



Moore County Board of Commissioners

August 15, 2023 | 5:30 PM
Historic Courthouse
1 Courthouse Square
Carthage, NC 28327

REGULAR MEETING MINUTES

COMMISSIONERS PRESENT

Chairman Nick Picerno, Vice Chairman Frank Quis, Commissioner Kurt Cook, Commissioner John Ritter, Commissioner Jim Von Canon

CALL TO ORDER

Chairman Picerno called the meeting to order.

INVOCATION

Pastor Don Cherry with the Sandhills Baptist Association offered the invocation.

PLEDGE OF ALLEGIANCE

GIS Manager Rachel Patterson led the Pledge of Allegiance.

1. PUBLIC COMMENT PERIOD

The following offered comments: John Misiaszek, Lori Heim, Sue Smithson, Peter Doubleday, Holly Matt, Gigi Secky, John Wilson, Jeff Marcus.

2. ADDITIONAL AGENDA

There were no changes to the agenda.

CHAIRMAN

Chairman Picerno asked whether any commissioner had a conflict of interest concerning agenda items the Board would address in the meeting and there was none.

3. CONSENT AGENDA

Upon motion made by Commissioner Von Canon, seconded by Commissioner Ritter, the Board voted 5-0 to approve the following consent agenda items, and the proclamation, tax releases/refunds resolutions, project ordinance for courthouse change order #6, Airport project documents, and ELC budget amendment are hereby incorporated as a part of these minutes by attachment as Appendices, A, B, C, D, and E, respectively.

A. Governing Body - August 1, 2023, 10:30am Regular Meeting Minutes

B. Governing Body - CVB: Year of the Trail Proclamation

- C. Tax - Tax Releases/Refunds-Month of July 2023
- D. Finance - Memorandum of Agreement with Moore County Schools, County of Moore and Sandhills Center
- E. Finance - Memorandum of Agreement with Moore County Schools, County of Moore and Sandhills Center – Amendment #1
- F. Social Services - Non-Emergency Medicaid Transportation Contract -- Wisdom Care Transportation LLC
- G. Social Services - Non-Emergency Medicaid Transportation Contract -- M&M Consulting Services
- H. Administration - Moore County New Courthouse and Renovation - Change Order #6
- I. Transportation - FY 2023-2024 Rate Increase for ModivCare - Rate Amendment
- J. Transportation - FY 2023-2024 Community Transportation Program (Section 5311) Grant Agreement
- K. Transportation - FY 2023-2024 Rural State Capital Grant Program Grant Agreement
- L. Airport - Airport Runway, Taxiway and Apron Lights, and Airfield Signage Revision #2
- M. Health - FY24 Activity 546 Communicable Disease Pandemic Recovery Grant Agreement Addendum
- N. Health - FY24 Activity 543 ELC Enhancing Detection Activities Grant Agreement Addendum
- O. Sheriff - Aramark Amendment 2

4. **RECOGNITIONS**

There were no recognitions.

Chairman Picerno inquired with Planning Director Debra Ensminger regarding comments made during the Public Comment period and whether the Unified Development Ordinance was being rewritten. Ms. Ensminger said no. Chairman Picerno discussed that the intention was to marry up inconsistencies in the UDO and Land Use Plan.

5. **PRESENTATIONS**

- A. Tax - 2023 Session of the Moore County Board of Equalization and Review
Mr. Jerry Daeke, Chairman of the Board of Equalization and Review, presented a report on the 2023 session of the Board, which is hereby incorporated as a part of these minutes by attachment as Appendix F. Chairman Picerno thanked Mr. Daeke and the Tax staff. He asked Mr. Daeke to provide additional explanation

regarding market value, etc. and he did so.

B. Public Works - Cross Connection Control Ordinance

Public Works Director Randy Gould provided a brief update on a recent water system pressure advisory. Discussion followed and commissioners expressed their thanks to the employees who worked overnight to correct issues. Chairman Picerno implored the public to contact the legislative delegation for help in getting the County's interbasin transfer allowance increased.

Mr. Gould provided a presentation regarding the Cross Connection Control Ordinance. Discussion followed and Chairman Picerno suggested that the County could provide a person to go to each connection and check it (with permission from the property owner) instead of burdening homeowners with the cost every year. County Manager Wayne Vest said it was a good concept if the legal issues could be pinned down and would help with scheduling.

Commissioner Ritter said he would like to know what other governments were doing. Chairman Picerno recommended that Mr. Gould bring the Board another presentation and said he would like to keep the discussion in the open.

Mr. Gould's presentations are hereby incorporated as a part of these minutes by attachment as Appendix G.

Chairman Picerno offered comment in response to items discussed by citizens during the meeting (during the public comment period). He said that for over 140 years, North Carolina was controlled by the Democratic Party, and he was a schoolteacher, and his salary was around \$9,000. In 2010, Republicans took over all three branches of government and suddenly teacher pay was an issue. He discussed that the current average was about \$58,000 plus benefits for ten months.

Regarding a countywide water system, he shared that it was not as easy as it seemed as the County had been working since 2008 to just get one system on.

6. PUBLIC HEARINGS

A. GIS/IT - Public Hearing - Amendment to the Road Name and Addressing Ordinance to Add One Road

GIS Manager Rachel Patterson presented a request to amend the Road Name and Addressing Ordinance to add one road, Chiefs Way. Chairman Picerno opened the duly advertised public hearing regarding this matter. There were no speakers. Chairman Picerno closed the public hearing. **Upon motion made by Commissioner Ritter, seconded by Commissioner Von Canon, the Board voted 5-0 to add one road to the Moore County Road Name and Addressing Ordinance as proposed.** The amendment is hereby incorporated as a part of these minutes by attachment as Appendix H.

B. Planning - Public Hearing to Consider Amendments to Chapter 19 (Subdivisions) and Chapter 20 (Definitions) of the Moore County Unified Development Ordinance

Chairman Picerno asked County Attorney Misty Leland how much time the Board should allow speakers during the public hearing. Ms. Leland discussed G.S. 153-52 and explained that the Board could adopt reasonable rules. Chairman Picerno asked if there was any wish to limit the time and then said the Board

could see how the first one went before deciding. Ms. Leland reminded him that he could limit anyone being repetitive, etc.

County Manager Wayne Vest offered response to discussion from the public comment period that were complimentary of Planning staff, and he concurred that the County was blessed to have Planning Director Debra Ensminger and her staff.

Ms. Ensminger reiterated that the proposed amendments being presented were brought out during the Union Church Road major subdivision hearing the previous year. There were some things that needed to be clarified, and she had also heard from developers, and she reminded everyone that she was just the messenger in her position. Ms. Ensminger presented and reviewed the recommended amendments to Chapters 19 (Subdivisions) and 20 (Definitions) of the Unified Development Ordinance. She shared that the amendment regarding the stormwater plan was approved by a split vote of the Planning Board and Chairman Picerno asked what the reason was for the split vote. Ms. Ensminger said those voting against it felt the amendment was taking control away from the Board of Commissioners. Ms. Ensminger continued her review and there was discussion regarding there being no construction allowed until NCDEQ approved and how the public would know enough to override what DEQ said. Chairman Picerno asked if DEQ saw a problem if they could request changes and Ms. Ensminger said yes and that the Planning Department would be notified as well. Commissioner Von Canon inquired regarding the difference in high quality water as was being discussed by Ms. Ensminger and she said it was delineated by the State and the County managed the watersheds. Commissioner Von Canon noted that as the County had found out the past week (due to low system pressure), all the water was important.

Chairman Picerno opened the duly advertised public hearing regarding this matter. Comments are summarized below, and a recording of the full hearing is available in the office of the Clerk to the Board.

Mr. Bob Coates discussed the Land Use Plan and congratulated the Board on its decision to convene a robust steering committee to guide the process. He said the 2013 Land Use Plan was a quality document and had served the County well for ten years, but a lot had changed. He discussed that it was important to update the Land Use Plan and then revise the Unified Development Ordinance, and that he felt rather than making changes to the UDO this day, the County should first update the Land Use Plan.

Mr. Bruce Geddes stated his agreement with Mr. Coates' comments. He discussed his residence downslope from a major parcel ripe for development and the possibility for staff to be pressured. He suggested taking the burden off staff and giving the public a chance for due diligence.

Mr. Jeff Marcus discussed the assumption that the State's rules were adequate and suggested that they were not adequate for protecting the County's water. He discussed a reduction in some rules that that the opportunity to make a difference in development was early in the process. Chairman Picerno discussed Mr. Marcus' work history with the State and said he would think the State would have more resources, engineers, training, etc. than could be provided locally. Mr. Marcus concurred that the State did have more resources, but said its policies were not adequate, and he felt the proposed UDO changes took the County out of the game. Chairman Picerno discussed that it was not just about opinions but

what was truthful and whether there really was more flooding because of subdivisions. Commissioner Quis commented that the State looked at things from a higher elevation than the County and you could not know until you walked a property, graded it, etc. what you were dealing with. He said the Village of Whispering Pines had some serious issues and he would love to hear what they had to say. Chairman Picerno asked if the County approved stormwater for Whispering Pines and Ms. Ensminger said no, and Commissioner Quis said however that the County could learn from their experience. Mr. Marcus further discussed impervious surfaces and the need to understand better what the various root causes were (for flooding issues, etc.). Chairman Picerno asked if the County was increasing impervious surfaces (via the recommended UDO changes) and Ms. Ensminger said no.

Ms. Holly Matt discussed the increase in impervious surfaces each time a development was approved.

Mr. Philip Picerno, engineer with LKC, discussed his frequent involvement with developments and stated his belief that requiring that level of design (stormwater plan per current UDO) was putting the cart before the horse. He said the County was basically asking the developer to design the entire subdivision before they knew if it would be approved. Chairman Picerno asked how much that would cost and Mr. Picerno said \$85,000-\$100,000. Chairman Picerno asked if DEQ would have to look at it and Mr. Picerno said yes. Discussion followed regarding the amount of communication and requirements with DEQ to get a permit, and regarding the inability to start construction until permits had been received from all the required agencies. Commissioner Cook asked how much the developer would make and said he was thinking the \$80,000-\$100,000 cost really would not hurt him that much. He discussed that just because something had not been done before did not make it right. Mr. Picerno discussed that no other place had thought it to be reasonable idea (putting the cart before the horse with the stormwater plan). Commissioner Quis asked if one were looking at the plat and there was no stormwater plan, what opportunity there would be if there was a problem. Mr. Picerno said it was up to the engineer to design it at Moore County's standard. Commissioner Quis discussed a flooding issue at Brucewood Road and said stormwater facilities did fail. Mr. Picerno responded that it was a construction issue and not necessarily a design issue and discussed the need to preserve room for stormwater management.

Mr. Tim Carpenter, engineer with LKC, discussed that the County already had provisions in place to ensure stormwater controls were being provided. He questioned who would even review them if provided with the preliminary plat. He said plans were being designed according to State standards and local standards and that the rules were out of order for the process.

Mr. Matthew Parker discussed the need to make good policies for Moore County and not just copy other counties. He discussed the experts required to be hired for the quasi-judicial hearing process and noted they were not free. He also questioned trust of DEQ. Chairman Picerno asked if they did not trust DEQ, why they should trust expert witnesses that were being hired and paid. Mr. Parker encouraged the Board not to vote its power away and said the quasi process was a privatization of review. He said they were asking for citizens to be kept in play in the process and recommended the Board vote to not remove the current stormwater management plan requirement.

Chairman Picerno called for a brief recess at 8:15pm and the Board reconvened at approximately 8:30pm.

Mr. Parker continued his comments, reviewing a summary of recommended changes before the Board and offering his suggestions.

Mr. John Webster discussed that the existing Land Use Plan wanted people's involvement and the changes proposed took that away. Chairman Picerno asked him for an example, and he said an example was deleting a zoning decision sign, though that change was applicable to the Board's next scheduled hearing, not the current one.

Mr. Stephen Athans commented that the County had a strong, clear UDO and a good, strong Land Use Plan that protected the things it had. He said it was important to give Planning and government entities the resources they needed to ensure requirements were met and to hold them accountable for doing that. He discussed that the proposed changes this evening did not make sense.

Chairman Picerno reviewed that the Land Use Plan update would be a nine-month process and they were trying to clean it up to make it (and the UDO) consistent. Mr. Athans discussed that the rural lands were some of the County's positive characteristic and they did not need to encourage subdivisions. He said the stormwater plan up front was good and questioned how, if developers were not willing to do the work up front, the County would manage growth, and what that said about the developer and his intentions. He said he was not against growth, and it was inevitable and necessary, but that he was opposed to unmanaged growth as it stressed all elements of the County. He appealed to the commissioners as stewards of the County to let it grow the way the citizens wanted it to.

Mr. Marsh Smith discussed the high-quality water designation and growth. He said it was important to have the stormwater management plan in the preliminary stage and urged the Board to keep it there. Regarding Commissioner Cook's earlier comments about the developers' finances, he discussed an example of a design scheme he reviewed for the Lobelia area and the developer's cost. He said it made sense to have the stormwater plan up front so citizens could look at it, and he provided another example from his law practice. He discussed that it was extremely important to keep the provision in and the cost would be a small percentage of the developer's windfall. He offered a suggestion to potentially create new zoning districts that would provide opportunity for citizens to speak in a legislative hearing. Chairman Picerno offered response regarding the cost to the developer, noting that the example provided by Mr. Smith would not apply to every case.

Mr. Michael Parker discussed that the matter was not about change to the UDO but about public input and oversight of the government. He referenced petitions previously submitted to the Board by Moore Family Farms. He discussed the system of application, hearing, etc. and the stormwater plan for the Union Church Road area subdivision that was previously denied, as well as contamination, stormwater, and impervious surfaces, etc. He discussed that it was important for public oversight and input that it be at the preliminary stage where it allowed for challenge/input. He said the Board would never see the final plat unless there was a major change. Chairman Picerno inquired about DEQ approval. Ms. Ensminger said the final plat could not be signed until everything had been completed and she reviewed the process. County Attorney Misty Leland noted

that DEQ would see the stormwater management plan and issue necessary permits for construction. Proof would have to be shown at the Planning Department before Planning staff could sign off on the final plat and it could be recorded. Commissioner Von Canon inquired regarding whether DEQ was only looking at it if it were a high-quality water source and Ms. Ensminger said that was correct. Mr. Parker inquired about a low-quality water source and Ms. Ensminger said that for that they would rely on the engineer's seal. Ms. Leland discussed the UDO definition of a stormwater management plan. Chairman Picerno asked about high quality versus low quality water and Ms. Ensminger indicated it was assigned as deemed by the State. Mr. Parker inquired regarding when citizens could see the stormwater management plan and Ms. Leland informed him regarding the availability of public records. Mr. Parker questioned when citizens would have the opportunity to speak about it. Ms. Leland further reviewed processes as established by the General Assembly. Mr. Parker discussed that if it was taken away at the preliminary plat, there would be no way for the citizens to see the stormwater plan and offer any challenge to it before DEQ passed it. Ms. Leland reiterated that DEQ had to approve the stormwater management plan and DEQ's requirements could not be changed no matter what experts were brought in. Mr. Parker reiterated that he wanted the Board and citizens to have the opportunity to review it prior to that point. Mr. Parker discussed cost again and its impacts on those affected by development. Chairman Picerno noted that the example provided earlier by Mr. Smith did not universally apply and they just wanted to get to the factual information. Chairman Picerno said to try to use anger and the public, pointing a finger at the Board, was not Mr. Parker (characteristic of him). He reviewed that the County did not do quasi-judicial hearings for subdivisions when he was on the Board the first time and the developers knew the rules and played by them. He said he did not want Moore County destroyed and was not on anybody's side, but liked to follow common sense which told him if a developer did a poor project, he would be out of business and there would be a legal recourse. Mr. Parker discussed that it would be nice to address the harm before it happened. Chairman Picerno noted that none of them were qualified to judge whether it was harmful or not; rather, that was what the engineers and DEQ did, and Mr. Parker got citizens to come in all riled up almost like a mob mentality that overwhelmed (the Board). A citizen spoke out from the audience in argument with Chairman Picerno regarding his mob mentality comment and Chairman Picerno asked the Sheriff's deputy present at the meeting to remove the citizen from the meeting and he did so. Chairman Picerno continued to address Mr. Parker, clarifying his comments. Chairman Picerno discussed that they were just trying to make the UDO and Land Use Plan match and noted that the inconsistencies were brought up by Mr. Parker during the Union Church Road hearing. Mr. Parker explained that the proposed UDO amendments sought to not fix the problem but to change the requirements of for approval of a major subdivision, while removing the citizens' ability to comment and have recourse. He said his point was to leave it the way it was, and he discussed those he trusted versus who he did not. Chairman Picerno said he was not trying to take anything away from citizens and grew up with them. He discussed that he saw common sense things that needed to be fixed. Discussion continued between Chairman Picerno and Mr. Parker. Mr. Parker, questioning comments by Chairman Picerno regarding the Planning

Board's approval of the amendments, said he thought he heard Ms. Ensminger say the proposed amendments were brought to her by the developers. Chairman Picerno said the Planning Board reviewed them and gave the commissioners their recommendations and passed every one of them. Mr. Parker reminded the commissioners that they ran for their offices and promised to look out for the citizens' interest, and look after the County and its resources, and they were at a crossroads where they had to make a decision of whether they would keep their authority or hand it away. Chairman Picerno said the crossroads was fifty years prior, and he discussed change and the citizens' trust in him to do what was right, and his feeling that this issue had become emotional and out of whack. Mr. Parker said it would not hurt to leave it the way it was.

Chairman Picerno closed the public hearing, but an additional speaker raised his hand to speak. Chairman Picerno reopened the hearing. Ms. Leland reminded the Board as an educational, legal point that the Special Use Permit allowed conditions.

Mr. Ron Jackson discussed sediment control plans for high quality and low-quality water, as well as the investment he was required to make into developments. He shared that DEQ did not approve plans and go away; rather, they constantly visited job sites, and he gave an example regarding a tomato garden in one of his developments.

There being no further speakers, Chairman Picerno closed the public hearing. Chairman Picerno said to Mr. Michael Parker that he did not mean to dishonor his family and he apologized. He clarified that he did not call the group a mob but instead said mob mentality, and they should simply follow laws and rules. He said he respected the people in this place and was thankful to be in America. Chairman Picerno suggested going through the recommended UDO amendments one at a time and voting them up or down or tabling the matter. He noted that the first motion would need to be the one regarding consistency with the Land Use Plan. Commissioner Quis said he preferred not to vote this night and he had a lot to think about. **Upon motion made by Commissioner Quis, seconded by Commissioner Ritter, the Board voted 5-0 to table the matter to the Board's next meeting (September 5, 2023, 10:30am Regular Meeting).**

Ms. Ensminger's staff report and other items submitted for the hearing are hereby incorporated as a part of these minutes by attachment as Appendix I.

- C. Planning - Public Hearing to Consider Amendments to the Unified Development Ordinance: Chapter 4 (Zoning Permits, Site Plans, and Determinations), Chapter 7 (General Development Standards) Chapter 8 (Specific Use Standards), Chapter 17 (Flood Damage Prevention)

There was inquiry/discussion by Chairman Picerno regarding tabling this item and Planning Director Debra Ensminger shared that these recommended amendments were staff-initiated. **Upon motion made by Commissioner Quis, seconded by Commissioner Ritter, the Board voted 5-0 to table this hearing to the Board's next meeting (September 5, 2023, 10:30am Regular Meeting).**

Chairman Picerno called for a five-minute recess and the Board reconvened shortly thereafter.

7. QUASI-JUDICIAL HEARINGS

A. Planning - Quasi-Judicial Hearing for an Amendment to a Special Use Permit: Conservation Subdivision – Bibey Road (2 Additional Lots) - ParID 20210670, 00039436

APPLICANT: Tri-South Builders, Inc. And Brandon J. & Emily K. Cooley
Chairman Picerno announced a request by Tri-South Builders, Inc. and Brandon and Emily Cooley for an amendment to a Special Use Permit for a Major Conservation Subdivision Preliminary Plat approval (Bibey Road Subdivision – 2 Additional Lots) for two additional lots in an existing major subdivision located on Bibey Road, and 180 Archdale Drive, Carthage, NC. He discussed that the hearing on this matter was judicial in nature and would be conducted in accordance with special due process safeguards, and he reviewed procedures. Chairman Picerno called forward to be sworn in those wishing to testify in the matter. Mr. Ryan Shahan, Mr. Andrew Davidson, Mr. Philip Picerno, Mr. Brandon Cooley, Ms. Debra Ensminger, and Mr. Wes Caddell were sworn in by Laura Williams, Clerk to the Board. Chairman Picerno provided opportunity for Board members to describe any prior exposure to evidence and to reveal any possible conflicts and withdraw from the proceedings if necessary. There were none. Chairman Picerno further explained the proceedings and then opened the duly advertised quasi-judicial hearing regarding this matter.

Planning Director Debra Ensminger made the presentation on the request. Ms. Ensminger shared that the application met all the required standards of the ordinance. She reviewed the plat and the subject lots and noted that Lot 13 met requirements, but Lot 14 would decrease open space originally approved by the Board of Commissioners. She reviewed ordinance requirements that open space could not be subdivided once created, and ordinance provision to allow major modifications. Ms. Ensminger explained that the change in open space was very minimal, and the total open space would still exceed the 30% requirement for the entire subdivision.

Mr. Philip Picerno, PE with LKC Engineering, PLLC, discussed Lot 13 and explained that the Cooley father-in-law wanted to build a house on that lot. He discussed Lot 14 and shared that the final soils report revealed good soils suitable for septic, whereas the preliminary report did not. He said the roads and water were in place and it was now just a matter of plotting and building a home. Chairman Picerno inquired regarding a noted foundation drain and Mr. Picerno offered explanation that this would not be an issue.

Mr. Wes Caddell, developer, further discussed the foundation drain.

Commissioner Von Canon inquired as to the location of Lots 11 and 12 and Mr. Caddell said they were toward the rear of the subdivision. County Attorney Misty Leland asked whether Planning staff or the applicant had introduced the preliminary plat into evidence, and all the reports. Ms. Ensminger introduced into evidence the preliminary plat. Ms. Leland explained that the subdivision was approved a few years prior and now there was a major modification, so the ordinance required going back through the steps. Commissioner Quis inquired about the septic field on a 20,000 sq. ft. lot and Mr. Caddell offered explanation and confirmation that he knew the lots would work.

Mr. Ryan Shahan stated that no one had any objection to Lot 13. He shared that he was the Homeowners' Association (HOA) president for Bibey Road and lived right next to Lot 14. He said he was not an attorney. Ms. Leland confirmed that his status as the HOA president gave him standing. Mr. Shahan continued and

shared that he did have a problem with Lot 14. He shared that Mr. Caddell had recently informed him that a drainage basin had to go there, in back of his property. He said it would devalue his property and Ms. Leland informed him that he could not testify on the property value unless he was a licensed appraiser. Mr. Shahan shared that he was concerned about erosion and said the area designated as green space was one of the reasons he bought the property because that was value to him, and he moved specifically because of this. Commissioner Quis asked which lot was his and Mr. Shahan said Lot 5. Commissioner Quis asked for clarification that the sediment pond behind him was recently constructed, and Mr. Shahan said it was about two months prior. Commissioner Von Canon asked how long he had lived there, and Mr. Shahan said since March. Commissioner Von Canon asked if Mr. Shahan received any forewarning (regarding the drainage pond) and Mr. Shahan said none and that he happened to be at home and talked to Mr. Caddell and his operator. Chairman Picerno asked when the HOA was formed, and Mr. Shahan indicated it was July 29, 2023. Ms. Leland asked if it was recorded at the Register of Deeds, and he said no.

Mr. Andrew Davidson shared that he was the owner of Lot 4. Ms. Leland asked if he was a member of the HOA, and he said yes. Mr. Davidson said he did not oppose the Cooley lot but said he did oppose Tri-South reducing HOA open space next to his lot. He said he felt deceived and manipulated as he was told nothing would be next to him and the open space was protected. He shared that he had went through documents provided by Planning staff which he found very helpful, and Chapter 19 of the UDO said open space shall be permanently restricted. He said this was strong wording to overturn within a year. Mr. Davidson explained his understanding that the ownership of the open space was with the HOA. Ms. Leland reviewed that Chapter 13 of the UDO allowed major modifications including but not limited to decreases in open space, so it was possible if all standards and procedures had been satisfied. Mr. Davidson again referenced 19.9 and ownership of open space. Mr. Caddell said to his knowledge that Tri-South was still the owner of record and taxpayer on the property. Commissioner Von Canon asked if he kept the property so he could subdivide but they (Mr. Shahan and Mr. Davidson) heard otherwise. Mr. Caddell clarified that he was not their builder; he was the developer. Ms. Leland asked if he had covenants and restrictions recorded at the Register of Deeds and Mr. Caddell said yes. Chairman Picerno asked Mr. Davidson who told him the lot next to him would be permanent open space and Mr. Davidson said it was in his closing documents. Commissioner Von Canon asked who was his builder and Mr. Davidson said Ascot and he had reached out through his realtor.

Ms. Ensminger introduced the following documents into the record: the LKC Bibey Road subdivision preliminary plat showing open space dated 6/21/2021, the restrictive covenants, UDO Chapter 19 and 13 (Section 13.4).

Chairman Picerno asked Mr. Davidson if he was specifically told this was open space and would remain open space and that was part of his buying decision and Mr. Davidson said yes, absolutely. Inquiry was made with Commissioner Ritter (an attorney) regarding his thoughts, and he said as an individual in the same scenario who had been made a promise, he would be disappointed, but he did not want to get into the legal aspect. Ms. Leland noted that the UDO open space versus modification could be seen as a contradiction. Chairman Picerno said that

was an inconsistency in the UDO. There were additional comments and Mr. Davidson discussed that it was doing what was right and affected multiple people in his neighborhood.

Ms. Ensminger stated that she was entering the plat, staff report, stormwater management plan, UDO sections into the record.

Mr. Caddell discussed that he had never told these folks this or interacted with them. He said he had emails from Planning (a former staff member) directing him to do the final plat and then proceed in this way (for the additional lots).

Commissioner Von Canon asked him how much more he planned to take out and he said this was it and conveyance could happen now that there was occupancy for the HOA. There was discussion regarding Lot 14 and Mr. Caddell confirmed that it had not been sold. Commissioner Ritter sought clarification that there was no objection for the Cooley's Lot 13 and Mr. Davidson confirmed there was no objection to Lot 13. Commissioner Quis asked if there was anything on Lot 14 presently and Mr. Caddell said no. Commissioner Quis asked if there were somewhere else he could put Lot 14 and Commissioner Von Canon asked who owned Lots 11 and 12. Mr. Caddell stated that Lots 11 and 12 were owned by Mr. Cooley and his neighbor.

Commissioner Cook asked how much Lot 14 could go for and Mr. Caddell said based on the past, somewhere in the mid-60s. He said the process was slowed because of UDO requirements and should have advanced the past year.

Commissioner Von Canon said it should have been put into the design initially instead of being sold as open space.

Mr. Shahan said this was a significantly smaller lot with significantly smaller road frontage. Mr. Davidson asked Mr. Caddell why it was not in the original plat. Mr. Caddell shared that they had emailed Planning and were advised to go back through the Subdivision Review Board, and he was only as good as the advice he was given.

Commissioner Ritter asked if the Board had to vote on this as a total package.

Ms. Leland said they could do conditions but those would have to be agreed to and the preliminary plat would have to be redrawn.

Mr. Brandon Cooley confirmed he had nothing to add to the hearing.

Commissioner Von Canon said he would like to see Lot 14 disappear and

Commissioner Ritter shared that he was of the same mindset. Ms. Leland

suggested the item could be tabled to be worked out. Mr. Caddell discussed that if Mr. Cooley could move forward, he was willing to drop his lot (Lot 14), but he would like to know why he was there and there had to be some way he could be made whole. Ms. Leland asked Mr. Caddell if he was saying that prior to recording the final plat he was trying to make changes and Mr. Caddell explained that he was. Ms. Leland commented that this was a unique situation in more than one way and maybe the Board should table it to think about it.

Upon motion made by Commissioner Cook seconded by Commissioner Ritter, the Board voted 5-0 to continue the hearing to the September 5, 2023, 10:30am Regular Meeting.

Items entered for the record are hereby incorporated as a part of these minutes by attachment as Appendix J.

8. OLD BUSINESS

There was no old business.

9. NEW BUSINESS

- A. Elections - Purchase of New Election Equipment
 Elections Director Towanna Dixon presented a request for the Board to approve the sole source purchase contract for new elections equipment. Chairman Picerno directed that he wanted there to be a sample ballot both before and after the election. Ms. Dixon shared that she was required to do a mock election to test, and it would be open to the public, and she could do a separate one for the commissioners also. Chairman Picerno said to just let the Board know when the mock one would be, but that he did also want one to be done after the election. **Upon motion made by Commissioner Ritter, seconded by Commissioner Von Canon, the Board voted 5-0 to approve the sole source form with Election System & Software, LLC and authorize the Chairman to sign. Upon motion made by Commissioner Von Canon, seconded by Commissioner Quis, the Board voted 5-0 to approve the contract agreement with Election System & Software, LLC in the amount of \$309,610 and authorize the Chairman to sign. The sole source form is hereby incorporated as a part of these minutes by attachment as Appendix K.**
- B. Health - Environmental Health Private Permitting Option Fee Changes
 Interim Health Director Matt Garner requested the Board's approval of fee changes due to a new law effective September 1, 2023. **Upon motion made by Commissioner Von Canon, seconded by Commissioner Ritter, the Board voted 5-0 to approve the following private permitting option fee changes pursuant to Session Law 2023-90 (H628), effective September 1, 2023:**
- **Per G.S. 130A-335(a6) where an application is submitted by an Authorized On-site Wastewater Evaluator (AOWE) for a Construction Authorization or Improvement Permit/Construction Authorization combination, the local health department charges 40% of the normal permitting fee.**
 - **For an AOWE permit application submittal, the local health department charges a flat fee of \$35.**
 - **For an Engineer Option Permit (EOP) application submittal, the local health department charges a flat fee of \$35.**
- Chairman Picerno inquired regarding increased turnaround time for permits and Mr. Garner said he would check on it.

10. APPOINTMENTS

- A. Governing Body - Appointment to the Moore County Airport Authority
Upon motion made by Commissioner Quis, seconded by Chairman Picerno, the Board voted 5-0 to appoint Ken Haenlein to the Moore County Airport Authority for a four-year term commencing September 1, 2023, and expiring August 31, 2027.
- B. Governing Body - Appointment to the Juvenile Crime Prevention Council
Upon motion made by Commissioner Ritter, seconded by Commissioner Cook, the Board voted 5-0 to reappoint David Richmond as the DSS Director Designee member of the Juvenile Crime Prevention Council for a two-year term expiring August 31, 2025.

11. ADDITIONAL AGENDA

There were no additional agenda items.

12. MANAGER'S REPORT

County Manager Wayne Vest commended Public Works staff for their efforts to get water flowing again during the recent water system pressure advisory issue. He also recognized employees for their great work on a recent sewer issue with bypass pumps.

13. COMMISSIONERS' COMMENTS

Commissioner Quis offered that the three newer members of the Board had probably learned a lot this evening, there had been so much interaction with the public, and he looked forward to making the best decisions they could.

Commissioner Von Canon stated his agreement with Mr. Vest's commendation of the Public Works staff and said he was proud of them.

Commissioner Ritter concurred with those comments and said it was great to see the workings of the government from a different point of view, and everyone was so diligent. He said he did not get to attend the inauguration for the new Sandhills Community College president and expressed his congratulations to Dr. Sandy Stewart.

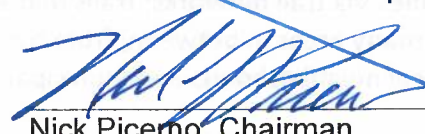
Chairman Picerno concurred with the comments by his fellow commissioners. He commended Mr. Vest and all the staff for everything they did and said he was proud to be a commissioner. Chairman Picerno apologized for comments he made during the earlier public hearing being offensive to a citizen and apologized for any poor reflection on the Board.

14. CLOSED SESSION

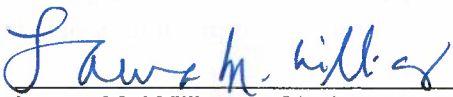
There was no closed session business.

ADJOURNMENT

There being no further business, upon motion made by Commissioner Von Canon, seconded by Commissioner Ritter, the Board voted 5-0 to adjourn the August 15, 2023, Regular Meeting of the Moore County Board of Commissioners at 11:21pm.



Nick Picerno, Chairman



Laura M. Williams, Clerk to the Board





2023 YEAR OF THE TRAIL PROCLAMATION

WHEREAS, Moore County's natural beauty is critical to its residents' quality of life, health, and economic wellbeing; and

WHEREAS, the trails that span across our communities are an integral part of the recreational and transportation possibilities of our area and promote an enjoyment of scenic beauty by our residents and our visitors; and

WHEREAS, the parks, greenways, trails and natural areas in our community are welcoming to all and provide a common ground for people of all ages, abilities and backgrounds to access our rich and diverse natural, cultural, and historic resources; and

WHEREAS, Moore County's natural assets and resources are integral to disaster recovery and resiliency for future generations; and

WHEREAS, Moore County's nature trails vary from less than a mile in length to ones that extend up to 15 miles via trail networks; trails that extend from Robbins to the north, Pinebluff to the south and many areas in between; from trails through state parks to footpaths and greenways through local neighborhoods and municipalities, and

WHEREAS, trails offer quality-of-life benefits to all as expressions of local community character and pride, as outdoor workshops for science education, as tools for economic revitalization, as free resources for healthy recreation, as accessible alternative transportation, and as sites for social and cultural events; and

WHEREAS, programs like the ones created and managed by the Pinehurst, Southern Pines, Aberdeen Area CVB including the Pinecone Pathways, Sandhills Story Trail Adventures and the Carthage Digital Mural Trail have enhanced and highlighted Moore County's 36 trails; and

WHEREAS, the North Carolina General Assembly designated 2023 as the Year of the Trail in North Carolina to promote and celebrate the state's extensive network of trails that showcase

our state's beauty, vibrancy and culture; and

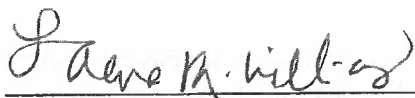
WHEREAS, North Carolina is known as the "Great Trails State;" and

NOW, THEREFORE, the Moore County Board of Commissioners, does hereby proclaim 2023 as "THE YEAR OF THE TRAIL" in Moore County, and commends its observance to all people.



