispersal fields;
3. Observation and cleaning of the filter, as needed;
4. Measurement of the dosing flow rate to each zone;

251229 Mt. Vernon Road

5. Recordation of the flow meter reading, pump run times, and pump cycle counters;
6. Measurement of flushing flow rates and pressure head readings during flushing shall be taken at least once a year;
7. Volume of effluent delivered to each zone since the last inspection;
8. Log of all malfunction incidences/notifications; and
9. Any maintenance activities performed.

M. Anua Geoflow Drip Reporting

1. If any system is found to be malfunctioning in accordance with 15A NCAC 18E .1303(a)(1) or (2), Anua will assist in the development of an action plan to bring the system back into compliance. When the system is found to be malfunctioning the inspection frequency shall revert to quarterly for a period of one year.
2. The authorized operator shall report inspection findings and measurements to the owner, Anua, and the LHD 30 days after the date of the inspection.
3. The authorized operator shall also conduct other additional observations, measurements, monitoring, and maintenance activities as specified in the Operation Permit (OP) and as recommended by Anua.
4. The drainfield area should be maintained to prevent the overgrowth of vegetation. Any damp areas, leakages or malfunctions should be addressed immediately.

Design Specifics

Daily Design Flow:	490 GPD
Effluent Loading Rate:	0.1 GPD per sq. ft.
Septic Tanks Required:	(3) 1,000 Gallons
Effluent Filter Requirement:	(2) Zable A600 at the Kenneis
Advanced Treatment Unit:	FujiClean CEN5
Disinfection Unit:	Illumi-Jet UV
Drainfield Dosing Tank:	1,000 Gallons (One Piece)
Control Panel:	FC-10
Total Length of Drip Line:	2,450 Linear Feet
Number of Zones:	2
Number of Laterals per Zone:	4 (306 Linear Feet each)
Number of Emitters:	1,225
Installation Depth:	6 Inches

251229 Mt. Vernon Road

Supply/Return Line Length and Diameter:

(2) 1.5 Inch Sch 40 Supply Line
(1) 1.25 Inch Sch 40 Return Line

Pump Requirements:

17.1 GPM at 122.2-Ft. TDH

Drainfield Run Time:

15.5 Minutes

Drainfield Rest Time:

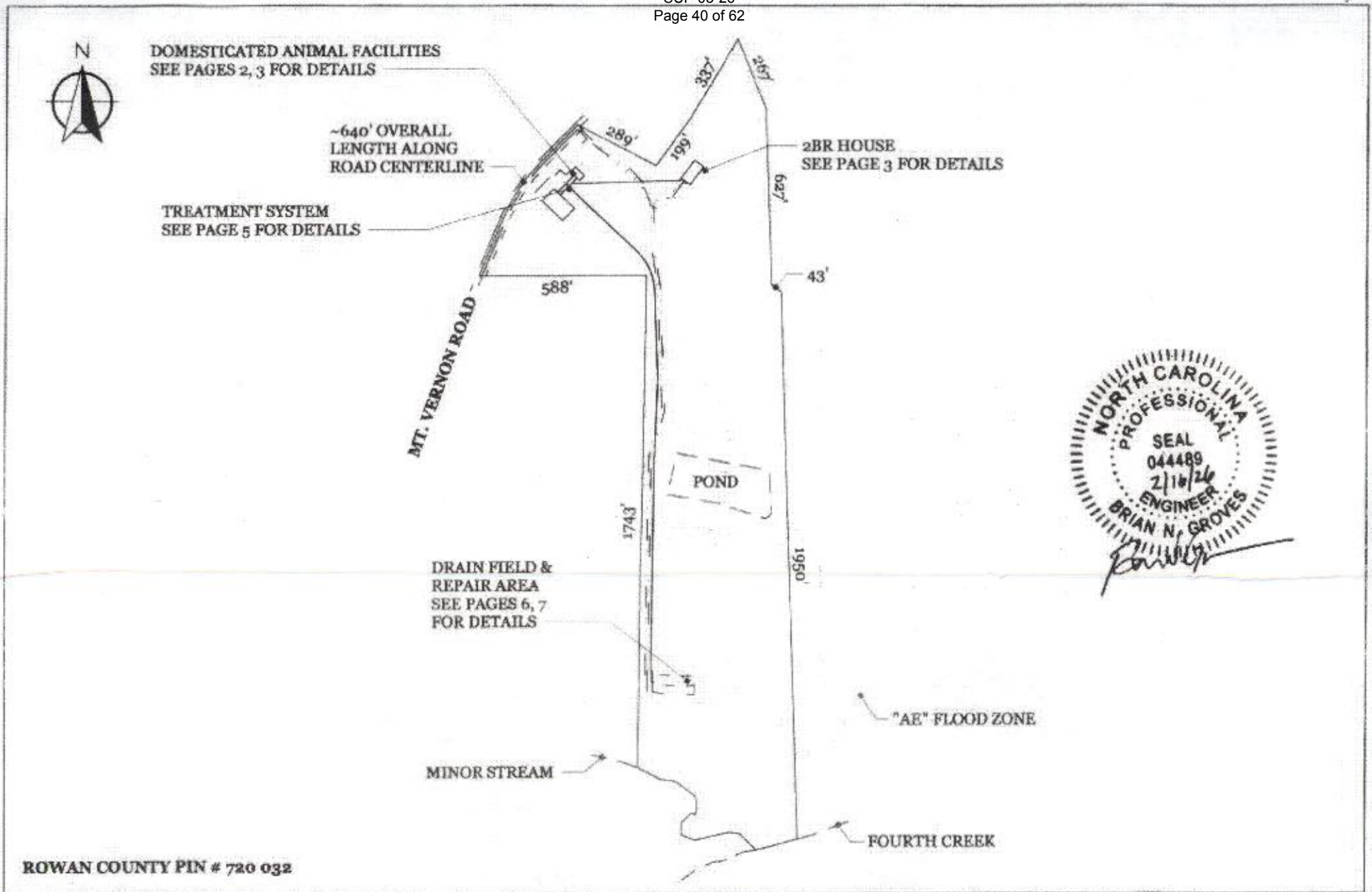
104.5 Minutes

Doses Per Zone Per Day:

6

Recommended Drainfield Pump:

STA-RITE STEP20 1/2HP



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ENGINEERING, PLLC**
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PO BOX 838
MATTHEWS, NC 28105

SITE OVERVIEW
TREATED DRIP SEPTIC SYSTEM DESIGN
IAN & SIMONA CANTRELL
251229 MT VERNON ROAD
WOODLEAF, NC 27054

PROJECT: 2025-1186

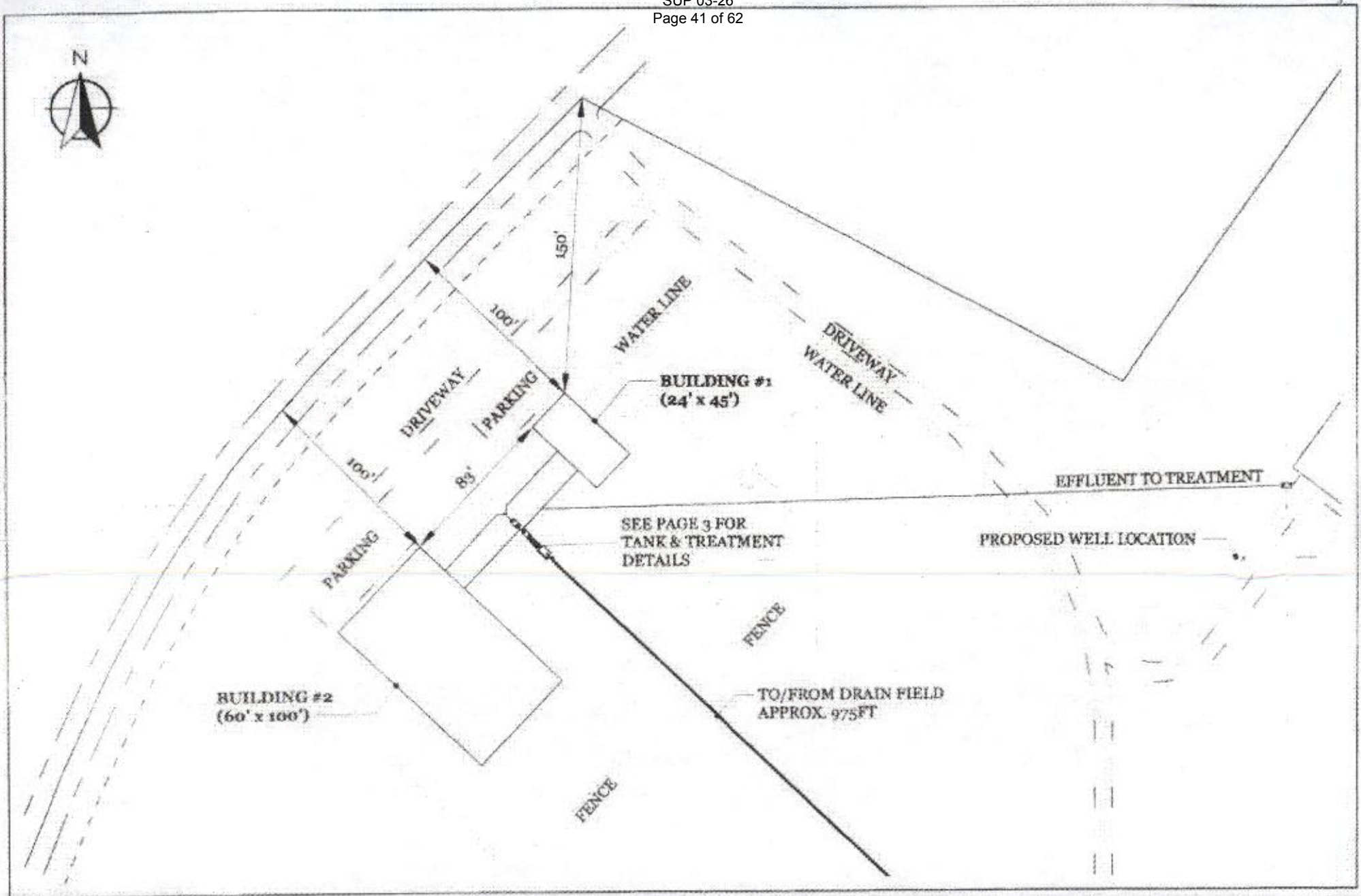
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2 01/24/2026	BNG	TSC
3 01/27/2026	BNG	TSC
4 02/16/2026	BNG	TSC
5 - - - - -	-	-

REVISIONS

REMARKS

INITIAL DESIGN DRAWINGS.
PRELIMINARY SITE LAYOUT.
REVISED SITE LAYOUT.
UPDATED SITE PLAN.

M 01



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MATTHEWS, NC 28105

HOUSE LOCATION DETAIL

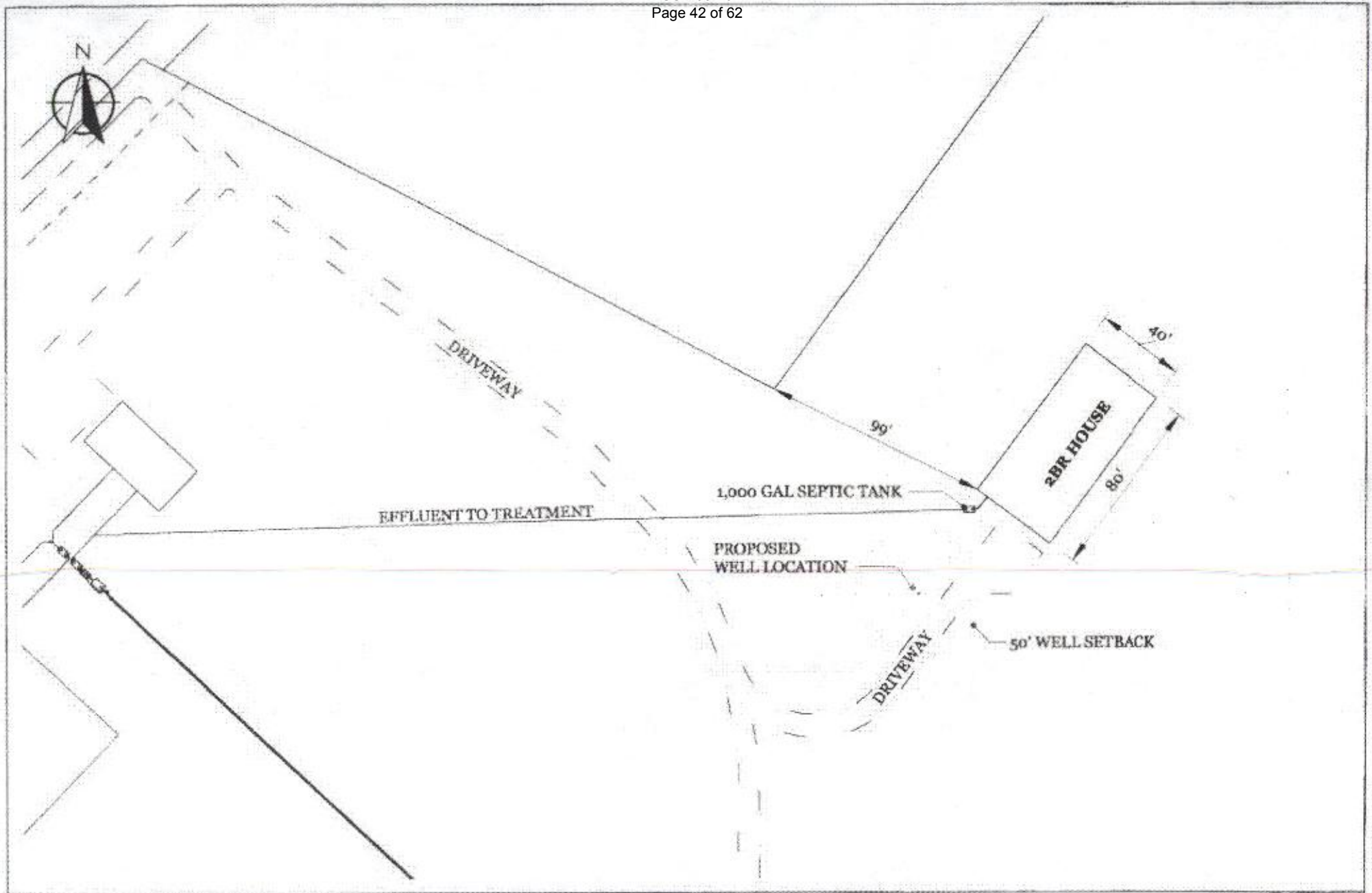
TREATED DRIP SEPTIC SYSTEM DESIGN
IAN & SIMONA CANTRELL
251229 MT VERNON ROAD
WOODLEAF, NC 27054