Nick Picerno, Chairman

ATTEST:



Laura M. Williams, Clerk to the Board



www.GreatTrailsnc.org | www.YearoftheTrailNC.org

**RESOLUTION AUTHORIZING AND APPROVING
(CURRENT) RELEASES AND REFUNDS BY THE
TAX ADMINISTRATOR**

WHEREAS, Gary E. Briggs, Moore County Tax Administrator, has certified a list comprised of various county taxes illegally levied and assessed, the amount certified as being in excess of the amount legally due by the taxpayer and therefore should be released or refunded in accordance with General Statute 105-381.

BE IT RESOLVED by the Board of Commissioners of Moore County that the taxpayers shown on said list of releases and refunds submitted by Gary E. Briggs, Tax Administrator, are hereby granted such tax release or refund of the county taxes shown and the County Finance Director is directed to make said refunds.

Adopted this the 15 day of August, 2023.



Nick Picerno, Chairman

ATTEST:



Laura M. Williams
Clerk to the Board



**RESOLUTION AUTHORIZING AND APPROVING
(DELINQUENT) RELEASES AND REFUNDS BY THE
TAX ADMINISTRATOR**

WHEREAS, Gary E. Briggs, Moore County Tax Administrator, has certified a list comprised of delinquent taxes illegally due by the taxpayer and therefore should be released or refunded in accordance with General Statute 105-381.

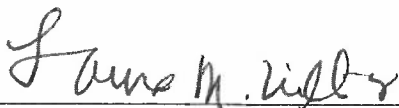
BE IT RESOLVED by the Board of Commissioners of Moore County that the taxpayers shown on said list of releases and refunds submitted by Gary E. Briggs, Tax Administrator, are hereby granted such tax release or refund of the county taxes shown and the County Finance Director is directed to make said refunds.

Adopted this the 15 day of August, 2023.



Nick Picerno, Chairman

ATTEST:



Laura M. Williams
Clerk to the Board



REAL ESTATE / PERSONAL PROPERTY

RELEASES

OVER - \$100

July-23

<u>BILL YEAR</u>	<u>BILL NUMBER</u>	<u>NAME</u>	<u>REASON</u>	<u>AMOUNT</u>
2022	1001123	SCHMID. FREDERICK DEAN	VEHICLE REGISTERED IN ANOTHER STATE DURING GAP	581.18
2020	79049	SOUTHERN PINES WOODWORKING LLC	ORDER OF BOARD OF EQUALIZATION AND REVIEW	354.30
2020	1003011	SOUTHERN PINES WOODWORKING LLC	ORDER OF BOARD OF EQUALIZATION AND REVIEW	1,726.18
2022	81110	SOUTHERN PINES WOODWORKING LLC	ORDER OF BOARD OF EQUALIZATION AND REVIEW	118.53
2023	33004	UNDERWOOD, CAROLYN	INCORRECT REAL ESTATE VALUE-BUILDING DESTROYED	826.18
2023	68238	WINDS WAY FARM LLC	PROPERTY TRANSFERRED IN ERROR	393.75
2022	82057	THE HERITAGE FLAG LLC	ORDER OF BOARD OF EQUALIZATION AND REVIEW	970.07
			TOTAL	\$4,970.19

VTS/REAL ESTATE/PERSONAL PROPERTY
RELIEF - REFUNDS
OVER - \$100
July-23

<u>Bill Year</u>	<u>Bill Number</u>	<u>Customer Name</u>	<u>Reason</u>	<u>Refund Amount</u>
2022	VTS - 0072970287	AUCHINCLOSS, PAUL JASON EWEN E	MILITARY	\$156.66
2022	VTS - 0073170731	BARNARD, JOSHUA THOMAS	MILITARY	\$164.49
2022	VTS - 0063098677	BERNHARD, GLENN THOMAS	TAG SURRENDER	\$159.65
2022	VTS - 0069556381	BOWERS, WILLIAM MARSHALL	TAG SURRENDER	\$147.25
2021	VTS - 0064351271	CHAMLEE, CHRISTOPHER SCOTT	MILITARY	\$137.69
2022	VTS - 0069206936	CHAMLEE, CHRISTOPHER SCOTT	MILITARY	\$786.05
2022	VTS - 0069983475	CHAMLEE, CHRISTOPHER SCOTT	MILITARY	\$855.66
2022	VTS - 0069915936	CHANCE, FREDDIE HARRELL	TAG SURRENDER	\$124.49
2022	VTS - 0060850493	CHIAPPERINO, MATTHEW CHARLES	TAG SURRENDER	\$126.48
2022	VTS - 0068195846	DAVIS, ROGER STANLEY	TAG SURRENDER	\$105.20
2022	VTS - 0058945200	DEMPSEY, JOHN	TAG SURRENDER	\$178.99
2022	VTS - 0065981734	GEBLER, NANCY	TAG SURRENDER	\$250.92
2022	VTS - 0070373724	GOODE, MARGARET FRANCES	MILITARY	\$232.83
2022	VTS - 0070896706	HANNA, WILLIAM RANDOLPH	TAG SURRENDER	\$689.22
2022	VTS - 0063500630	HARTMAN, BRET & JESSICA	TAG SURRENDER	\$157.52
2022	VTS - 0070546521	HOWELL, GARY WAYNE	TAG SURRENDER	\$110.13
2022	VTS - 0058867231	JACKSON, GENEVA & EDWARD	TAG SURRENDER	\$397.11
2022	VTS - 0062663039	KEENEY, DOUGLAS GARY	TAG SURRENDER	\$103.37
2022	VTS - 0068205938	KENJORSKI, ROBERT ARTHUR	TAG SURRENDER	\$122.04
2022	VTS - 0069962986	KENJORSKI, ROBERT ARTHUR	TAG SURRENDER	\$104.13
2022	VTS - 0070777251	MAHURIN, BRANDON DEWAYNE	MILITARY	\$152.68
2022	VTS - 0059329384	MCKIVER, DONNA COMILLA	TAG SURRENDER	\$276.42
2022	VTS - 0071019035	MORETON, DIANE LEE	TAG SURRENDER	\$113.35
2022	VTS - 0061616793	PACETTI, MAXWELL ALEXANDER	MILITARY	\$172.45

VTS/REAL ESTATE/PERSONAL PROPERTY

RELIEF - REFUNDS

OVER - \$100

July-23

<u>Bill Year</u>	<u>Bill Number</u>	<u>Customer Name</u>	<u>Reason</u>	<u>Refund Amount</u>
2022	VTS - 0059367024	REAVES, HALLIE CRAVEN JR	TAG SURRENDER	\$221.50
2022	VTS - 0064970587	REEVES, AMANDA MARI	MILITARY	\$421.20
2022	VTS - 0052791991	RUDOVSKY, PAUL	TAG SURRENDER	\$159.25
2021	VTS - 0063536017	SANTIAGO, JESUS MIGUEL	MILITARY	\$146.55
2022	VTS - 0064584701	SCOTT, GREGORY HAROLD	TAG SURRENDER	\$107.95
2022	VTS - 0065406471	SICKLES, JAMES & ROBIN	TAG SURRENDER	\$303.78
2022	VTS - 0070096678	SKINNER, MICHAEL ALAN	TAG SURRENDER	\$187.23
2022	VTS - 0071735371	SMITH, KEITH EARNIE	TAG SURRENDER	\$318.78
2022	VTS - 0068571144	SMITH, SHEILA & SERCY, ROGER II	VEHICLE LOCATED IN ANOTHER COUNTY	\$107.72
2022	86421	SOUTHERN PINES WOODWORKING LLC	TAG SURRENDER	\$131.51
2020	80148	THE HERITAGE FLAG LLC	ORDER OF BOARD OF EQUALIZATION AND REVIEW	\$1,013.20
2020	1003010	THE HERITAGE FLAG LLC	ORDER OF BOARD OF EQUALIZATION AND REVIEW	\$3,718.81
2021	87445	THE HERITAGE FLAG LLC	ORDER OF BOARD OF EQUALIZATION AND REVIEW	\$1,181.79
2022	VTS - 0069895469	THROWER, ADAM MATTHEW	TAG SURRENDER	\$172.93
2022	VTS - 0069234048	WEIDEMANN, RICHARD L	MILITARY	\$190.01
2022	VTS - 0054061679	WELKER, SEAN MICHAEL	MILITARY	\$131.93
2022	VTS - 0067489553	WILLIAMSON, CLINTON JOHN	MILITARY	\$722.81
Total				\$15,061.73

County of Moore
Courthouse and Detention Buildings (Fund 432)
Capital Project Ordinance – Revision 15

Journal 20005

BE IT ORDAINED by the Board of Commissioners, County of Moore, North Carolina, that pursuant to Section 13.2 of Chapter 159 of the North Carolina General Statutes, the following project ordinance is hereby adopted:

Section 1. The project authorized is the building of a new courthouse and renovations to the former detention center.

Section 2. The officers of this unit are hereby directed to proceed with the project within the term of the budget contained herein.

Section 3. The following amount is appropriated for the Courthouse and Detention Buildings Capital Projects:

Courthouse Building:

	Budget	Incr./Decr.	Revised Budget
Architect	\$ 3,424,334	\$ -	\$ 3,424,334
Construction	\$ 42,955,649	\$ 23,000	\$ 42,978,649
FF&E	\$ 2,401,076	\$ -	\$ 2,401,076
Contingency	\$ 4,653,487	\$ (23,000)	\$ 4,630,487
Site Acquisition	\$ 1,434,262	\$ -	\$ 1,434,262
Rhyne Center Road Modification	\$ 535,245	\$ -	\$ 535,245
Transfer to General Fund	\$ 8,085,064	\$ -	\$ 8,085,064
Cost of Issuance LOB Series 2021	\$ 458,454	\$ -	\$ 458,454
Total	\$ 63,947,571	\$ -	\$ 63,947,571

Detention Building:

	Budget	Incr./Decr.	Revised Budget
Architect	\$ 224,000	\$ -	\$ 224,000
Total	\$ 224,000	\$ -	\$ 224,000

Section 4. The following revenue is anticipated to be available to complete the Courthouse and Detention Buildings Capital Project:

Courthouse Building:

	Budget	Incr./Decr.	Revised Budget
Transfer from Capital Res for Governmental Projects	\$ 90.019	\$ -	\$ 90.019
Transfers from General Fund	\$ 10,506,710	\$ -	\$ 10,506,710
LOB Series 2021 Proceeds	\$ 45,665,000	\$ -	\$ 45,665,000
LOB Series 2021 Premium	\$ 7,902,842	\$ -	\$ 7,902,842
Rental Fees	\$ 7,000	\$ -	\$ 7,000
Total	\$ 64,171,571	\$ -	\$ 64,171,571

Detention Building:

	Budget	Incr./Decr.	Revised Budget
Total	\$ -	\$ -	\$ -

Section 5. The Finance Officer is hereby directed to maintain within the Project Fund sufficient specific detailed accounting records to satisfy the requirements of the funding agency, North Carolina General Statutes, federal regulations, and any other applicable laws.

Section 6. The Finance Officer is directed to report the financial status of the project, as requested by the Board of Commissioners.

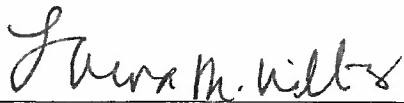
Section 7. Funds may be advanced from the General Fund for the purpose of making payments as due.

Section 8. This Capital Project Ordinance shall be entered in the minutes by the Clerk to the Board of Commissioners and within five days after adoption of this Ordinance, copies shall be filed with the finance officer, and Clerk to the Board of Commissioners.

Adopted this 15th day of August 2023.



Nick Picerno, Chairman
Moore County Board of Commissioners



Laura M. Williams
Clerk to the Board



PROJECT BUDGET ORDINANCE
RUNWAY, TAXIWAY AND APRON LIGHTS, AND AIRFIELD SIGNAGE
PROJECT # 36244.57.13.1
REVISION #2

BE IT ORDAINED, by the Moore County Board of Commissioners, that pursuant to Section 13.2 of Chapter 159 of the General Statutes of North Carolina, the following grant ordinance is hereby adopted:

Section 1: The project authorized is for the Runway, Taxiway and Apron Lights Project # 36244.57.13.1. This project will utilize additional grant funds from the State Aid to Airports. In 2019, the State awarded \$515,000 (\$463,500 State; \$51,500 Local) for the Design/Bid; and in 2023, the State awarded an additional amount of \$1,803,963 (\$1,623,566 State; \$180,397 Local). In June 2023, the State awarded an additional \$152,762 (\$137,485 State; \$15,277 Local). The revised total amount of the project will be \$2,471,725 (\$2,224,551 State; \$247,174 Local).

Section 2: The officers of this unit are hereby directed to transfer \$79,429 from Project 36244.57.13.1 to the Airport Authority's Operating Fund, and to proceed with the grant project within the terms of the grant documents, the rules and regulations of the North Carolina Department of Transportation-Division of Aviation and the Federal Aviation Administration, and the budget contained herein.

Section 3: The following revenues are anticipated to be available to complete the Runway, Taxiway and Apron Lights, and Airfield Signage Project:

<u>Funding Source</u>	<u>Current</u>	<u>Increase</u>	<u>Revised Amounts</u>
State Aid to Airports	\$2,087,066	\$137,485	\$2,224,551
Local Match	<u>\$231,897</u>	<u>\$15,277</u>	<u>\$247,174</u>
Total	\$2,318,963	\$152,762	\$2,471,725

Section 4: The following amount is an estimate of appropriation for the Runway, Taxiway and Apron Lights, and Airfield Signage Project:

<u>Funding Source</u>	<u>Current</u>	<u>Increase/Decrease</u>	<u>Revised Amount</u>
Project 36244.57.13.1	\$2,318,963.00	\$73,333.00	\$2,392,296.00
Transfer to Airport Authority	<u>S-</u>	<u>\$79,429.00</u>	<u>\$79,429.00</u>
Total	\$2,318,963.00	\$152,762.00	\$2,471,725.00

Section 5: The Finance Director is hereby directed to maintain within the Project Fund sufficient, specific and detailed accounting records to satisfy the requirements of the funding agencies, North Carolina General Statutes and federal regulations, and any other applicable laws.

Section 6: The Finance Director is directed to report the financial status of the project as requested by the Board.

Section 7: This Project Ordinance shall be entered in the minutes of the Moore County Board of Commissioners meeting after adoption of this Ordinance and copies shall be filed with the Finance Officer.

First adopted on August 20, 2019, with Revision No. 1 adopted on May 2, 2023, with Revision No. 2 adopted on this 15th day of August 2023.



Nick Picerno, Chairman
Moore County Board of Commissioners



Laura M. Williams
Clerk to the Board



**RESOLUTION AUTHORIZING THE
ACCEPTANCE OF FUNDS FOR
RUNWAY, TAXIWAY AND APRON LIGHTS AND AIRFIELD SIGNAGE
PROJECT # 36244.57.13.1 - REVISION #2**

WHEREAS, in 2019 the Moore County Airport Authority was awarded State funds in the amount of \$463,500 requiring a local match of \$51,500 under the State Aid to Airports Block Grant Program, for the Runway, Taxiway, and Apron Lights and Airfield Signage Project #36244.57.13.1; and

WHEREAS, in 2020, the Airport paused the project, but in 2022 resumed the project; and

WHEREAS, in 2023, the Airport was awarded additional State funds under the State Aid to Airports Block Grant Program, in the amended amount of \$2,087,066, with a required local match of \$231,897 for the Runway, Taxiway and Apron Lights and Airfield Signage Project; and

WHEREAS, the Airport is eligible for, and received notification from the North Carolina Department of Transportation-Division of Aviation that additional State funds under the State Aid to Airports Block Grant Program have been awarded to the Moore County Airport Authority, in the amended amount of \$137,485 in state funds with a required local match of \$15,277 for the Runway, Taxiway and Apron Lights and Airfield Signage Project; and

WHEREAS, funds in the amount of \$79,429, from the Airport Authority's Operating Fund, were used for advanced payments for the Runway, Taxiway and Apron Lights and Airfield Signage project; and now grant reimbursements have been received; and

WHEREAS, such allocation of funds will be approved in consideration with the local match being required, which was approved by the Moore County Airport Authority at their August 9, 2023 meeting; and the total award will be \$2,471,725 (\$2,224,551 state; \$247,174 local).

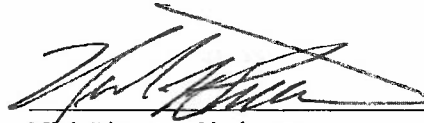
NOW, THEREFORE, BE AND IT IS HEREBY RESOLVED THAT the Airport Authority Chairman, Representative of the Moore County Airport Authority, or his designee, is hereby authorized and empowered to enter into an amended Grant Agreement and all associated documents and amendments for the following amounts, which will consist of the following work elements: Runway, Taxiway and Apron Lights and Airfield Signage in the proposed amount of \$2,471,725.

FURTHER, the officers of the Finance Department are to proceed with the transfer of funds in the amount of \$79,429 from Project 36244.57.13.1 to the Airport Authority's Operating Fund account "Transfer to Airport Authority".

FURTHER, the County's Finance Director is authorized to request payment under said State Grant, using the State's Partner on-line program. The Finance Director is also authorized to approve electronically the AV-502 Quarterly Project Status Reports; and

FURTHER, the Moore County Airport Authority is authorized to administer the Grant and any associated State Grant Agreements in accordance with guidelines set out in the said grant agreements and to enter into any associated contracts and agreements as it relates to the project.

First adopted on August 20, 2019. with Revision No. 1 adopted on May 2, 2023, with Revision No. 2 adopted on this the 15th day of August 2023.



Nick Picerno, Chairman
Moore County Board of Commissioners



Laura M. Williams, Clerk to the Board



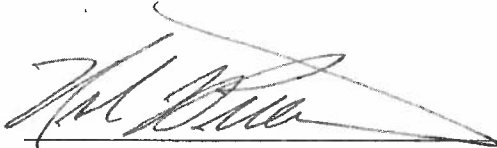
Fiscal Year 2023/2024

Budget Line Item Number	Budgeted Amount	Increase/ (Decrease)	Revised Budget
----------------------------	--------------------	-------------------------	-------------------

Health - ELC Enhancing Detection Expansion

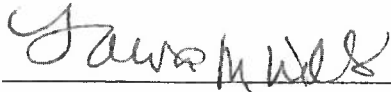
Revenue	24032071 35082	543 ELC Enhancing Detection Grant	807,959	6	807,965
Expense	24039071 54138	543 ELC Enhancing Detection Grant	346,784	6	346,790

Approved this 15 day of August, 2023



Nick Picerno

Moore County Board of Commissioners



Laura Williams

Clerk to the Board



20003

BOARD OF EQUALIZATION AND REVIEW

2023 FACT SHEET

TOTAL NUMBER OF PARCELS IN MOORE COUNTY	74,091
TOTAL NUMBER OF PARCELS REVIEWED BY THE BOARD	1,205
TOTAL OTHER APPEALS (PERSONAL PROPERTY, LATE APPLICATIONS, EXEMPTIONS, AUDITS, MOTOR VEHICLES)	125

BOARD DECISIONS

TOTAL NUMBER OF PARCELS DECREASED IN VALUE*	550
TOTAL NUMBER OF PARCELS INCREASED IN VALUE	125
TOTAL NUMBER OF PARCELS WITH NO CHANGE IN VALUE	530
VALUE OF PARCELS REVIEWED BY BOARD OF EQUALIZATION AND REVIEW	\$1,150,664,376
NET ADJUSTMENT BY BOARD	(\$55,601,728)
VALUE AFTER TOTAL ADJUSTMENTS AT BOARD'S ADJOURNMENT	\$1,095,062,648
PERCENT CHANGE (decrease of real property value under appeal only)	-4.83%

PERSONAL PROPERTY / MOTOR VEHICLE

	Values Appealed
Personal Property / motor vehicles	\$205,625.00

BOARD OF EQUALIZATION AND REVIEW 2023 FACT SHEET

SPECIAL NOTES

General notes:

For FY 22-23 the Tax Department met all of its goals and in the process had a collected 99.69%
This make the 32th year in a row that the Tax Department has had a collection rate in excess of 99%.

2023 Tax Bills were mailed July 28th.

General Revaluation Information:

2023 was a revaluation year in Moore County.

Moore County conducts a revaluation every four years by BOC resolution

Next revaluation will be in 2027

All 2023 BOER decision letters were mailed out July 17, 2023.

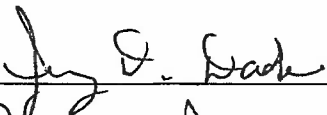
The 30 day deadline to appeal a BOER decision to the NC Property Tax Commission ends on August 16th, 2023.

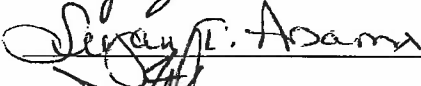
Real Property / Motor vehicles Notes:

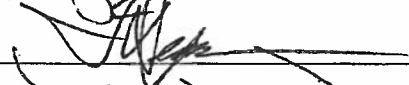
The personal property / MV decrease represents corrected listings and adjustments approved by the BOER.

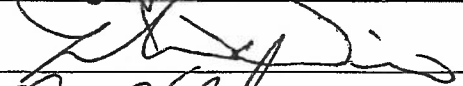
State of North Carolina
County of Moore

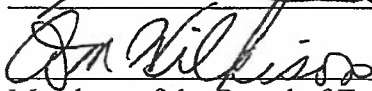
We, the undersigned members of the Board of Equalization and Review of Moore County, hereby certify that these tax records constitute the fixed and permanent tax list and assessment roll and record of taxes due for the year 2023, subject to only such changes as may be allowed by law.



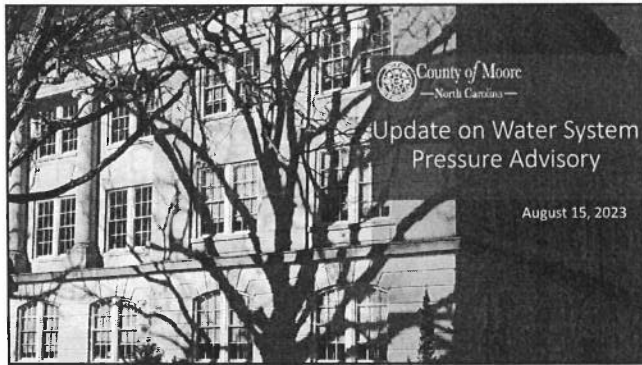








Members of the Board of Equalization
and Review of Moore County

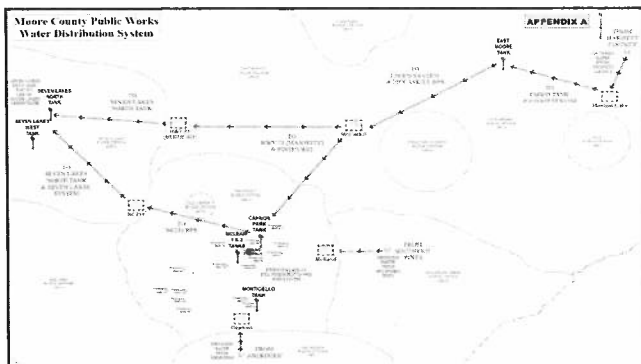


1

Background

- Monday morning numerous low-pressure calls were received, primarily from Pinewild and Seven Lakes
- Our water SCADA system displayed very low water levels in the Pinehurst and Seven Lakes tanks about 6 AM Monday morning
- The NC 73 and NC 211 Booster Stations shut down due to low suction pressure
- Record review showed Cannon Park tank levels had been trending downward without totally filling since Thursday night
- Adjusted elevated tank levels that turn on the pumps

2



3

What we did

- Issued System Pressure Advisory
 - Placed on the County website at www.moorecountync.gov
 - Reverse 911 calls to 14,000 phone numbers from Public Safety (important to have your correct phone number in our database)
- Throttled valve on 73 and NC 211 Booster Pump Stations which allowed them to run and alleviate Seven Lakes water pressure issues
 - Ran 73, 211, & McCaskill Booster Pumps in hand
- I believe customers really stepped up and reduced demand by not irrigating since Monday

4

What caused it

- What it wasn't
 - Main break
 - Sabotage/Terrorism
- The cause was extremely high usage (Max Day Demand)



5

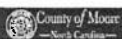
What's next

- Water samples pulled today with test results received tomorrow
 - If negative, the Low-Pressure Advisory will be rescinded tomorrow
 - Notifications will be distributed the same way the advisory was issued
- Next year should be improved by:
 - New Thurlow Booster Pump Station to pump additional supply from Harnett County
 - 2 new wells of 100 GPM capacity each

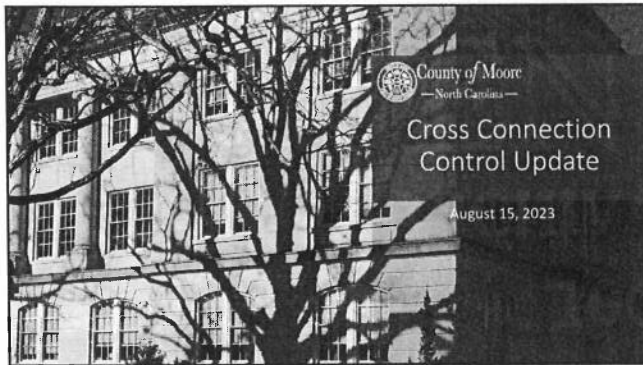


6

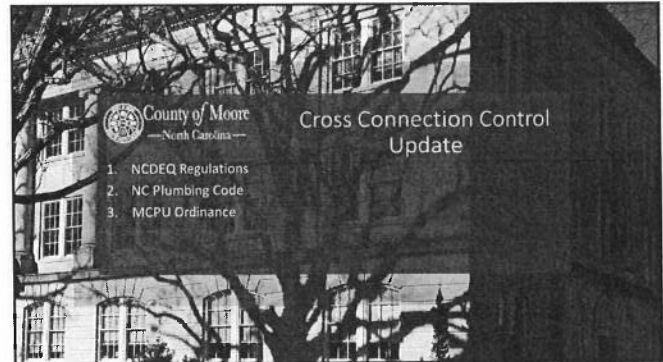
Our water system is one of our most important assets



7



1



2

1. NC DEQ Regulations

• NCGS 15A:18C .0400

- Statute was recently changed to remove Appendix B, which previously listed backflow devices required for each type of use
- Services must comply with **NC State Building Code Vol II** and Plumbing Codes
- Testable** backflow protection assembly is required prior to making the service connection
- Accessible for testing, etc.
- Valves installed on each end so device can be removed



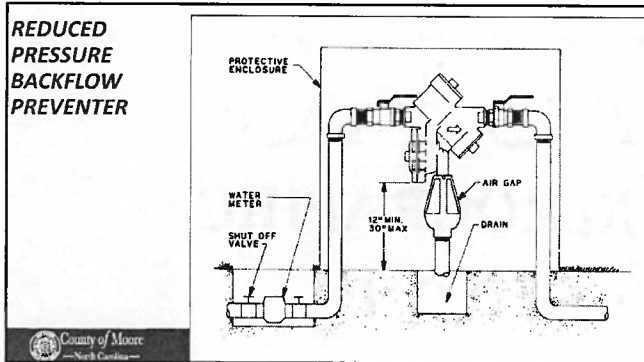
3

2. NC Plumbing Code

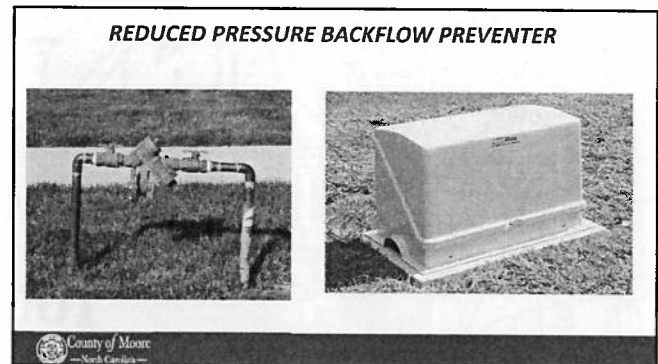
- Access shall be provided per manufacturer's instructions and protected from freezing
- The NC Plumbing Code currently allows three devices for protection against backflow in lawn irrigation systems:
 1. Reduced Pressure (RP) Backflow Preventer
 - Required where chemicals are introduced
 - Required where connected to a non-potable line (containment)
 - Must be installed above ground or in a vault with proper drainage
 - The valve costs about \$256-310



4



5



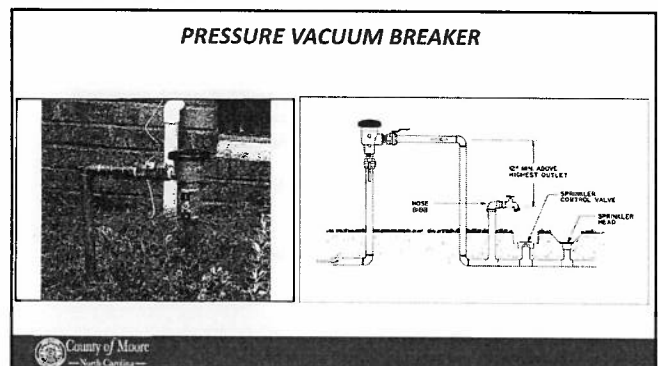
6

2. NC Plumbing Code

2. Pressure Vacuum Breaker

- Protects against back-siphonage only
- Must be installed 12 inches above highest sprinkler head
- Not installed where spillage could cause damage to structure, therefore is installed above ground and needs to be protected from freezing
- Must be accessible for testing, not 10 ft. in the air
- Pressure vacuum breaker assemblies installed only where there's no downstream pump
- The device costs about \$122-\$251

7



8

2. NC Plumbing Code

3. Atmospheric Vacuum Breaker

- Can't install valves downstream (therefore can't use with multiple spray zones)
- Can't be used on continuous service
- Doesn't protect against back pressure
- **Not testable**
- 6" above highest elevation in downstream piping
- The device costs about \$90



3. Moore County Cross Connection Control Ordinance

- Current Ordinance requires
 - RP devices on new lawn irrigation systems for containment
 - Testing every year
- Recommendations
 - Testing residential irrigation every 3 years and commercial every year
 - RP device for containment of the customer's service for lawn irrigation or strictly follow the Plumbing Code

3. Moore County Cross Connection Control Ordinance

Mandates

- Moore County Cross Connection Control will meet the following:
 - NCGS 15A:18C .0400
 - North Carolina Plumbing Code

Summary of devices allowed in the Plumbing Code

- Atmospheric Vacuum Breaker allowed on lawn irrigation system with single irrigation zone and no downstream valves (isolation)
- Pressure Vacuum Breaker allowed on lawn irrigation systems with no pump or chemicals (isolation)
- RP Valve if there are pumps or chemicals downstream (containment)

3. Moore County Cross Connection Control Ordinance

- The below proposed legislation from SB 166 has been in Committee since May 4, 2023:

(a) No public water system owned or operated by a local government unit, as that term is defined in G.S. 159G-20(13), shall require a customer to install a backflow preventer not otherwise required by State or federal law, except where the degree of hazard from the customer's connection is determined to be severe by the system or the Department.

(b) The limitation established in subsection (a) of this section shall not be construed to prohibit requirements for installation of backflow preventers pursuant to the State Plumbing Code due to retrofit or upfit/fit-up to the customer's plumbing, or facility addition on the customer's property.

- We may want to wait until the Legislation is passed as this action could dictate another change to our ordinance

It is important to protect our water system



County of Moore
— North Carolina —

AMENDMENT TO

THE MOORE COUNTY ROAD NAME AND ADDRESSING ORDINANCE

ADOPTED JULY 10, 1989
AND AS SUBSEQUENTLY AMENDED

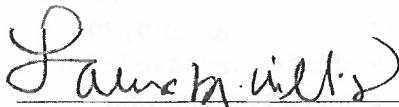
RESOLVED by the Board of Commissioners of the County of Moore that Section III ROAD NAMING OF THE ABOVE REFERENCED ORDINANCE BE AMENDED TO ADD, RENAME, OR REMOVE THE FOLLOWING ROADS AS INDICATED:

ADD:

CHIEFS WAY (P4272) *Located off Boys Camp Rd (SR 2007) on the western side, approximately 0.4 miles north of the intersection of Boys Camp Rd and Cypress Church Rd (SR 1947).*

AND, FURTHER, that the effective date of this amendment to the above-described Ordinance shall be upon adoption.

Adopted this 15th day of August 2023.



Laura Williams, Clerk to the Board
Moore County Board of Commissioners



Nick Picerno, Chairman
Moore County Board of Commissioners





Agenda Item: 6.B.
Meeting Date: August 15, 2023

MEMORANDUM TO THE MOORE COUNTY BOARD OF COMMISSIONERS:

FROM: Debra Ensminger, Planning Director
DATE: 07/31/2023
SUBJECT: Public Hearing to Consider Amendments to Chapter 19 (Subdivisions) and Chapter 20 (Definitions) of the Moore County Unified Development Ordinance
PRESENTER: Debra Ensminger, Planning Director

REQUEST: A request to amend Chapter 19 (Subdivisions) and Chapter 20 (Definitions) of the Moore County Unified Development Ordinance.

BACKGROUND: The following text amendments were approved by the Planning Board on October 6, 2022. They were brought before the Board of Commissioners on November 15, 2022. At that time, the Board recommended that the amendments be considered by the incoming Board. Since November, three additional items (3, 4b, and 6 below) have been added to these proposed amendments. The Planning Board considered the following amendments at a Special Meeting on June 15, 2023. The Planning Board recommendations are included after each item listed below.

Bold Text – additions to the ordinance
Strikethrough Text – deletions from the ordinance

1. Chapter 19 (Subdivisions) Section 19.4 (Family Subdivisions) to remove Subdivision Review Board (SRB) requirements to approve family subdivision plats as follows:

D. ACTION BY THE ADMINISTRATOR

- i. The Administrator shall render a decision within 14 working days after receipt of the completed plat.
- ii. The plat shall not be approved by the Administrator until all additional documents have been reviewed and approved.
- iii. ~~If no decision is rendered by the Administrator within the required 14-day period, the applicant may refer the Family Subdivision plat to the Subdivision Review Board for review.~~
- iv. If the subdivision is disapproved, the Administrator shall promptly furnish the applicant with a written statement of the reasons for disapproval.

REASON. To streamline the process for reviewing Family Subdivisions.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 5-0: recommended the Subdivision Review Board (SRB) requirements to approve family subdivision plats

remain and not be removed.

2. Chapter 19 (Subdivisions) Section 19.6 (Minor Subdivisions) to remove Subdivision Review Board (SRB) requirements to approve minor subdivisions.

E. ACTION BY THE ADMINISTRATOR

- i. The Administrator shall render a decision on a minor subdivision application within 14 working days after receipt of the completed plat and additional documents.
- ii. ~~If no decision is rendered by the Administrator within the required 14-day period, the applicant may refer the plat to the Subdivision Review Board for review.~~
- iii. If the subdivision is disapproved, the Administrator shall promptly furnish the applicant with a written statement of the reasons for disapproval.

REASON. To streamline the process for reviewing Minor Subdivisions.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 5-0: recommended the Subdivision Review Board (SRB) requirements to approve minor subdivision plats remain and not be removed.

3. Chapter 19 (Subdivisions) to change Stormwater Management Plan requirements from preliminary plat stage (Section 19.7) to final plat stage, update the requirements to be consistent with current NCDEQ policies, and move this language to Section 19.11 (Construction Process).

G. C. DRAINAGE

A Stormwater Management Plan with Stormwater Control Measures (SCMs) meeting the most current edition of the North Carolina Department of Environmental Quality Stormwater Design Manual shall be required prior to final plat submittal for subdivisions in a WS-II, WS-III, or WS-IV Watershed. Projects within a High-Quality Watershed (HQW) or an Outstanding Resource Watershed (ORW) also require a Post-Construction Stormwater Management Permit from the North Carolina Department of Environmental Quality Division of Energy, Mineral and Land Resources (DEMLR) prior to the construction of any built-upon area. For example, a proposed subdivision in a WS-IIIP watershed and not in a HQW is required to submit a stormwater management plan to the County but does not need a Post-Construction Stormwater Management Permit from DEMLR. When a Post-Construction Stormwater Management Permit is required, it shall be obtained from DEMLR, and a copy of the permit shall be submitted to the County prior to final plat preliminary plat approval. All structural stormwater Subdivisions in the HQW, with up to 12% built-upon area are considered Low Density where stormwater runoff may be through dispersed flow or vegetated conveyance. Projects with greater than 12% built-upon area are High Density and require engineered Stormwater Control Measures (SCMs) per DEMLR. Best Management Practices (BMPs) shall meet the most current edition of the North Carolina Department of Environmental Quality, Division of Water Quality's Stormwater Best Management Practices Manual. All stormwater control structures shall be designed by a state registered professional with qualifications appropriate for the type of system required. Residential subdivisions shall have systems designed to protect to the ten (10) year storm level, and commercial and industrial shall be protected to the twenty-five (25) year storm level. Each lot shall contain a suitable building area safe from inundation and erosion. Sanitary sewer systems, septic tank drainfields, water systems, wells, and adjacent properties shall be protected from inundation by surface water. Where a

~~subdivision is traversed by a stream or drainage way, an easement shall be provided conforming with the lines of such stream and be of sufficient width to provide adequate drainage for the subdivision. If a stream or drainage way does not cross a subdivision, a 20 foot wide drainage way easement shall be provided along the topographically lowest property line(s) of lots within the subdivision.~~

REASON. To reflect current North Carolina Department of Environmental Quality standards. The NCDEQ requires a post-construction stormwater management permit prior to construction of any impervious surfaces when a proposed subdivision is located in a High-Quality Watershed. When a proposed subdivision is not in a High-Quality Watershed, the developer would still be required to submit a stormwater management plan to the County. This requirement is recommended to be moved from the preliminary plat approval stage to be required at the final plat approval stage because creating a stormwater management plan can be very expensive for the developer. Moving the requirement allows the developer to spend that money once they know the subdivision is approved.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 3-2 to recommend approval of this item.

4. Chapter 19 (Subdivisions) Section 19.16 (Subdivision Plat Requirements) to change items on the Table of Subdivision Application Requirements as follows:

a. Proposed buildings are required only if applicable on preliminary plats.

REASON. At the preliminary plat stage, no lots have been sold and no buildings are proposed. All buildings will be required to meet zoning and building code requirements before building permits are issued.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 5-0 to recommend approval of this item.

b. Existing buildings are required only on exempt, minor, and family subdivisions.

REASON. This is to ensure that no subdivision would create a setback violation on an exempt, minor, or family subdivision. For major subdivisions, any existing buildings would likely be removed to allow for the development and sale of the new lots.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 5-0 to recommend approval of this item.

c. Allow existing topography to be shown on preliminary plats, not proposed topography.

REASON. The proposed topography is not determined until a grading plan is created, which is done after the preliminary plat is approved.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 5-0 to recommend changing the word "allow" to "require," changing the word "not" to "and" proposed topography, and approve this item.

d. Allow existing and proposed entrance signs to be shown on preliminary plats if applicable.

REASON. As with buildings, there may be no entrance signs proposed at preliminary plat stage.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 5-0 to recommend changing the word "allow" to "require" and approve this item.

e. Allow estimated linear feet in streets on preliminary plats and require linear feet in streets on final plats.

REASON. This number may change between preliminary plat approval and construction of streets.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 5-0 to recommend changing the word “allow” to “require” and approve this item.

f. Allow estimated Percentage of entire project to be covered with impervious surfaces, including totals by phase on preliminary plats and require percentage of entire project to be covered with impervious surface, including totals by phase on final plats.

REASON. Impervious surface numbers may be estimated at preliminary plat stage since some of the details of buildings, streets, and sidewalks are still to be determined.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 5-0 to recommend changing the word “allow” to “require” and approve this item.

g. Allow estimated separate impervious surface totals by streets, sidewalks, maximum allowed for each lot on preliminary plats and require separate impervious surface totals by streets, sidewalks, maximum allowed for each lot, etc. on final plats.

REASON. The total area of impervious surfaces in streets, and sidewalks may have minor changes between preliminary plat approval and final plat approval.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 5-0 to recommend changing the word “allow” to “require” and approve this item.

h. Primary and secondary fire and rescue responders are required on preliminary and final plats.

REASON. This is to show which fire and rescue department would respond in case of an emergency. This requirement is already in the text of the UDO, but not included in the table of subdivision application requirements.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 5-0 to recommend not adding this item to the Table of Subdivision Application Requirements.

i. Allow Stormwater Management Plans for major subdivisions to be submitted at final plat stage rather than preliminary plat stage.

REASON. A stormwater management plan will be required before any construction takes place. Obtaining a stormwater management plan at preliminary plat stage can impose an unnecessary cost burden on the developer.

PLANNING BOARD RECOMMENDATIONS. The Planning Board voted 3-2 to recommend approval of this item.

PROPOSED TEXT. The Table of Subdivision Application Requirements showing the proposed amendments is attached to this staff report for reference.

5. Chapter 19 (Subdivisions), Section 19.17 (Subdivision Plat Certification Requirements) to remove the requirement for a utilities certificate on minor subdivision plats.

PROPOSED TEXT. The Table of Subdivision Certification Requirements showing the proposed amendment is attached to this staff report for reference.

REASON. Improvements for utilities are very rarely installed for minor subdivisions.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 5-0 to keep the requirement for a utilities certificate on Minor Subdivision Plats.

6. Chapter 20 (Definitions) Section 20.2 (Definitions) to add the following definitions as follows:

STORMWATER MANAGEMENT PLAN: The set of drawings and other documents that comprise all the information and specifications for the programs, drainage systems, structures, BMPs, concepts, and techniques intended to maintain or restore quality of stormwater runoff to pre-development levels.

STORMWATER CONTROL MEASURES (SCMs): Also known as “Best Management Practice” or “BMP” means a permanent structural device that is designed, constructed, and maintained to remove pollutants from stormwater runoff by promoting settling or filtration; or to mimic the natural hydrologic cycle by promoting infiltration, evapo-transpiration, post-filtration discharge, reuse of stormwater, or a combination thereof.

DISPERSED FLOW: Uniform shallow flow that is conveyed to a vegetated filter strip (as defined in 15A NCAC 2H .1059), another vegetated area, or stormwater control measure. The purpose of “dispersed flow” is to remove pollutants through infiltration and setline, as well as to reduce erosion prior to stormwater reaching surface waters.

VEGETATED CONVEYANCE: A permanent, designed waterway lined with vegetation that is used to convey stormwater runoff at a non-erosive velocity within or away from a developed area.

POST-CONSTRUCTION STORMWATER MANAGEMENT PERMIT: A permit obtained from the North Carolina Department of Environmental Quality Department of Energy, Mineral, and Land Resources to minimize the impact of stormwater runoff from development on the water quality of surface waters and to protect their designated best usages in in High Quality Watersheds (HQW) and Outstanding Resource Waters (ORW).

REASON. To be consistent with NCDEQ definitions and provide context for Section 19.11 listed above.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 5-0 to recommend approval of this item.

CONSISTENCY WITH THE 2013 MOORE COUNTY LAND USE PLAN

The Board of Commissioners Consistency Statement which speaks to Land Use Plan goals is included for the Board’s review and consideration.

FINANCIAL IMPACT: No financial impact to the County’s FY 2023-2024 budget.

IMPLEMENTATION PLAN: Hold a Public Hearing August 15, 2023

RECOMMENDATION SUMMARY: Staff recommends the Moore County Board of Commissioners make two separate motions:

Motion #1: Make a motion to adopt the attached Moore County Board of Commissioners Land Use Plan Consistency Statement (**Approval or Denial**) and authorize the Chairman to execute the document as required by North Carolina General Statute 160D-605.

Motion #2: Make a motion to **Approve** or **Deny** the proposed text amendment to the Moore County Unified Development Ordinance.

- ATTACHMENTS:**
1. Board of Commissioners Consistency Statements
 2. Table of Subdivision Application Requirements with proposed amendments
 3. Table of Subdivision Certification Requirements with proposed amendments
 4. RLUAC Statement of No Comments

Moore County Board of Commissioners
Land Use Plan Consistency Statement
Text Amendment - Unified Development Ordinance

The Moore County Board of Commissioners finds that:

The proposed text amendment is consistent with the following goals as listed in the 2013 Moore County Land Use Plan:

1. It is consistent with Goal 4: Provide Information and Seek Citizen Participation.
 - Recommendation 4.1 Promote efforts to involve and inform citizens throughout various planning and permitting processes. Action 4.1.1: Continue to support and implement easy to understand guidelines to incorporate throughout governmental departments.
 - The proposed changes will introduce practical guidelines making the Unified Development Ordinance easier to understand and enforce.

The proposed text amendment is reasonable and in the public interest because:

1. It supports the current 2013 Moore County Land Use Plan goals and recommendations listed above.
2. The text amendments are based on research and practical knowledge to ensure that the proposed regulations are appropriate and understandable.

Therefore, the Moore County Board of Commissioners recommends **APPROVAL** of the text amendment to the Unified Development Ordinance, as proposed.

Nick Picerno, Chair
Moore County Board of Commissioners

Date

Moore County Board of Commissioners
Land Use Plan Consistency Statement
Text Amendment - Unified Development Ordinance

The Moore County Board of Commissioners finds that:

The proposed text amendment is not consistent with the following goals as listed in the 2013 Moore County Land Use Plan:

1. It is not consistent with Goal 4: Provide Information and Seek Citizen Participation.
 - Recommendation 4.1 Promote efforts to involve and inform citizens throughout various planning and permitting processes. Action 4.1.1: Continue to support and implement easy to understand guidelines to incorporate throughout governmental departments.

The proposed text amendment is not reasonable and not in the public interest because the proposed text amendment will have an unreasonable impact on the community.

Therefore, the Moore County Board of Commissioners recommends **DENIAL** of the text amendment to the Unified Development Ordinance, as proposed.

Nick Picerno, Chair
Moore County Board of Commissioners

Date

TABLE OF SUBDIVISION APPLICATION REQUIREMENTS					
INFORMATION REQUIRED	EXEMPT PLAT	FAMILY PLAT	MINOR PLAT	MAJOR PRELIM. PLAT	MAJOR FINAL PLAT
MAP SIZE AND MATERIALS					
Plat is 18X24", 21X30", or 24X36" in size	R	R	R	R	R
Legible black ink on mylar or white paper	R	R	R	R	R
TITLE BLOCK					
Property Designation / Name of Subdivision	R	R	R	R	R
Type of plat (minor plat, preliminary plat, etc.,)		R	R	R	R
Name of Property Owner	R	R	R	R	R
Township, County and State	R	R	R	R	R
Date the survey was prepared & any revision dates	R	R	R	R	R
Scale in words (Ex. 1"=200 feet)	R	R	R	R	R
Bar graph	R	R	R	R	R
Name, address, and telephone # of surveyor	R	R	R		R
The names, addresses, and telephone # of all owners, surveyors, architects, and engineers responsible for the subdivision				R	R
GENERAL INFORMATION					
Zoning district(s) of property & abutting properties		R	R	R	R
Parcel ID Number(s)		R	R	R	R
Plat book and/or deed book reference	R	R	R	R	R
Names of abutting property owners	R	R	R	R	R
Vicinity map	R	R	R	R	R
Corporate limits & county lines	R	R	R	R	R
Surveyor and/or engineer original signature, seal, & registration #				R	
Surveyor's original signature, seal, & registration #	R	R	R		R
North arrow and orientation	R	R	R	R	R
Course and distance of existing and proposed property lines (label old property lines)	R	R	R	R	R
Tied to nearest street intersection if within 300 feet		R	R		R
Tied to USGS marker if within 2000 feet	R	R	R		R
Location and description of all monuments, markers and control corners		R	R		R
Minimum 2 control corners present when creating a new road right-of-way	R	R	R		R

Location of all existing buildings including distance to property lines (if applicable)	R	R	R							
Location of all existing and proposed buildings (if applicable) including distance to property lines	R	R	R	R	R					
Square footage of all lots under 1 acre in size and acreage for all lots over 1 acre in size		R	R	R	R					
Lots numbered consecutively		R	R	R	R					
Lines not surveyed must be clearly indicated (include source data)	R	R	R	R	R					
All mapping shall comply with NCGS 47-30	R	R	R		R					
Required Certificates	See Section 25.16 for certificate requirements.									
If more than one sheet, each sheet must be signed, sealed, and numbered (ex. 1 of 3, 2 of 3, 3 of 3)										
AMENITIES & NATURAL FEATURES LAYOUT										
Location, dimension, and details of proposed recreation areas and facilities (golf courses, clubhouses, pools, tennis courts, playgrounds, etc.)				R	R					
Required landscaping / perimeter buffer				R	R					
Riding trails, pedestrian, or bicycle paths				R	R					
Areas to dedicated as common area or open space – label the future ownership (HOA, dedication for public use to governmental body, etc.)				R	R					
Areas to be used for uses other than residential				R	R					
Name and location of any property or building on the National Register of Historic Places				R	R					
Wetlands, marshes, rock outcrops, pond, lakes, streams, railroads, bridges and any other features affecting the site		R	R	R						
Location of any floodplain areas as shown on FEMA Flood Insurance Rate Maps	R	R	R	R	R					
Existing and proposed topography of tract and 100 feet beyond property showing contour intervals of no greater than 5 feet				R						
Existing and proposed entrance signs (if applicable) including sight triangles and located outside the ROW				R	R					
UTILITY LAYOUT										
A note indicating that the proposed subdivision will be served by either a central or individual water supply		R	R	R						

A note indicating that the proposed subdivision will be served by either a central or individual sewer / septic system		R	R	R	
Water & Sewer - Connections to existing systems, line sizes, material of lines, blowoff & valves, manholes, catch basins, force mains, location of fire hydrants				R	
Storm drains, swales, detention ponds, & other drainage facilities, if any				R	
Natural gas lines				R	
Electric Lines				R	
Telephone Lines, Cable TV, etc.				R	
Utility and other easements				R	
Any additional determined by reviewing agencies that may be required to review plat				R	
STREET LAYOUT					
Proposed and existing rights-of-way – label public or private streets	R	R	R	R	R
Right-of-way & pavement location, widths, & dimensions			R	R	R
Cul-de-sac pavement diameter				R	
Approximate grades				R	
Typical detailed cross section(s)				R	
Existing and proposed street names				R	R
SUBDIVISION INFORMATION & CALCULATIONS TABLE					
Classification of Watershed Overlay District		R	R	R	R
Existing & Proposed use(s) of land				R	
Existing & Proposed zoning classification(s)				R	
Front, side, rear setback requirements				R	
Acreage in total tract to be subdivided		R	R	R	
Acreage in recreation & open space (label)				R	
Total number of lots proposed				R	
Estimated linear feet in streets				R	
Linear feet in streets				R	R
Estimated percent of entire project to be covered with impervious surfaces, including totals by phase				R	
Percent of entire project to be covered with impervious surfaces, including totals by phase				R	R
Estimated separate impervious surface totals by streets, sidewalks, maximum allowed for each lot, etc.				R	

Separate impervious surface totals by streets, sidewalks, maximum allowed for each lot, etc.				R	R
Primary and secondary fire and rescue responders				R	R
PERMITS AND OTHER DOCUMENTATION REQUIRED BEFORE FINAL PLAT APPROVAL					
Construction plans for all infrastructure / improvements (such as streets, water, sewer, hydrants, stormwater, etc. Approval is required by appropriate agencies before construction begins)					R
Stormwater management plan				R	R
Inspection results of all improvements					R
As built drawings of all improvements					R
NCDEQ Approval of the Erosion & Sediment Control Plan (if disturbing more than 1 acre)					R
NCDOT Approval of Driveway Access Permit					R
Wetland delineation of property					R
US Army Corp of Engineers Approval of earth disturbing activities in Wetlands (if applicable)					R
Submit copy of HOA agreement to be approved by the Administrator					R
Affidavit of Family Subdivision		R			
Deed of Gift		R			
Private Road Maintenance Agreement, if applicable		R	R		
Any other information the Administrator deems necessary to determine compliance with this Ordinance				R	R

Table of Subdivision Certification Requirements					
TYPE OF CERTIFICATE OR STATEMENT [1]	EXEMPT PLAT [2]	FAMILY PLAT	MINOR PLAT	MAJOR PRELIM. PLAT	MAJOR FINAL PLAT
Certificate of Survey Accuracy	R	R	R		R
Certificate of Purpose of Plat	R	R	R		R
Review Officer Certification	R	R	R		R
Certificate of Ownership		R	R		
Certificate of Ownership and Dedication				R	R
Certificate of Exemption	R				
Exemption 160D-802 Compliance Statement	R				
Certificate of Family Subdivision Plat Approval		R			
Family Documents Deed References		R			
Septic Suitability Certificate Statement		R			
Voluntary Agricultural District Proximity Statement		R	R	R	R
Public Water Supply Watershed Protection Statement		R	R	R	R
Certificate of Minor Subdivision Plat			R		
Certificate of Preliminary Major Subdivision Plat				R	
Certificate of Final Major Subdivision Plat Approval					R
NCDOT Div. of Highways District Engineer Certificate					R
Public Street Maintenance Disclosure Statement					R
Private Roads Disclosure Statement					R
Certificate of Approval of the Design and Installation of Streets, Utilities, and Other Required Improvements					R
Utilities Certificate			R		R
Sediment & Erosion Control Plan Certificate					R
Stormwater Control Certificate					R
Licensed Soil Scientist Certificate					R
Certificate of Warranty					R
NOTES:					
[1] Statements such as "Preliminary, Not For Recording" cannot be recorded.					
[2] Preparation of an exempt plat is voluntary and at the discretion of the applicant for an exempt subdivision application.					

Senior Planner
Moore County Planning & Inspections
rpetersen@moorecountync.gov
910-947-5010 (phone)
910-947-1303 (fax)

From: RLUAC Executive Director <director@rluac.com>
Sent: Friday, April 21, 2023 3:14 PM
To: Ruth Pedersen <rpetersen@moorecountync.gov>
Subject: RE: UDO Changes

Thanks Ruth. It wasn't 100% clear from Jeff's email or the article that he forwarded what exactly was proposed to change. We don't have any comment on the UDO amendments, but we probably will submit comments on the proposed amendments to the future land use plan.

Thanks,

Vagn

Vagn K. Hansen II, AICP, Executive Director
Regional Land Use Advisory Commission
6205 Raeford Road
Fayetteville, NC 28304
(910) 398-3743
director@rluac.com
www.rluac.com

From: Ruth Pedersen <rpetersen@moorecountync.gov>
Sent: Friday, April 21, 2023 2:12 PM
To: RLUAC Executive Director <director@rluac.com>
Subject: RE: UDO Changes

Vagn,

There is one text amendment going before the Planning Board on May 4th and I've attached the staff report (pdf). I believe Mr. Marcus was talking to Debra about the proposed updates to the Land Use Plan which will also be heard at that meeting. I've attached the staff report for those updates as well. Please let me know if you have any further questions.

Thank you,

Ruth Pedersen, MPA
Senior Planner
Moore County Planning & Inspections

rpedersen@moorecountync.gov

910-947-5010 (phone)

910-947-1303 (fax)

From: RLUAC Executive Director <director@rluac.com>

Sent: Friday, April 21, 2023 12:24 PM

To: Ruth Pedersen <rpedersen@moorecountync.gov>

Subject: UDO Changes

Ruth,

Jeff Marcus with TNC sent me some information about a change in the UDO that he said was going to be considered by the Planning Board on May 4. He said he talked to Debra about it, but wasn't sure if the amendment would affect the RA/RE districts or just the RA-40. Could you send me some more information on that?

Thanks,

Vagn

Vagn K. Hansen II, AICP, Executive Director

Regional Land Use Advisory Commission

6205 Raeford Road

Fayetteville, NC 28304

(910) 398-3743

director@rluac.com

www.rluac.com

Presentation to Board of Commissioners on 15 August 2023 re. Public Hearing 6B (Proposed Amendments to UDO - Chap 19/20)

Good evening. My name is Bob Coates & I live at 21 Edinburgh Lane in Pinehurst. I'd like to start by congratulating the Commissioners on their decision at their last meeting to convene a robust Steering Committee to help with the creation of the new Land Use Plan. With a document like the LUP, which impacts virtually all aspects of life within Moore County, it is imperative to have the experts involved. Chairman Picerno is well aware of the time and effort that will be required and I applaud you all for recognizing the importance of this undertaking and being willing to do it right.

The 2013 LUP is certainly a quality document and my hat is off to Ms. Ensminger and all the others who crafted it. It has stood us well for 10 years. But a lot has changed in Moore County during the last decade. The creation of a new LUP is a wonderful opportunity to step back and layout just what we want Moore County to be going forward.

While the LUP provides the long term vision of what we want to go where with respect to land use, the Unified Development Ordinance provides the detailed rules and regulations for how to execute the LUP.

It is important to do things in the correct order. First we should create the new LUP, then the necessary changes can be made to the UDO in support of the new LUP. Rather than considering amendments to the UDO today, we should wait until the new LUP is in place before doing this. This is especially true in this case as the proposed changes deal with major subdivisions which are an extremely important issue for the County. Changing the UDO might in the short term allow a change to take place which could very well be in conflict with what comes out of the LUP rewrite.

I have tried to avoid using the phrase "putting the cart before the horse." But this is exactly what we'd be doing by changing the UDO first. Serious consequences could result. For example, a major subdivision could be constructed in an area which would prohibit it in the new LUP. That bell could not be unrung!

Let's hold off on making UDO changes until the new LUP is complete!

Thank you.

Bob Coates, RCoates777@gmail.com

Submitted by
Matthew Parker

8/15/24

UDO Amendments Public Hearing

Planning Board voted AGAINST 5-0

1. Chapter 19 (Subdivisions) Section 19.4 (Family Subdivisions) to remove Subdivision Review Board (SRB) requirements to approve family subdivision plats as follows:

D. ACTION BY THE ADMINISTRATOR

- i. The Administrator shall render a decision within 14 working days after receipt of the completed plat.
- ii. The plat shall not be approved by the Administrator until all additional documents have been reviewed and approved.
- ~~iii. If no decision is rendered by the Administrator within the required 14-day period, the applicant may refer the Family Subdivision plat to the Subdivision Review Board for review.~~
- iv. If the subdivision is disapproved, the Administrator shall promptly furnish the applicant with a written statement of the reasons for disapproval.

REASON. To streamline the process for reviewing Family Subdivisions.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 5-0: recommended the Subdivision Review Board (SRB) requirements to approve family subdivision plats remain and not be removed.

NOTE: P. 209 of current UDO

Planning Board voted AGAINST 5-0

2. Chapter 19 (Subdivisions) Section 19.6 (Minor Subdivisions) to remove Subdivision Review Board (SRB) requirements to approve minor subdivisions.

E. ACTION BY THE ADMINISTRATOR

- i. The Administrator shall render a decision on a minor subdivision application within 14 working days after receipt of the completed plat and additional documents.
- ii. ~~If no decision is rendered by the Administrator within the required 14-day period, the applicant may refer the plat to the Subdivision Review Board for review.~~
- iii. If the subdivision is disapproved, the Administrator shall promptly furnish the applicant with a written statement of the reasons for disapproval.

REASON. To streamline the process for reviewing Minor Subdivisions.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 5-0: recommended the Subdivision Review Board (SRB) requirements to approve minor subdivision plats remain and not be removed.

NOTE: p. 211 of current UDO

Planning Board voted to Recommend 3-2

3. Chapter 19 (Subdivisions) to change Stormwater Management Plan requirements from preliminary plat stage (Section 19.7) to final plat stage, update the requirements to be consistent with current NCDEQ policies, and move this language to Section 19.11 (Construction Process).

G. C. DRAINAGE

A Stormwater Management Plan with Stormwater Control Measures (SCMs) meeting the most current edition of the North Carolina Department of Environmental Quality Stormwater Design Manual shall be required prior to final plat submittal for subdivisions in a WS-II, WS-III, or WS-IV Watershed. Projects within a High-Quality Watershed (HQW) or an Outstanding Resource Watershed (ORW) also require a Post-Construction Stormwater Management Permit from the North Carolina Department of Environmental Quality Division of Energy, Mineral and Land Resources (DEMLR) prior to the construction of any built-upon area. For example, a proposed subdivision in a WS-III watershed and not in a HQW is required to submit a stormwater management plan to the County but does not need a Post-Construction Stormwater Management Permit from DEMLR. When a Post-Construction Stormwater Management Permit is required, it shall be obtained from DEMLR, and a copy of the permit shall be submitted to the County prior to final plat preliminary plat approval. All structural stormwater Subdivisions in the HQW, with up to 12% built-upon area are considered Low Density where stormwater runoff may be through dispersed flow or vegetated conveyance. Projects with greater than 12% built-upon area are High Density and require engineered Stormwater Control Measures (SCMs) per DEMLR. Best Management Practices (BMPs) shall meet the most current edition of the North Carolina Department of Environmental Quality, Division of Water Quality's Stormwater Best Management Practices Manual. All stormwater control structures shall be designed by a state registered professional with qualifications appropriate for the type of system required. Residential subdivisions shall have systems designed to protect to the ten (10) year storm level, and commercial and industrial shall be protected to the twenty-five (25) year storm level. Each lot shall contain a suitable building area safe from

inundation and erosion. Sanitary sewer systems, septic tank drainfields, water systems, wells, and adjacent properties shall be protected from inundation by surface water. ~~Where a subdivision is traversed by a stream or drainage way, an easement shall be provided conforming with the lines of such stream and be of sufficient width to provide adequate drainage for the subdivision. If a stream or drainage way does not cross a subdivision, a 20 foot wide drainage way easement shall be provided along the topographically lowest property line(s) of lots within the subdivision.~~

REASON. To reflect current North Carolina Department of Environmental Quality standards. The NCDEQ requires a post-construction stormwater management permit prior to construction of any impervious surfaces when a proposed subdivision is located in a High-Quality Watershed. When a proposed subdivision is not in a High-Quality Watershed, the developer would still be required to submit a stormwater management plan to the County. This requirement is recommended to be required at final plat approval.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 3-2 to recommend approval of this item.

NOTE: p. 213 to p. 221

Current language reads: ~~A stormwater management plan shall be required prior to preliminary plat approval. All structural stormwater Best Management Practices (BMPs) shall meet the most current edition of the North Carolina Department of Environmental Quality, Division of Water Quality's Stormwater Best Management Practices Manual. All stormwater control structures shall be designed by a state registered professional with qualifications appropriate for the type of system required. Residential subdivisions shall have systems designed to protect to the ten (10) year storm level, and commercial and industrial shall be protected to the twenty-five (25) year storm level. Each lot shall contain a suitable building area safe from inundation and erosion. Sanitary sewer systems, septic tank drainfields, water systems, wells, and adjacent properties shall be protected from inundation by surface water. Where a subdivision is traversed by a stream or drainage way, an easement shall be provided conforming with the lines of such stream and be of sufficient width to provide adequate drainage for the subdivision. If a stream or drainage way does not cross a subdivision, a 20 foot wide drainage way easement shall be provided along the topographically lowest property line(s) of lots within the subdivision.~~

Planning Board voted to Recommend 5-0

4. Chapter 19 (Subdivisions) Section 19.16 (Subdivision Plat Requirements) to change items on the Table of Subdivision Application Requirements as follows:

a. Proposed buildings are required only if applicable on preliminary plats.

REASON. At the preliminary plat stage, no lots have been sold and no buildings are proposed. All buildings will be required to meet zoning and building code requirements before building permits are issued.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 5-0 to recommend approval of this item.

Planning Board voted to Recommend 5-0

b. Existing buildings are required only on exempt, minor, and family subdivisions.

REASON. This is to ensure that no subdivision would create a setback violation on an exempt, minor, or family subdivision. For major subdivisions, any existing buildings would likely be removed to allow for the development and sale of the new lots.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 5-0 to recommend approval of this item.

Planning Board voted to Recommend NEW Language Below

c. Allow existing topography to be shown on preliminary plats, not proposed topography.

REASON. The proposed topography is not determined until a grading plan is created, which is done after the preliminary plat is approved.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 5-0 to recommend changing the word "allow" to "require," changing the word "not" to "and" proposed topography, and approve this item.

PB Recommended New Language:

c. *~~Allow~~ Require existing topography to be shown on preliminary plats, ~~not~~ and proposed topography.*

Planning Board voted to recommend NEW Language Below

d. Allow existing and proposed entrance signs to be shown on preliminary plats if applicable.

REASON. As with buildings, there may be no entrance signs proposed at preliminary plat stage.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 5-0 to recommend changing the word "allow" to "require" and approve this item.

PB Recommended New Language:

*d. ~~Allow~~ **Require** existing and proposed entrance signs to be shown on preliminary plats if applicable.*

Planning Board voted to recommend NEW Language Below

e. Allow estimated linear feet in streets on preliminary plats and require linear feet in streets on final plats.

REASON. This number may change between preliminary plat approval and construction of streets.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 5-0 to recommend changing the word “allow” to “require” and approve this item.

PB Recommended New Language:

*e. ~~Allow~~ **Require** estimated linear feet in streets on preliminary plats and require linear feet in streets on final plats.*

Planning Board voted to recommend NEW Language Below

f. Allow estimated Percentage of entire project to be covered with impervious surfaces, including totals by phase on preliminary plats and require percentage of entire project to be covered with impervious surface, including totals by phase on final plats.

REASON. Impervious surface numbers may be estimated at preliminary plat stage since some of the details of buildings, streets, and sidewalks are still to be determined.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 5-0 to recommend changing the word "allow" to "require" and approve this item.

PB Recommended New Language:

*f. **Require** estimated Percentage of entire project to be covered with impervious surfaces, including totals by phase on preliminary plats and require percentage of entire project to be covered with impervious surface, including totals by phase on final plats.*

Planning Board voted to recommend NEW Language Below

g. Allow estimated separate impervious surface totals by streets, sidewalks, maximum allowed for each lot on preliminary plats and require separate impervious surface totals by streets, sidewalks, maximum allowed for each lot, etc. on final plats.

REASON. The total area of impervious surfaces in streets, and sidewalks may have minor changes between preliminary plat approval and final plat approval.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 5-0 to recommend changing the word "allow" to "require" and approve this item.

PB Recommended New Language:

*g. **Require** estimated separate impervious surface totals by streets, sidewalks, maximum allowed for each lot on preliminary plats and require separate impervious surface totals by streets, sidewalks, maximum allowed for each lot, etc. on final plats.*

Planning Board Voted Against 5-0

h. Primary and secondary fire and rescue responders are required on preliminary and final plats.

REASON. This is to show which fire and rescue department would respond in case of an emergency. This requirement is already in the text of the UDO, but not included in the table of subdivision application requirements.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 5-0 to recommend not adding this item to the Table of Subdivision Application Requirements.

Planning Board Voted to Recommend 3-2

- i. Allow Stormwater Management Plans for major subdivisions to be submitted at final plat stage rather than preliminary plat stage.

REASON. A stormwater management plan will be required before any construction takes place. Obtaining a stormwater management plan at preliminary plat stage can impose an unnecessary cost burden on the developer.

PLANNING BOARD RECOMMENDATIONS. The Planning Board voted 3-2 to recommend approval of this item.

PROPOSED TEXT. The Table of Subdivision Application Requirements showing the proposed amendments is attached to this staff report for reference.

Planning Board voted AGAINST this change: 5-0

5. Chapter 19 (Subdivisions), Section 19.17 (Subdivision Plat Certification Requirements) to remove the requirement for a utilities certificate on minor subdivision plats.

PROPOSED TEXT. The Table of Subdivision Certification Requirements showing the proposed amendment is attached to this staff report for reference.

REASON. Improvements for utilities are very rarely installed for minor subdivisions.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 5-0 to keep the requirement for a utilities certificate on Minor Subdivision Plats.

Planning Board Voted to Recommend 5-0

6. Chapter 20 (Definitions) Section 20.2 (Definitions) to add the following definitions as follows:

STORMWATER MANAGEMENT PLAN: The set of drawings and other documents that comprise all the information and specifications for the programs, drainage systems, structures, BMPs, concepts, and techniques intended to maintain or restore quality of stormwater runoff to pre-development levels.

STORMWATER CONTROL MEASURES (SCMs): Also known as “Best Management Practice” or “BMP” means a permanent structural device that is designed, constructed, and maintained to remove pollutants from stormwater runoff by promoting settling or filtration; or to mimic the natural hydrologic cycle by promoting infiltration, evapotranspiration, post-filtration discharge, reuse of stormwater, or a combination thereof.

DISPERSED FLOW: Uniform shallow flow that is conveyed to a vegetated filter strip (as defined in 15A NCAC 2H .1059), another vegetated area, or stormwater control measure. The purpose of “dispersed flow” is to remove pollutants through infiltration and setline, as well as to reduce erosion prior to stormwater reaching surface waters.

VEGETATED CONVEYANCE: A permanent, designed waterway lined with vegetation that is used to convey stormwater runoff at a non-erosive velocity within or away from a developed area.

POST-CONSTRUCTION STORMWATER MANAGEMENT PERMIT: A permit obtained from the North Carolina Department of Environmental Quality Department of Energy, Mineral, and Land Resources to

minimize the impact of stormwater runoff from development on the water quality of surface waters and to protect their designated best usages in High Quality Watersheds (HQW) and Outstanding Resource Waters (ORW).

REASON. To be consistent with NCDEQ definitions and provide context for Section 19.11 listed above.