PROJECT: 2025-1186

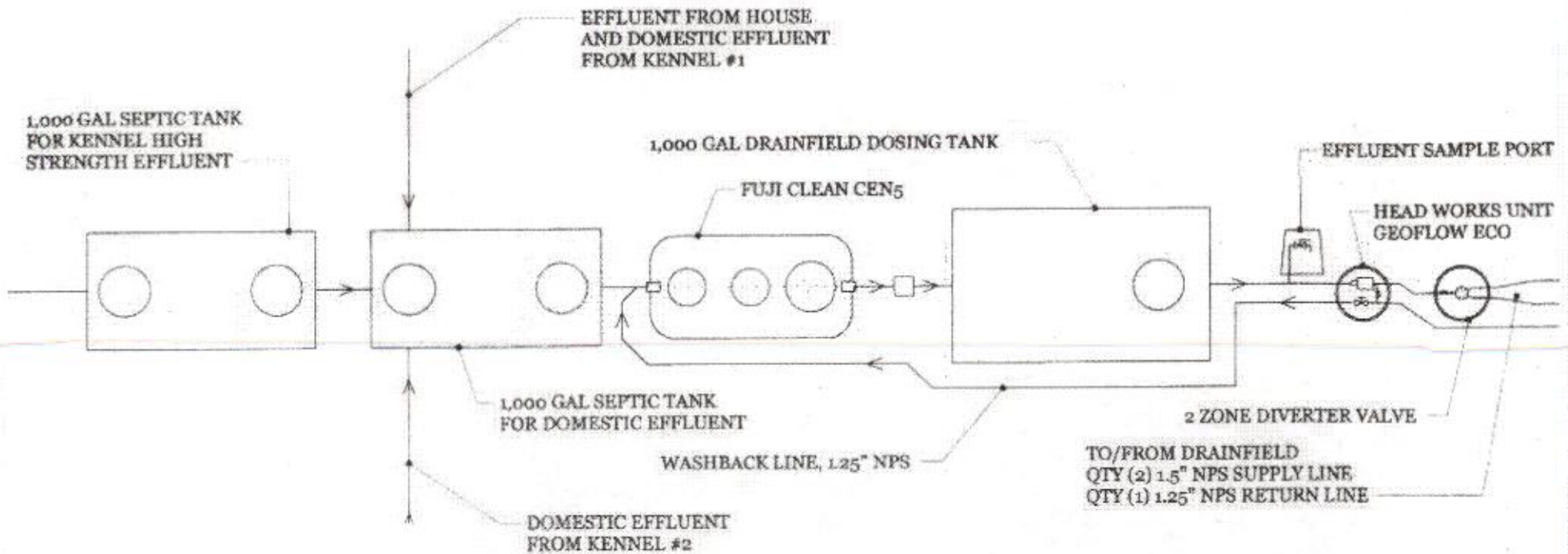
REVISIONS

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2	02/24/2025	BNG	TEC	PRELIMINARY SITE LAYOUT.
3	03/27/2025	BNG	TEC	REVISED SITE LAYOUT.
4	03/18/2025	BNG	TEC	UPDATED SITE PLAN.
5				

M 02



GROVES ENGINEERING, PLLC NC FIRM P-2406 PO BOX 838 MATTHEWS, NC 28105	HOUSE LOCATION DETAIL TREATED DRIP SEPTIC SYSTEM DESIGN IAN & SIMONA CANTRELL 251229 MT VERNON ROAD WOODLEAF, NC 27054	PROJECT: 2025-1186			REVISIONS	
		DATE	DWG	CHK	REMARKS	
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		01/24/2025	BNG	TEC	PRELIMINARY SITE LAYOUT	
		01/27/2025	BNG	TEC	REVISED SITE LAYOUT	
		02/16/2025	BNG	TEC	UPDATED SITE PLAN	



NOTE: BOTH SEPTIC TANKS SHALL BE FITTED WITH 8-IN x 18-IN ZABEL A600 FILTER CARTRIDGE WITH HOUSING, CAPABLE OF FILTERING 1/64-IN SOLIDS.

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MATTHEWS, NC 28105

TREATMENT SYSTEM DETAIL

TREATED DRIP SEPTIC SYSTEM DESIGN
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251229 MT VERNON ROAD
WOODLEAF, NC 27054

PROJECT: 2025-1186

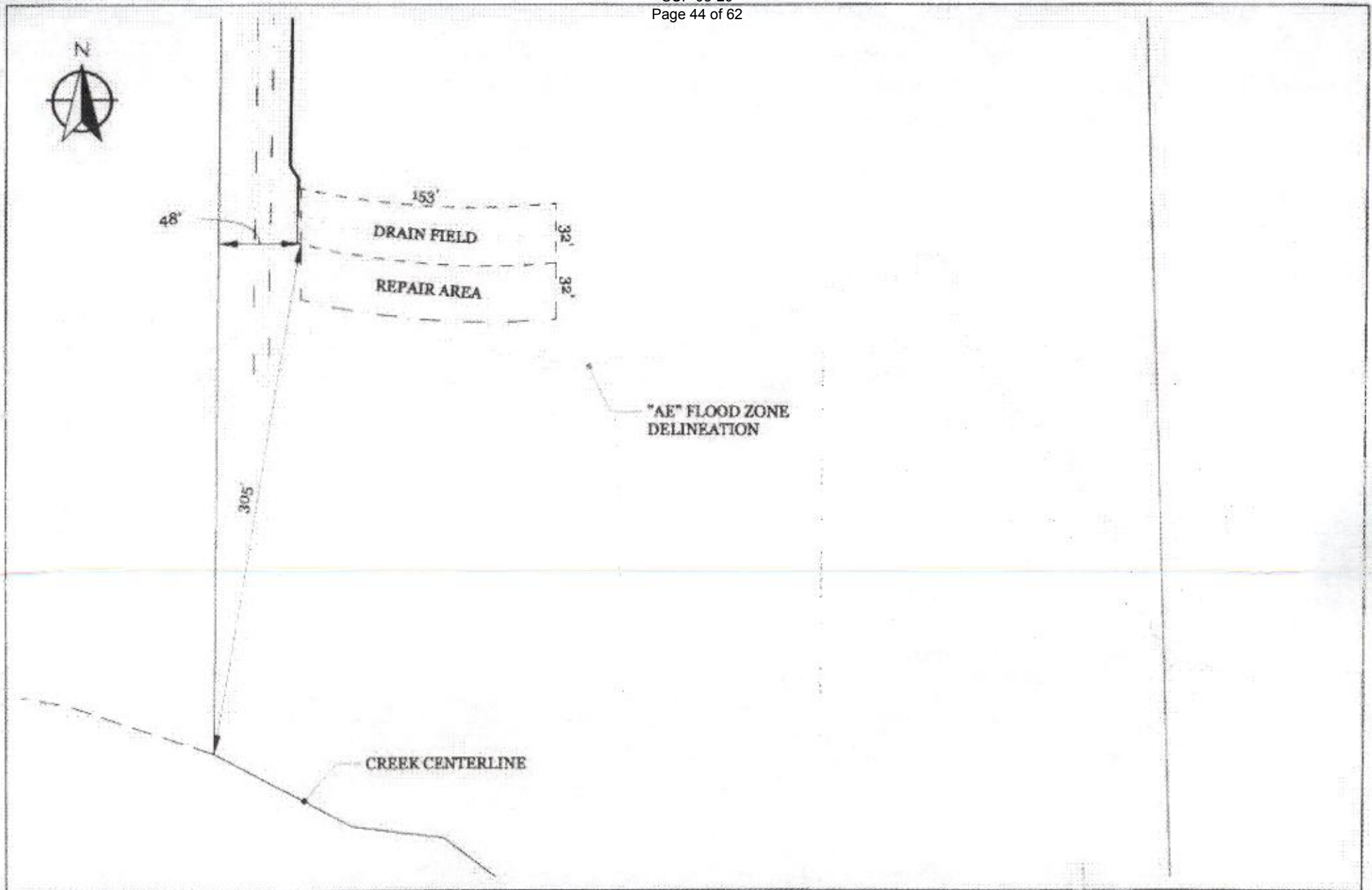
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2	01/24/2026	BNG	TEC
3	01/27/2026	BNG	TEC
4	02/16/2026	BNG	TEC
5			

REVISIONS

REMARKS

INITIAL DESIGN DRAWINGS.
PRELIMINARY SITE LAYOUT.
REVISED SITE LAYOUT.
UPDATED SITE PLAN

04
M



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 MATTHEWS, NC 28105

DRAIN FIELD OVERVIEW
TREATED DRIP SEPTIC SYSTEM DESIGN
 IAN & SIMONA CANTRELL
 251229 MT VERNON ROAD
 WOODLEAF, NC 27054

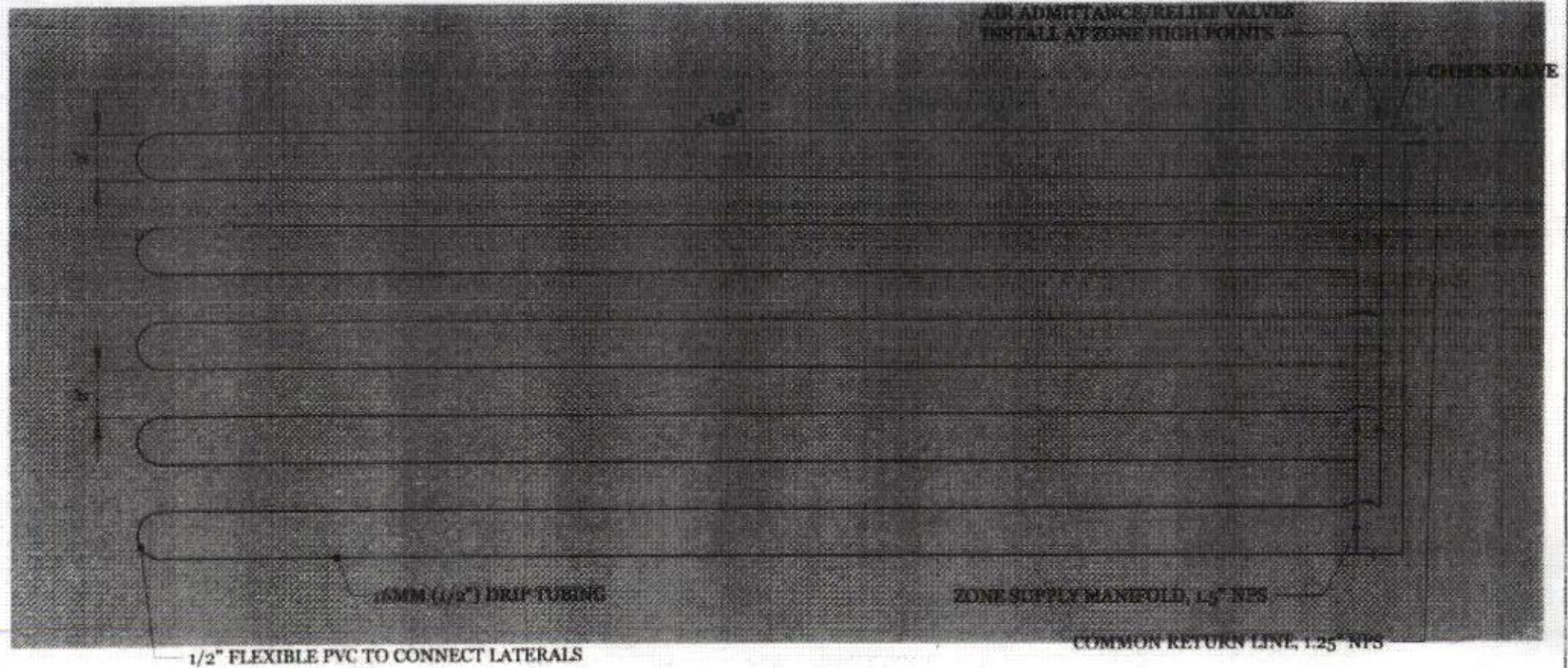
PROJECT: 2025-1186

REVISIONS

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2	01/24/2026	BNG	TBC	PRELIMINARY SITE LAYOUT.
3	01/27/2026	BNG	TBC	REVISED SITE LAYOUT.
4	02/10/2026	BNG	TBC	UPDATED SITE PLAN.
5		-	-	