PLANNING BOARD RECOMMENDATION. The Planning Board voted 5-0 to recommend approval of this item.



Agenda Item: 7.A.
Meeting Date: August 15, 2023

MEMORANDUM TO THE MOORE COUNTY BOARD OF COMMISSIONERS:

FROM: Debra Ensminger, Planning Director
DATE: 08/01/2023
SUBJECT: Quasi-Judicial Hearing for an Amendment to a Special Use Permit:
Conservation Subdivision – Bibey Road (2 Additional Lots) - ParID
20210670, 00039436
APPLICANT: Tri-South Builders, Inc. And Brandon J. & Emily K. Cooley
PRESENTER: Debra Ensminger, Planning Director

REQUEST: A request for an amendment to a Special Use Permit and approval of a preliminary plat: "Bibey Road Subdivision – 2 Additional Lots" for two additional lots in an existing 12-lot Major Subdivision on two parcels with a combined total acreage of 19.57 acres, located on Bibey Road, Carthage NC (ParID 20210670), owned by Tri-South Builders per Deed Book 5755, Page 245 and on 180 Archdale Drive, Carthage, NC (ParID 00039436), owned by Brandon and Emily Cooley per Deed Book 5831, Page 502.

BACKGROUND: LOCATION:

The proposed project is located on Bibey Road and 180 Archdale Drive, Carthage, NC. One parcel is owned by Tri South Builders, Inc. per Deed Book 5755, Page 245 and the other parcel is owned by Brandon and Emily Cooley per Deed Book 5831, Page 502.

SUBDIVISION TYPE:

The Bibey Rd. Major Conservation Subdivision application for 12 lots was originally considered and approved by the Subdivision Review Board on April 6, 2021. The Special Use Permit for this development was approved by the Moore County Board of Commissioners on April 20, 2021. The subdivision was originally approved as the neighborhood conservation option for major subdivisions. The addition of two lots will still meet the minimum open space requirements and density requirements as defined in Section 19.9 of the Moore County Unified Development Ordinance.

- Proposed improvements shall comply with all local and state codes and ordinance requirements such as the Moore County Unified Development Ordinance Subdivision Requirements, Moore County Watershed Overlay District Requirements, North Carolina Department of Transportation, Moore County Department of Public Works, Moore County Department of Public Safety, Moore County Department of Environmental Health, Moore County Building Inspections, and Moore County Department of 911 Addressing.

INFRASTRUCTURE:**Water and Sewer**

- Water – The proposed lot 14 will be served by Moore County Public Utilities by tying into the existing 2" water line on Archdale Dr. The existing 2" water line was installed when the subdivision was originally built. Lot 13 is proposed to utilize a service connection to Moore County Public Water. The service connection for lot 13 will be an individual connection to the existing water line rather than an extension of the line to the rear of the subdivision.
- Water Capacity – There is adequate water supply and storage to serve the proposed two additional lots as determined by the Moore County Department of Public Works.
- Fire Flow – The fire flow test dated June 5, 2023, projected results at 20 PSI with residual pressure of 908 GPM.
- Septic – The development will utilize individual private septic systems. The applicant submitted the Preliminary Soil Evaluation Reports to the Environmental Health Department. The report for lot 13 was completed on November 23, 2022, and the report for lot 14 was completed on July 17, 2022. The attached Soil Evaluation and Final Septic Recommendation for Lot 14 mentions that the lot does not contain adequate space to permit a foundation drain and meet setbacks as required in rule.1950 (15). As such, foundation drains will not be allowed on the proposed house. The applicant shall submit a lot-by-lot evaluation for septic system capacity for approval before final plat approval.

OVERLAY DISTRICTS:

- Watershed – The property is within the WS-IIIP Little River (Vass) Watershed which limits single family residential development to two (2) dwelling units per acre or 20,000 square foot lot excluding the street right-of-way. The proposed development utilizes less than 24% impervious surface area and includes stormwater control measures designed to protect to the 10-year storm level. A stormwater management plan with calculations has been submitted to the Moore County Planning Department and is attached to this staff report for reference.
- Voluntary Agricultural District - The property is within a half-mile of a VAD.

TRANSPORTATION:

- The existing Archdale Dr (private road) has been built to NCDOT standards and is proposed to serve lot 14. Lot 13 will be served by a private gravel driveway.
- NCDOT has reviewed the plans and stated that there will be no additional requirements for the existing driveway connection on Bibey Rd.

UTILITIES:

- All utilities shall be located underground unless otherwise noted on the preliminary plat.

STREET TREES:

The subdivider shall plant or leave at least one street tree for each 20 feet of street frontage along all streets, outside of sight triangles, as illustrated on the preliminary plat.

CLUSTER MAILBOXES:

A mail kiosk shall be provided for the receipt of mail as approved by the U.S. Postal Service and other applicable departments accommodating the two additional lots. The existing mail kiosk is located outside of the right-of-way and in a homeowners' association maintained area.

ENTRANCE SIGNS:

No entrance signs are proposed to be installed at this time. Any entrance signs will be designed, located, and permitted under a separate submittal to the County. Sight triangles are

shown on the preliminary plat. Any sign easement shall be shown on the final plat, and any sign would be maintained by the homeowner's association.

OPEN SPACE:

The original approval of the Bibey Rd. Major Subdivision included 12.18 acres of open space. The proposed additional two lots will bring the total open space to 12.07 acres or 35.5%. The minimum open space required for a Major Conservation Subdivision is 30%.

REQUIRED FINDINGS

In approving the special use permit, the following findings must be met:

1. The use will not materially endanger the public health or safety; and
2. The use meets all required conditions and specifications; and
3. The use will not substantially injure the value or adjoining property unless the use is a public necessity; and
4. The use will be in harmony with the surrounding area and compatible with the surrounding neighborhood; and
5. The use will be in general conformity with the approved Moore County Land Use Plan; and
6. The use is subject to a site plan that accurately depicts the proposed use's configuration.

DEVELOPER'S REQUIREMENTS

The developer shall complete the following items before construction begins or as otherwise indicated:

- a. Inspection Schedule – The applicant, prior to commencing any work within the subdivision, shall make arrangements with the Administrator to provide for adequate inspections.
- b. Utility Construction Plans – Shall be approved by Moore County Public Utilities, Fire Marshal, and other applicable agencies such as power, telephone, cable, etc.
- c. Sediment Erosion Control Plan Approval by NCDEQ as required
- d. Soil Evaluations Report – For each lot submitted by a licensed Soil Scientist as approved by the Moore County Environmental Health Department required before final plat approval.
- e. Street Tree Details – Approved by the Planning Department (installation and inspection required before a Certificate of Occupancy is issued for each lot)
- f. HOA – Bylaws and restrictive covenants approved before final plat approval to include that open space, cluster mailboxes, utility easements for cable and power, and street trees will be maintained by the HOA.
- g. All other provisions as indicated in Chapter 19 of the Unified Development Ordinance, and any other applicable local and state requirement, before construction begins and/or final plat approval.

FINANCIAL IMPACT: No financial impact to the County's FY 2023-2024 budget.

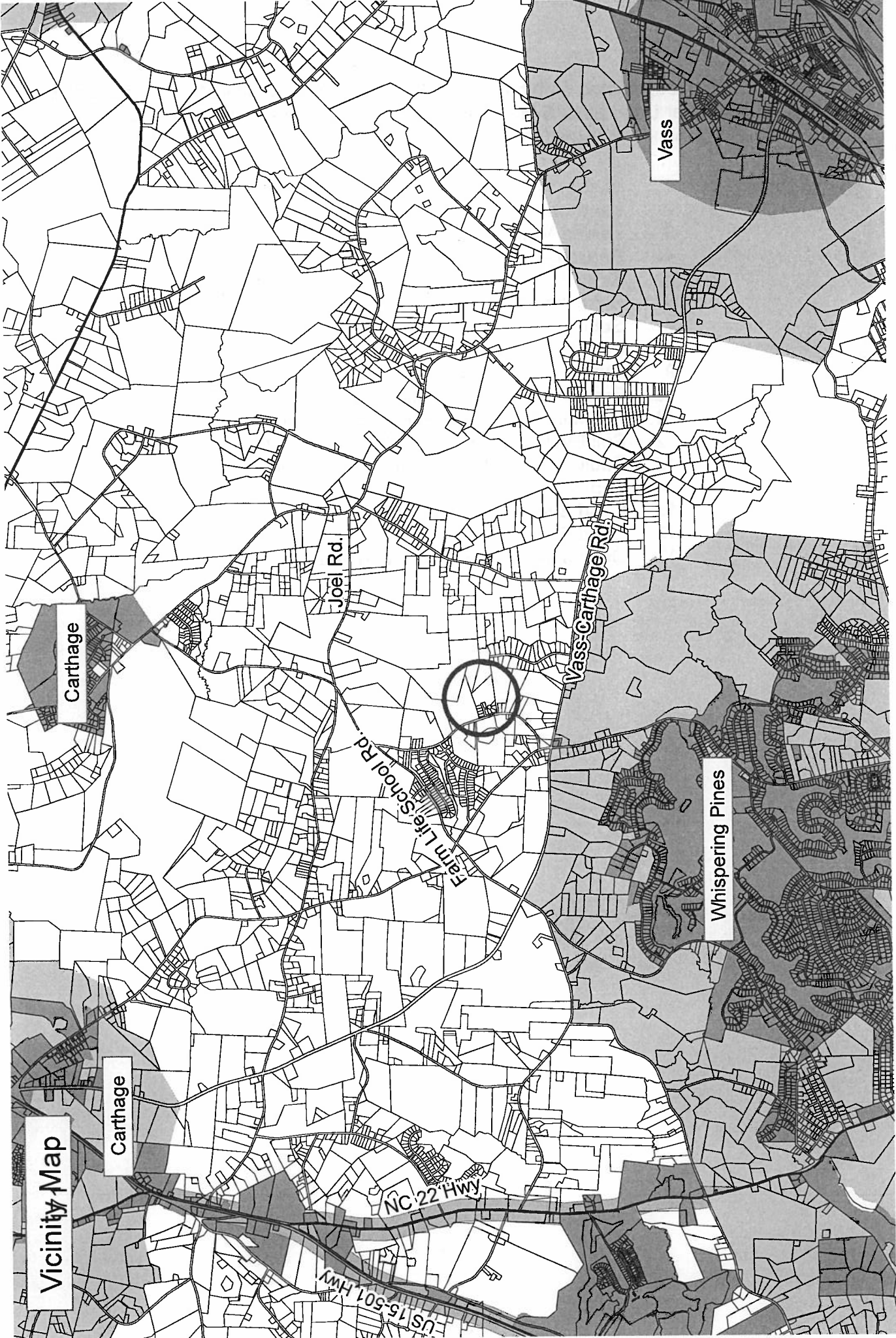
IMPLEMENTATION PLAN: Hold a Quasi-Judicial Hearing on August 15, 2023

RECOMMENDATION SUMMARY: Make a motion to **approve/deny** the amendment to a Special Use Permit and preliminary plat for "Bibey Road Subdivision – 2 Additional Lots" for two additional lots in an existing 12-lot Major Subdivision on two parcels with a combined total

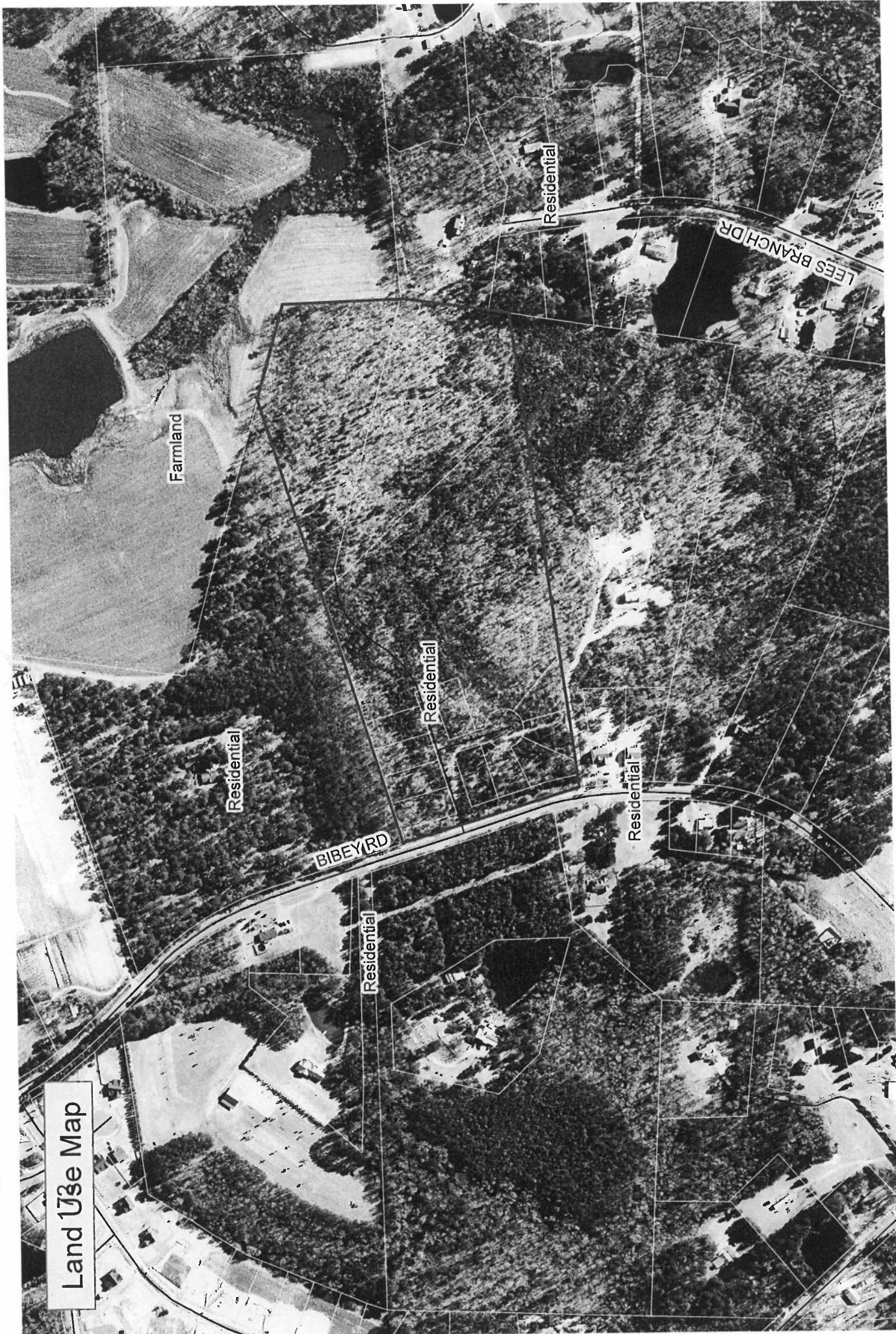
acreage of 19.57 acres, located on Bibey Road, Carthage NC (ParlD 20210670), owned by Tri-South Builders per Deed Book 5755, Page 245 and on 180 Archdale Drive, Carthage, NC (ParlD 00039436), owned by Brandon and Emily Cooley per Deed Book 5831, Page 502.

ATTACHMENTS:

1. Vicinity Map
2. Land Use Map
3. Zoning Map
4. Application
5. Submitted Stormwater Narrative
6. Submitted Stormwater Management Plan
7. Submitted Preliminary Plat
8. Plat Review Checklist
9. Hydrant Flow Test Report
10. Preliminary Soil Evaluation Reports 180 Archdale
11. Preliminary Soil Evaluation Reports lot 14
12. Soil Evaluation and Final Septic Recommendation Lot 14
13. Public Works Approval for Water Supply
14. Public Works Approval for Fire Flow
15. Deed Book 5755, Page 245
16. Deed Book 5831, Page 502
17. Original Board Order for Approved Subdivision



Land Use Map



Zoning Map

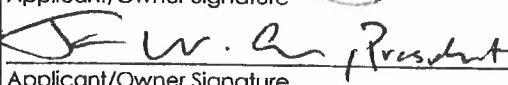


**County of Moore
Planning and Inspections**



Inspections/Permitting: (910) 947-2221
Planning: (910) 947-5010
Fax: (910) 947-1303

**Major Subdivision
Special Use Permit Application**

Application Date: <u>1/27/23</u>			
Location/Address of Property: <u>ARCHDALE DR. (BIGBY RD. SUBDIVISION)</u>			
Applicant: <u>TRI-SOUTH BUILDERS, INC.</u>		Phone: <u>(910) 585-0475</u>	
Applicant Address: <u>PO Box 1200</u>	City: <u>WEST END</u>	St: <u>NC</u>	Zip: <u>27376</u>
Owner: <u>SAME AS APPLICANT</u>		Phone:	
Owner Address:	City:	St:	Zip:
Current Zoning District: <u>2A-40</u>	Proposed Use: <u>RESIDENTIAL LOT</u>		
Comments: <u>SEE BACK OF APPLICATION FOR SEPERATE APPLICANT INFORMATION.</u>			
I (We), the undersigned, certify that all statements furnished in this application are true to the best of my (our) knowledge, and do hereby agree to follow all reasonable requests for information as designated by the County of Moore Zoning Administrator.			
 Applicant/Owner Signature		<u>27 MAR 23</u> Date	
 Applicant/Owner Signature		<u>3/27/23</u> Date	
Office Use Only:			
PAR ID: <u>20210610, 00039436</u>			
 Received By		<u>6/5/23</u> Date	

② ADDITIONAL APPLICANT

APPLICANT: BRANDON J. & EMILY K. COOLEY
1376 FARM LIFE SCHOOL RD.
CARTHAGE, NC 28327
(260) 341-8076

OWNER: SAME AS APPLICANT

EX. ZONING: RA-40

PROPOSED USE: RESIDENTIAL LOT

Major Subdivision Preliminary Plat Review

LRK 20210670
00039436 Date 1/27/23 Zoning District 2A-40

Type of Subdivision:

☒ Major-Neighborhood Conservation Option - TWO ADDITIONAL LOTS TO PREVIOUSLY APPROVED BIBBY RD. SUBDIVISION
☐ Major-Conventional Option

Total Number of Lots Proposed (including parent tract): 4 → THERE ARE TWO PARENT TRACTS
 Acreage of Existing Parcel: 19.57

Applicants Name: TRI-SOUTH BUILDERS, INC. & BRANDON J. & EMILY K. COOLEY
 Address: PO BOX 1200, WEST END, NC 27376 & 1376 FARM LIFE SCHOOL RD., CARTRAGE, NC 28327
 Phone: (910) 585-0475 & (260) 341-8096 Fax: _____

Property Owners Name: SAME AS APPLICANTS

Location of Property: ARCHDALE DR. (BIBBY RD. SUBDIVISION)

Surveyor Name: JEFFREY L. GREEN Phone: 910-420-1437

Utilities: ☒ Public Water ☐ Public Sewer

☐ Private Well(s) ☒ Private Septic Tank(s)

Subdivision will involve the creation of new roads or streets: ☐ YES ☒ NO → ROAD ALREADY CONSTRUCTED

Type of streets proposed: ☐ Public ☒ Private

For Office Use Only:

Review Officer Checklist

☒ LRK

☒ Owners Name

☒ Approval Signature by Jurisdiction

Name: _____

☒ Township: McNeill

☒ City: Carthage

☒ State: NC

☒ North Arrow Reference: _____

☒ Scale Text

☒ Scale Bar Scale of Map: 1" = 100'

☐ Survey Statement

☐ Meets Size Requirements

☒ Surveyor Signature (Engineer)

☒ Surveyor Seal Reg Number: 043255 (Engineer)

☐ Change to Existing Street NO change to existing street.

☐ New Public Street Dedication

Approved by: _____

Approval Date: _____

Requires Subdivision Review Board Approval:

☒ YES ☐ NO Meeting Date: 6/13/23

Requires Board of County Commissioners Approval:

☒ YES ☐ NO Meeting Date: Call to Public Hearing: 9/5/23
Public Hearing: 9/19/23





Engineering
Landscape Architecture
Surveying

June 7, 2023

Debra Ensminger
Planning Director, County of Moore
Moore County Planning
1048 Carriage Oaks Dr., Carthage, NC 28327

RE: Bibey Road Subdivision – Stormwater Management Narrative

Chapter 19, Section 19.7.G of Moore County's UDO references the drainage requirements for Major Subdivisions – Preliminary Plat Submittal. Albeit a **Preliminary** Plat (this drawing is not allowed to be used for Construction), we have provided stormwater management design and calculations. Section 19.7.G requires residential subdivisions to be designed to protect the ten (10) year storm event – in other words, the post-development runoff rate must be equal to or less than the pre-development runoff rate for a 10-yr. design storm. Managing runoff and release rates are completed by designing and utilizing stormwater management devices that meet requirements as set forth in North Carolina Department of Environmental Quality, Division of Water Quality's Stormwater Best Management Practices Manual.

The Bibey Road Subdivision roadways are designed with shoulders and ditches (in lieu of curb and gutter) to convey the stormwater runoff. Stormwater pipes are installed at intersections and strategic locations to convey the stormwater to a management device. The stormwater management device (dry pond) collects the runoff and then releases it at an acceptable rate – in fact, the post-development runoff rate is less than the pre-development rate for a 25-yr. design storm which exceeds the County's requirement for designing to a 10-yr. storm event. The two additional lots being proposed as an amendment to the previously approved Special Use Permit have been factored into the calculations.

The stormwater management as designed meets the requirements of Moore County's UDO. If there are any questions, please don't hesitate to contact me at philip@lkceengineering.com or 910-420-1437.

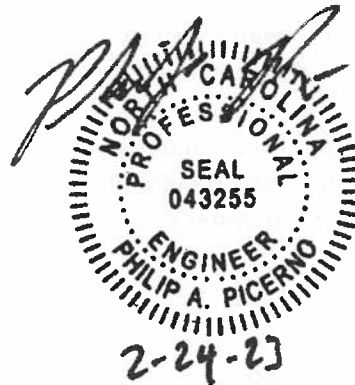
Sincerely,
LKC Engineering, PLLC

A handwritten signature in black ink, appearing to read 'Philip Picerno'.

Philip Picerno, PE

**Bibey Road Subdivision
Moore County, NC**

**Storm Drainage Analysis
And Calculations**



Prepared by:



**140 Aqua Shed Court
Aberdeen, NC 28315
License # P-1095
February, 2023**

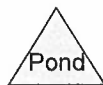
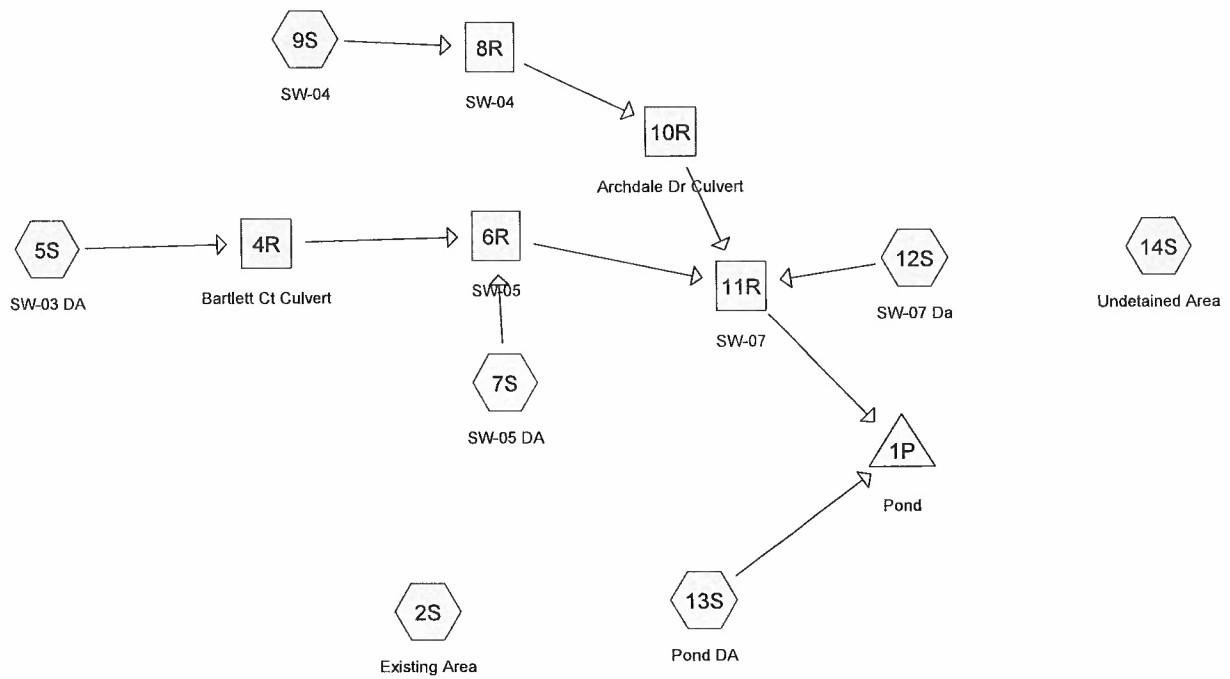
Bibey Road Subdivision	
1-year event Storm Drainage Summary	
Detention Pond	
Peak Inflow Rate (cfs)	1.37
Peak Release Rate (cfs)	0
Preconstruction Runoff Rate (cfs)	0.91
Undetained Area Runoff Rate (cfs)	0.72
Post Construction Release Rate (cfs)	0.72

Bibey Road Subdivision	
10-year event Storm Drainage Summary	
Detention Pond	
Peak Inflow Rate (cfs)	12.07
Peak Release Rate (cfs)	2.75
Preconstruction Runoff Rate (cfs)	38.57
Undetained Area Runoff Rate (cfs)	30.47
Post Construction Release Rate (cfs)	33.22

Bibey Road Subdivision	
25-year event Storm Drainage Summary	
Detention Pond	
Peak Inflow Rate (cfs)	18.7
Peak Release Rate (cfs)	7.56
Preconstruction Runoff Rate (cfs)	67.79
Undetained Area Runoff Rate (cfs)	53.56
Post Construction Release Rate (cfs)	61.12

**Bibey Road Subdivision
Moore County, NC**

HydroCAD Calculations



Routing Diagram for Bibey RD Stormwater Analysis
Prepared by LKC Engineering, PLLC, Printed 2/24/2023
HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

Printed 2/24/2023

Page 2

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	NOAA 24-hr	B	Default	24.00	1	3.07	2
2	10-Year	NOAA 24-hr	B	Default	24.00	1	5.40	2
3	25-Year	NOAA 24-hr	B	Default	24.00	1	6.42	2

Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

Printed 2/24/2023

Page 3

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.070	98	(14S)
6.410	54	1/2 acre lots, 25% imp, HSG A (5S, 13S)
0.620	39	>75% Grass cover (12S)
0.470	83	Paved roads w/open ditches, 50% imp, HSG A (7S, 9S)
61.740	48	Woods/grass comb (2S, 14S)
1.110	98	existing impervious (2S)
71.420	50	TOTAL AREA

Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

Printed 2/24/2023

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

Page 4

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)
1	4R	401.37	401.13	47.0	0.0051	0.013	0.0	15.0	0.0
2	10R	393.50	391.50	43.0	0.0465	0.130	0.0	15.0	0.0

**Bibey Road Subdivision
Moore County, NC**

**1-Year Rainfall Event
Storm Drainage Calculations**

Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 1-Year Rainfall=3.07"

Printed 2/24/2023

Page 5

Time span=0.00-30.00 hrs, dt=0.03 hrs, 1001 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment2S: Existing Area	Runoff Area=35.710 ac 3.11% Impervious Runoff Depth=0.10" Tc=5.0 min CN=50 Runoff=0.91 cfs 0.308 af
Subcatchment5S: SW-03 DA	Runoff Area=0.100 ac 25.00% Impervious Runoff Depth=0.19" Tc=5.0 min CN=54 Runoff=0.01 cfs 0.002 af
Subcatchment7S: SW-05 DA	Runoff Area=0.250 ac 50.00% Impervious Runoff Depth=1.50" Tc=5.0 min CN=83 Runoff=0.58 cfs 0.031 af
Subcatchment9S: SW-04	Runoff Area=0.220 ac 50.00% Impervious Runoff Depth=1.50" Tc=5.0 min CN=83 Runoff=0.51 cfs 0.028 af
Subcatchment12S: SW-07 Da	Runoff Area=0.620 ac 0.00% Impervious Runoff Depth=0.00" Tc=5.0 min CN=39 Runoff=0.00 cfs 0.000 af
Subcatchment13S: Pond DA	Runoff Area=6.310 ac 25.00% Impervious Runoff Depth=0.19" Tc=5.0 min CN=54 Runoff=0.47 cfs 0.099 af
Subcatchment14S: Undetained Area	Runoff Area=28.210 ac 3.79% Impervious Runoff Depth=0.10" Tc=5.0 min CN=50 Runoff=0.72 cfs 0.243 af
Reach 4R: Bartlett Ct Culvert 15.0" Round Pipe n=0.013	Avg. Flow Depth=0.04' Max Vel=0.69 fps Inflow=0.01 cfs 0.002 af L=47.0' S=0.0051 '/' Capacity=4.62 cfs Outflow=0.01 cfs 0.002 af
Reach 6R: SW-05	Avg. Flow Depth=0.25' Max Vel=3.03 fps Inflow=0.58 cfs 0.033 af n=0.025 L=200.0' S=0.0450 '/' Capacity=67.83 cfs Outflow=0.56 cfs 0.033 af
Reach 8R: SW-04	Avg. Flow Depth=0.24' Max Vel=2.84 fps Inflow=0.51 cfs 0.028 af n=0.025 L=265.0' S=0.0415 '/' Capacity=65.15 cfs Outflow=0.49 cfs 0.028 af
Reach 10R: Archdale Dr Culvert 15.0" Round Pipe n=0.130	Avg. Flow Depth=0.51' Max Vel=1.03 fps Inflow=0.49 cfs 0.028 af L=43.0' S=0.0465 '/' Capacity=1.39 cfs Outflow=0.47 cfs 0.028 af
Reach 11R: SW-07	Avg. Flow Depth=0.29' Max Vel=4.08 fps Inflow=1.00 cfs 0.060 af n=0.025 L=118.0' S=0.0678 '/' Capacity=83.26 cfs Outflow=0.99 cfs 0.060 af
Pond 1P: Pond	Peak Elev=378.94' Storage=6,957 cf Inflow=1.37 cfs 0.160 af Outflow=0.00 cfs 0.000 af

Total Runoff Area = 71.420 ac Runoff Volume = 0.711 af Average Runoff Depth = 0.12"
94.37% Pervious = 67.402 ac 5.63% Impervious = 4.017 ac

Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 1-Year Rainfall=3.07"

Printed 2/24/2023

Page 6

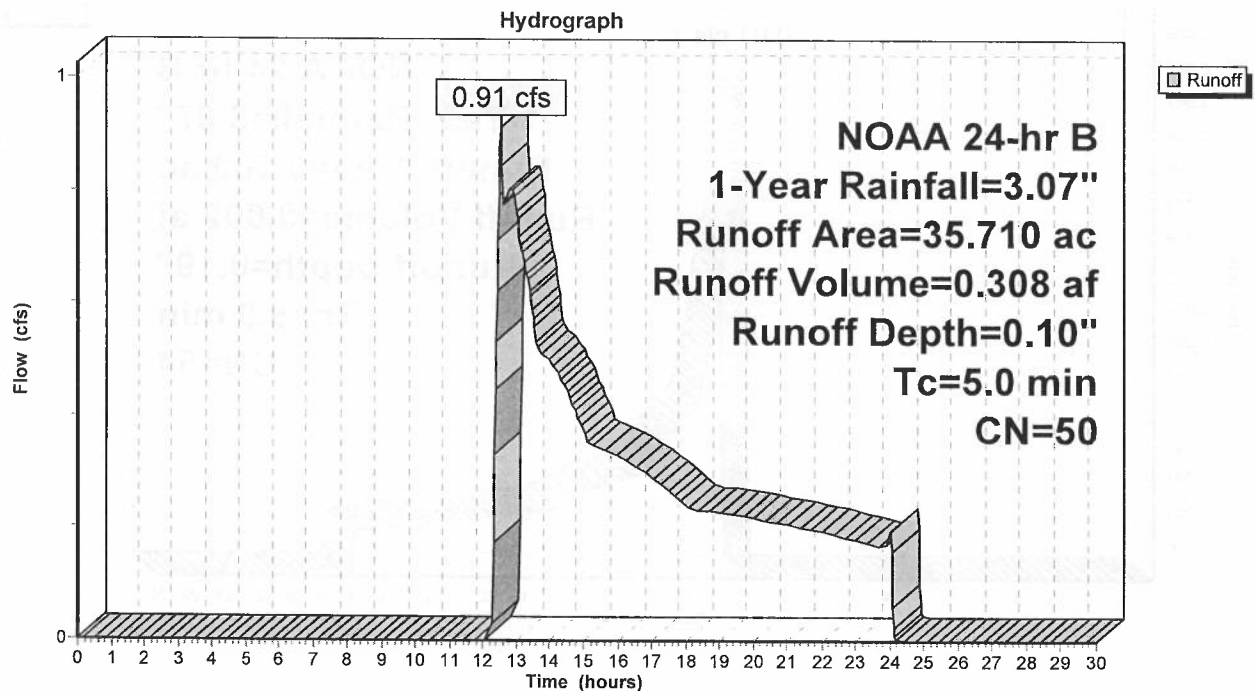
Summary for Subcatchment 2S: Existing Area

Runoff = 0.91 cfs @ 12.54 hrs, Volume= 0.308 af, Depth= 0.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NOAA 24-hr B 1-Year Rainfall=3.07"

Area (ac)	CN	Description
* 1.110	98	existing impervious
* 34.600	48	Woods/grass comb
35.710	50	Weighted Average
34.600		96.89% Pervious Area
1.110		3.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 2S: Existing Area

Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 1-Year Rainfall=3.07"

Printed 2/24/2023

Page 7

Summary for Subcatchment 5S: SW-03 DA

Runoff = 0.01 cfs @ 12.33 hrs, Volume= 0.002 af, Depth= 0.19"

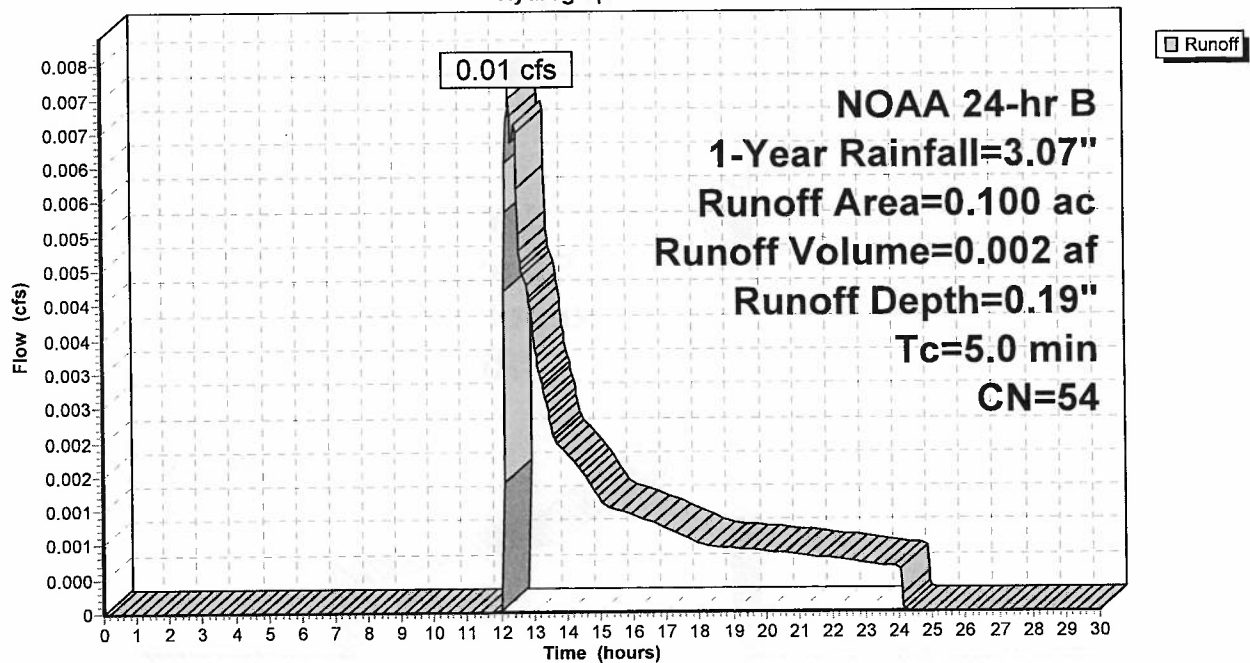
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NOAA 24-hr B 1-Year Rainfall=3.07"

Area (ac)	CN	Description
0.100	54	1/2 acre lots, 25% imp, HSG A
0.075		75.00% Pervious Area
0.025		25.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 5S: SW-03 DA

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 1-Year Rainfall=3.07"

Printed 2/24/2023

Page 8

Summary for Subcatchment 7S: SW-05 DA

Runoff = 0.58 cfs @ 12.12 hrs, Volume= 0.031 af, Depth= 1.50"

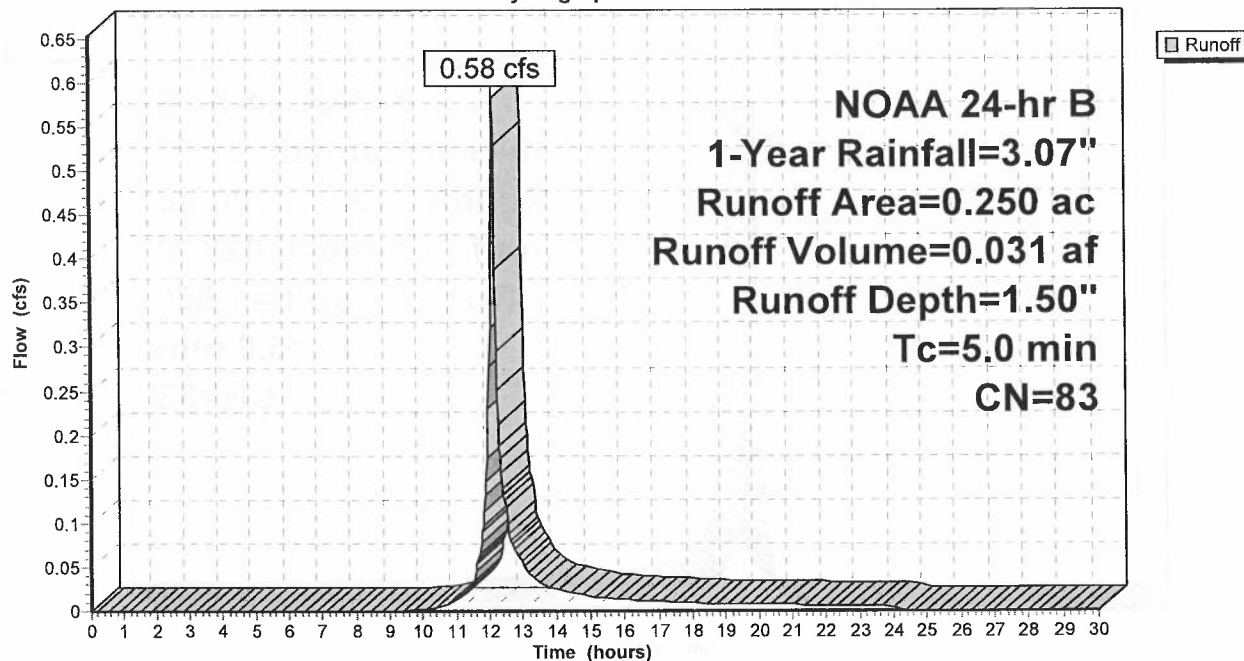
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NOAA 24-hr B 1-Year Rainfall=3.07"

Area (ac)	CN	Description
0.250	83	Paved roads w/open ditches, 50% imp, HSG A
0.125		50.00% Pervious Area
0.125		50.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 7S: SW-05 DA

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 1-Year Rainfall=3.07"

Printed 2/24/2023

Page 9

Summary for Subcatchment 9S: SW-04

Runoff = 0.51 cfs @ 12.12 hrs, Volume= 0.028 af, Depth= 1.50"

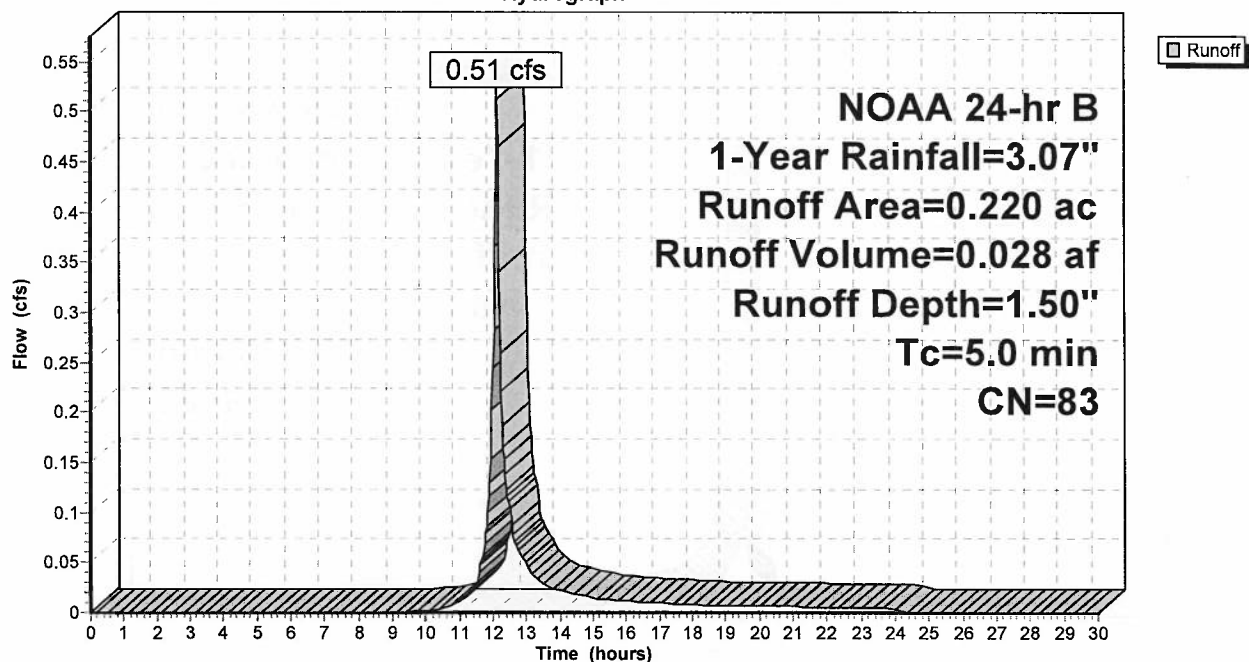
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NOAA 24-hr B 1-Year Rainfall=3.07"

Area (ac)	CN	Description
0.220	83	Paved roads w/open ditches, 50% imp, HSG A
0.110		50.00% Pervious Area
0.110		50.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 9S: SW-04

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 1-Year Rainfall=3.07"

Printed 2/24/2023

Page 10

Summary for Subcatchment 12S: SW-07 Da

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

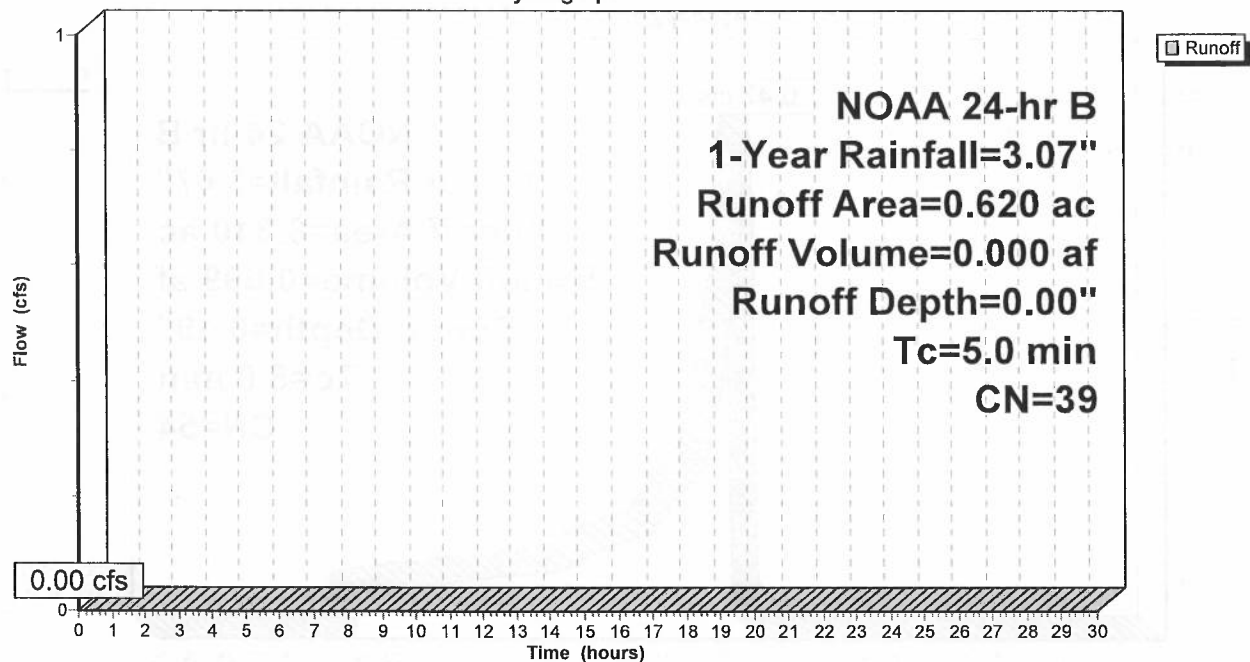
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NOAA 24-hr B 1-Year Rainfall=3.07"

Area (ac)	CN	Description
* 0.620	39	>75% Grass cover
0.620		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 12S: SW-07 Da

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 1-Year Rainfall=3.07"

Printed 2/24/2023

Page 11

Summary for Subcatchment 13S: Pond DA

Runoff = 0.47 cfs @ 12.33 hrs, Volume= 0.099 af, Depth= 0.19"

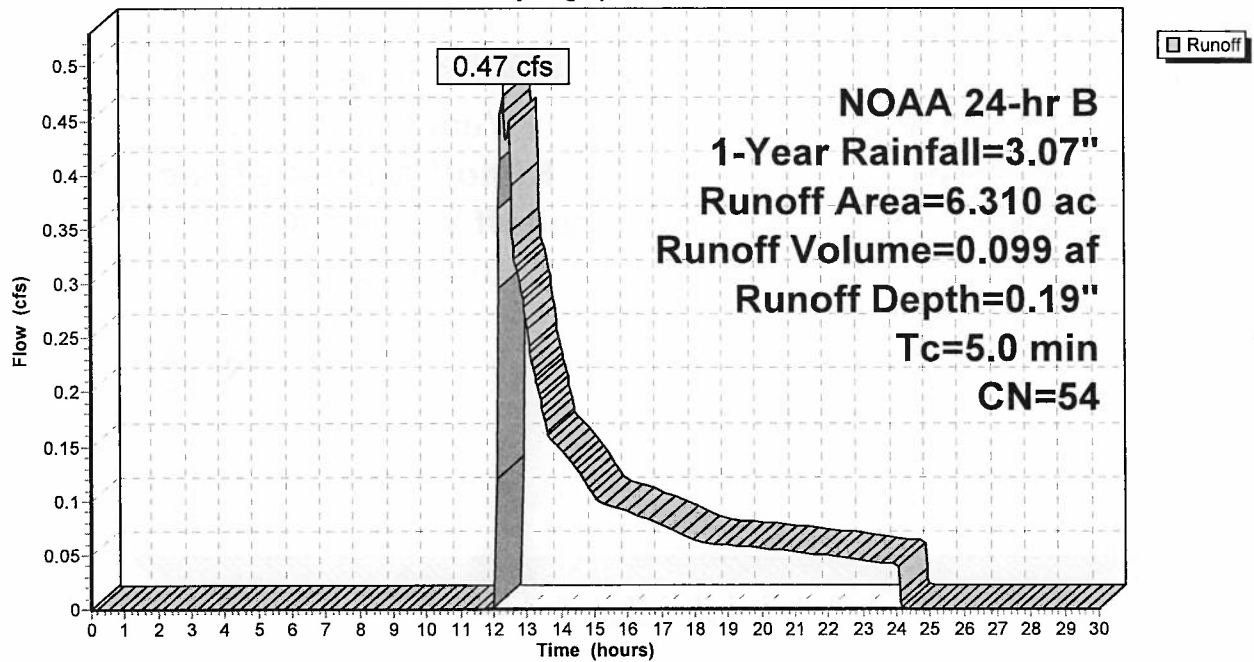
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NOAA 24-hr B 1-Year Rainfall=3.07"

Area (ac)	CN	Description
6.310	54	1/2 acre lots, 25% imp, HSG A
4.732		75.00% Pervious Area
1.577		25.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 13S: Pond DA

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 1-Year Rainfall=3.07"

Printed 2/24/2023

Page 12

Summary for Subcatchment 14S: Undetained Area

Runoff = 0.72 cfs @ 12.54 hrs, Volume= 0.243 af, Depth= 0.10"

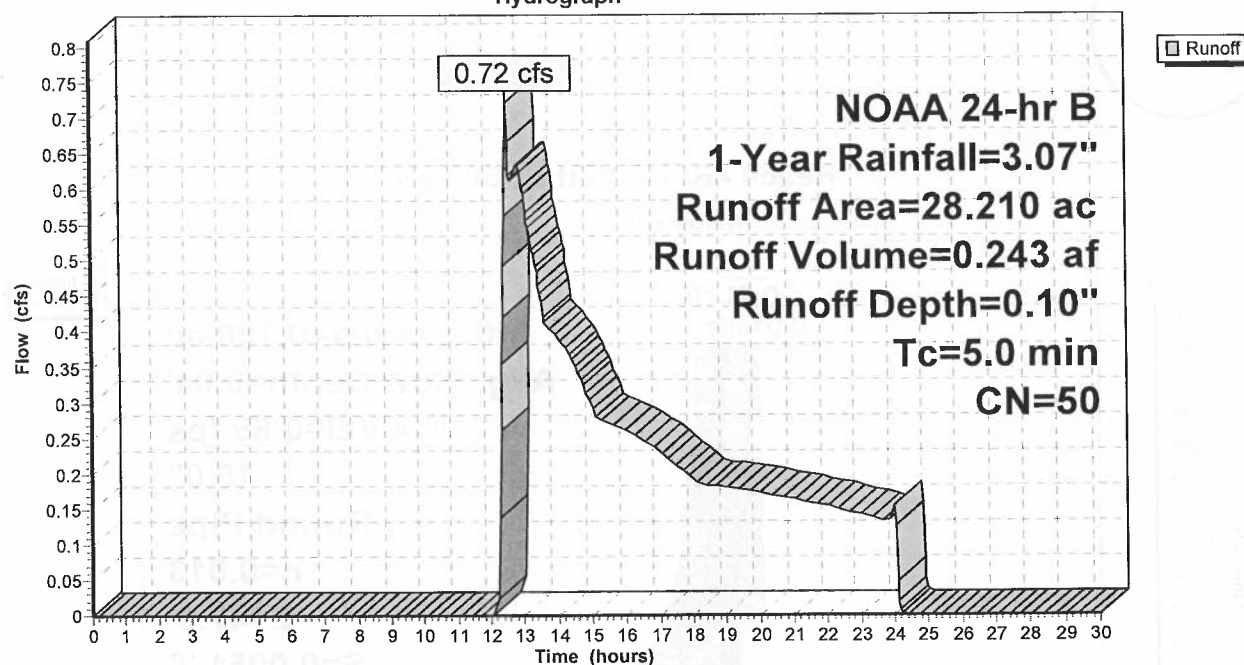
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NOAA 24-hr B 1-Year Rainfall=3.07"

Area (ac)	CN	Description
* 27.140	48	Woods/grass comb
* 1.070	98	
28.210	50	Weighted Average
27.140		96.21% Pervious Area
1.070		3.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 14S: Undetained Area

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 1-Year Rainfall=3.07"

Printed 2/24/2023

Page 13

Summary for Reach 4R: Bartlett Ct Culvert

Inflow Area = 0.100 ac, 25.00% Impervious, Inflow Depth = 0.19" for 1-Year event
 Inflow = 0.01 cfs @ 12.33 hrs, Volume= 0.002 af
 Outflow = 0.01 cfs @ 12.36 hrs, Volume= 0.002 af, Atten= 1%, Lag= 1.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
 Max. Velocity= 0.69 fps, Min. Travel Time= 1.1 min
 Avg. Velocity = 0.42 fps, Avg. Travel Time= 1.9 min

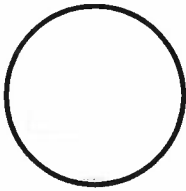
Peak Storage= 1 cf @ 12.34 hrs
 Average Depth at Peak Storage= 0.04' , Surface Width= 0.43'
 Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 4.62 cfs

15.0" Round Pipe

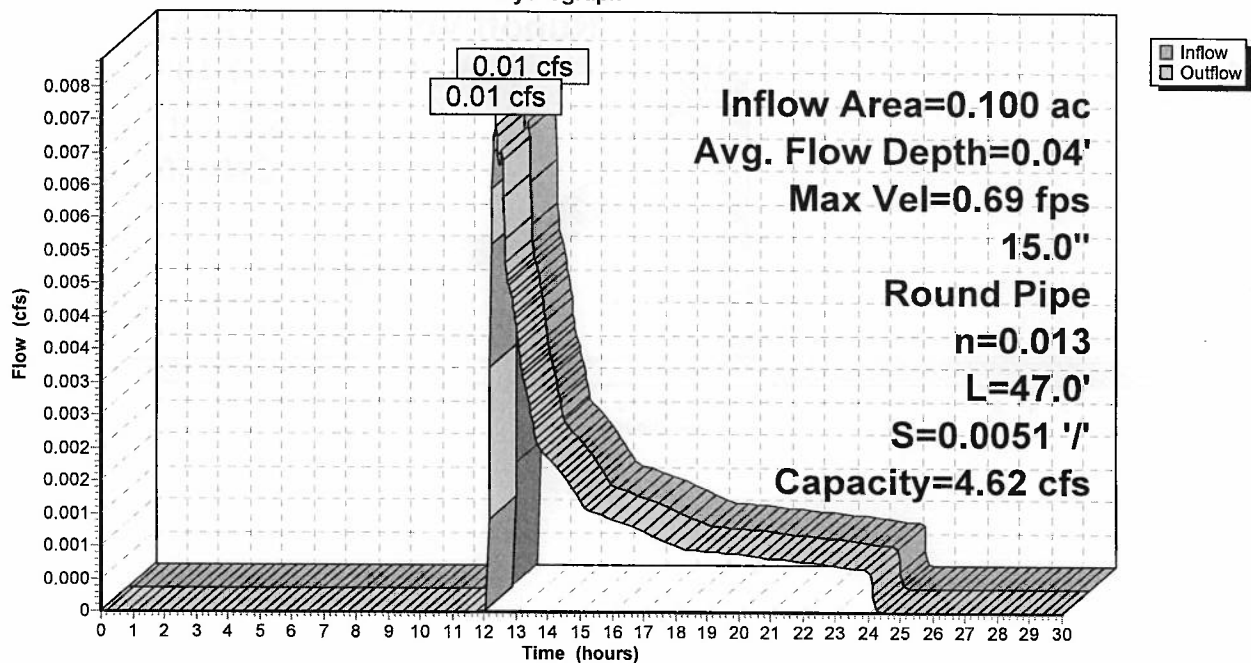
n= 0.013

Length= 47.0' Slope= 0.0051 '/'

Inlet Invert= 401.37', Outlet Invert= 401.13'

**Reach 4R: Bartlett Ct Culvert**

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 1-Year Rainfall=3.07"

Printed 2/24/2023

Page 14

Summary for Reach 6R: SW-05

Inflow Area = 0.350 ac, 42.86% Impervious, Inflow Depth = 1.13" for 1-Year event
 Inflow = 0.58 cfs @ 12.12 hrs, Volume= 0.033 af
 Outflow = 0.56 cfs @ 12.15 hrs, Volume= 0.033 af, Atten= 5%, Lag= 1.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Max. Velocity= 3.03 fps, Min. Travel Time= 1.1 min

Avg. Velocity = 1.21 fps, Avg. Travel Time= 2.8 min

Peak Storage= 37 cf @ 12.14 hrs

Average Depth at Peak Storage= 0.25', Surface Width= 1.50'

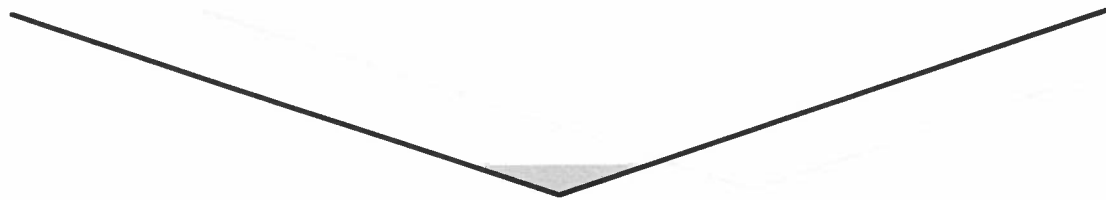
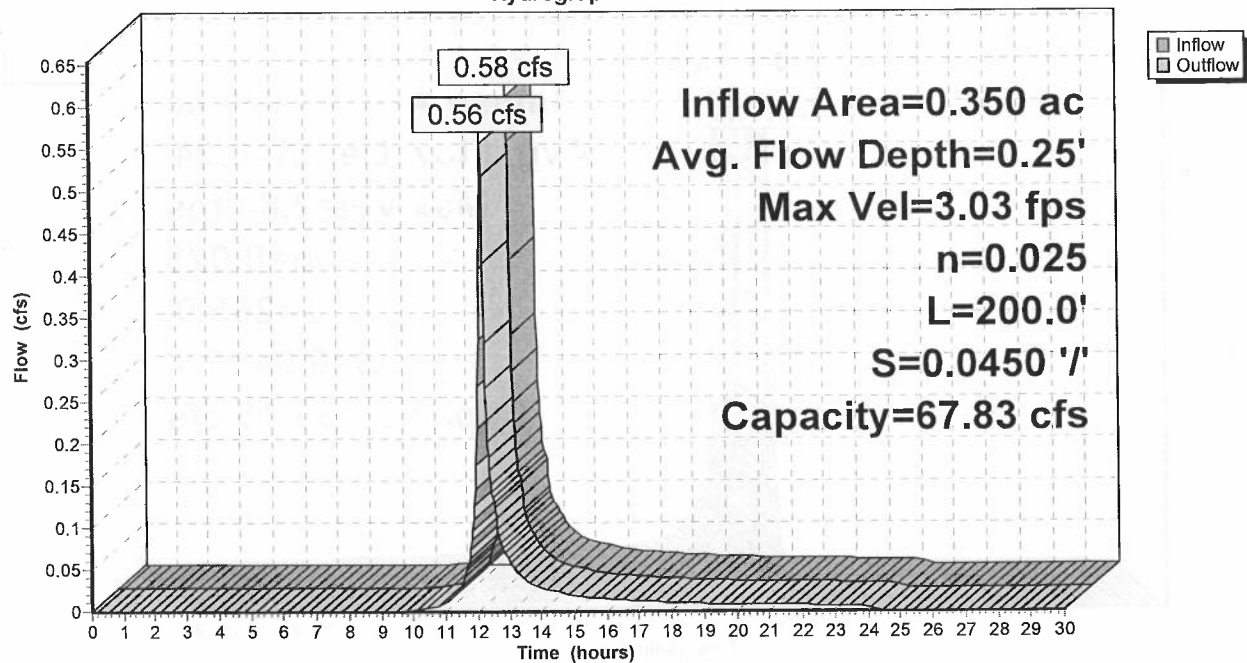
Bank-Full Depth= 1.50' Flow Area= 6.8 sf, Capacity= 67.83 cfs

0.00' x 1.50' deep channel, n= 0.025 Earth, grassed & winding

Side Slope Z-value= 3.0 '/' Top Width= 9.00'

Length= 200.0' Slope= 0.0450 '/'

Inlet Invert= 402.00', Outlet Invert= 393.00'

**Reach 6R: SW-05****Hydrograph**

Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 1-Year Rainfall=3.07"

Printed 2/24/2023

Page 15

Summary for Reach 8R: SW-04

Inflow Area = 0.220 ac, 50.00% Impervious, Inflow Depth = 1.50" for 1-Year event
 Inflow = 0.51 cfs @ 12.12 hrs, Volume= 0.028 af
 Outflow = 0.49 cfs @ 12.17 hrs, Volume= 0.028 af, Atten= 5%, Lag= 2.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Max. Velocity= 2.84 fps, Min. Travel Time= 1.6 min

Avg. Velocity = 1.10 fps, Avg. Travel Time= 4.0 min

Peak Storage= 46 cf @ 12.14 hrs

Average Depth at Peak Storage= 0.24', Surface Width= 1.44'

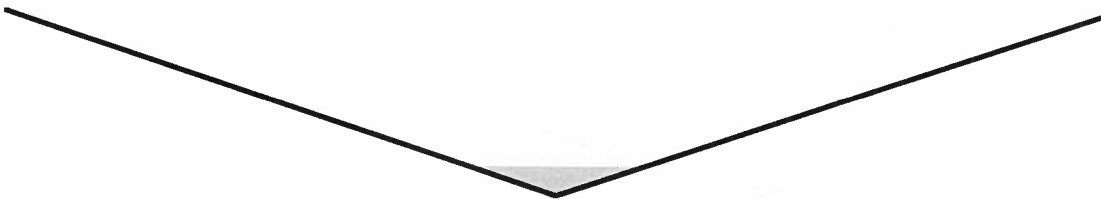
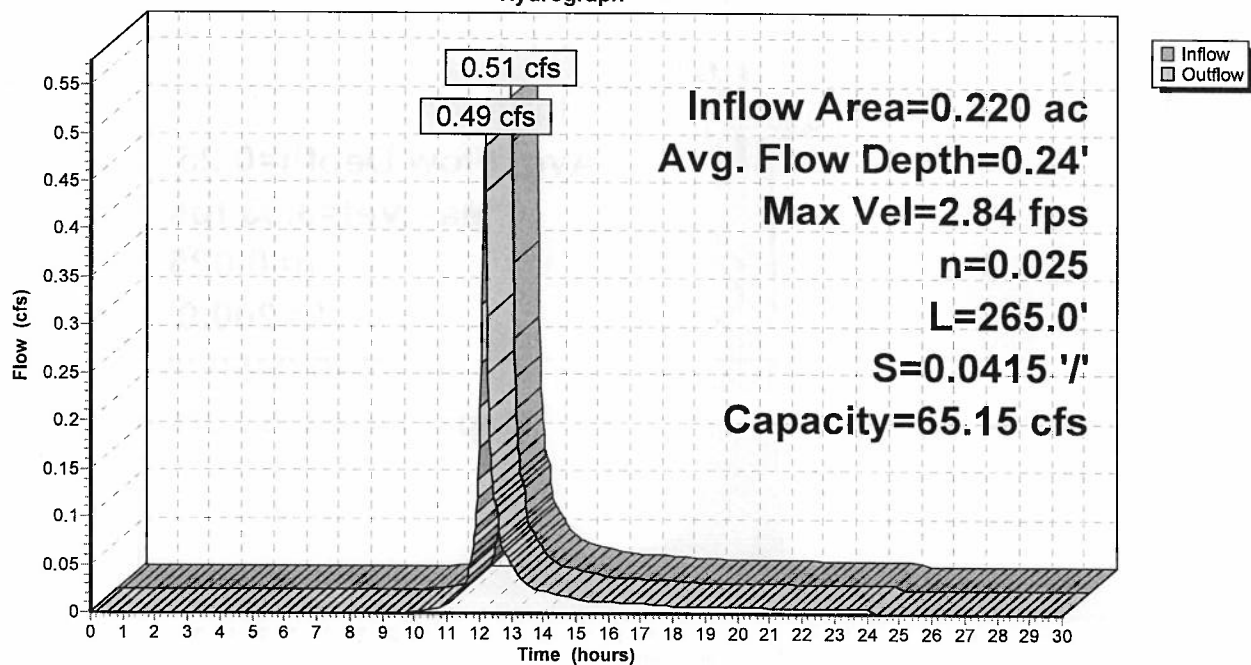
Bank-Full Depth= 1.50' Flow Area= 6.8 sf, Capacity= 65.15 cfs

0.00' x 1.50' deep channel, n= 0.025 Earth, grassed & winding

Side Slope Z-value= 3.0 ' / ' Top Width= 9.00'

Length= 265.0' Slope= 0.0415 ' / '

Inlet Invert= 404.00', Outlet Invert= 393.00'

**Reach 8R: SW-04****Hydrograph**

Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 1-Year Rainfall=3.07"

Printed 2/24/2023

Page 16

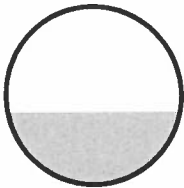
Summary for Reach 10R: Archdale Dr Culvert

Inflow Area = 0.220 ac, 50.00% Impervious, Inflow Depth = 1.50" for 1-Year event
 Inflow = 0.49 cfs @ 12.17 hrs, Volume= 0.028 af
 Outflow = 0.47 cfs @ 12.18 hrs, Volume= 0.028 af, Atten= 3%, Lag= 1.1 min

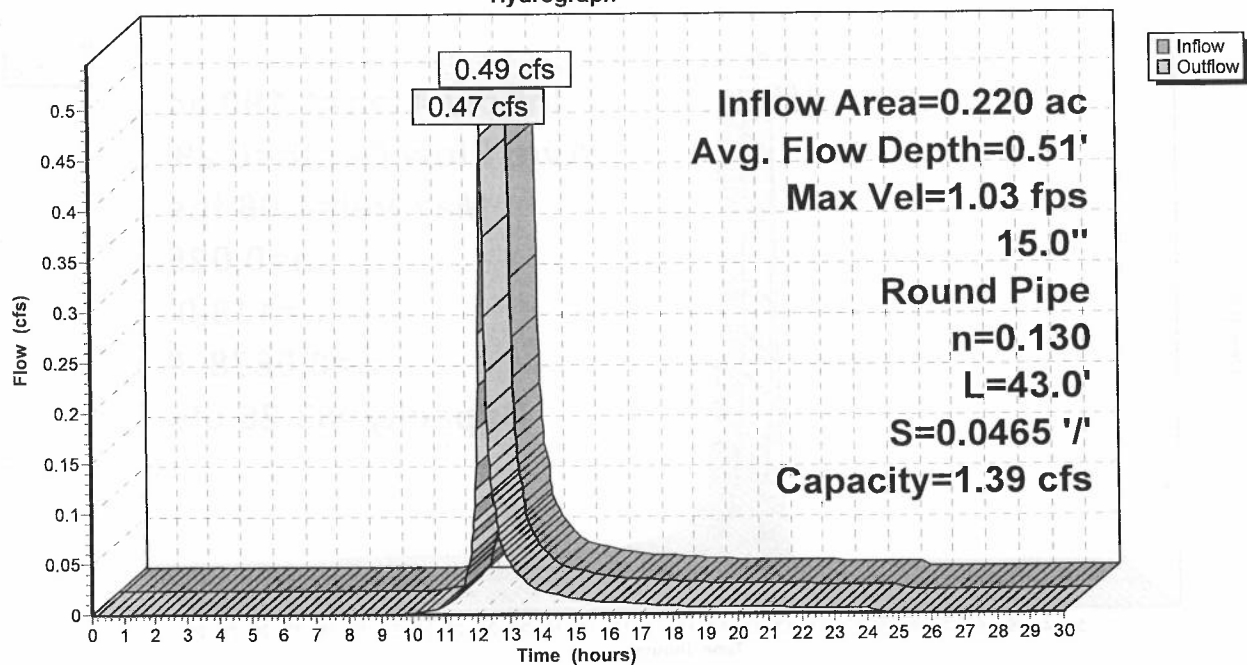
Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
 Max. Velocity= 1.03 fps, Min. Travel Time= 0.7 min
 Avg. Velocity = 0.34 fps, Avg. Travel Time= 2.1 min

Peak Storage= 20 cf @ 12.17 hrs
 Average Depth at Peak Storage= 0.51', Surface Width= 1.23'
 Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 1.39 cfs

15.0" Round Pipe
 n= 0.130
 Length= 43.0' Slope= 0.0465 '/
 Inlet Invert= 393.50', Outlet Invert= 391.50'

**Reach 10R: Archdale Dr Culvert**

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 1-Year Rainfall=3.07"

Printed 2/24/2023

Page 17

Summary for Reach 11R: SW-07

Inflow Area = 1.190 ac, 21.85% Impervious, Inflow Depth = 0.61" for 1-Year event
 Inflow = 1.00 cfs @ 12.17 hrs, Volume= 0.060 af
 Outflow = 0.99 cfs @ 12.18 hrs, Volume= 0.060 af, Atten= 2%, Lag= 0.8 min