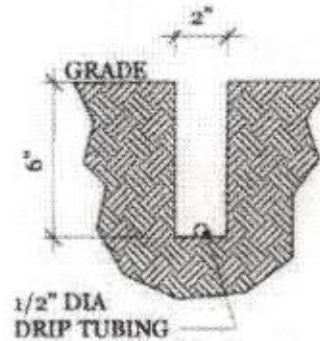
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NOTES:

1. DRAIN FIELD ZONE DETAIL IS TYPICAL FOR EACH OF 2 ZONES.
2. TOTAL OF 306 FEET OF DRIP TUBING PER LATERAL, WITH 4 LATERALS PER ZONE. TOTAL OF 613 EMITTERS PER ZONE.
3. TOTAL DRIP TUBING REQUIRED IS 2450 FEET.
4. DRIP TUBING TO BE SPACED 24 INCHES APART, WITH EMITTERS SPACED 24 INCHES APART.



DRIP TUBING:

GEOFLOW CLASSIC, 1.0 GPH, 24" EMITTER SPACING
P/N: GEOFLOW G-WFCL-16-4-24

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DRAIN FIELD DETAIL

TREATED DRIP SEPTIC SYSTEM DESIGN
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251229 MT VERNON ROAD
WOODLEAF, NC 27054

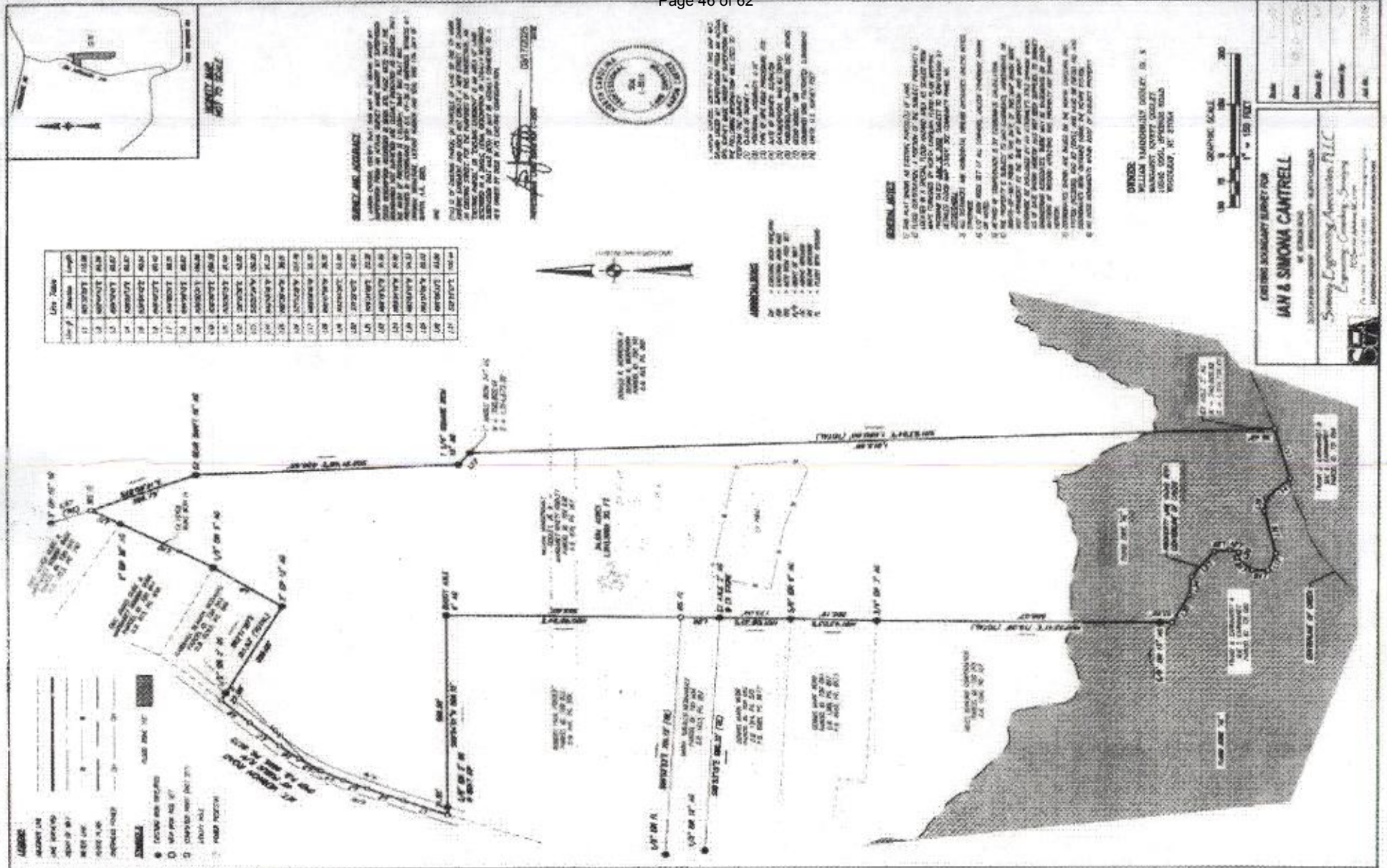
PROJECT: 2025-1186

REVISIONS

	DATE	DWG	CHK	REMARKS
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2	01/24/2025	BNG	TEC	PRELIMINARY SITE LAYOUT
3	01/27/2025	BNG	TEC	REVISED SITE LAYOUT
4	02/16/2025	BNG	TEC	UPDATED SITE PLAN
5				

06

M



SURVEY COURTESY OF AARON CARTER, PLS-5519. DATED 03/17/2025.

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PROPERTY PLOT PLAN

TREATED DRIP SEPTIC SYSTEM DESIGN
IAN & SIMONA CANTRELL
251229 MT VERNON ROAD
WOODLEAF, NC 27054

PROJECT: 2025-1186

	DATE	DWG	CHK
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2	02/24/2026	BNG	TEO
3	03/27/2026	BNG	TEO
4	09/16/2026	BNG	TEO
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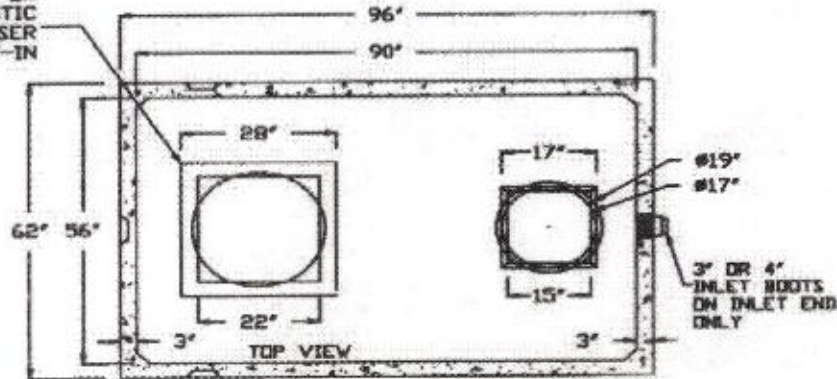
REVISIONS

	REMARKS
INITIAL DESIGN DRAWINGS.	
PRELIMINARY SITE LAYOUT.	
REVISED SITE LAYOUT.	
UPDATED SITE PLAN.	

M 07

**** OR SIMILAR STATE APPROVED 1000 GAL PUMP TANK ****

NOTE-SQUARE
ACCESS FOR
CONCRETE RISER OR
OPTIONAL PLASTIC
24" ROUND RISER
CAST-IN



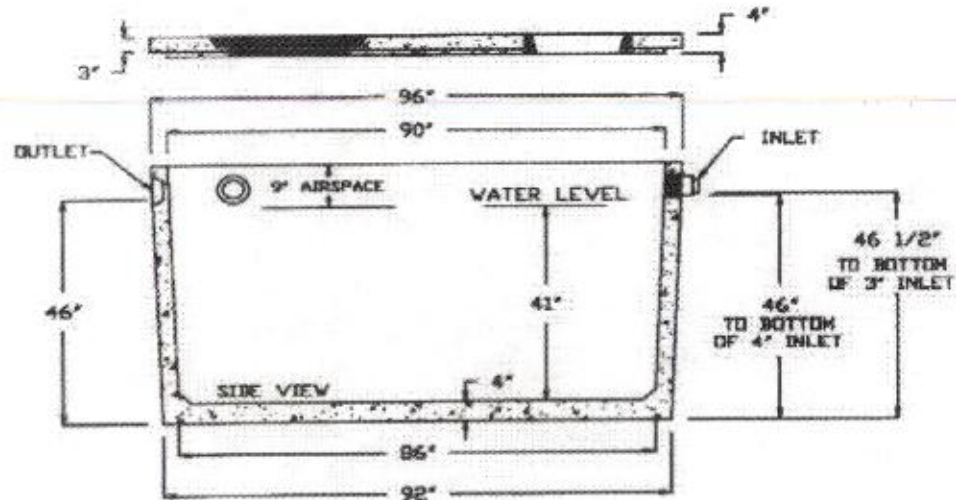
NOTE: ALL MEASUREMENTS ON TOP
VIEW ARE TO WIDEST DIMENSIONS

SHOAF PRECAST SEPTIC INC.
4130 WEST US HWY 64
LEXINGTON, NC 27295
PHONE (336) 787-5826
FAX (336) 787-2826
WWW.SHOAFPRECAST.COM
SHOAF-1000 NON TRAFFIC RATED
PT-363 NON TRAFFIC
LIQUID CAPACITY-1000 US GALLONS INCLUDING 9" AIRSPACE
GALLONS PER INCH-28.16 (AVERAGE)
TANK HEIGHT-57"
BOTTOM OF TANK TO CENTER OF INLET-48"
BOTTOM OF TANK TO CENTER OF OUTLET-48"
LENGTH TO WIDTH RATIO-2 TO 1
SIZE OF INLET & OUTLET-3" OR 4" PIPE
TYPE OF INLET & OUTLET-POLYLOCK OR EQUAL MEETS ASTM C-923
CONCRETE PSI-4000; TANK WEIGHT-9,000 LBS.
REINFORCING PER STATE CODE

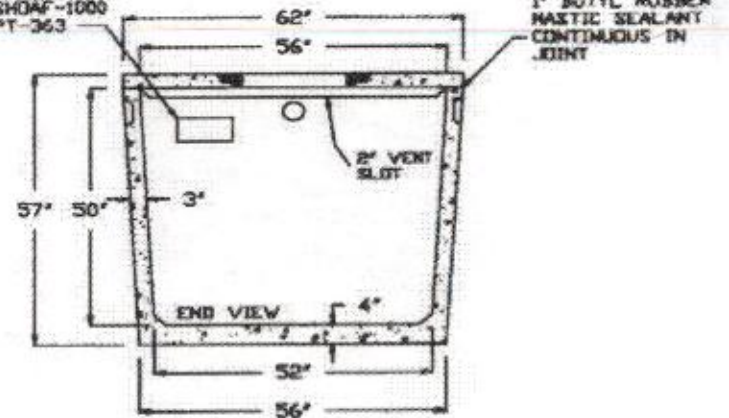
**MODEL: TS 1000 PT
NON TRAFFIC
1000 Gallon Pump Tank**

SCALE - N.T.S.