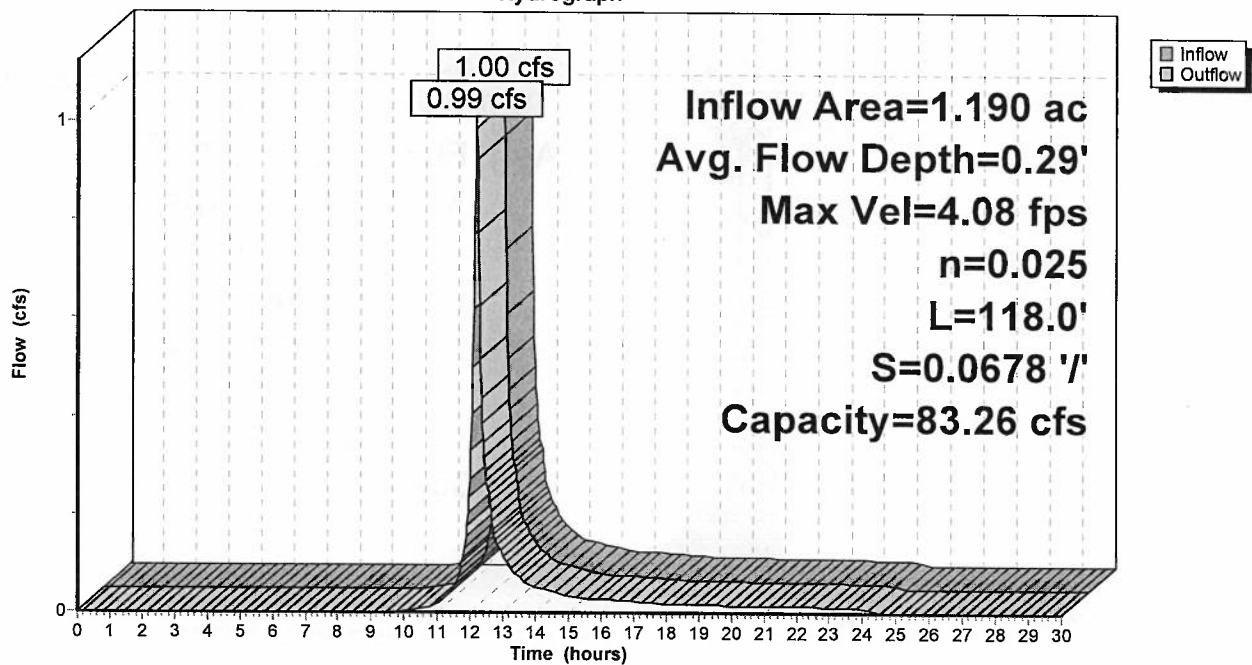
Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
 Max. Velocity= 4.08 fps, Min. Travel Time= 0.5 min
 Avg. Velocity = 1.61 fps, Avg. Travel Time= 1.2 min

Peak Storage= 29 cf @ 12.17 hrs
 Average Depth at Peak Storage= 0.29' , Surface Width= 1.72'
 Bank-Full Depth= 1.50' Flow Area= 6.8 sf, Capacity= 83.26 cfs

0.00' x 1.50' deep channel, n= 0.025 Earth, grassed & winding
 Side Slope Z-value= 3.0 ' ' Top Width= 9.00'
 Length= 118.0' Slope= 0.0678 ' '
 Inlet Invert= 390.00', Outlet Invert= 382.00'

**Reach 11R: SW-07**

Hydrograph



Bibey RD Stormwater Analysis

NOAA 24-hr B 1-Year Rainfall=3.07"

Prepared by LKC Engineering, PLLC

Printed 2/24/2023

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

Page 18

Summary for Pond 1P: Pond

Inflow Area = 7.500 ac, 24.50% Impervious, Inflow Depth = 0.26" for 1-Year event
 Inflow = 1.37 cfs @ 12.19 hrs, Volume= 0.160 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
 Peak Elev= 378.94' @ 27.96 hrs Surf.Area= 6,060 sf Storage= 6,957 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	377.00'	110,564 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
377.00	1,371	0	0
378.00	3,544	2,458	2,458
379.00	6,229	4,887	7,344
380.00	9,110	7,670	15,014
390.00	10,000	95,550	110,564

Device	Routing	Invert	Outlet Devices
#1	Primary	379.50'	10.0' long x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=377.00' (Free Discharge)
 1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

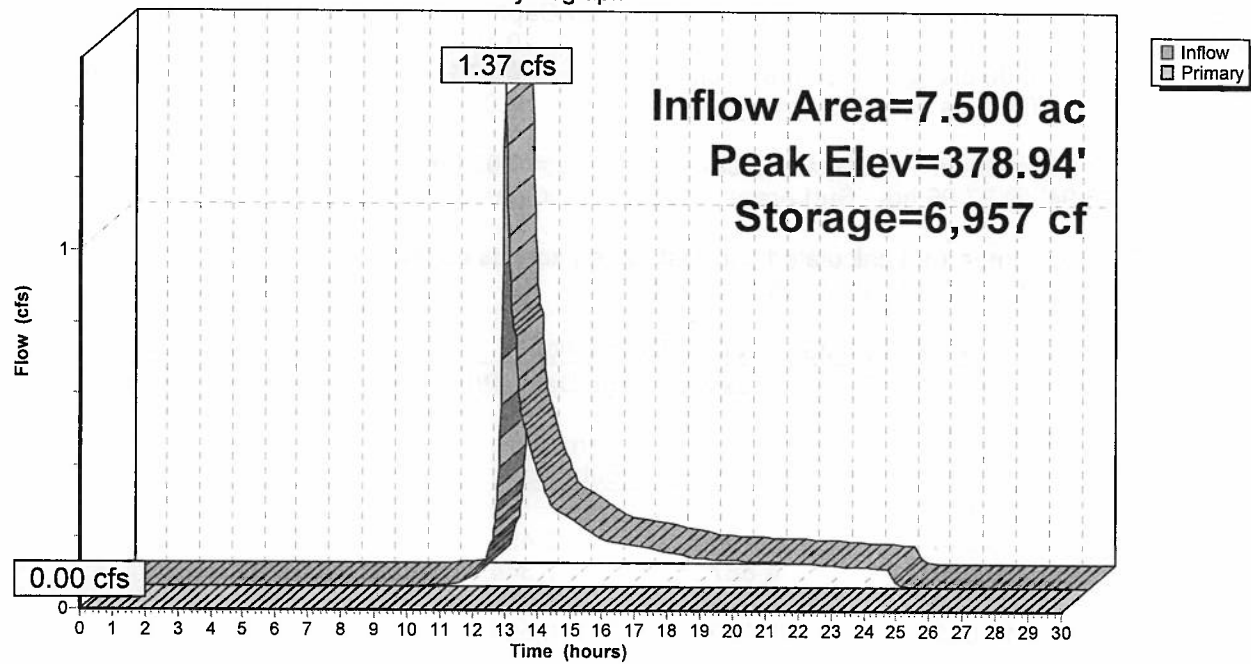
NOAA 24-hr B 1-Year Rainfall=3.07"

Printed 2/24/2023

Page 19

Pond 1P: Pond

Hydrograph



**Bibey Road Subdivision
Moore County, NC**

**10-Year Rainfall Event
Storm Drainage Calculations**

Bibey RD Stormwater Analysis

NOAA 24-hr B 10-Year Rainfall=5.40"

Prepared by LKC Engineering, PLLC

Printed 2/24/2023

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

Page 20

Time span=0.00-30.00 hrs, dt=0.03 hrs, 1001 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 2S: Existing Area	Runoff Area=35.710 ac 3.11% Impervious Runoff Depth=0.86" Tc=5.0 min CN=50 Runoff=38.57 cfs 2.567 af
Subcatchment 5S: SW-03 DA	Runoff Area=0.100 ac 25.00% Impervious Runoff Depth=1.12" Tc=5.0 min CN=54 Runoff=0.16 cfs 0.009 af
Subcatchment 7S: SW-05 DA	Runoff Area=0.250 ac 50.00% Impervious Runoff Depth=3.54" Tc=5.0 min CN=83 Runoff=1.34 cfs 0.074 af
Subcatchment 9S: SW-04	Runoff Area=0.220 ac 50.00% Impervious Runoff Depth=3.54" Tc=5.0 min CN=83 Runoff=1.18 cfs 0.065 af
Subcatchment 12S: SW-07 Da	Runoff Area=0.620 ac 0.00% Impervious Runoff Depth=0.29" Tc=5.0 min CN=39 Runoff=0.06 cfs 0.015 af
Subcatchment 13S: Pond DA	Runoff Area=6.310 ac 25.00% Impervious Runoff Depth=1.12" Tc=5.0 min CN=54 Runoff=9.83 cfs 0.588 af
Subcatchment 14S: Undetained Area	Runoff Area=28.210 ac 3.79% Impervious Runoff Depth=0.86" Tc=5.0 min CN=50 Runoff=30.47 cfs 2.028 af
Reach 4R: Bartlett Ct Culvert	Avg. Flow Depth=0.16' Max Vel=1.73 fps Inflow=0.16 cfs 0.009 af 15.0" Round Pipe n=0.013 L=47.0' S=0.0051 '/' Capacity=4.62 cfs Outflow=0.15 cfs 0.009 af
Reach 6R: SW-05	Avg. Flow Depth=0.35' Max Vel=3.83 fps Inflow=1.48 cfs 0.083 af n=0.025 L=200.0' S=0.0450 '/' Capacity=67.83 cfs Outflow=1.42 cfs 0.083 af
Reach 8R: SW-04	Avg. Flow Depth=0.33' Max Vel=3.50 fps Inflow=1.18 cfs 0.065 af n=0.025 L=265.0' S=0.0415 '/' Capacity=65.15 cfs Outflow=1.12 cfs 0.065 af
Reach 10R: Archdale Dr Culvert	Avg. Flow Depth=0.84' Max Vel=1.26 fps Inflow=1.12 cfs 0.065 af 15.0" Round Pipe n=0.130 L=43.0' S=0.0465 '/' Capacity=1.39 cfs Outflow=1.10 cfs 0.065 af
Reach 11R: SW-07	Avg. Flow Depth=0.40' Max Vel=5.12 fps Inflow=2.50 cfs 0.163 af n=0.025 L=118.0' S=0.0678 '/' Capacity=83.26 cfs Outflow=2.46 cfs 0.163 af
Pond 1P: Pond	Peak Elev=379.73' Storage=12,652 cf Inflow=12.07 cfs 0.751 af Outflow=2.75 cfs 0.503 af

Total Runoff Area = 71.420 ac Runoff Volume = 5.346 af Average Runoff Depth = 0.90"
94.37% Pervious = 67.402 ac 5.63% Impervious = 4.017 ac

Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 10-Year Rainfall=5.40"

Printed 2/24/2023

Page 21

Summary for Subcatchment 2S: Existing Area

Runoff = 38.57 cfs @ 12.14 hrs, Volume= 2.567 af, Depth= 0.86"

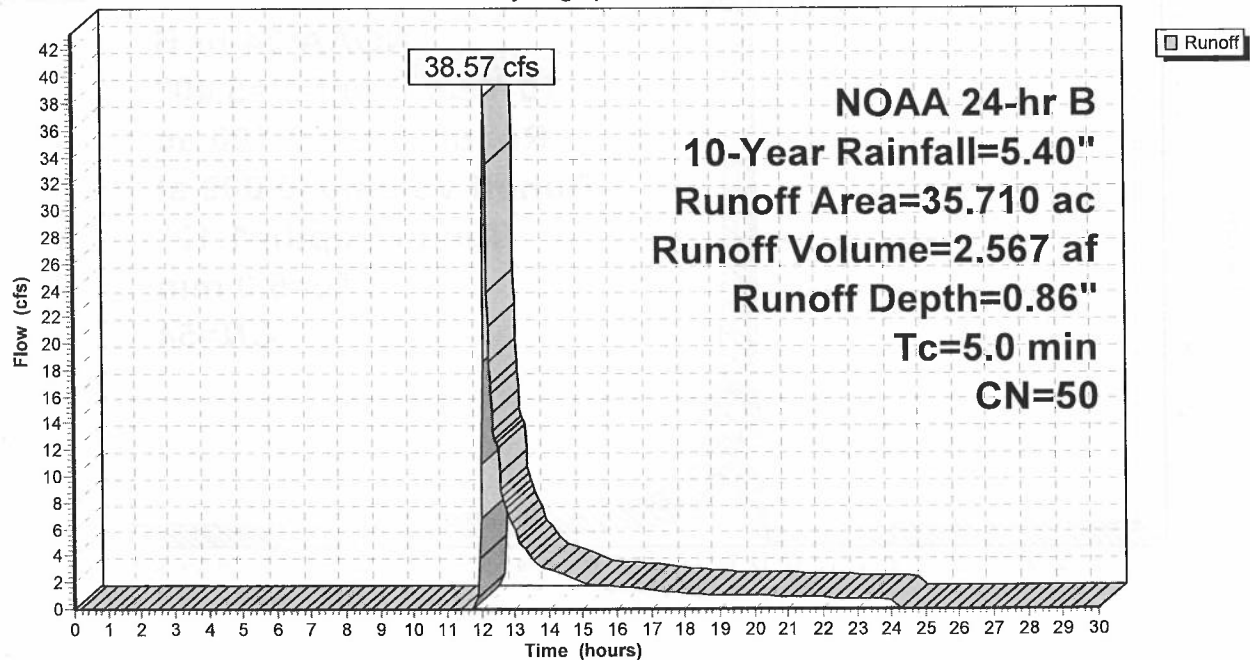
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NOAA 24-hr B 10-Year Rainfall=5.40"

Area (ac)	CN	Description
* 1.110	98	existing impervious
* 34.600	48	Woods/grass comb
35.710	50	Weighted Average
34.600		96.89% Pervious Area
1.110		3.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 2S: Existing Area

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 10-Year Rainfall=5.40"

Printed 2/24/2023

Page 22

Summary for Subcatchment 5S: SW-03 DA

Runoff = 0.16 cfs @ 12.13 hrs, Volume= 0.009 af, Depth= 1.12"

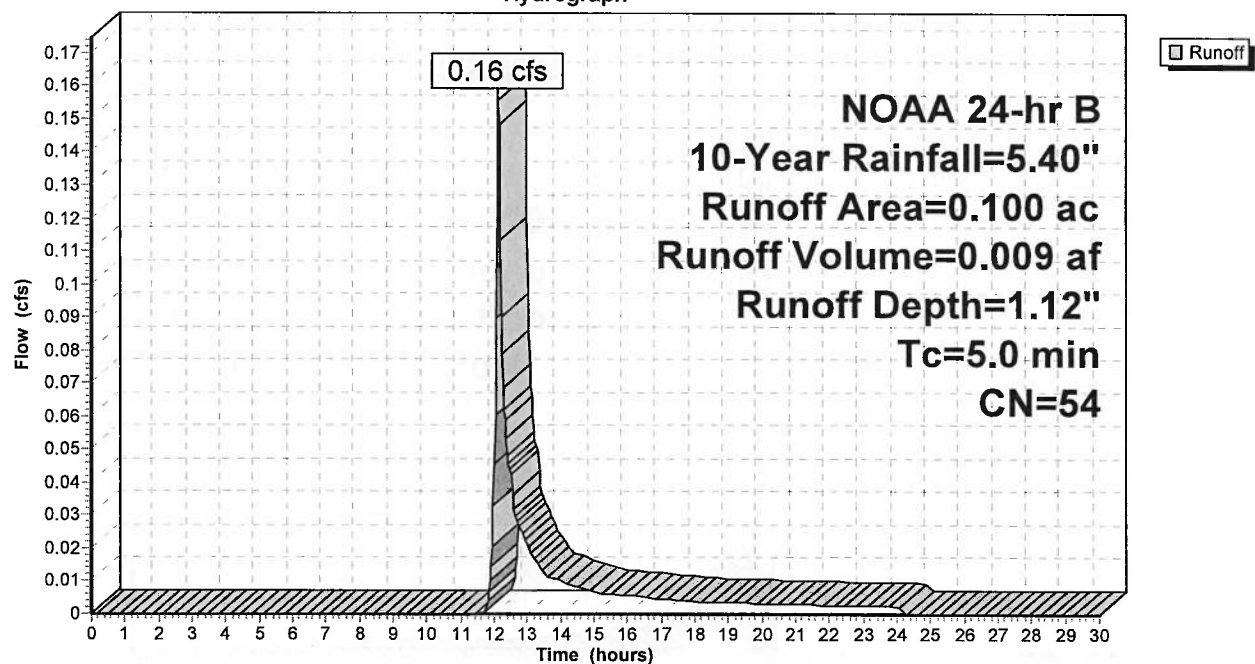
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NOAA 24-hr B 10-Year Rainfall=5.40"

Area (ac)	CN	Description
0.100	54	1/2 acre lots, 25% imp, HSG A
0.075		75.00% Pervious Area
0.025		25.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 5S: SW-03 DA

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 10-Year Rainfall=5.40"

Printed 2/24/2023

Page 23

Summary for Subcatchment 7S: SW-05 DA

Runoff = 1.34 cfs @ 12.12 hrs, Volume= 0.074 af, Depth= 3.54"

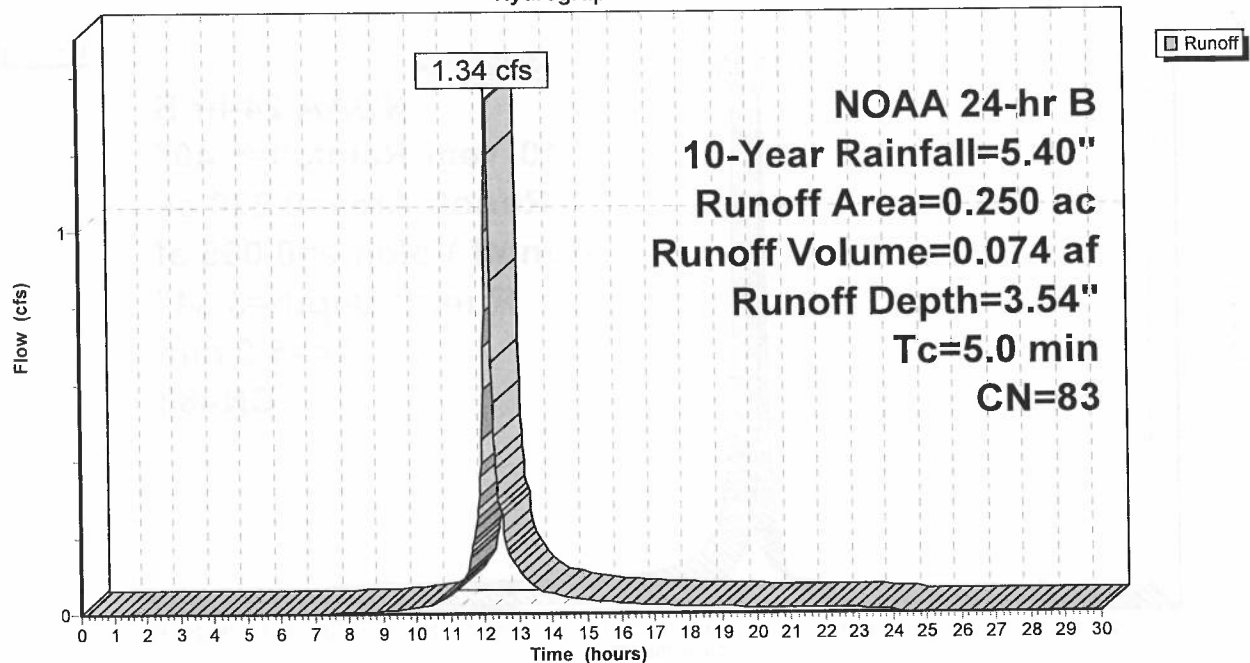
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NOAA 24-hr B 10-Year Rainfall=5.40"

Area (ac)	CN	Description
0.250	83	Paved roads w/open ditches, 50% imp, HSG A
0.125		50.00% Pervious Area
0.125		50.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 7S: SW-05 DA

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 10-Year Rainfall=5.40"

Printed 2/24/2023

Page 24

Summary for Subcatchment 9S: SW-04

Runoff = 1.18 cfs @ 12.12 hrs, Volume= 0.065 af, Depth= 3.54"

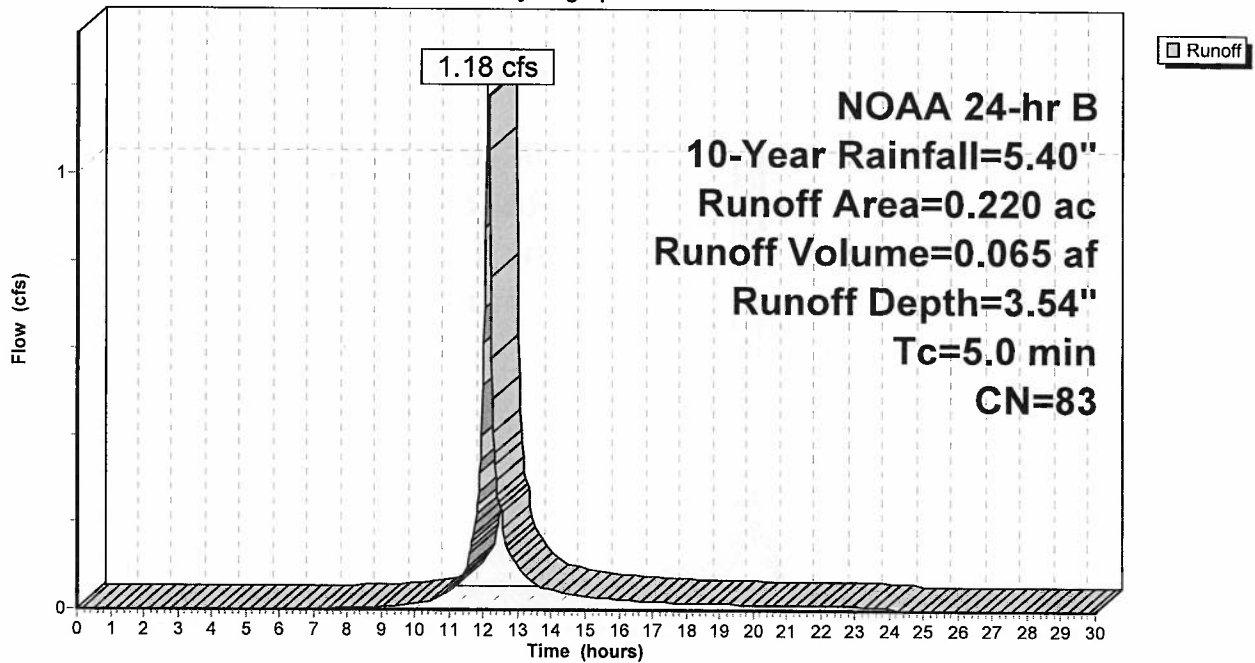
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NOAA 24-hr B 10-Year Rainfall=5.40"

Area (ac)	CN	Description
0.220	83	Paved roads w/open ditches, 50% imp, HSG A
0.110		50.00% Pervious Area
0.110		50.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 9S: SW-04

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 10-Year Rainfall=5.40"

Printed 2/24/2023

Page 25

Summary for Subcatchment 12S: SW-07 Da

Runoff = 0.06 cfs @ 12.52 hrs, Volume= 0.015 af, Depth= 0.29"

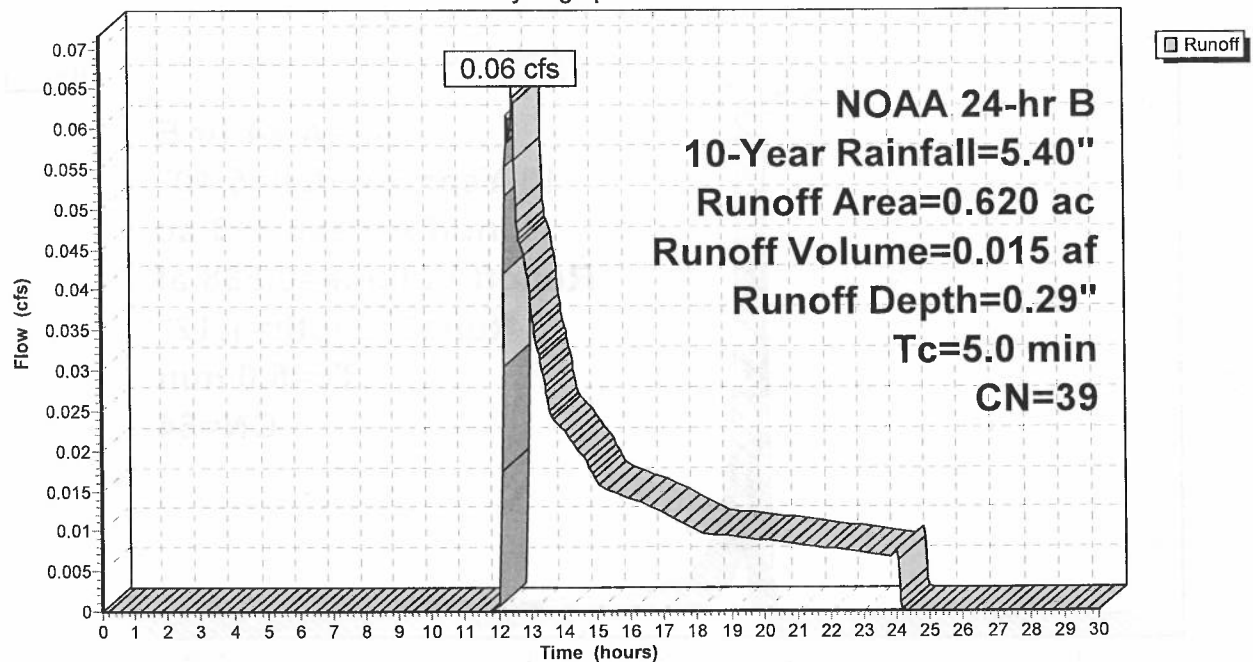
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NOAA 24-hr B 10-Year Rainfall=5.40"

Area (ac)	CN	Description
* 0.620	39	>75% Grass cover
0.620		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 12S: SW-07 Da

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 10-Year Rainfall=5.40"

Printed 2/24/2023

Page 26

Summary for Subcatchment 13S: Pond DA

Runoff = 9.83 cfs @ 12.13 hrs, Volume= 0.588 af, Depth= 1.12"

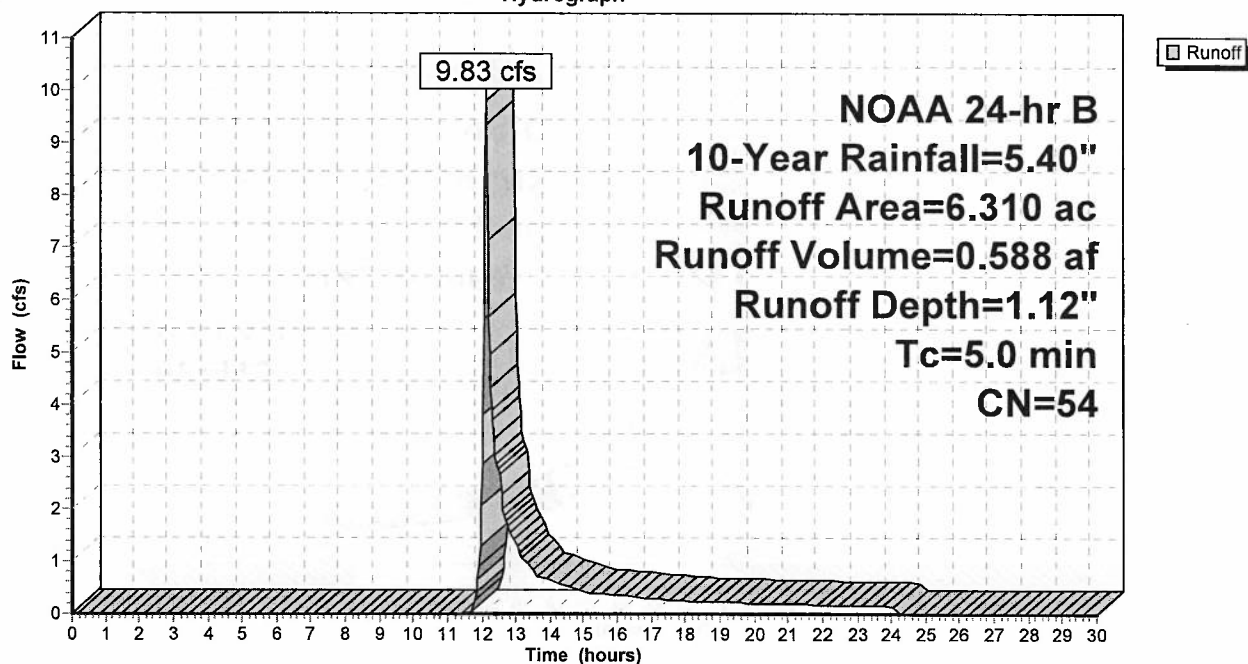
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NOAA 24-hr B 10-Year Rainfall=5.40"

Area (ac)	CN	Description
6.310	54	1/2 acre lots, 25% imp, HSG A
4.732		75.00% Pervious Area
1.577		25.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 13S: Pond DA

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 10-Year Rainfall=5.40"

Printed 2/24/2023

Page 27

Summary for Subcatchment 14S: Undetained Area

Runoff = 30.47 cfs @ 12.14 hrs, Volume= 2.028 af, Depth= 0.86"

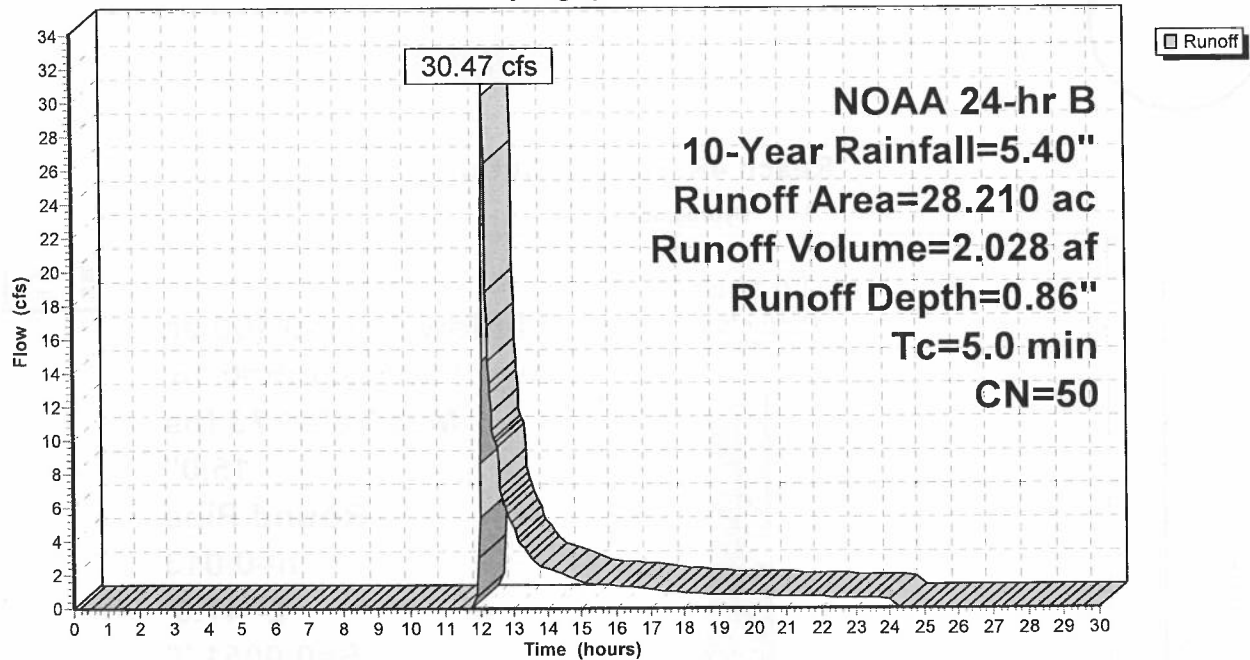
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NOAA 24-hr B 10-Year Rainfall=5.40"

Area (ac)	CN	Description
* 27.140	48	Woods/grass comb
* 1.070	98	
28.210	50	Weighted Average
27.140		96.21% Pervious Area
1.070		3.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 14S: Undetained Area

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 10-Year Rainfall=5.40"

Printed 2/24/2023

Page 28

Summary for Reach 4R: Bartlett Ct Culvert

Inflow Area = 0.100 ac, 25.00% Impervious, Inflow Depth = 1.12" for 10-Year event
 Inflow = 0.16 cfs @ 12.13 hrs, Volume= 0.009 af
 Outflow = 0.15 cfs @ 12.14 hrs, Volume= 0.009 af, Atten= 2%, Lag= 0.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
 Max. Velocity= 1.73 fps, Min. Travel Time= 0.5 min
 Avg. Velocity = 0.65 fps, Avg. Travel Time= 1.2 min

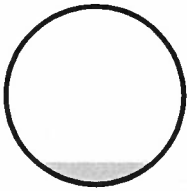
Peak Storage= 4 cf @ 12.14 hrs
 Average Depth at Peak Storage= 0.16' , Surface Width= 0.83'
 Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 4.62 cfs

15.0" Round Pipe

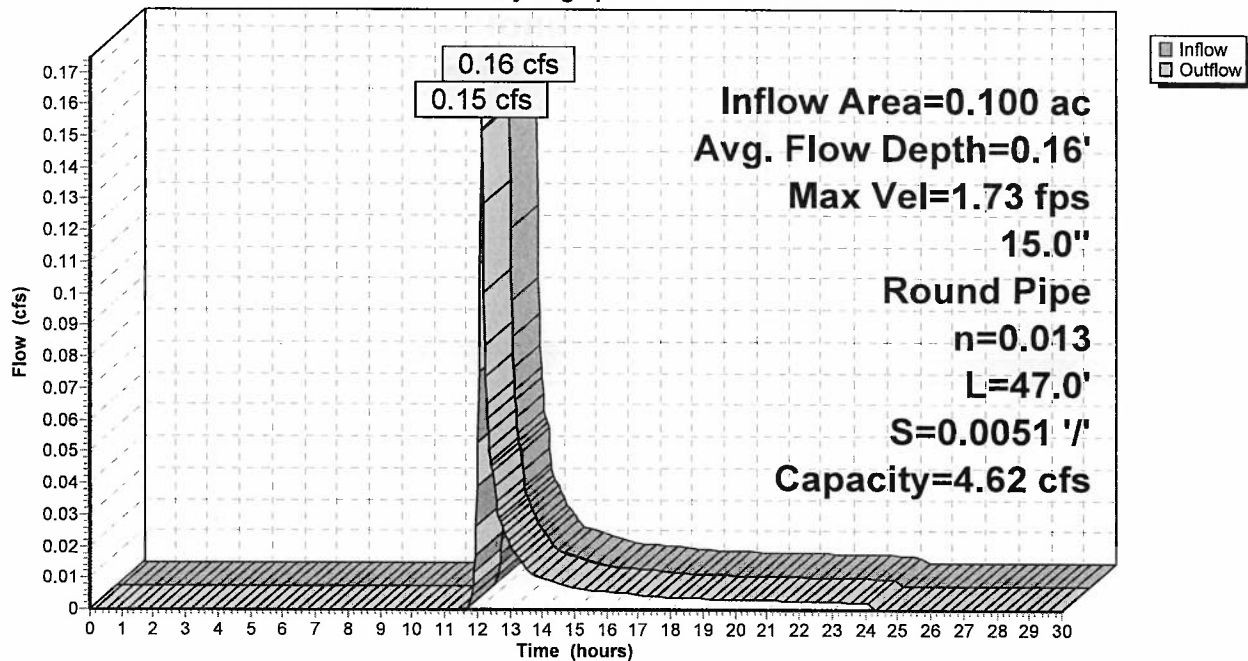
n= 0.013

Length= 47.0' Slope= 0.0051 '/

Inlet Invert= 401.37', Outlet Invert= 401.13'

**Reach 4R: Bartlett Ct Culvert**

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 10-Year Rainfall=5.40"

Printed 2/24/2023

Page 29

Summary for Reach 6R: SW-05

Inflow Area = 0.350 ac, 42.86% Impervious, Inflow Depth = 2.85" for 10-Year event
 Inflow = 1.48 cfs @ 12.12 hrs, Volume= 0.083 af
 Outflow = 1.42 cfs @ 12.15 hrs, Volume= 0.083 af, Atten= 4%, Lag= 1.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Max. Velocity= 3.83 fps, Min. Travel Time= 0.9 min

Avg. Velocity = 1.42 fps, Avg. Travel Time= 2.4 min

Peak Storage= 76 cf @ 12.13 hrs

Average Depth at Peak Storage= 0.35', Surface Width= 2.13'

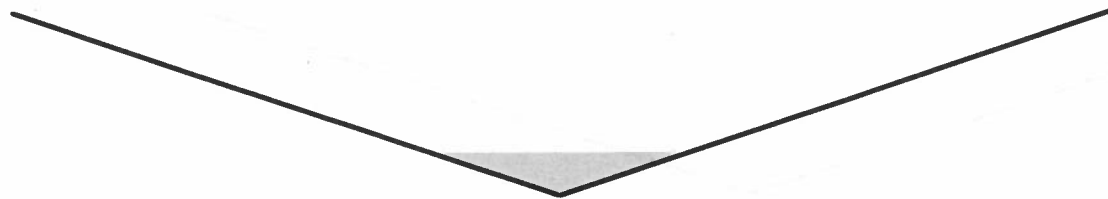
Bank-Full Depth= 1.50' Flow Area= 6.8 sf, Capacity= 67.83 cfs

0.00' x 1.50' deep channel, n= 0.025 Earth, grassed & winding

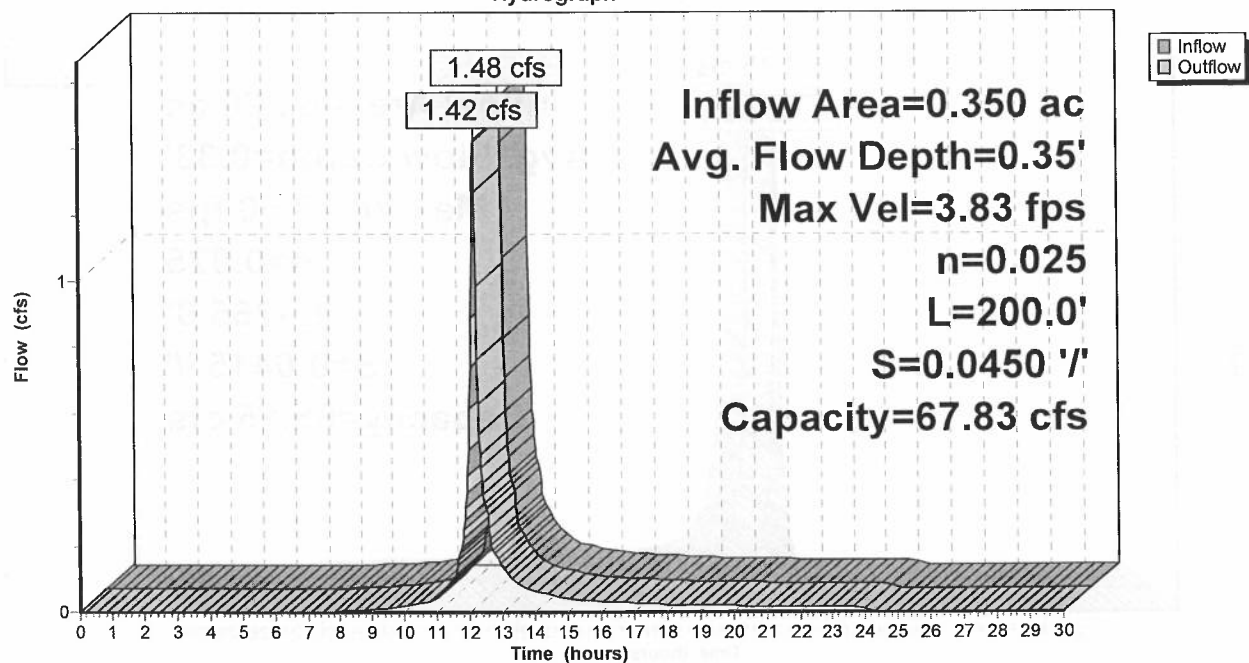
Side Slope Z-value= 3.0 ' Top Width= 9.00'

Length= 200.0' Slope= 0.0450 '/'

Inlet Invert= 402.00', Outlet Invert= 393.00'

**Reach 6R: SW-05**

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 10-Year Rainfall=5.40"

Printed 2/24/2023

Page 30

Summary for Reach 8R: SW-04

Inflow Area = 0.220 ac, 50.00% Impervious, Inflow Depth = 3.54" for 10-Year event
 Inflow = 1.18 cfs @ 12.12 hrs, Volume= 0.065 af
 Outflow = 1.12 cfs @ 12.15 hrs, Volume= 0.065 af, Atten= 5%, Lag= 2.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Max. Velocity= 3.50 fps, Min. Travel Time= 1.3 min

Avg. Velocity = 1.28 fps, Avg. Travel Time= 3.4 min

Peak Storage= 86 cf @ 12.13 hrs

Average Depth at Peak Storage= 0.33', Surface Width= 1.97'

Bank-Full Depth= 1.50' Flow Area= 6.8 sf, Capacity= 65.15 cfs

0.00' x 1.50' deep channel, n= 0.025 Earth, grassed & winding

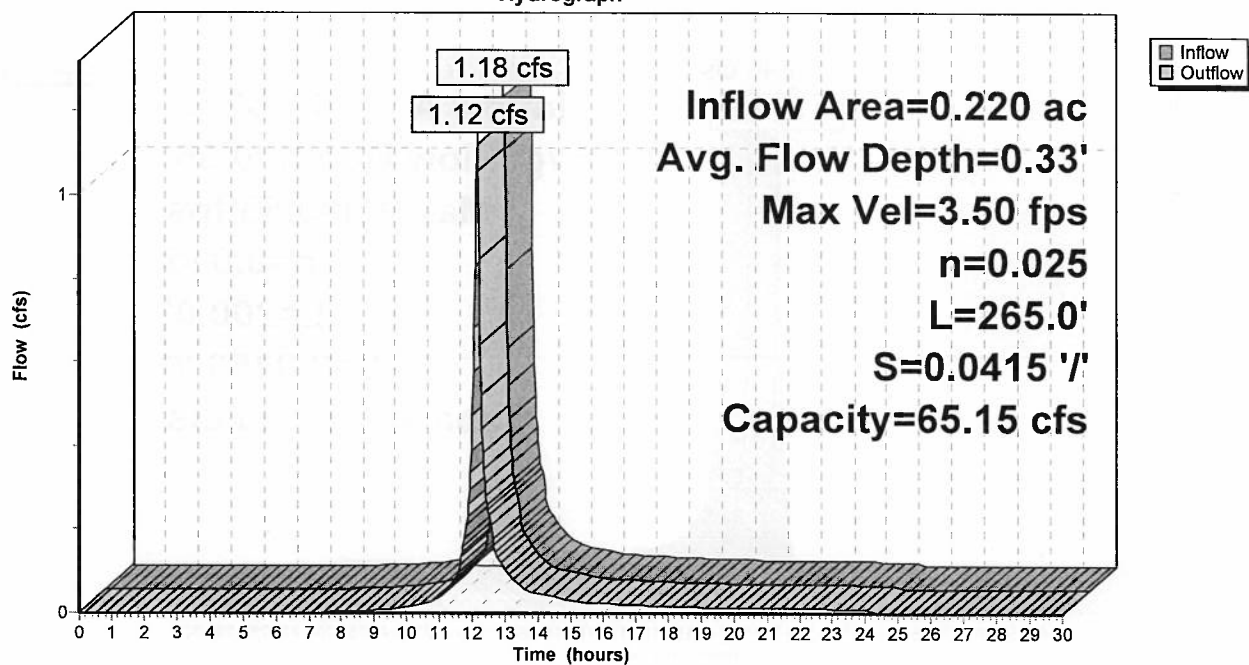
Side Slope Z-value= 3.0 '/' Top Width= 9.00'

Length= 265.0' Slope= 0.0415 '/'

Inlet Invert= 404.00', Outlet Invert= 393.00'

**Reach 8R: SW-04**

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 10-Year Rainfall=5.40"

Printed 2/24/2023

Page 31

Summary for Reach 10R: Archdale Dr Culvert

Inflow Area = 0.220 ac, 50.00% Impervious, Inflow Depth = 3.54" for 10-Year event
 Inflow = 1.12 cfs @ 12.15 hrs, Volume= 0.065 af
 Outflow = 1.10 cfs @ 12.17 hrs, Volume= 0.065 af, Atten= 2%, Lag= 1.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Max. Velocity= 1.26 fps, Min. Travel Time= 0.6 min

Avg. Velocity = 0.40 fps, Avg. Travel Time= 1.8 min

Peak Storage= 38 cf @ 12.16 hrs

Average Depth at Peak Storage= 0.84', Surface Width= 1.17'

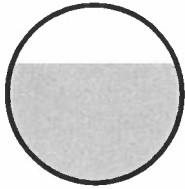
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 1.39 cfs

15.0" Round Pipe

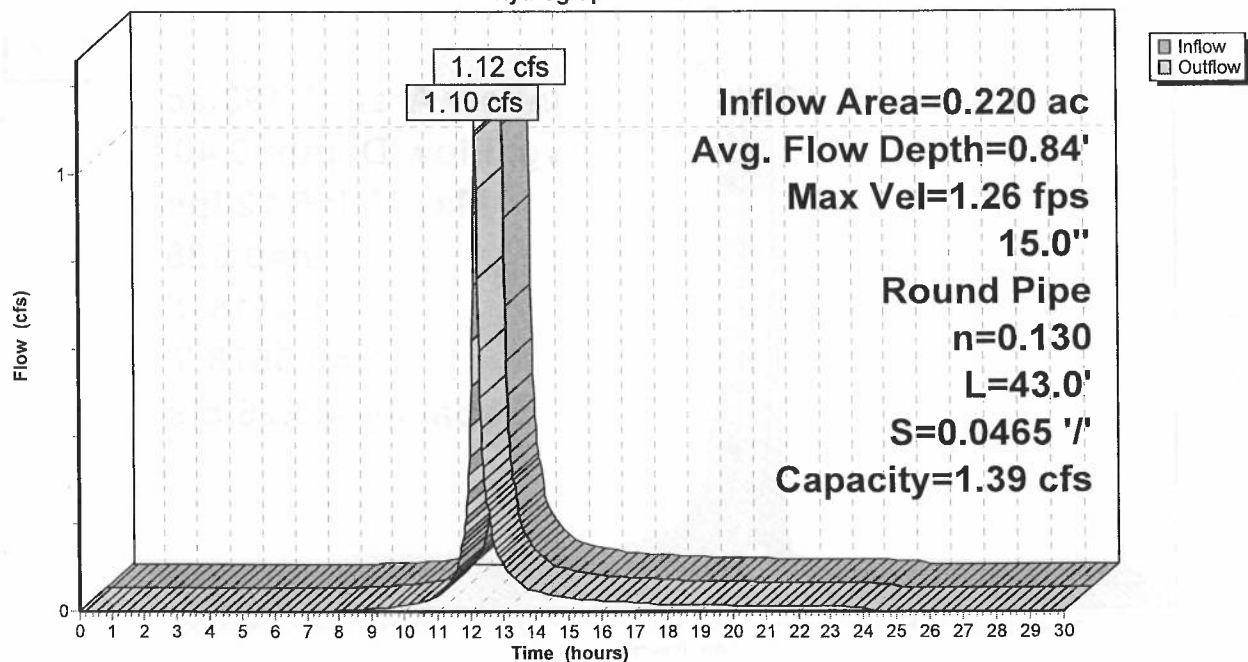
n= 0.130

Length= 43.0' Slope= 0.0465 '/'

Inlet Invert= 393.50', Outlet Invert= 391.50'

**Reach 10R: Archdale Dr Culvert**

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 10-Year Rainfall=5.40"

Printed 2/24/2023

Page 32

Summary for Reach 11R: SW-07

Inflow Area = 1.190 ac, 21.85% Impervious, Inflow Depth = 1.64" for 10-Year event
 Inflow = 2.50 cfs @ 12.16 hrs, Volume= 0.163 af
 Outflow = 2.46 cfs @ 12.17 hrs, Volume= 0.163 af, Atten= 2%, Lag= 0.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Max. Velocity= 5.12 fps, Min. Travel Time= 0.4 min

Avg. Velocity = 1.95 fps, Avg. Travel Time= 1.0 min

Peak Storage= 57 cf @ 12.16 hrs

Average Depth at Peak Storage= 0.40', Surface Width= 2.41'

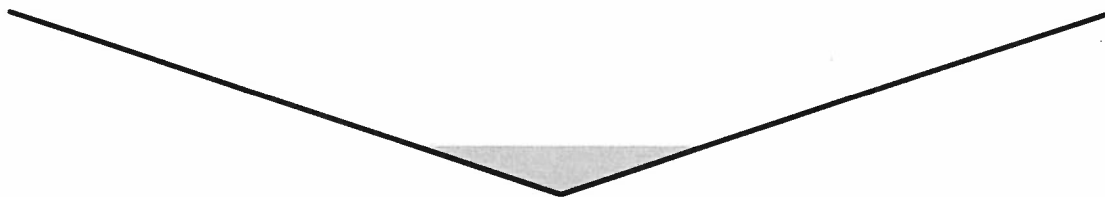
Bank-Full Depth= 1.50' Flow Area= 6.8 sf, Capacity= 83.26 cfs

0.00' x 1.50' deep channel, n= 0.025 Earth, grassed & winding

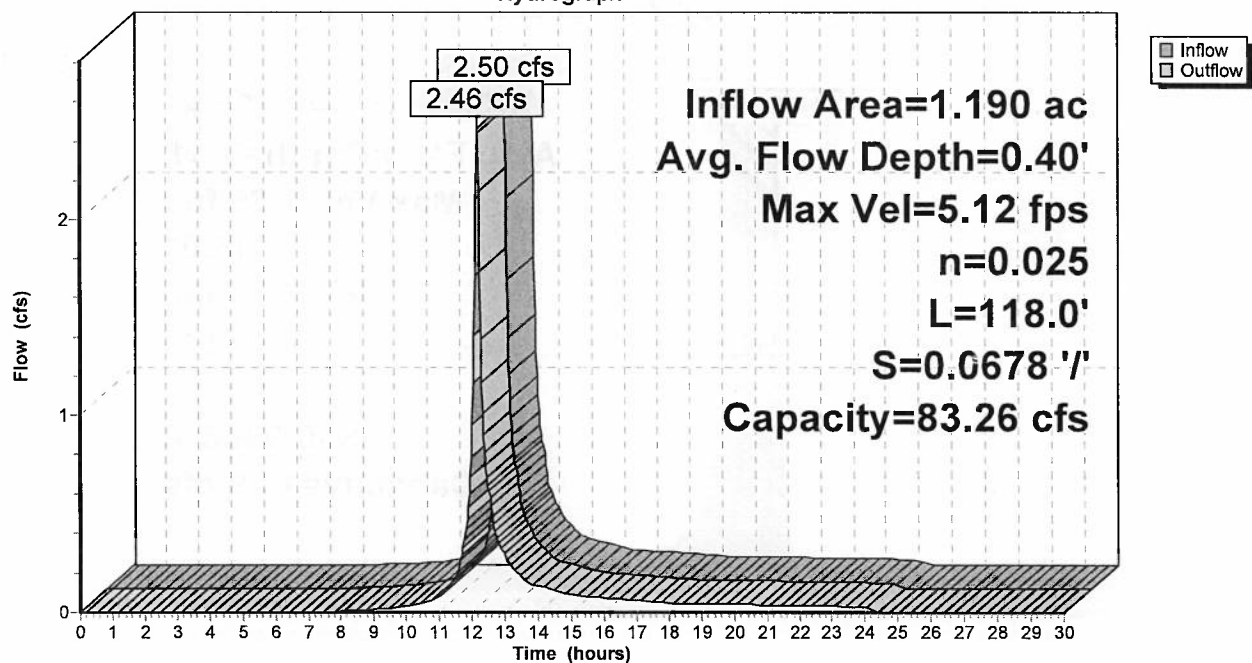
Side Slope Z-value= 3.0 ' / ' Top Width= 9.00'

Length= 118.0' Slope= 0.0678 ' / '

Inlet Invert= 390.00', Outlet Invert= 382.00'

**Reach 11R: SW-07**

Hydrograph



Bibey RD Stormwater Analysis

NOAA 24-hr B 10-Year Rainfall=5.40"

Prepared by LKC Engineering, PLLC

Printed 2/24/2023

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

Page 33

Summary for Pond 1P: Pond

Inflow Area = 7.500 ac, 24.50% Impervious, Inflow Depth = 1.20" for 10-Year event
 Inflow = 12.07 cfs @ 12.13 hrs, Volume= 0.751 af
 Outflow = 2.75 cfs @ 12.58 hrs, Volume= 0.503 af, Atten= 77%, Lag= 26.8 min
 Primary = 2.75 cfs @ 12.58 hrs, Volume= 0.503 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
 Peak Elev= 379.73' @ 12.58 hrs Surf.Area= 8,330 sf Storage= 12,652 cf

Plug-Flow detention time= 195.5 min calculated for 0.503 af (67% of inflow)
 Center-of-Mass det. time= 84.0 min (946.3 - 862.3)

Volume	Invert	Avail.Storage	Storage Description
#1	377.00'	110,564 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
377.00	1,371	0	0
378.00	3,544	2,458	2,458
379.00	6,229	4,887	7,344
380.00	9,110	7,670	15,014
390.00	10,000	95,550	110,564

Device	Routing	Invert	Outlet Devices
#1	Primary	379.50'	10.0' long x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=2.73 cfs @ 12.58 hrs HW=379.73' (Free Discharge)

↑1=**Broad-Crested Rectangular Weir** (Weir Controls 2.73 cfs @ 1.20 fps)

Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

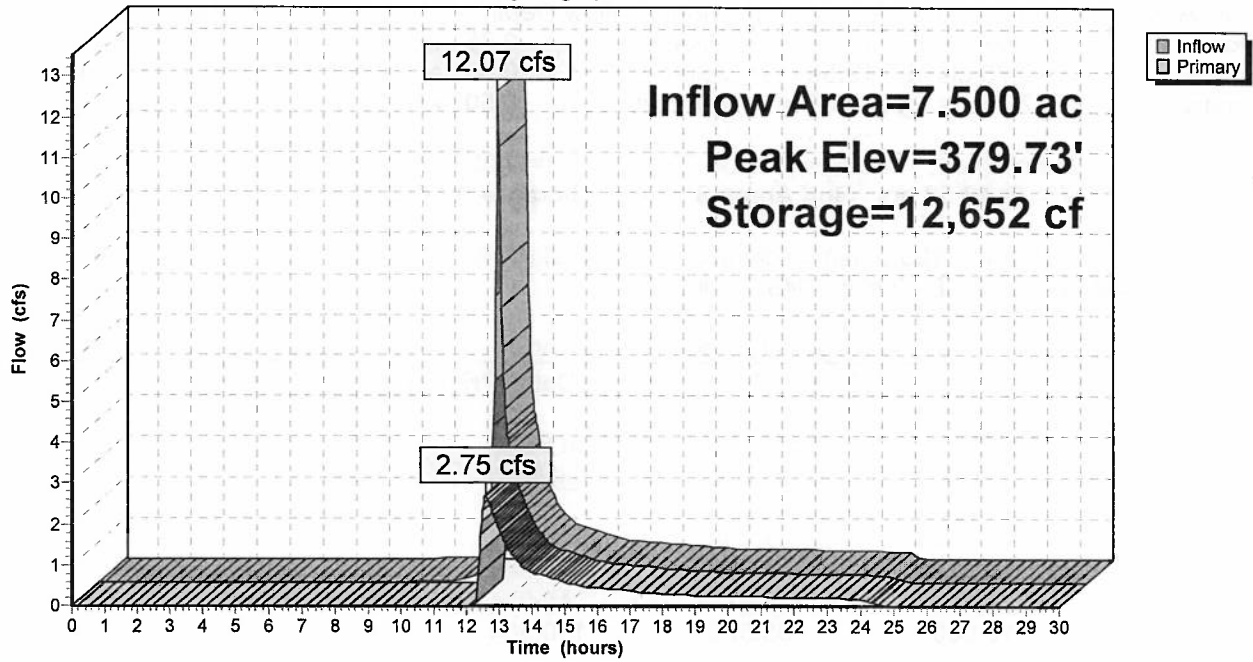
NOAA 24-hr B 10-Year Rainfall=5.40"

Printed 2/24/2023

Page 34

Pond 1P: Pond

Hydrograph



Bibey Road Subdivision Moore County, NC

25-Year Rainfall Event Storm Drainage Calculations

Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 25-Year Rainfall=6.42"

Printed 2/24/2023

Page 35

Time span=0.00-30.00 hrs, dt=0.03 hrs, 1001 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment2S: Existing Area	Runoff Area=35.710 ac 3.11% Impervious Runoff Depth=1.35" Tc=5.0 min CN=50 Runoff=67.79 cfs 4.032 af
Subcatchment5S: SW-03 DA	Runoff Area=0.100 ac 25.00% Impervious Runoff Depth=1.68" Tc=5.0 min CN=54 Runoff=0.25 cfs 0.014 af
Subcatchment7S: SW-05 DA	Runoff Area=0.250 ac 50.00% Impervious Runoff Depth=4.48" Tc=5.0 min CN=83 Runoff=1.68 cfs 0.093 af
Subcatchment9S: SW-04	Runoff Area=0.220 ac 50.00% Impervious Runoff Depth=4.48" Tc=5.0 min CN=83 Runoff=1.47 cfs 0.082 af
Subcatchment12S: SW-07 Da	Runoff Area=0.620 ac 0.00% Impervious Runoff Depth=0.57" Tc=5.0 min CN=39 Runoff=0.26 cfs 0.030 af
Subcatchment13S: Pond DA	Runoff Area=6.310 ac 25.00% Impervious Runoff Depth=1.68" Tc=5.0 min CN=54 Runoff=15.66 cfs 0.884 af
Subcatchment14S: Undetained Area	Runoff Area=28.210 ac 3.79% Impervious Runoff Depth=1.35" Tc=5.0 min CN=50 Runoff=53.56 cfs 3.185 af
Reach 4R: Bartlett Ct Culvert	Avg. Flow Depth=0.20' Max Vel=1.99 fps Inflow=0.25 cfs 0.014 af 15.0" Round Pipe n=0.013 L=47.0' S=0.0051 ' Capacity=4.62 cfs Outflow=0.24 cfs 0.014 af
Reach 6R: SW-05	Avg. Flow Depth=0.39' Max Vel=4.09 fps Inflow=1.91 cfs 0.107 af n=0.025 L=200.0' S=0.0450 ' Capacity=67.83 cfs Outflow=1.84 cfs 0.107 af
Reach 8R: SW-04	Avg. Flow Depth=0.36' Max Vel=3.70 fps Inflow=1.47 cfs 0.082 af n=0.025 L=265.0' S=0.0415 ' Capacity=65.15 cfs Outflow=1.41 cfs 0.082 af
Reach 10R: Archdale Dr Culvert	Avg. Flow Depth=1.02' Max Vel=1.29 fps Inflow=1.41 cfs 0.082 af 15.0" Round Pipe n=0.130 L=43.0' S=0.0465 ' Capacity=1.39 cfs Outflow=1.37 cfs 0.082 af
Reach 11R: SW-07	Avg. Flow Depth=0.45' Max Vel=5.55 fps Inflow=3.42 cfs 0.219 af n=0.025 L=118.0' S=0.0678 ' Capacity=83.26 cfs Outflow=3.37 cfs 0.219 af
Pond 1P: Pond	Peak Elev=379.94' Storage=14,443 cf Inflow=18.70 cfs 1.103 af Outflow=7.56 cfs 0.855 af

Total Runoff Area = 71.420 ac Runoff Volume = 8.320 af Average Runoff Depth = 1.40"
94.37% Pervious = 67.402 ac 5.63% Impervious = 4.017 ac

Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 25-Year Rainfall=6.42"

Printed 2/24/2023

Page 36

Summary for Subcatchment 2S: Existing Area

Runoff = 67.79 cfs @ 12.13 hrs, Volume= 4.032 af, Depth= 1.35"

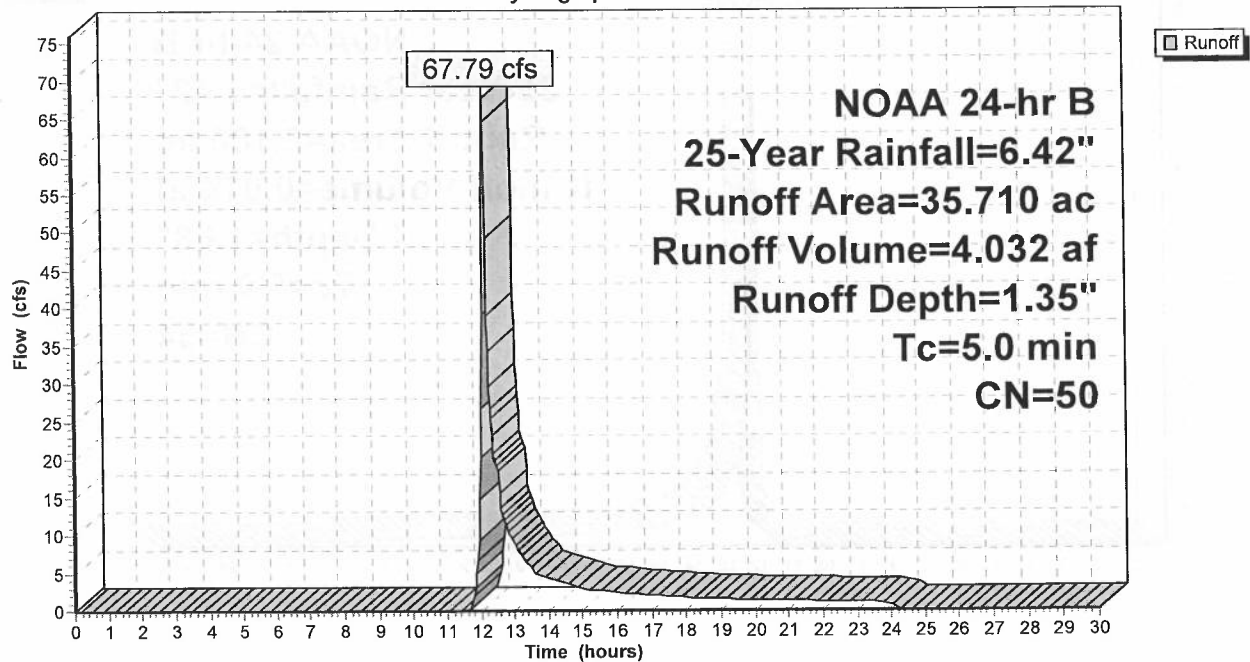
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NOAA 24-hr B 25-Year Rainfall=6.42"

Area (ac)	CN	Description
* 1.110	98	existing impervious
* 34.600	48	Woods/grass comb
35.710	50	Weighted Average
34.600		96.89% Pervious Area
1.110		3.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 2S: Existing Area

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 25-Year Rainfall=6.42"

Printed 2/24/2023

Page 37

Summary for Subcatchment 5S: SW-03 DA

Runoff = 0.25 cfs @ 12.13 hrs, Volume= 0.014 af, Depth= 1.68"

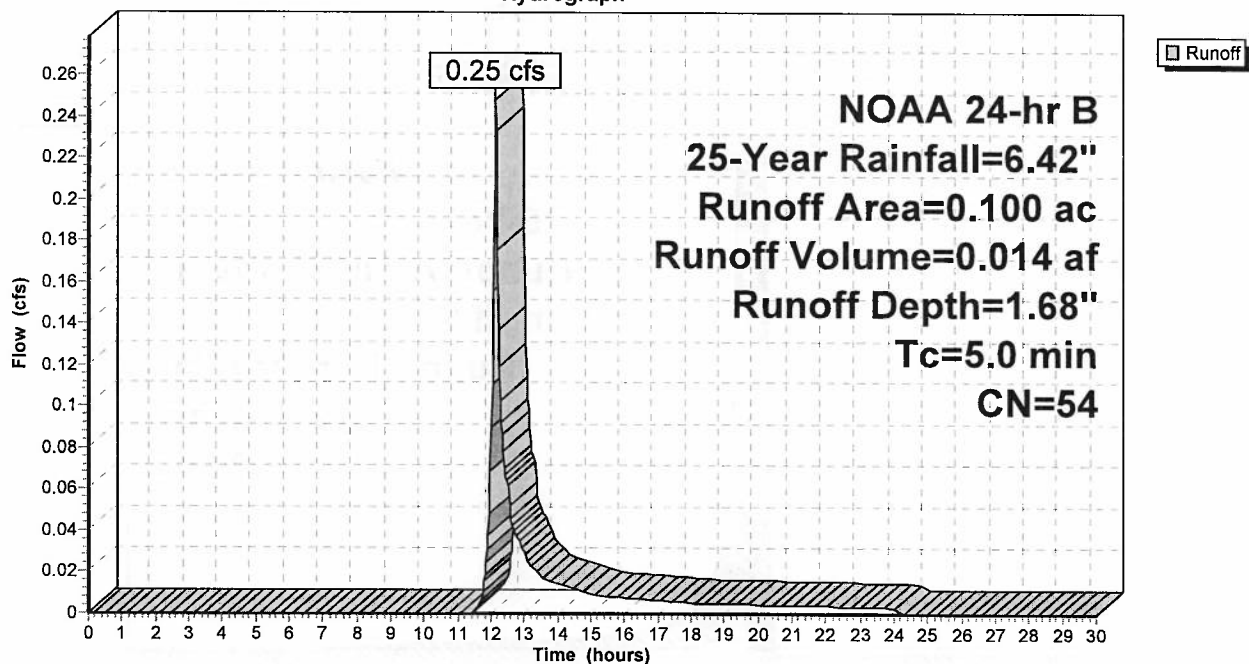
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NOAA 24-hr B 25-Year Rainfall=6.42"

Area (ac)	CN	Description
0.100	54	1/2 acre lots, 25% imp, HSG A
0.075		75.00% Pervious Area
0.025		25.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 5S: SW-03 DA

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 25-Year Rainfall=6.42"

Printed 2/24/2023

Page 38

Summary for Subcatchment 7S: SW-05 DA

Runoff = 1.68 cfs @ 12.12 hrs, Volume= 0.093 af, Depth= 4.48"

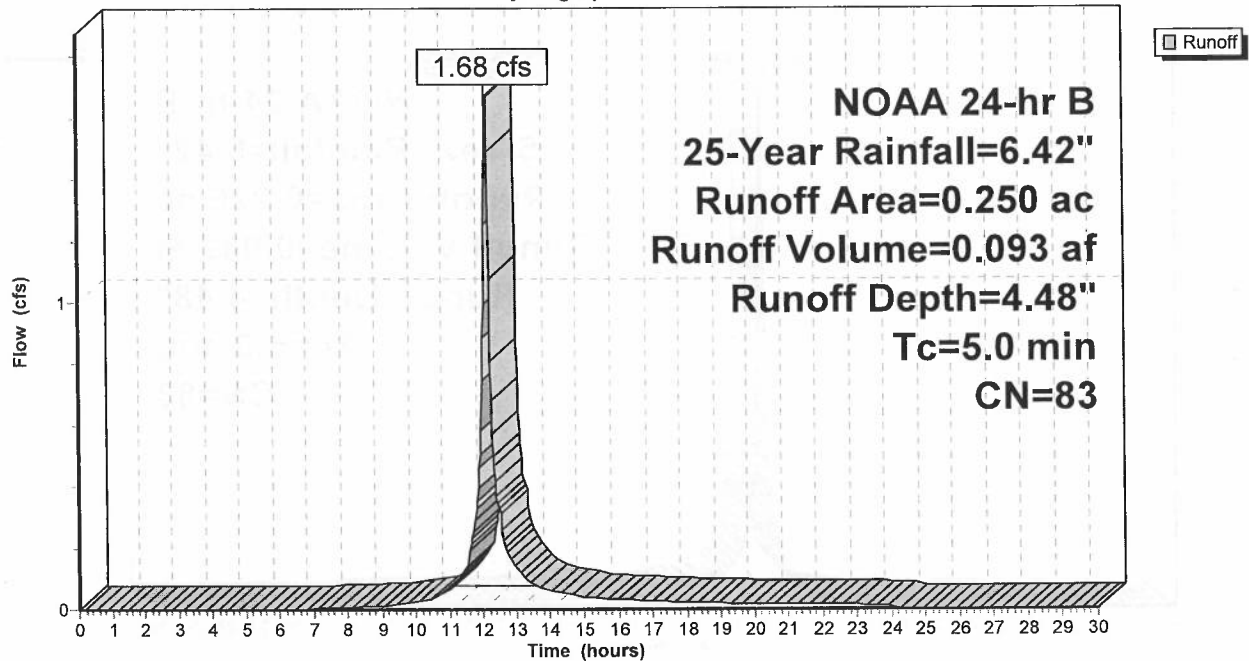
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NOAA 24-hr B 25-Year Rainfall=6.42"