CHANGE TO SEPTIC TANK SPEC SHEET



STATE
APPROVAL #
SHOAF-1000
PT-363



1" BUTYL RUBBER
MASTIC SEALANT
CONTINUOUS IN
JOINT

**GROVES
ENGINEERING, PLLC**

NC FIRM P-2406
PO BOX 838
MATTHEWS, NC 28105

1000 GAL SEPTIC TANK

TREATED DRIP SEPTIC SYSTEM DESIGN
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251229 MT VERNON ROAD
WOODLEAF, NC 27054

PROJECT: 2025-1186

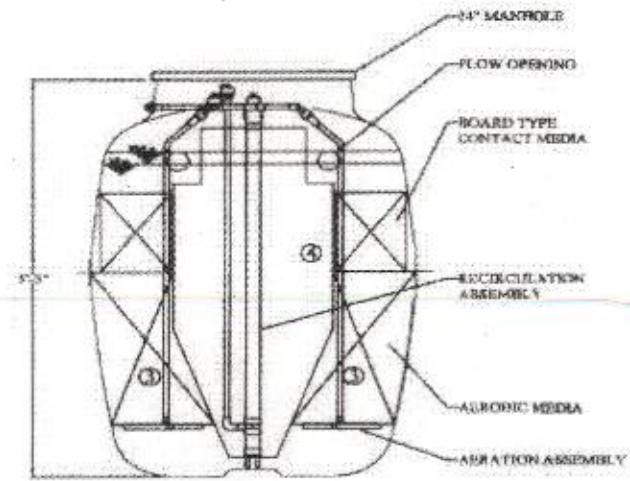
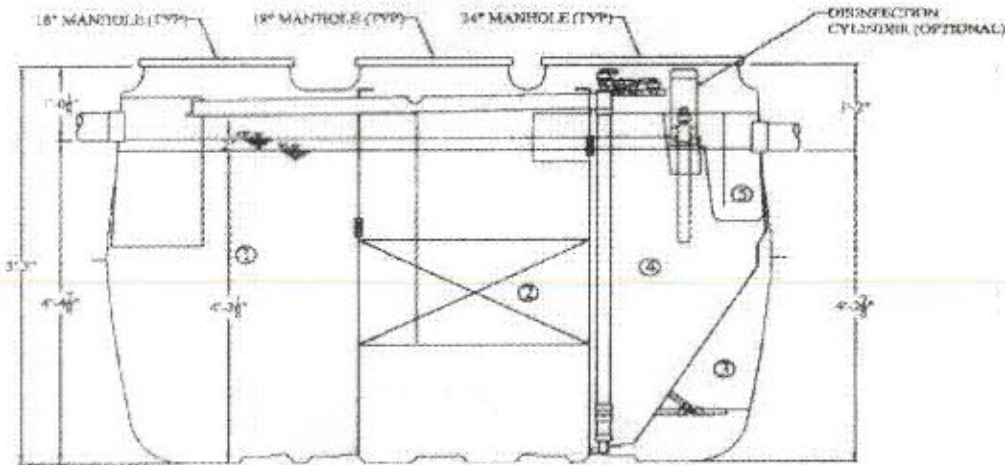
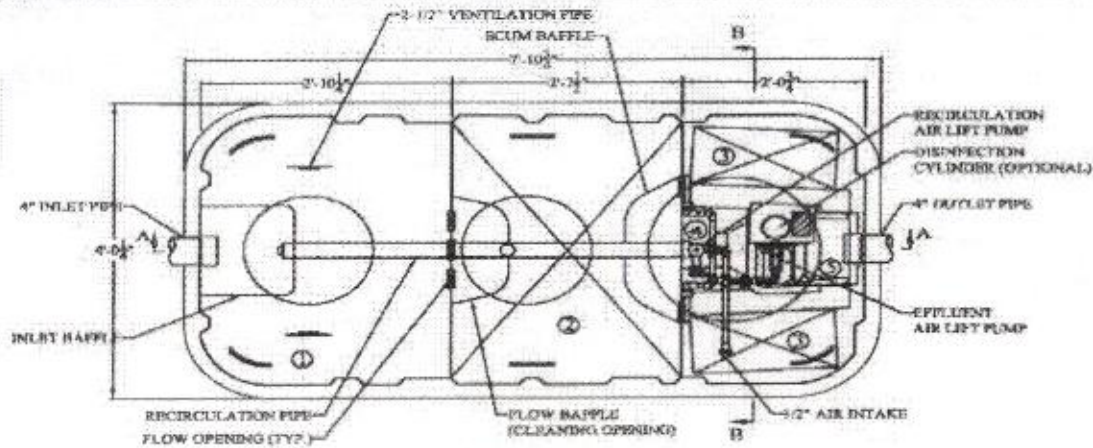
DATE	DWG	CHK
01/10/2025	KDW	BNG
01/24/2025	BNC	TBC
01/27/2025	BNC	TEC
02/16/2025	BNC	TEC

REVISIONS

REMARKS

INITIAL DESIGN DRAWINGS.
PRELIMINARY SITE LAYOUT.
REVISED SITE LAYOUT.
UPDATED SITE PLAN.

80
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CHAMBER	Volume (gal)
① Sedimentation Chamber	277
② Anaerobic Filtration Chamber	278
③ Aerobic Contact Filtration Chamber	127
④ Storage Chamber	63
⑤ Disinfection Chamber	4
Total Volume	749

SPECIFICATIONS			
Anaerobic Media	PP / PE	Filling Rate	32%
Board Type Aerobic Media	PVC / PP / PE	Filling Rate	16%
Aerobic Media	PP / PE	Filling Rate	57%
Blower	2.8 cfm		
Tank	FRP		
Piping	PVC / PP / PE		
Access Covers	Plastic / Cast Iron		
Disinfectant (Optional)	Chlorine Tablets		

FujiClean USA
Toward Clean Water...
CEN-5
Structural Drawing
DATE: 07/01/2014 SCALE: 1/2" = 1"

**GROVES
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MATTHEWS, NC 28105

FUJI CEN5 TREATMENT UNIT

TREATED DRIP SEPTIC SYSTEM DESIGN
IAN & SIMONA CANTRELL
251229 MT VERNON ROAD
WOODLEAF, NC 27054

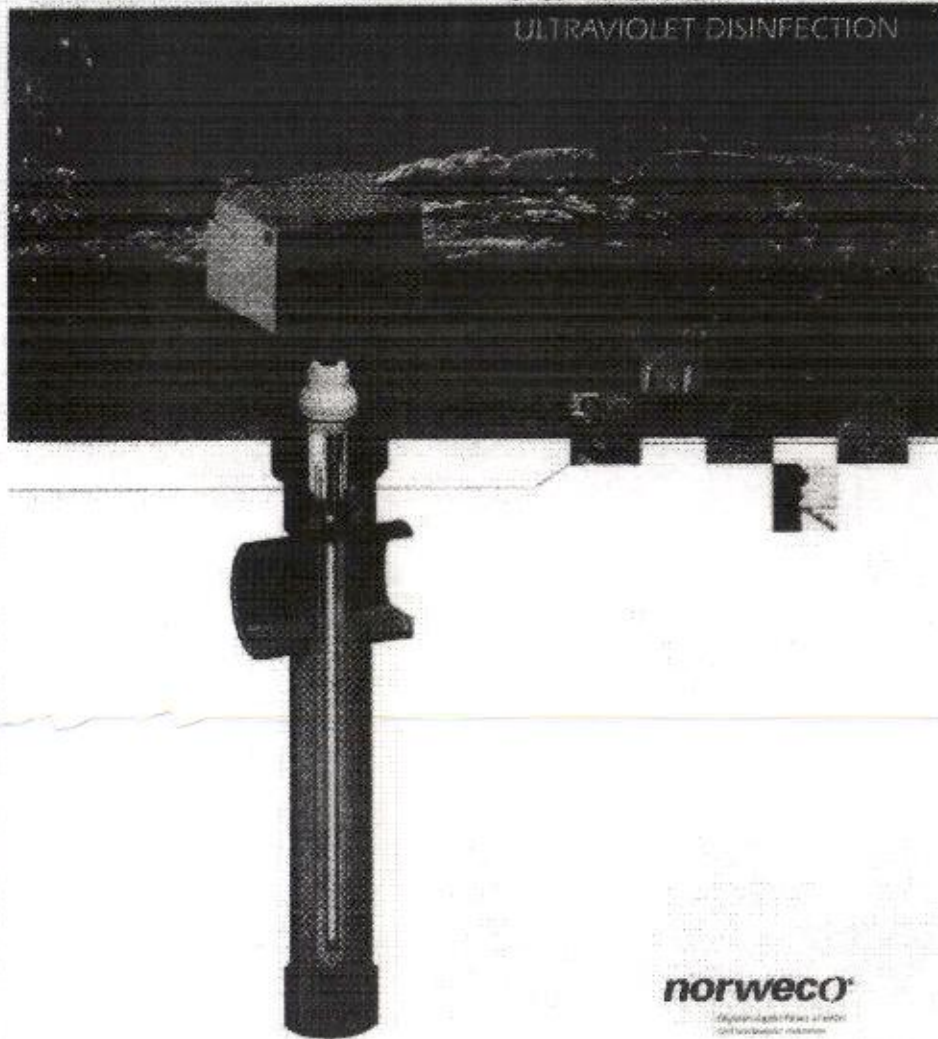
PROJECT: 2025-1186

REVISIONS

DATE	DWG	CHK	REMARKS
01/10/2025	KDW	BNG	INITIAL DESIGN DRAWINGS
01/24/2025	BNG	TTC	PRELIMINARY SITE LAYOUT
01/27/2025	BNG	TTC	REVISED SITE LAYOUT
02/18/2025	BNG	TTC	UPDATED SITE PLAN

09
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AT 1500 ULTRAVIOLET DISINFECTION



norweco
Engineering the future of water
and wastewater treatment

norweco

Engineering the future of water
and wastewater treatment

BASIC PERFORMANCE CRITERIA AT 1500 UV DISINFECTION SYSTEM

FLOW RATES – 100 GPD through 8,640 GPD (Gravity flow only)

**** Required influent characteristics:**

100 GPD – 4,320 GPD (3 GPM) with a 30 mg/L BOD and 30 mg/L SS

4,321 GPD – 8,640 GPD (6 GPM) with a 10 mg/L BOD and 10 mg/L SS

UV DOSAGE – The AT 1500 UV disinfection system provides a UV dose greater than 40,000 microwatt-sec per square cm at 254 nanometers

TRANSMISSIVITY – The AT 1500 UV disinfection system provides a transmissivity quality of 65%.

BALLAST LOCATION – The ballast is located safely inside the durable NEMA 4X electrical enclosure for protection and long-life.

UV LAMP PROTECTION – The long-life bulb is encased within a transparent quartz sleeve to isolate the bulb from the flow stream.

ALARM – A current sensing circuit automatically monitors performance of the UV bulb and provides constant assurance of proper operation. The system can also be monitored externally.

EXPECTED PERFORMANCE – The AT 1500 UV disinfection system will reduce fecal coliform levels by 3-Logs or 99.9%.

OPTIMUM LAMP OPERATION TEMPERATURE – The AT 1500 UV disinfection system provides lamp operation temperature in the range of 104 – 120 degrees Fahrenheit.

DIMENSION – There is a 1 inch distance from the tube to the chamber wall of the AT 1500 UV disinfection system.

HOUSING – The system is contained within an ABS housing that is carbon-impregnated for maximum durability. The internal subassembly can easily be removed for cleaning of the quartz sleeve.

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NORWECO AT1500 UV LIGHT

TREATED DRIP SEPTIC SYSTEM DESIGN
IAN & SIMONA CANTRELL
251229 MT VERNON ROAD
WOODLEAF, NC 27054

PROJECT: 2025-1186

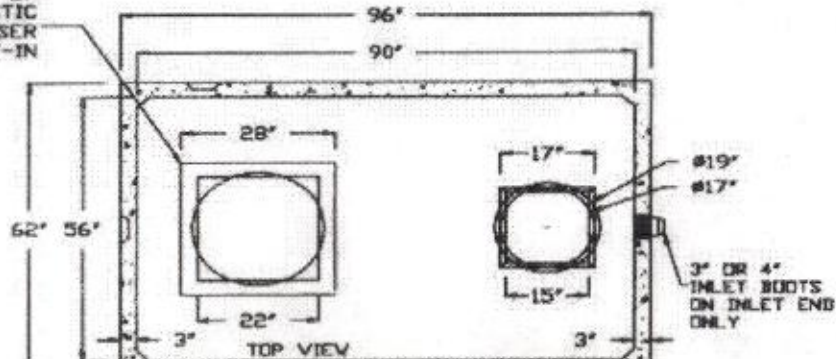
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	DATE	DWG	CHK	REMARKS
1	01/10/2026	KDW	BNG	INITIAL DESIGN DRAWINGS.
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**** OR SIMILAR STATE APPROVED 1000 GAL PUMP TANK ****

NOTE-SQUARE
ACCESS FOR
CONCRETE RISER OR
OPTIONAL PLASTIC
24" ROUND RISER
CAST-IN



NOTE: ALL MEASUREMENTS ON TOP
VIEW ARE TO WIDEST DIMENSIONS

SHDAF PRECAST SEPTIC INC.
4130 WEST US HWY 64
LEXINGTON, NC 27295
PHONE (336) 787-5826
FAX (336) 787-2826

**MODEL: TS 1000 FT
NON TRAFFIC
1000 Gallon Pump Tank**

WWW.SHEAFPRECAST.COM

SHDAF-1000 NON TRAFFIC RATED

PT-363 NON TRAFFIC

LIQUID CAPACITY-1000 US GALLONS INCLUDING 9' AIRSPACE

GALLONS PER INCH-2016 (AVERAGE)

TANK HEIGHT-57"

BOTTOM OF TANK TO CENTER OF INLET-48"

BOTTOM OF TANK TO CENTER OF OUTLET-48"

LENGTH TO WIDTH RATIO-2 TO 1

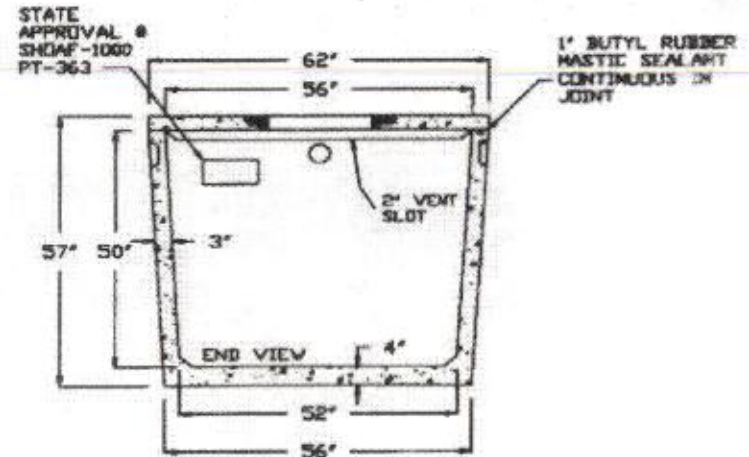
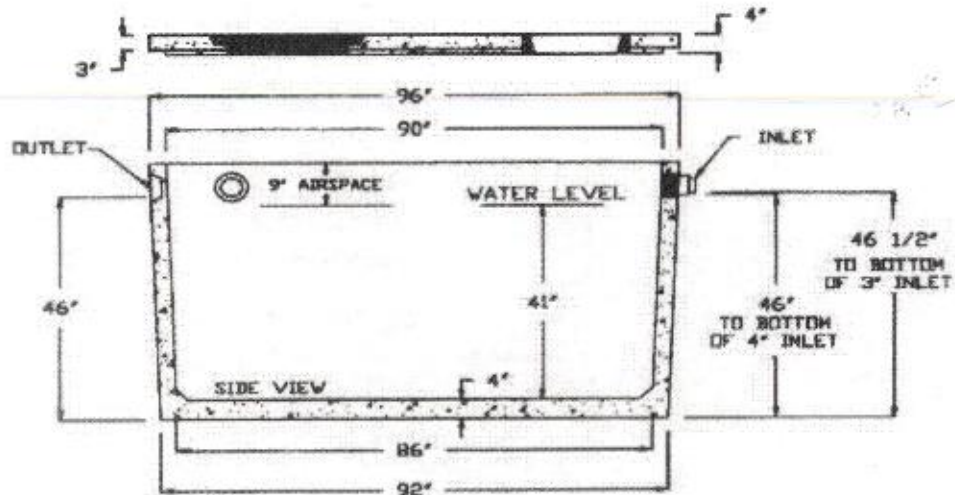
SIZE OF INLET & OUTLET-3" OR 4" PIPE

TYPE OF INLET & OUTLET-POLYLOCK OR EQUAL. MEETS ASTM C-923

CONCRETE PSI-4000; TANK WEIGHT-9,000 LBS.

REINFORCING PER STATE CODE

SCALE - N.T.S.



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MATTHEWS, NC 28105

1000 GAL PUMP TANK

TREATED DRIP SEPTIC SYSTEM DESIGN
IAN & SIMONA CANTRELL
251229 MT VERNON ROAD
WOODLEAF, NC 27054

PROJECT: 2025-1186

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STA-RITE® ST.E.P Plus Series

4" high-head multi-stage submersible effluent pumps



The STEP Plus 4" submersible filtered effluent pumps in 10, 20, 30 and 50 GPM models offer dependable performance and value for high pressure filtered effluent applications.

These STEP Plus pumps will handle "dry run" conditions.

The 10, 20, 30 and 50 GPM are industry standard 3-3/4" in diameter.

APPLICATIONS

Filtered Effluent... for residential, commercial, and agricultural use.

SPECIFICATIONS

Shell - Stainless steel

Discharge - 10, 20 and 30 GPM models: fiberglass-reinforced thermoplastic; 50 GPM models: stainless steel

Discharge Bearing - Nylonon®

Impellers - Engineered composite

Diffusers - Engineered composite

Suction Caps - Engineered composites with stainless steel wear ring

Thrust Pads - Proprietary spec.

Shaft and coupling - Stainless steel 300 grade

Intake - Engineered composite

Intake Screen - Polystyrene

Jacketed Cord - 600 Volt "500W" or 3/2" (30,00W) jacketed 10' length. (1) 10' length (2) 20' length (3) 30' length (4) 50' length (5) 100' length available

FEATURES

Proven "Floating Impeller" Staging System - Incorporates full-in-class performance, sand handling and thrust management staging system with the industry exclusive "dry-run" design element. Reinforced engineered composites and stainless steel, offering high resistance to corrosion and abrasion.

Discharge - Tested-tough, fiberglass-reinforced thermoplastic, with proven internal check valve. Large wrench flats and rope hole.

Shell - Stainless steel pump shell offers high corrosion resistance.

Shaft - Hexagonal 3/8" 300-grade stainless steel pump shaft, offers generous impeller drive surfaces.

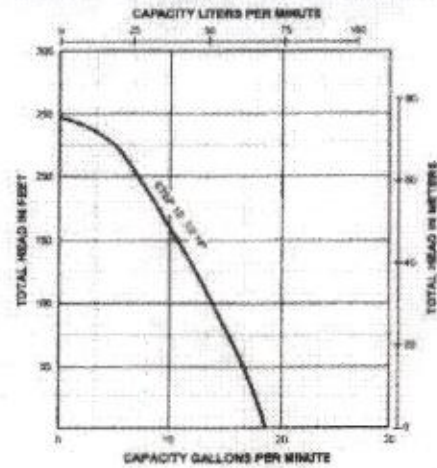
Shaft Bearing - Exclusive self-lubricating Nylonon bearing resists wear surfaces from sand.

Motor Bracket - Tested-tough, fiberglass-reinforced thermoplastic; incorporates an integral suction screen.

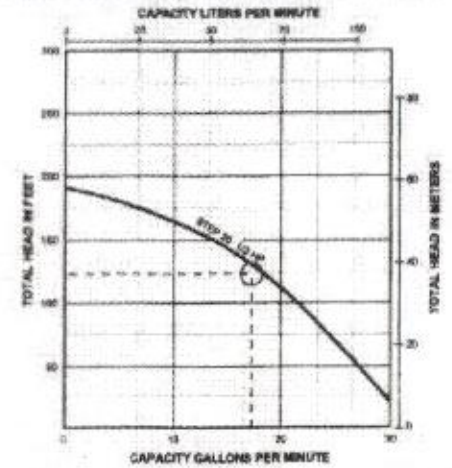
STA-RITE® ST.E.P Plus Series

4" high-head multi-stage submersible effluent pumps

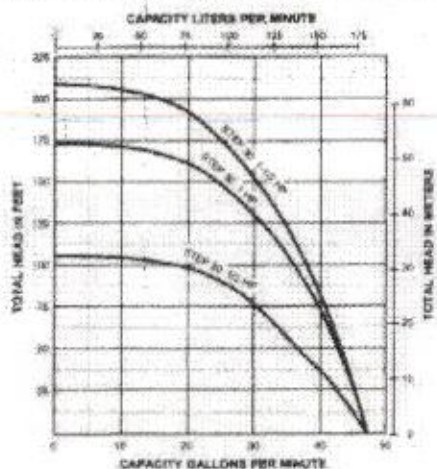
PUMP PERFORMANCE - 10 GPM



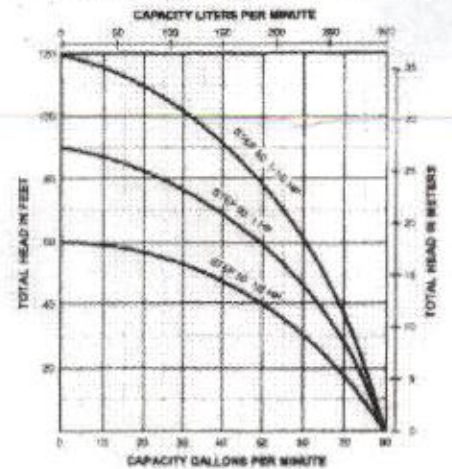
PUMP PERFORMANCE - 20 GPM



PUMP PERFORMANCE - 30 GPM



PUMP PERFORMANCE - 50 GPM



**STA-RITE STEP20 1/2HP PUMP REQUIRED
OR SIMILAR PUMP CAPABLE OF DELIVERING
17.1 GPM AT 122.2 TDH (MIN.)**

In order to provide the best service possible, specifications are subject to change.



011611W5



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011611W5 (11/17/17)

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PO BOX 838
MATTHEWS, NC 28105

DRAINFIELD DOSING PUMP

TREATED DRIP SEPTIC SYSTEM DESIGN
IAN & SIMONA CANTRELL
251229 MT VERNON ROAD
WOODLEAF, NC 27054

PROJECT: 2025-1186

REVISIONS

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01/10/2025	KDW	BNG	INITIAL DESIGN DRAWINGS.
01/24/2025	BNG	TEC	PRELIMINARY SITE LAYOUT.
01/27/2025	BNG	TEC	REVISED SITE LAYOUT.
02/16/2025	BNG	TEC	UPDATED SITE PLAN.

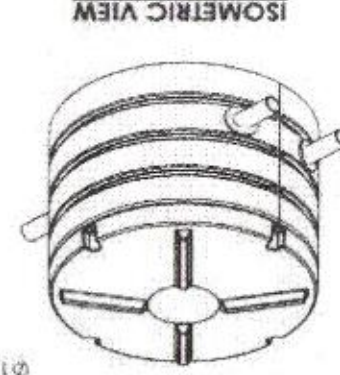
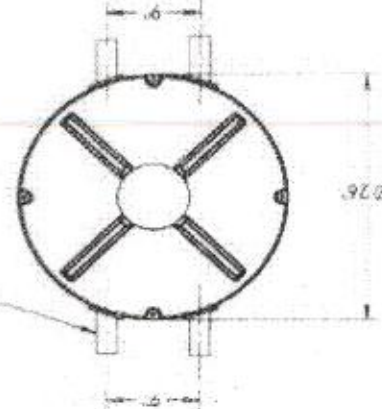
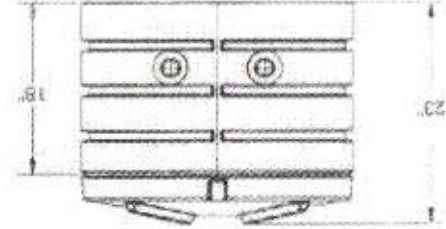
12

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HEADWORKS UNIT
D DRIIP SEPTIC SYSTEM I
IAN & SIMONA CANTRELL
651229 MT VERNON ROAD
WOODLEAF, NC 27054

**GROVES
ENGINEERING, PLLC**
NC FIRM P-2406
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MATTHEWS, NC 28105

PROJECT: 2025-1186		REVISIONS	
DATE	DWG	CHK	REMARKS
01/10/2026	KDW	JNG	INITIAL DESIGN DRAWINGS
01/24/2026	JNG	TWC	PRELIMINARY SITE LAYOUT
04/27/2026	JNG	TWC	REVISED SITE LAYOUT
02/16/2026	JNG	TWC	UPDATED SITE PLAN

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13

ISOMETRIC VIEW

ALL INLET/OUTLET
PIPING SCH 40 @ 1.5"

RETURN FROM
FIELD

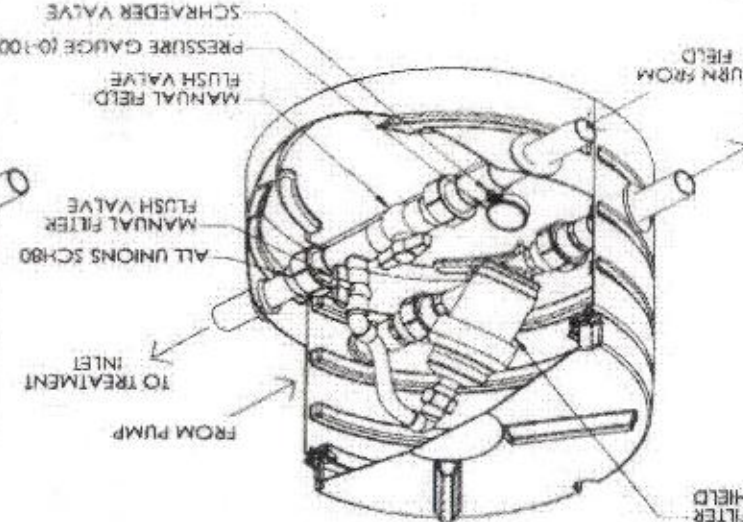
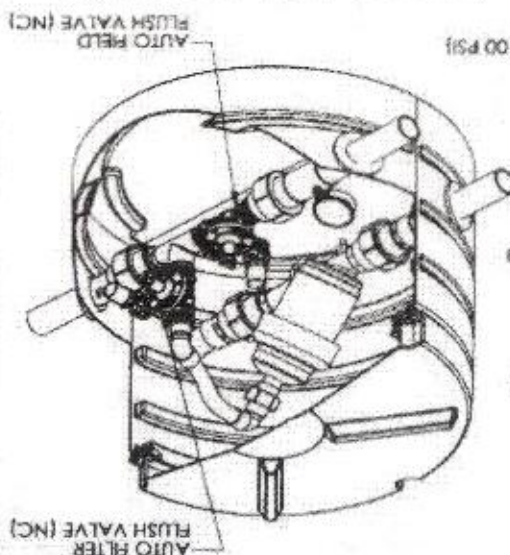
TO FIELD

0.5-µm BIODISC FILTER
W/ GEOSHIELD

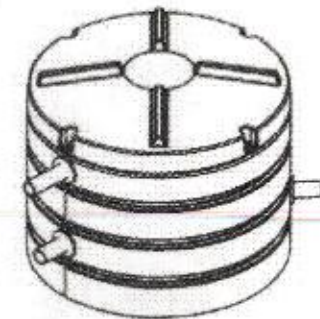
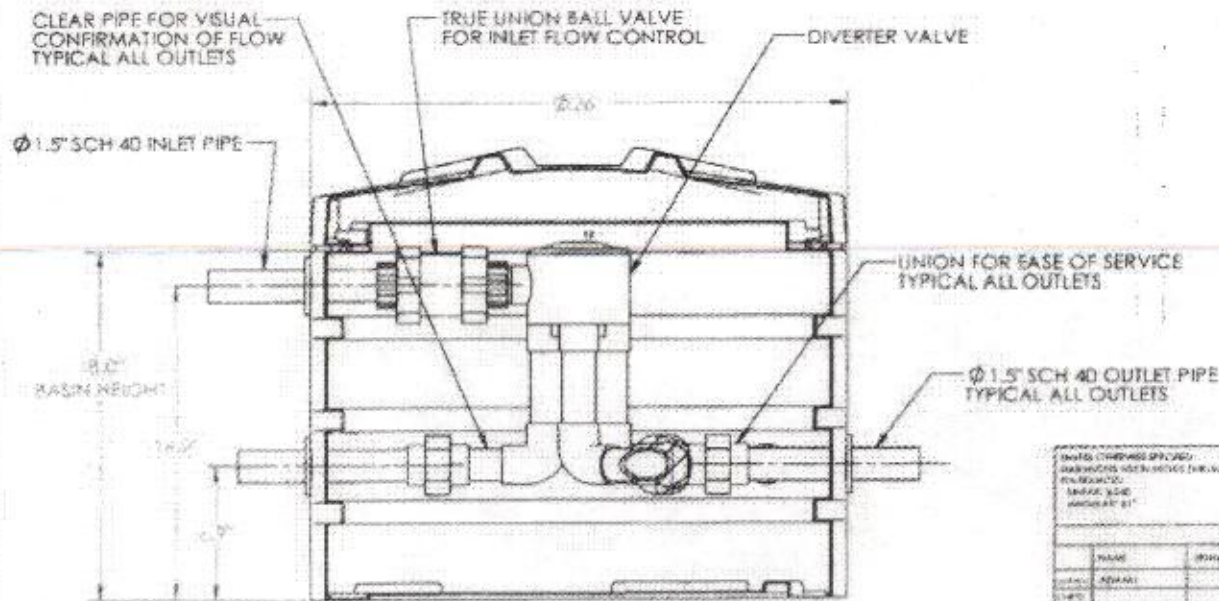
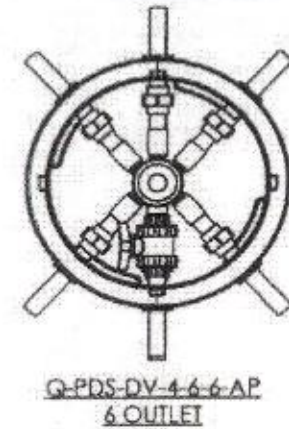
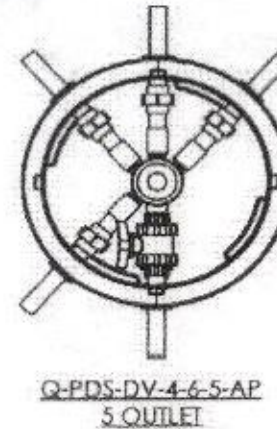
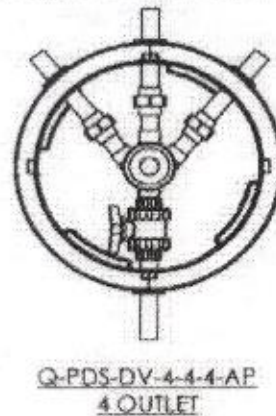
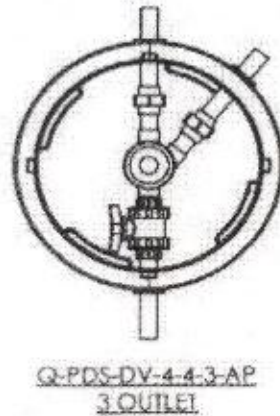
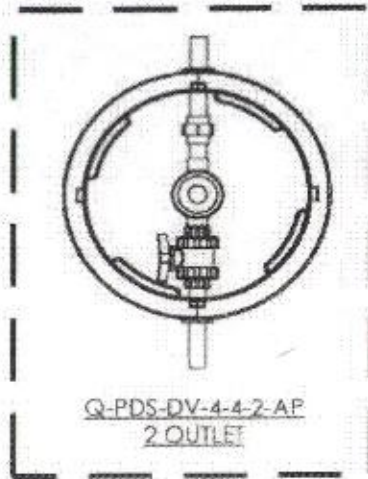
MANUAL WASHDOWN
HEADWORKS
(UP TO 20 GPM)

G-DFF-R88Z61B-AW-150BD-1-100MA-1	DRIFTERCO HEADWORKS IN 26X18 HDPE BASIN WITH LID, MANUAL WASHDOWN, 1.5" BIODISC FILTER, UP TO 20 GPM, 1" MANUAL
G-DFF-R88Z61B-AW-150BD-1-100SV-1	DRIFTERCO HEADWORKS IN 26X18 HDPE BASIN WITH LID, AUTO WASHDOWN, 1.5" BIODISC FILTER, UP TO 20 GPM, 1" AUTO

AUTOMATIC WASHDOWN
HEADWORKS
(UP TO 20 GPM)



TOP DOWN VIEW FOR EACH CONFIGURATION
LID REMOVED FOR CLARITY



ISOMETRIC VIEW

DIVERTER BASIN ASSEMBLY 4000 SERIES VALVE - 2 TO 6 OUTLETS		ANUA 4106 Bennett Avenue Greensboro, NC 27407 Phone 336-547-9338 www.anuasystems.com	DIVERTER BASIN ASSEMBLY 4000 SERIES VALVE - 2 TO 6 OUTLETS
Q-PDS-DV-4-X-X-AP		A3	

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GEOFLOW DIVERTER VALVE SPECS

TREATED DRIP SEPTIC SYSTEM DESIGN
IAN & SIMONA CANTRELL
251229 MT VERNON ROAD
WOODLEAF, NC 27054

PROJECT: 2025-1186

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01/27/2026	BNG	TEC	REVISED SITE LAYOUT
02/16/2026	BNG	TEC	UPDATED SITE PLAN

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AIR VENTS / VACUUM RELIEF VALVES

Standard Kinetic Air/Vacuum Relief Valve - Mushroom Top

Description

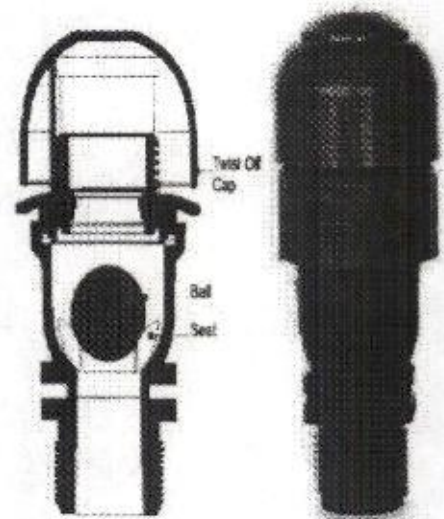
Air release occurs when air escape the system at startup and vacuum relief allows air to enter during shutdown. The air vent vacuum breakers are installed at the highest points in the drip field to keep soil from being sucked into the emitters due to back siphoning and back pressure. This is an absolute necessity with underground drip systems. They are also used for proper drainage of the supply and return manifolds. Use one on the high point of the supply manifold and one on the high point of the return manifold and any high points of the system.

Features

Genflow's kinetic air vacuum breakers have a twist off cap that is easy to take apart for cleaning. The large clear passageway allows lots of air to flow in and out easily. The elbow cap design is ideal for directing wastewater spray, directing spray downward. With the ball removed, these airvents can easily be used as a flush port. These can be used in freezing climates to capture warmer air that can be found below ground, in a sump during vacuum.

Specification

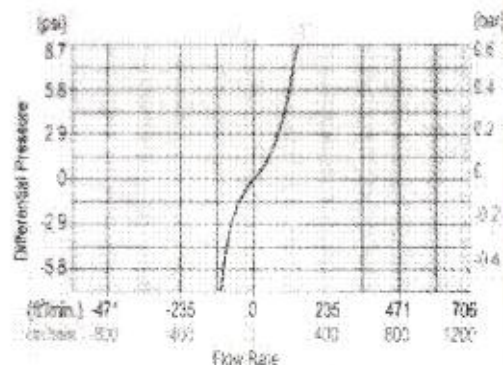
The Air Vacuum Breaker shall provide vacuum relief and non-continuous air relief. Both the body and the ball shall be made of molded plastic. The ball shall be removable for easy cleaning. The air vacuum breaker shall be part number APVBK100M as supplied by Genflow, Inc.



APVBK100M

Part No.	APVBK100M
Inlet	1"
Max Pressure	60 psi/185 ft
Max Temp	140° F
Height	5.5"
Weight	1.2 oz.

Air and Vacuum Flow Rate



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MATTHEWS, NC 28105

AIR ADMITTANCE/RELIEF VALVES

TREATED DRIP SEPTIC SYSTEM DESIGN

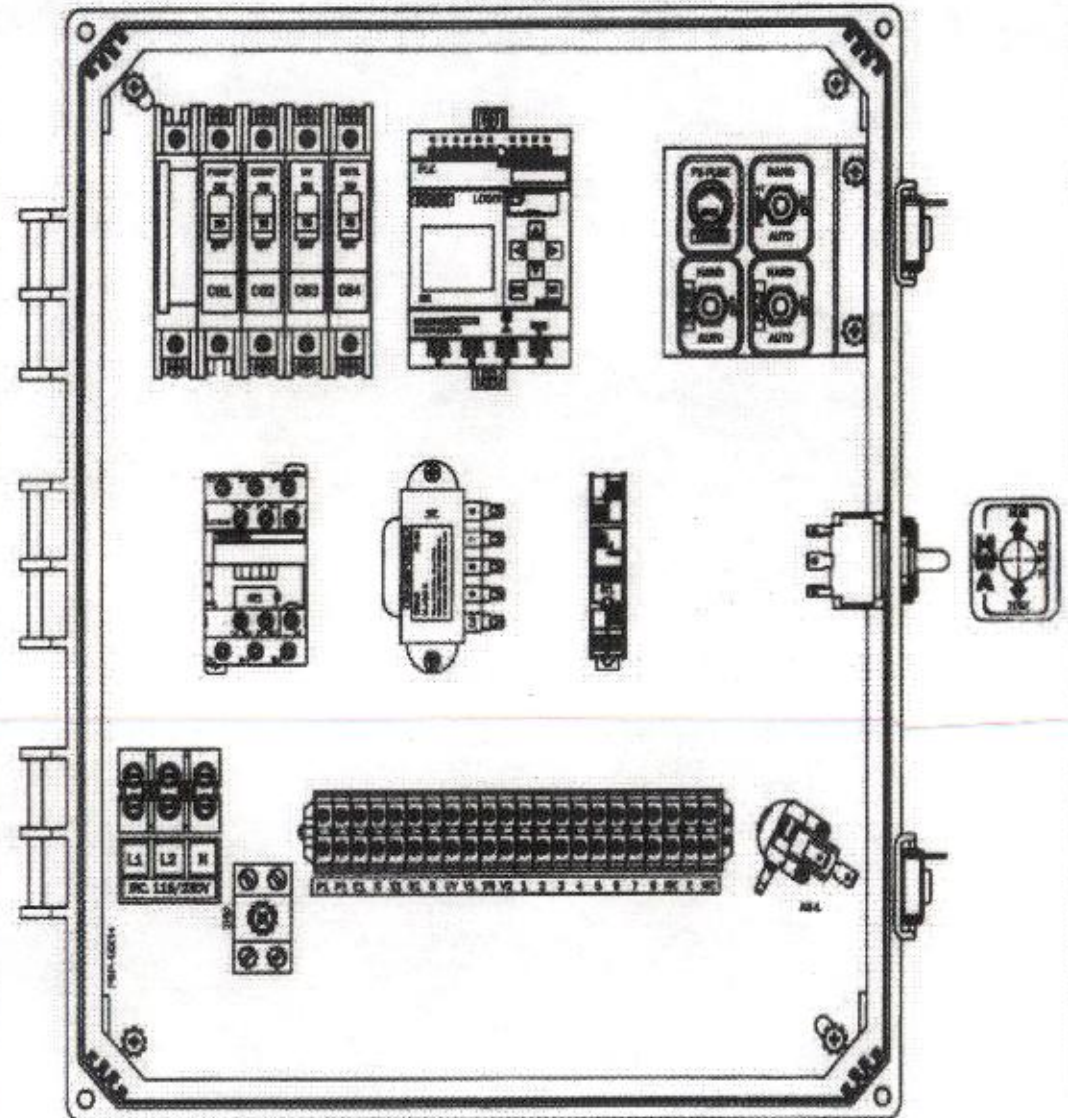
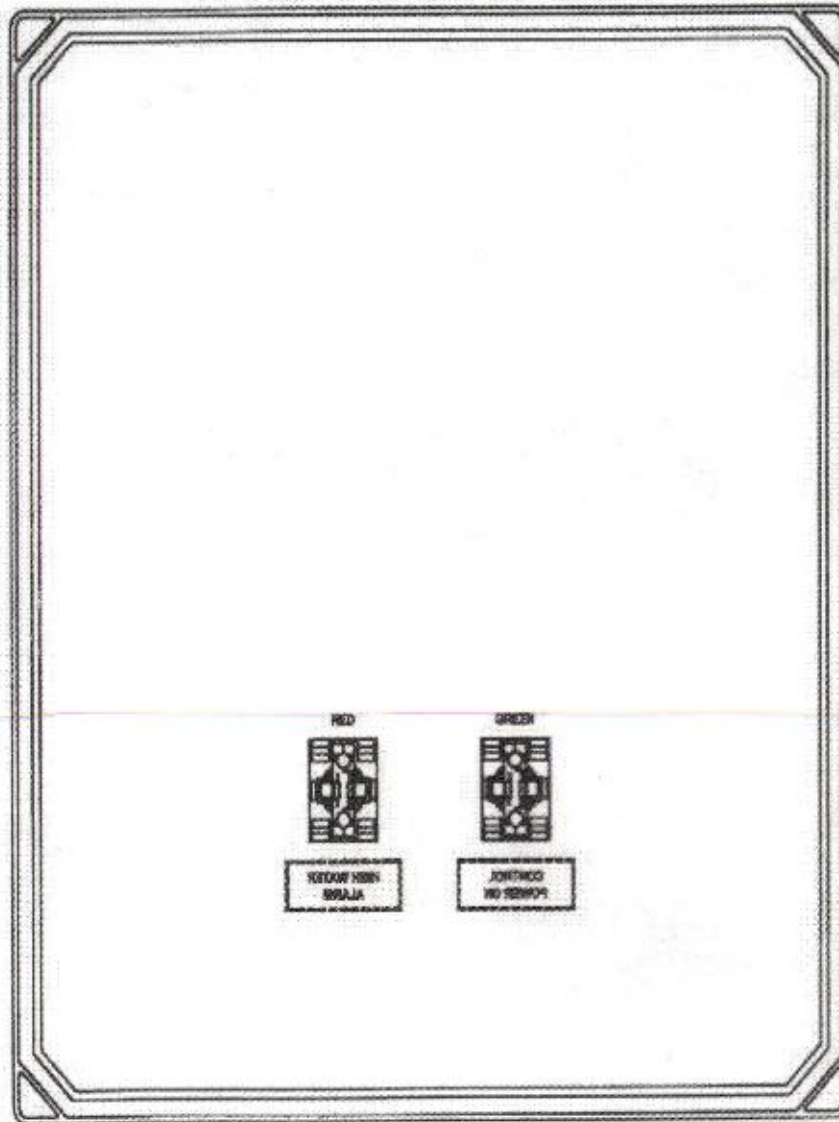
LAN & SIMONA CANTRELL
251229 MT VERNON ROAD
WOODLEAF, NC 27054

PROJECT: 2025-1186

REVISIONS

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01/27/2026	BNG	TRC	REVISED SITE LAYOUT
02/16/2026	BNG	TRC	UPDATED SITE PLAN

FUJI-17-1CAL-UV



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MATTHEWS, NC 28105

GEO-17 DOSING CONTROL PANEL

TREATED DRIP SEPTIC SYSTEM DESIGN

IAN & SIMONA CANTRELL
251229 MT VERNON ROAD
WOODLEAF, NC 27054

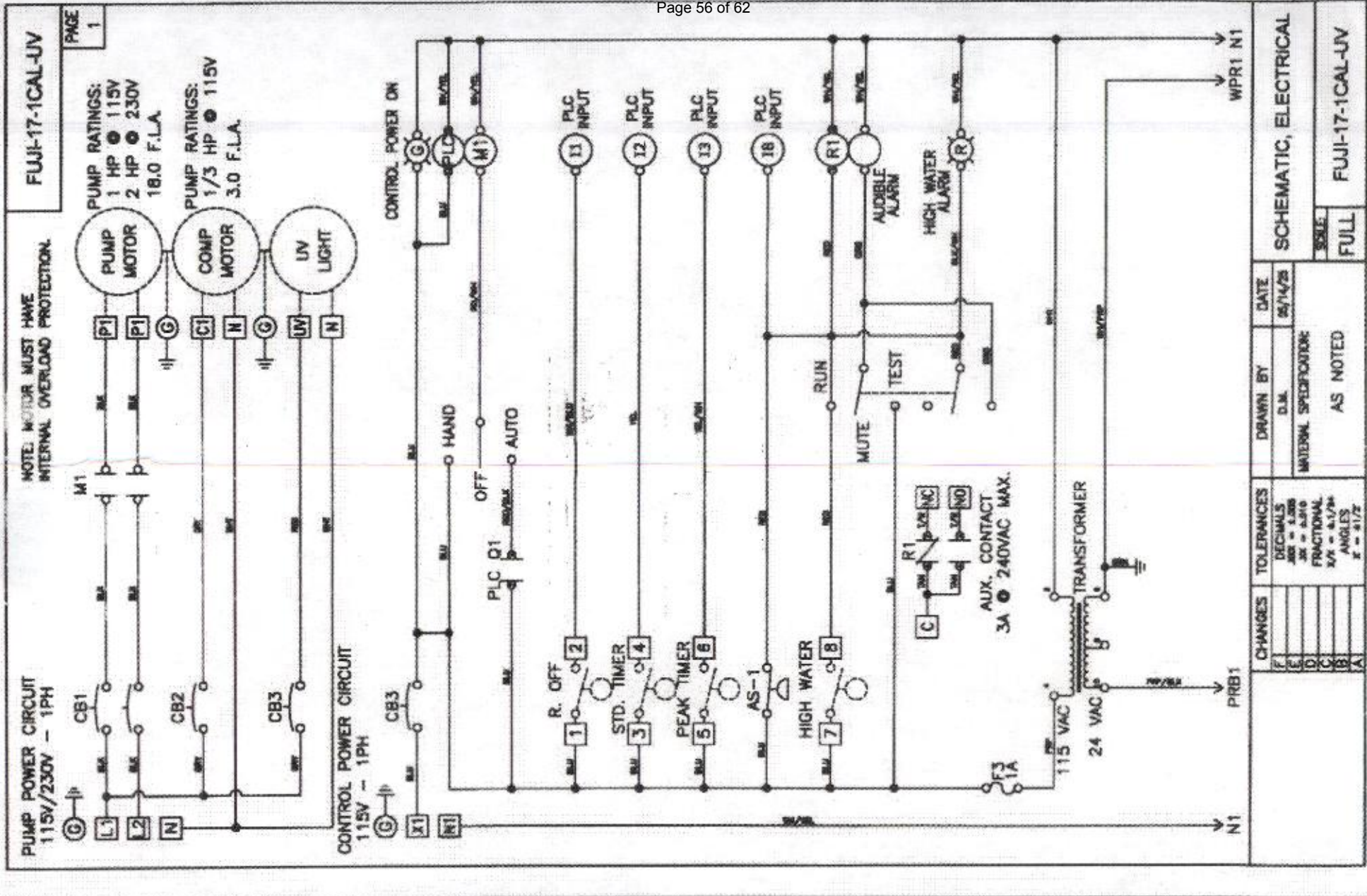
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3	01/27/2026	BNG	TBC	REVISED SITE LAYOUT.
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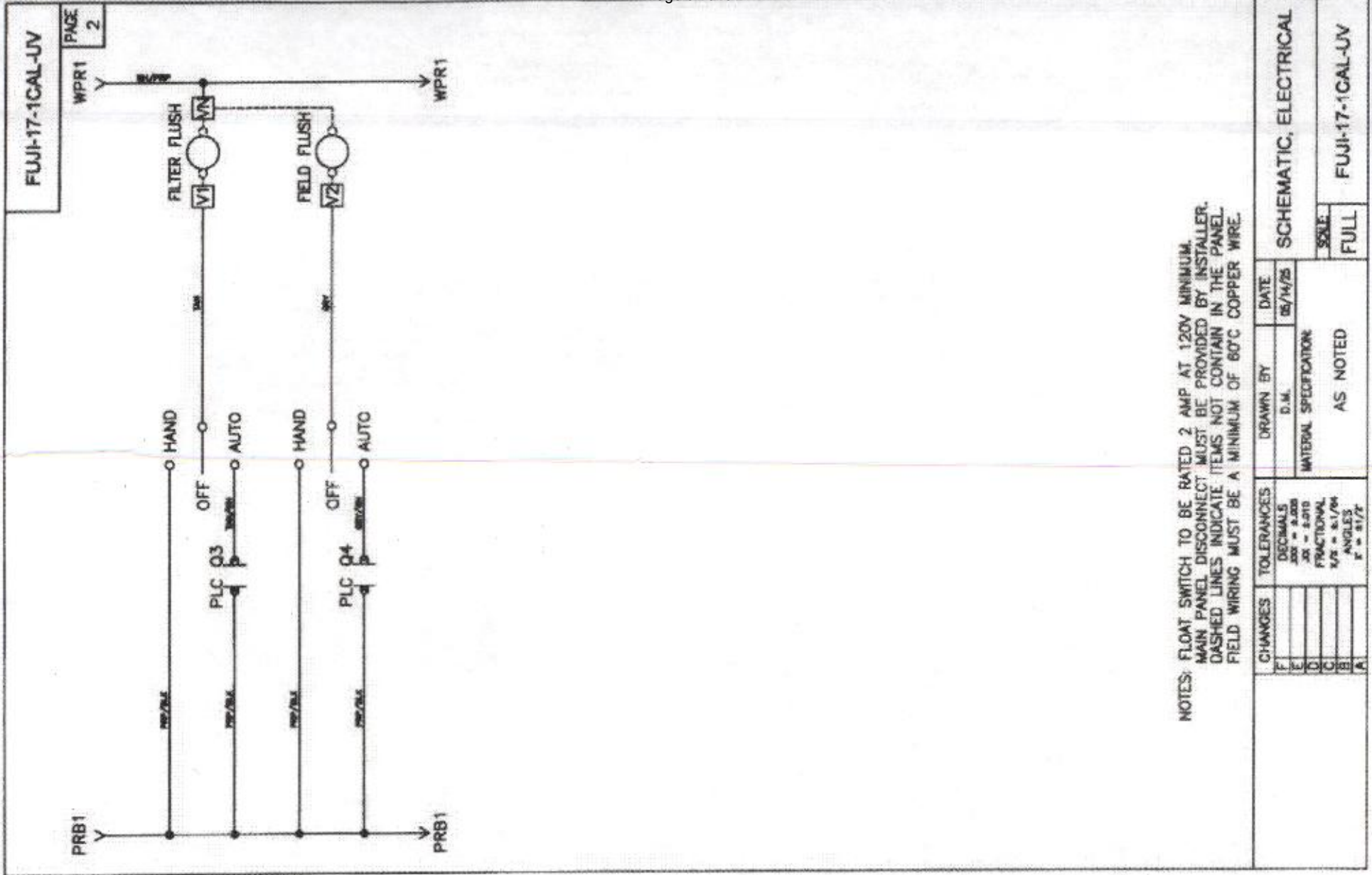


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GEO-17 DOSING CONTROL PANEL
TREATED DRIP SEPTIC SYSTEM DESIGN
IAN & SIMONA CANTRELL
251229 MT VERNON ROAD
WOODLEAF, NC 27054

PROJECT: 2025-1186				REVISIONS
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4	02/15/2026	BNG	TEC	UPDATED SITE PLAN.
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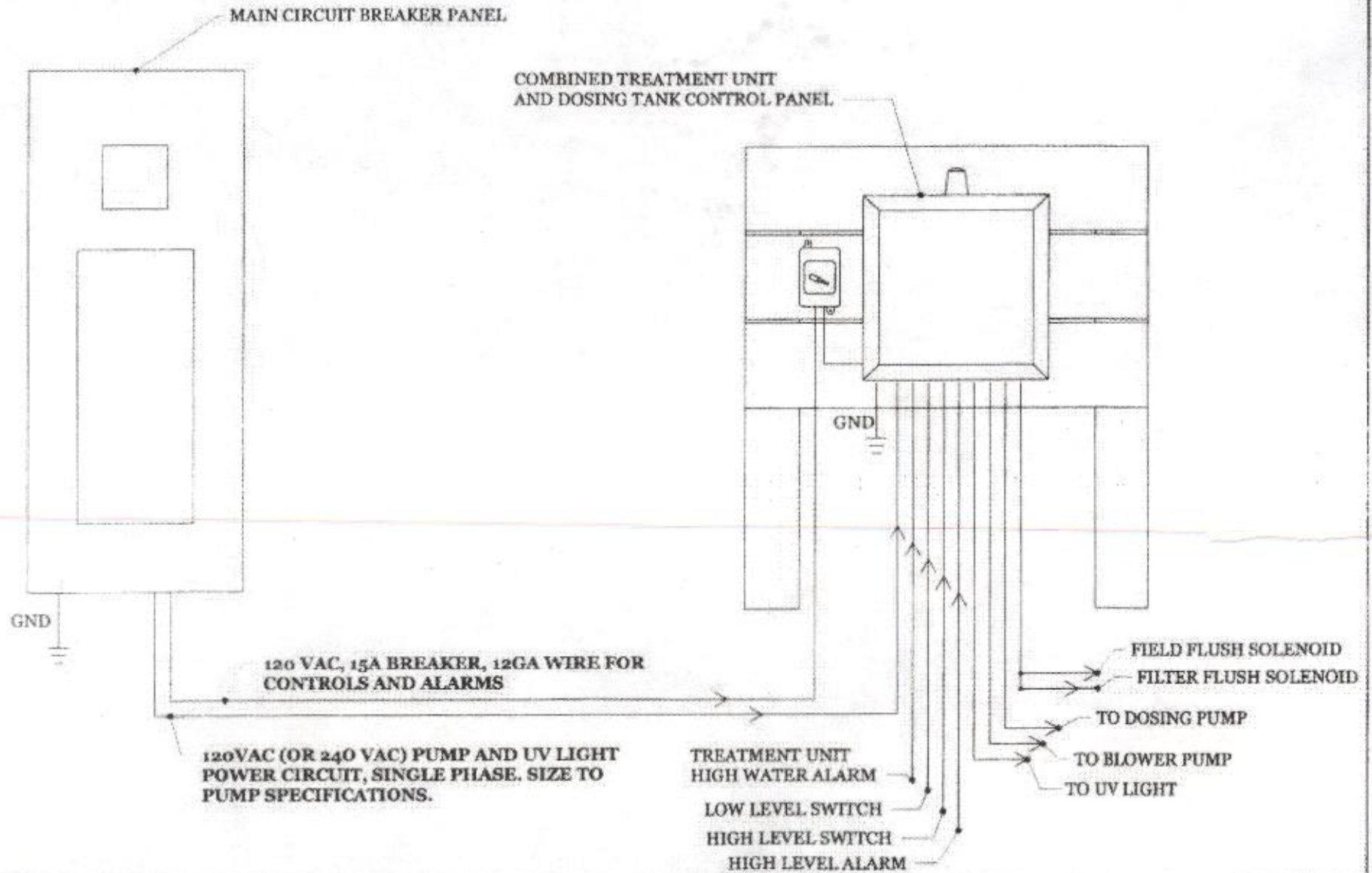
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GROVES ENGINEERING, PLLC NC FIRM P-2406 PO BOX 898 MATTHEWS, NC 28105	GEO-17 DOSING CONTROL PANEL	PROJECT: 2025-1186			REVISIONS	
	TREATED DRIP SEPTIC SYSTEM DESIGN IAN & SIMONA CANTRELL 251229 MT VERNON ROAD WOODLEAF, NC 27054	DATE	DWG	CHK	REMARKS	
		1	01/10/2026	KDW	BNG	INITIAL DESIGN DRAWINGS.
		2	01/24/2026	BNG	TEC	PRELIMINARY SITE LAYOUT.
		3	01/27/2026	BNG	TEC	REVISED SITE LAYOUT.
		4	02/10/2026	BNG	TEC	UPDATED SITE PLAN.
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**GROVES
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PO BOX 838
MATTHEWS, NC 28105

ELECTRICAL OVERVIEW

TREATED DRIP SEPTIC SYSTEM DESIGN
IAN & SIMONA CANTRELL
251229 MT VERNON ROAD
WOODLEAF, NC 27054

PROJECT: 2025-1186

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4	02/16/2025	BNG	TEC	UPDATED SITE PLAN.
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Property Value Impact and Land Use Compatibility Report – 1205 Mt. Vernon Road, Woodleaf NC

Proposed High-End Canine Training and Conditioning Facility
1205 Mt. Vernon Road
Woodleaf, Rowan County, North Carolina

Purpose

This report evaluates the potential impact of the proposed high-end canine training and conditioning facility on surrounding property values within the immediate and extended market area. The analysis incorporates verified residential sales, tax assessment trends, and standard real estate valuation methodology to determine whether the proposed use introduces measurable external obsolescence.

Market Area Definition

The subject property is located along Mt. Vernon Road in Woodleaf, North Carolina, within a rural residential and agricultural corridor. The primary market influence area for this analysis is defined as properties located within a one- to three-mile radius of the subject site. This radius reflects the area in which any external influence, if present, would be measurable in market transactions.

Market Conditions and Value Trends

Residential sales within the defined market area indicate a stable and appreciating rural housing market. Verified transactions from 2025 within the one- to three-mile radius include sales ranging from approximately \$215,000 to \$325,000, with the majority of arms-length transactions occurring between \$259,000 and \$305,000.

Representative sales include:

675 NC Highway 801, sold September 2025 for \$259,000
6825 Woodleaf Road, sold August 2025 for \$215,000
136 Burleson Point, sold December 2025 for \$273,000
110 Lochshire Lane, sold September 2025 for \$305,000
1070 Glenbriar Court, sold December 2025 for \$325,000
354 Crump Circle, sold October 2025 for \$225,000

These transactions reflect consistent pricing across property types, with no evidence of market resistance or pricing anomalies attributable to adjacent land uses.

Tax assessment data further supports long-term stability and appreciation. Representative examples within the immediate area include increases from approximately \$156,000 to \$253,000 and from approximately \$96,000 to \$152,000 over a ten-year period, reflecting

appreciation in excess of 50 percent. These trends are consistent across the broader market area.

Project Description

The proposed use is a private, low-density canine training and conditioning facility. Dogs are housed mainly as part of structured training or behavioral development programs. The use does not function as a high-volume boarding kennel.

Operations are appointment-based with limited daily traffic. The property is owner-occupied and does not generate employee commuting patterns. Improvements are designed to maintain a residential or estate-style appearance consistent with surrounding land uses.

External Obsolescence Analysis

Real estate valuation standards recognize that property value impacts occur only when external conditions create measurable and observable effects on surrounding properties. These effects are typically limited to traffic, noise, visual intrusion, or environmental conditions.

Traffic generated by the proposed use is minimal and scheduled. There is no retail component, no peak-hour activity, and no evidence that traffic volumes will exceed typical residential patterns observed within the market area.

Noise is controlled through both operational and structural measures. Dogs are actively trained and managed, reducing sustained barking behavior. Buildings are insulated and positioned with setbacks and natural buffers. For a noise condition to affect value, it must be persistent and perceptible at neighboring properties. There is no evidence that such a condition will exist.

Visual impact is limited by setbacks, existing tree lines, and planned buffering. The scale and appearance of improvements remain consistent with rural residential development patterns. No commercial-scale structures or visual elements are introduced.

Environmental conditions are controlled through modern waste management and sanitation systems. There is no evidence of off-site odor or environmental impact associated with properly managed, low-density training facilities.

Based on these factors, no condition exists that meets the criteria for external obsolescence under standard appraisal methodology.

Comparable Market Behavior

Analysis of comparable rural markets within Rowan County and similar regions indicates that properties located near equestrian uses, agricultural operations, and low-density animal-related services do not experience value reductions when those uses are properly managed and buffered.

Sales data within the subject market area shows no discount in pricing, no extended marketing time, and no deviation in buyer demand for properties located near such uses. Market

participants do not apply negative adjustments in the absence of measurable nuisance conditions.

Buyer Behavior and Market Reaction

Property values are determined by buyer perception at the time of sale. A land use impacts value only if it introduces conditions that are observable and influence purchasing decisions. Within the defined market area, there is no evidence that low-density, non-intrusive uses affect buyer behavior or pricing.

The current market demonstrates stable absorption, consistent transaction activity, and continued appreciation. These indicators confirm that no external factor is suppressing value within the area.

Conclusion

Based on verified sales data, tax assessment trends, and accepted real estate valuation principles, the proposed high-end canine training and conditioning facility does not introduce measurable external obsolescence.

There is no evidence within the one- to three-mile market area of value reduction associated with comparable land uses. Residential property values have remained stable and have demonstrated consistent appreciation over the past ten years.

No condition exists that would support a negative adjustment to surrounding property values.

Final Determination

The proposed use is compatible with the existing rural character of the area and does not adversely affect surrounding property values. The impact of the proposed facility on neighboring properties is neutral under established market and appraisal standards.

This determination is supported by current MLS sales data, tax value trends, and observed market behavior within the defined area of influence.

Exhibit A Comparable Sales Data and Market Evidence

A review of verified residential transactions within a one- to three-mile radius of the subject property reflects consistent and stable market performance. Sales occurring in 2025 include transactions ranging from \$215,000 to \$325,000, with the majority of properties transacting between \$259,000 and \$305,000. Properties include a mix of established rural homes and newer construction, indicating active demand across multiple buyer segments.

Representative transactions include 675 NC Highway 801 at \$259,000, 6825 Woodleaf Road at \$215,000, 136 Burleson Point at \$273,000, 110 Lochshire Lane at \$305,000, 1070 Glenbriar Court at \$325,000, and 354 Crump Circle at \$225,000. These sales demonstrate consistent

pricing with no observable discount attributable to proximity to agricultural or animal-related land uses.

Market exposure times and transaction patterns reflect typical rural conditions, with no indication of delayed absorption or pricing pressure. The data supports a stable market environment with continued buyer demand.

Exhibit B Ten-Year Tax and Value Trend Analysis

Tax assessment records within the immediate market area indicate sustained long-term appreciation. Representative properties have increased in assessed value from approximately \$156,000 to \$253,000 and from approximately \$96,000 to \$152,000 over a ten-year period. These increases represent appreciation in the range of 50 percent to 60 percent.

This trend is consistent with broader Rowan County valuation patterns and reflects a stable and growing rural housing market. There is no evidence within tax records of value suppression or decline associated with surrounding land uses.

Exhibit C Appraised Value Impact Analysis

This analysis applies standard real estate appraisal methodology, including evaluation of external obsolescence and market reaction.

External obsolescence is defined as a measurable loss in value caused by outside influences. For such a condition to exist, the influence must be observable, persistent, and recognized by market participants.

The proposed use does not introduce measurable traffic beyond residential norms, does not generate sustained or perceptible noise at property boundaries, does not create visual intrusion inconsistent with rural land use patterns, and does not produce environmental or odor-related impacts.

Based on these findings, no external obsolescence is present. The appropriate market-supported adjustment is zero percent. Market reaction is neutral, and surrounding property values are not adversely affected

Michael Elam

- **Executive Leadership:** President at LendingTree; CEO of Surety Bond/LaMesa Funding.
- **Risk & Construction:** EVP of Construction Risk Management (National); Certified Unlimited General Contractor (Licensed in NC, AZ, MD, SC, FL, and CA).
- **Financial Expertise:** CPA Accredited with 5 years of continuing education; National Certified Trainer in Accounting.