Area (ac)	CN	Description
0.250	83	Paved roads w/open ditches, 50% imp, HSG A
0.125		50.00% Pervious Area
0.125		50.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 7S: SW-05 DA

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 25-Year Rainfall=6.42"

Printed 2/24/2023

Page 39

Summary for Subcatchment 9S: SW-04

Runoff = 1.47 cfs @ 12.12 hrs, Volume= 0.082 af, Depth= 4.48"

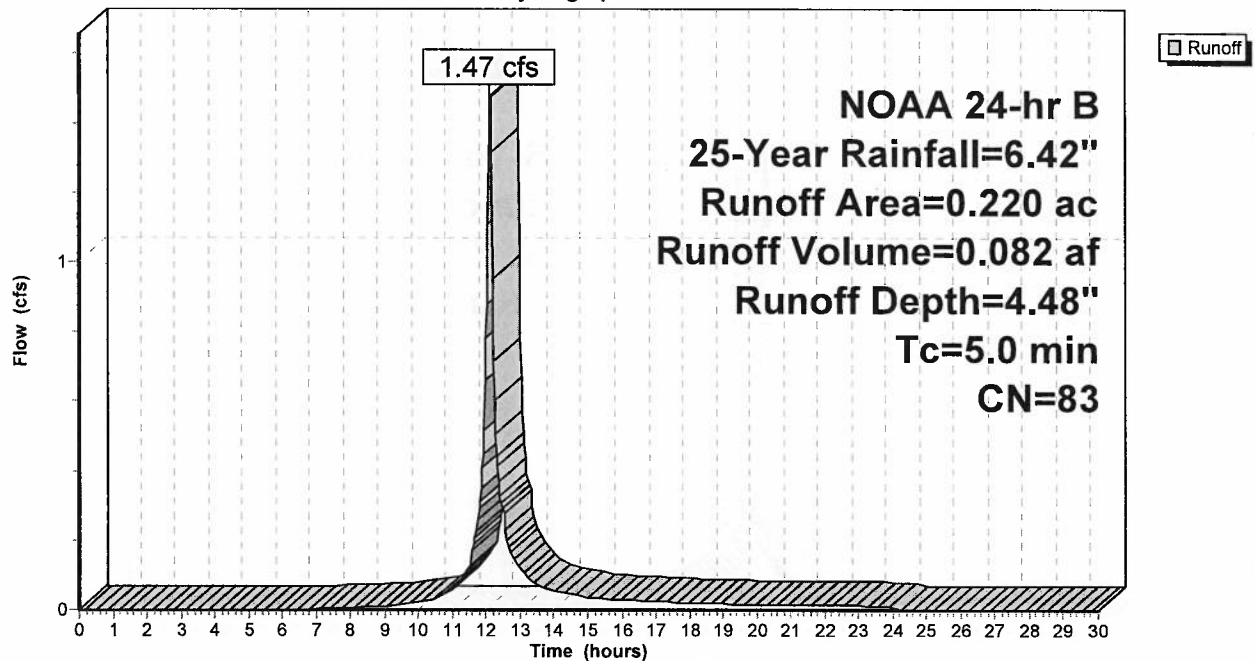
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NOAA 24-hr B 25-Year Rainfall=6.42"

Area (ac)	CN	Description
0.220	83	Paved roads w/open ditches, 50% imp, HSG A
0.110		50.00% Pervious Area
0.110		50.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 9S: SW-04

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 25-Year Rainfall=6.42"

Printed 2/24/2023

Page 40

Summary for Subcatchment 12S: SW-07 Da

Runoff = 0.26 cfs @ 12.16 hrs, Volume= 0.030 af, Depth= 0.57"

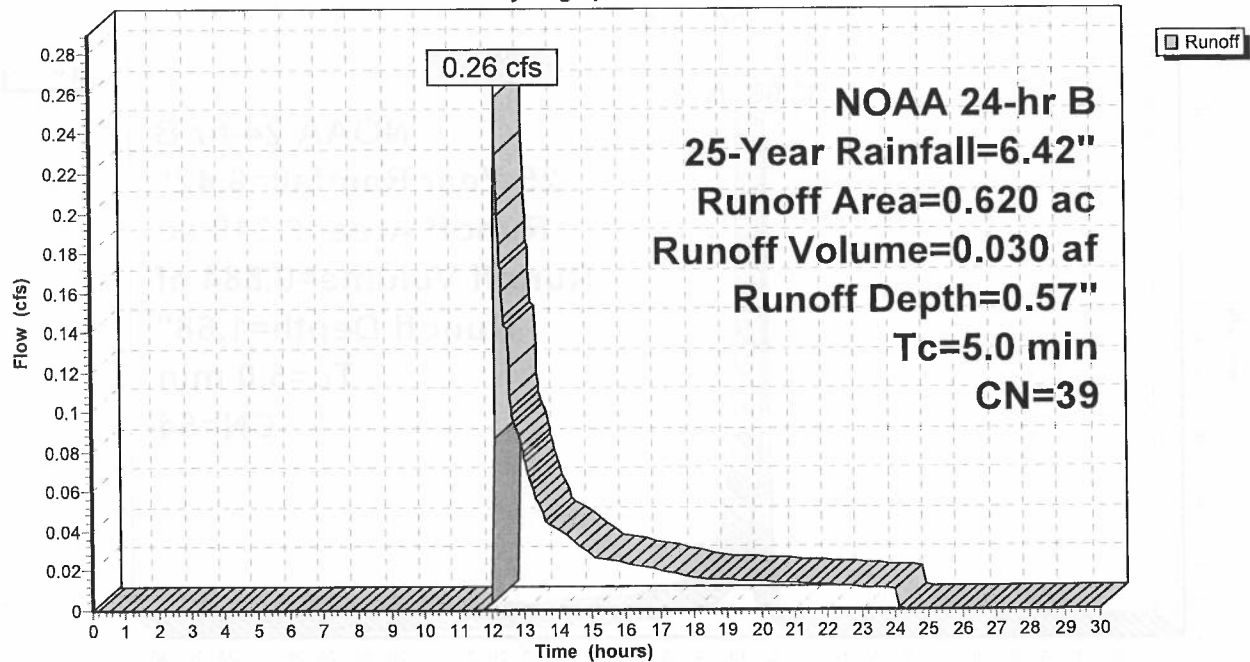
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NOAA 24-hr B 25-Year Rainfall=6.42"

Area (ac)	CN	Description
* 0.620	39	>75% Grass cover
0.620		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 12S: SW-07 Da

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 25-Year Rainfall=6.42"

Printed 2/24/2023

Page 41

Summary for Subcatchment 13S: Pond DA

Runoff = 15.66 cfs @ 12.13 hrs, Volume= 0.884 af, Depth= 1.68"

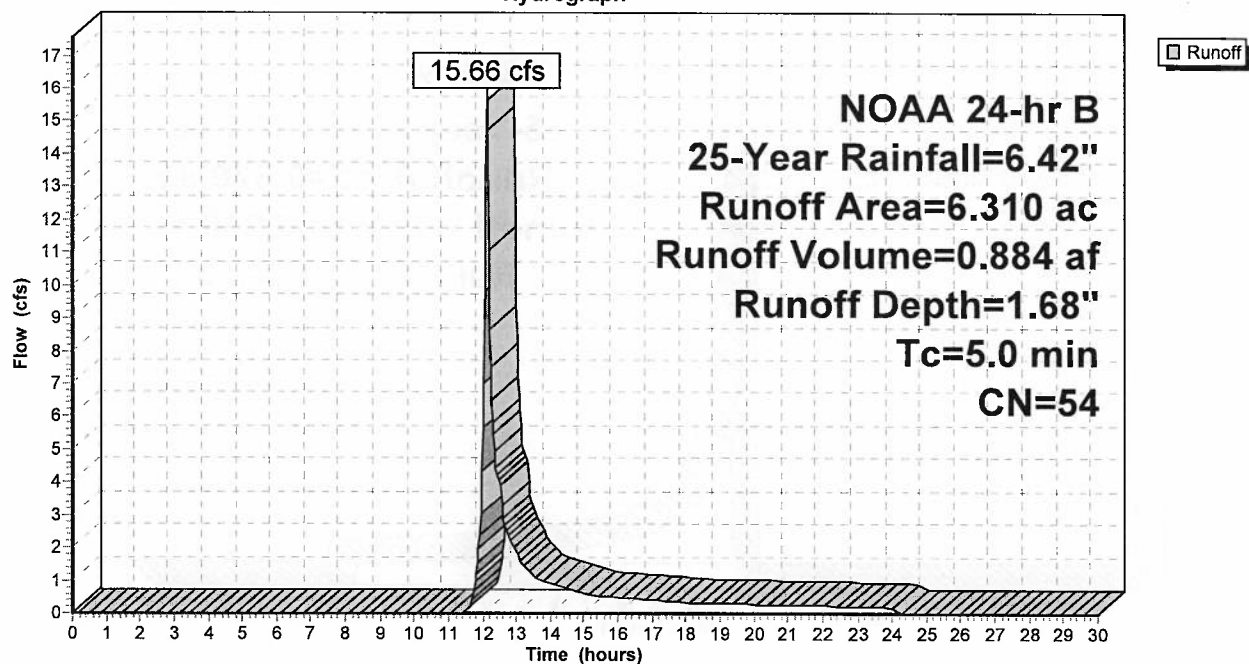
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NOAA 24-hr B 25-Year Rainfall=6.42"

Area (ac)	CN	Description
6.310	54	1/2 acre lots, 25% imp, HSG A
4.732		75.00% Pervious Area
1.577		25.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 13S: Pond DA

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 25-Year Rainfall=6.42"

Printed 2/24/2023

Page 42

Summary for Subcatchment 14S: Undetained Area

Runoff = 53.56 cfs @ 12.13 hrs, Volume= 3.185 af, Depth= 1.35"

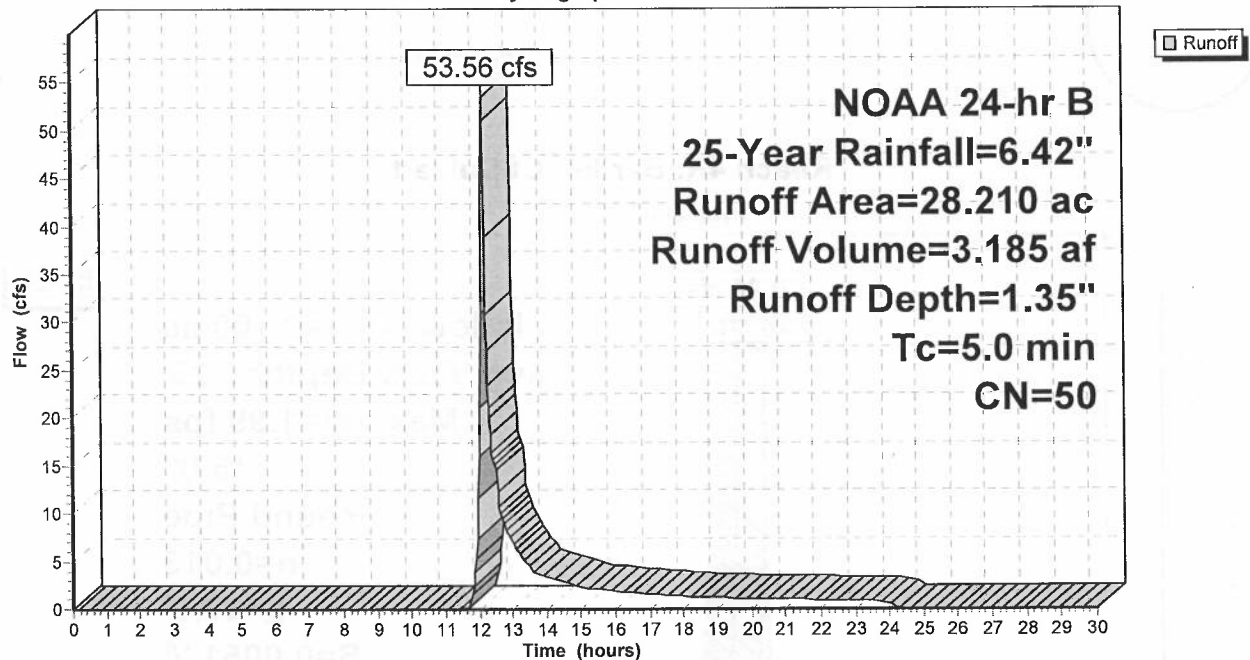
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
NOAA 24-hr B 25-Year Rainfall=6.42"

Area (ac)	CN	Description
* 27.140	48	Woods/grass comb
* 1.070	98	
28.210	50	Weighted Average
27.140		96.21% Pervious Area
1.070		3.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 14S: Undetained Area

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 25-Year Rainfall=6.42"

Printed 2/24/2023

Page 43

Summary for Reach 4R: Bartlett Ct Culvert

Inflow Area = 0.100 ac, 25.00% Impervious, Inflow Depth = 1.68" for 25-Year event
 Inflow = 0.25 cfs @ 12.13 hrs, Volume= 0.014 af
 Outflow = 0.24 cfs @ 12.14 hrs, Volume= 0.014 af, Atten= 2%, Lag= 0.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
 Max. Velocity= 1.99 fps, Min. Travel Time= 0.4 min
 Avg. Velocity = 0.72 fps, Avg. Travel Time= 1.1 min

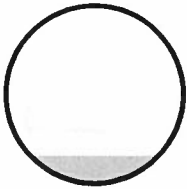
Peak Storage= 6 cf @ 12.13 hrs
 Average Depth at Peak Storage= 0.20' , Surface Width= 0.91'
 Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 4.62 cfs

15.0" Round Pipe

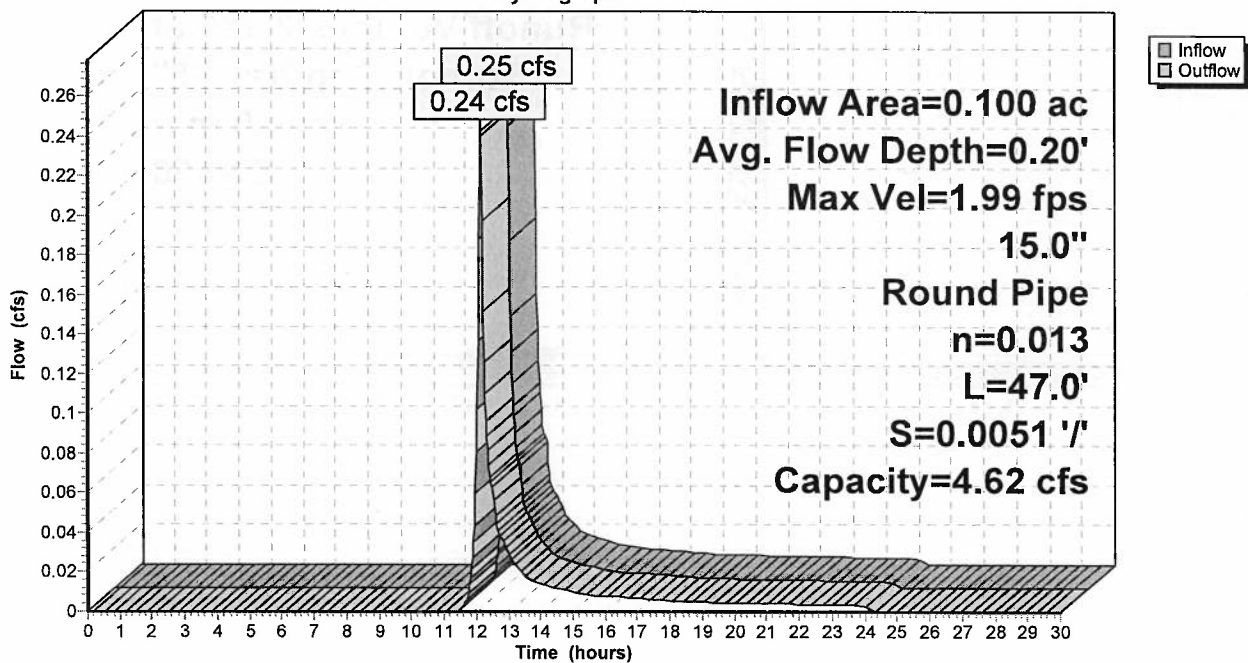
n= 0.013

Length= 47.0' Slope= 0.0051 '/

Inlet Invert= 401.37', Outlet Invert= 401.13'

**Reach 4R: Bartlett Ct Culvert**

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 25-Year Rainfall=6.42"

Printed 2/24/2023

Page 44

Summary for Reach 6R: SW-05

Inflow Area = 0.350 ac, 42.86% Impervious, Inflow Depth = 3.68" for 25-Year event
 Inflow = 1.91 cfs @ 12.12 hrs, Volume= 0.107 af
 Outflow = 1.84 cfs @ 12.14 hrs, Volume= 0.107 af, Atten= 4%, Lag= 1.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Max. Velocity= 4.09 fps, Min. Travel Time= 0.8 min

Avg. Velocity = 1.48 fps, Avg. Travel Time= 2.2 min

Peak Storage= 91 cf @ 12.13 hrs

Average Depth at Peak Storage= 0.39', Surface Width= 2.34'

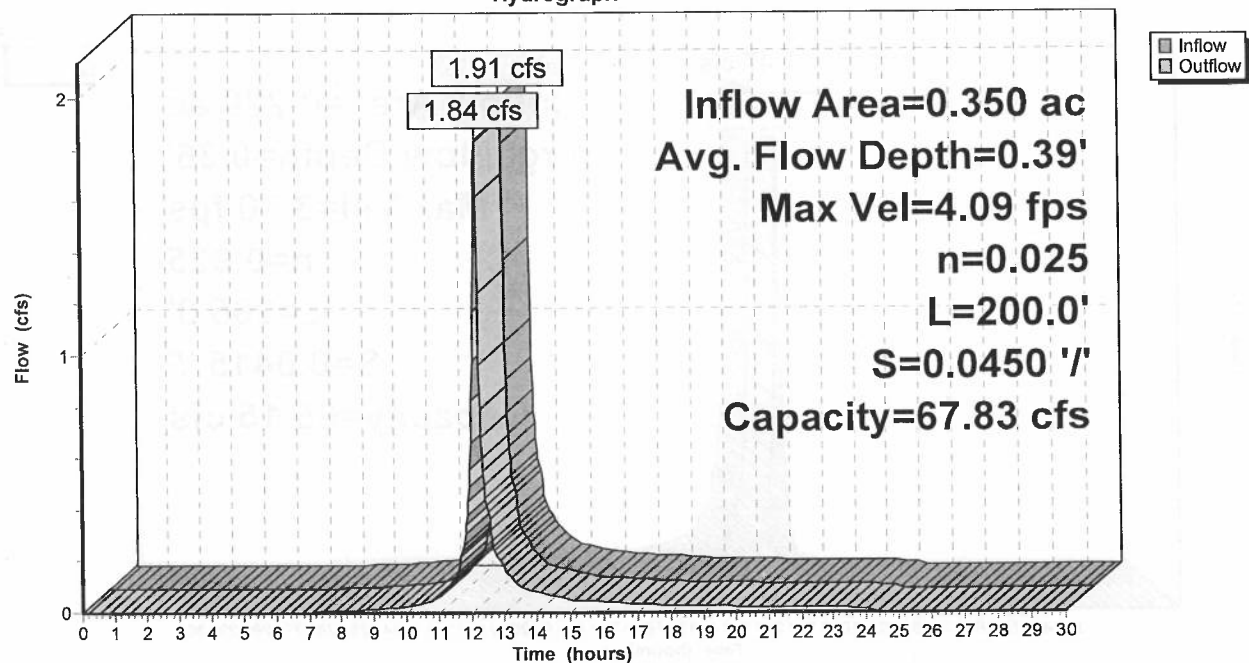
Bank-Full Depth= 1.50' Flow Area= 6.8 sf, Capacity= 67.83 cfs

0.00' x 1.50' deep channel, n= 0.025 Earth, grassed & winding

Side Slope Z-value= 3.0 '/' Top Width= 9.00'

Length= 200.0' Slope= 0.0450 '/'

Inlet Invert= 402.00', Outlet Invert= 393.00'

**Reach 6R: SW-05****Hydrograph**

Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 25-Year Rainfall=6.42"

Printed 2/24/2023

Page 45

Summary for Reach 8R: SW-04

Inflow Area = 0.220 ac, 50.00% Impervious, Inflow Depth = 4.48" for 25-Year event
 Inflow = 1.47 cfs @ 12.12 hrs, Volume= 0.082 af
 Outflow = 1.41 cfs @ 12.15 hrs, Volume= 0.082 af, Atten= 5%, Lag= 2.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Max. Velocity= 3.70 fps, Min. Travel Time= 1.2 min

Avg. Velocity = 1.34 fps, Avg. Travel Time= 3.3 min

Peak Storage= 102 cf @ 12.13 hrs

Average Depth at Peak Storage= 0.36' , Surface Width= 2.15'

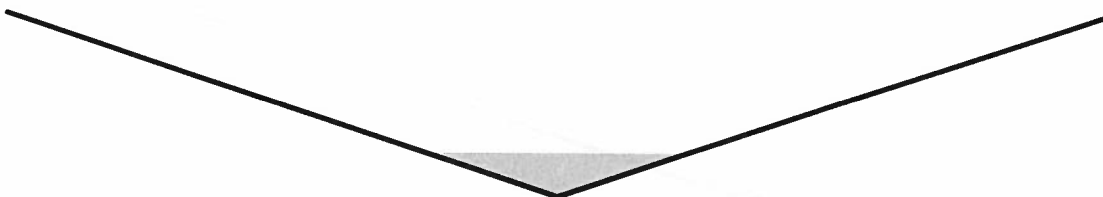
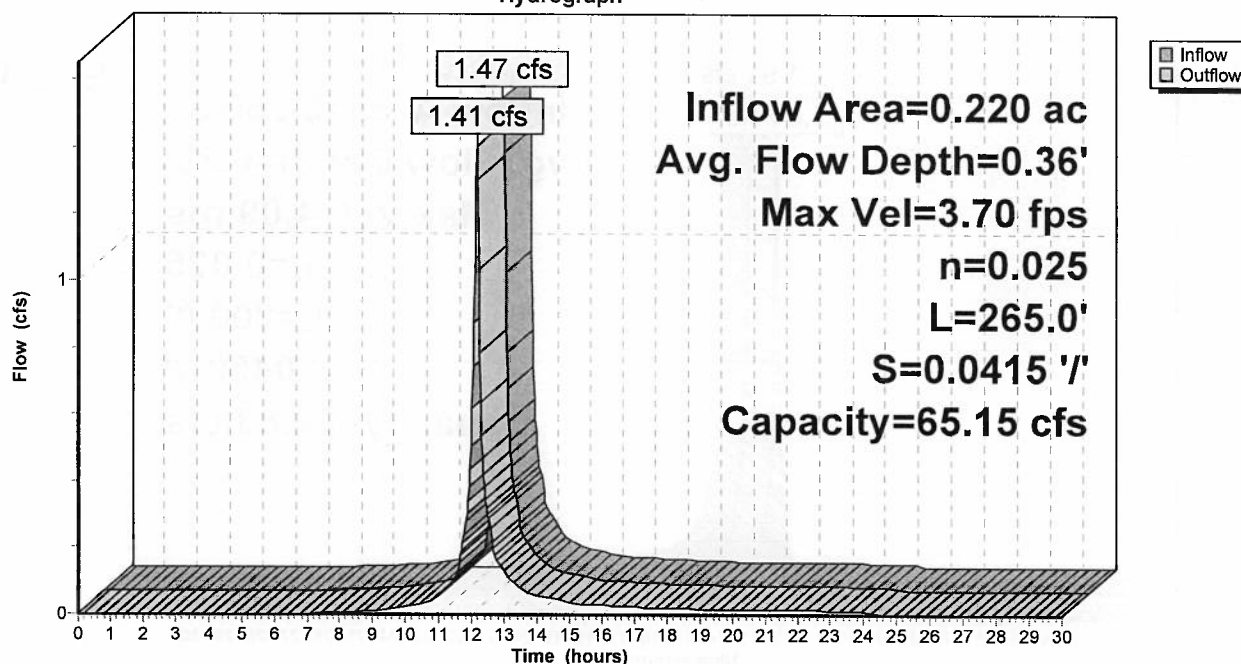
Bank-Full Depth= 1.50' Flow Area= 6.8 sf, Capacity= 65.15 cfs

0.00' x 1.50' deep channel, n= 0.025 Earth, grassed & winding

Side Slope Z-value= 3.0 ' / ' Top Width= 9.00'

Length= 265.0' Slope= 0.0415 ' / '

Inlet Invert= 404.00', Outlet Invert= 393.00'

**Reach 8R: SW-04****Hydrograph**

Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 25-Year Rainfall=6.42"

Printed 2/24/2023

Page 46

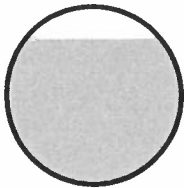
Summary for Reach 10R: Archdale Dr Culvert

Inflow Area = 0.220 ac, 50.00% Impervious, Inflow Depth = 4.48" for 25-Year event
 Inflow = 1.41 cfs @ 12.15 hrs, Volume= 0.082 af
 Outflow = 1.37 cfs @ 12.17 hrs, Volume= 0.082 af, Atten= 2%, Lag= 1.1 min

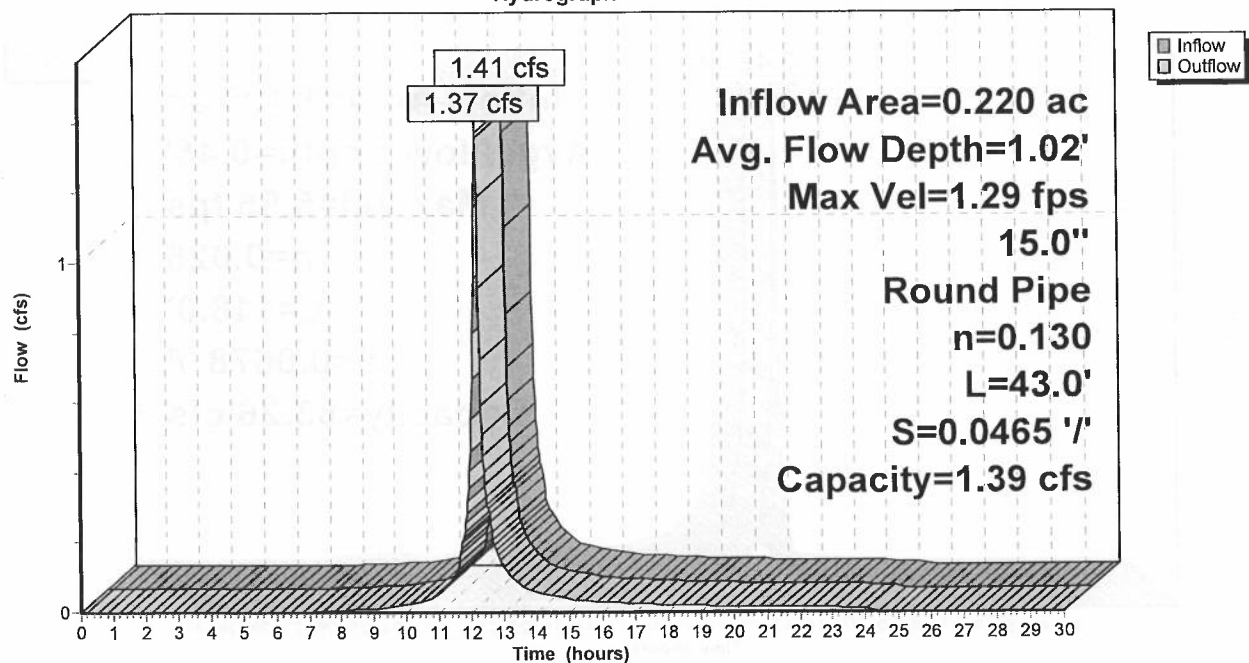
Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
 Max. Velocity= 1.29 fps, Min. Travel Time= 0.6 min
 Avg. Velocity = 0.42 fps, Avg. Travel Time= 1.7 min

Peak Storage= 46 cf @ 12.16 hrs
 Average Depth at Peak Storage= 1.02', Surface Width= 0.97'
 Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 1.39 cfs

15.0" Round Pipe
 n= 0.130
 Length= 43.0' Slope= 0.0465 '/'
 Inlet Invert= 393.50', Outlet Invert= 391.50'

**Reach 10R: Archdale Dr Culvert**

Hydrograph



Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

NOAA 24-hr B 25-Year Rainfall=6.42"

Printed 2/24/2023

Page 47

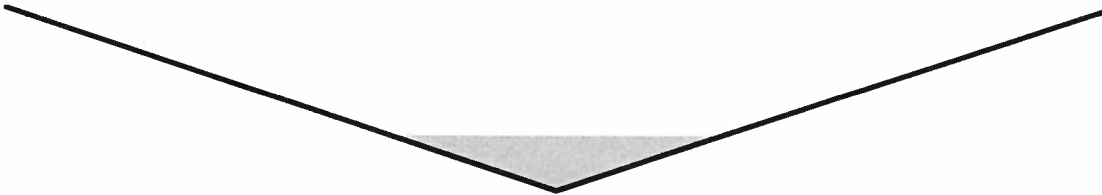
Summary for Reach 11R: SW-07

Inflow Area = 1.190 ac, 21.85% Impervious, Inflow Depth = 2.21" for 25-Year event
 Inflow = 3.42 cfs @ 12.15 hrs, Volume= 0.219 af
 Outflow = 3.37 cfs @ 12.16 hrs, Volume= 0.219 af, Atten= 2%, Lag= 0.6 min

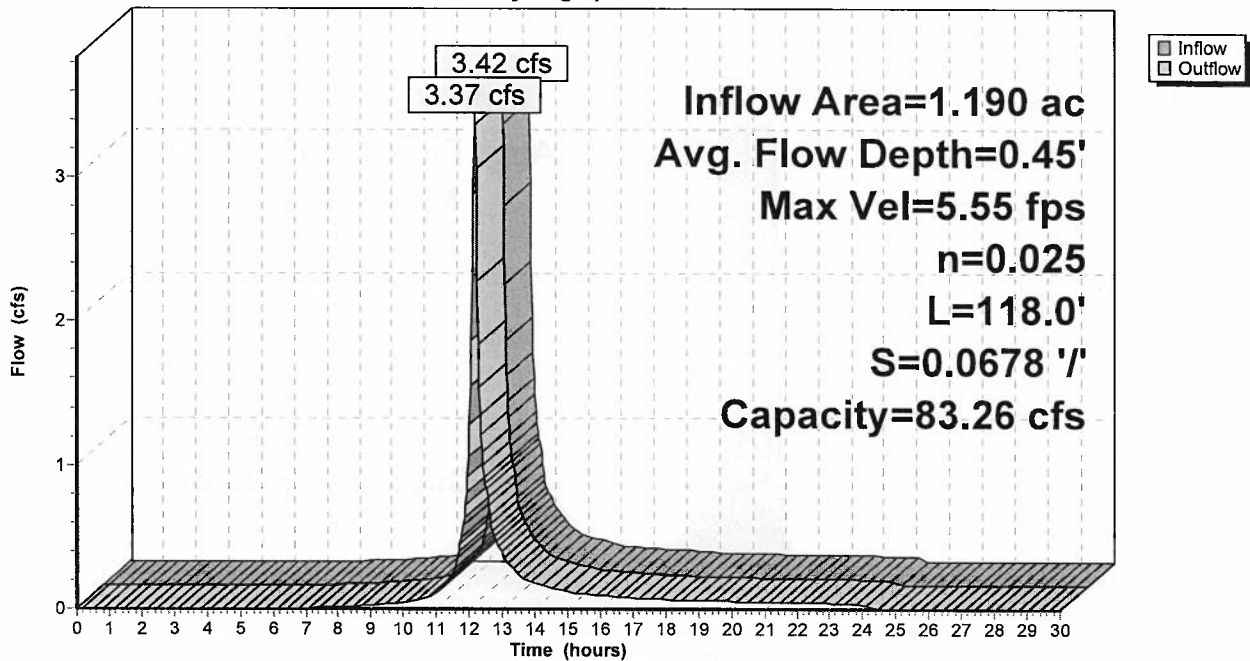
Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
 Max. Velocity= 5.55 fps, Min. Travel Time= 0.4 min
 Avg. Velocity = 2.06 fps, Avg. Travel Time= 1.0 min

Peak Storage= 73 cf @ 12.16 hrs
 Average Depth at Peak Storage= 0.45', Surface Width= 2.72'
 Bank-Full Depth= 1.50' Flow Area= 6.8 sf, Capacity= 83.26 cfs

0.00' x 1.50' deep channel, n= 0.025 Earth, grassed & winding
 Side Slope Z-value= 3.0 ' ' Top Width= 9.00'
 Length= 118.0' Slope= 0.0678 ' '
 Inlet Invert= 390.00', Outlet Invert= 382.00'

**Reach 11R: SW-07**

Hydrograph



Bibey RD Stormwater Analysis

NOAA 24-hr B 25-Year Rainfall=6.42"

Prepared by LKC Engineering, PLLC

Printed 2/24/2023

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

Page 48

Summary for Pond 1P: Pond

Inflow Area = 7.500 ac, 24.50% Impervious, Inflow Depth = 1.76" for 25-Year event
 Inflow = 18.70 cfs @ 12.13 hrs, Volume= 1.103 af
 Outflow = 7.56 cfs @ 12.30 hrs, Volume= 0.855 af, Atten= 60%, Lag= 10.0 min
 Primary = 7.56 cfs @ 12.30 hrs, Volume= 0.855 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
 Peak Elev= 379.94' @ 12.30 hrs Surf.Area= 8,928 sf Storage= 14,443 cf

Plug-Flow detention time= 141.5 min calculated for 0.855 af (77% of inflow)
 Center-of-Mass det. time= 53.0 min (905.0 - 852.0)

Volume	Invert	Avail.Storage	Storage Description
#1	377.00'	110,564 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
377.00	1,371	0	0
378.00	3,544	2,458	2,458
379.00	6,229	4,887	7,344
380.00	9,110	7,670	15,014
390.00	10,000	95,550	110,564

Device	Routing	Invert	Outlet Devices
#1	Primary	379.50'	10.0' long x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=7.45 cfs @ 12.30 hrs HW=379.94' (Free Discharge)
 ↳ **1=Broad-Crested Rectangular Weir** (Weir Controls 7.45 cfs @ 1.71 fps)

Bibey RD Stormwater Analysis

Prepared by LKC Engineering, PLLC

HydroCAD® 10.10-5a s/n 11104 © 2020 HydroCAD Software Solutions LLC

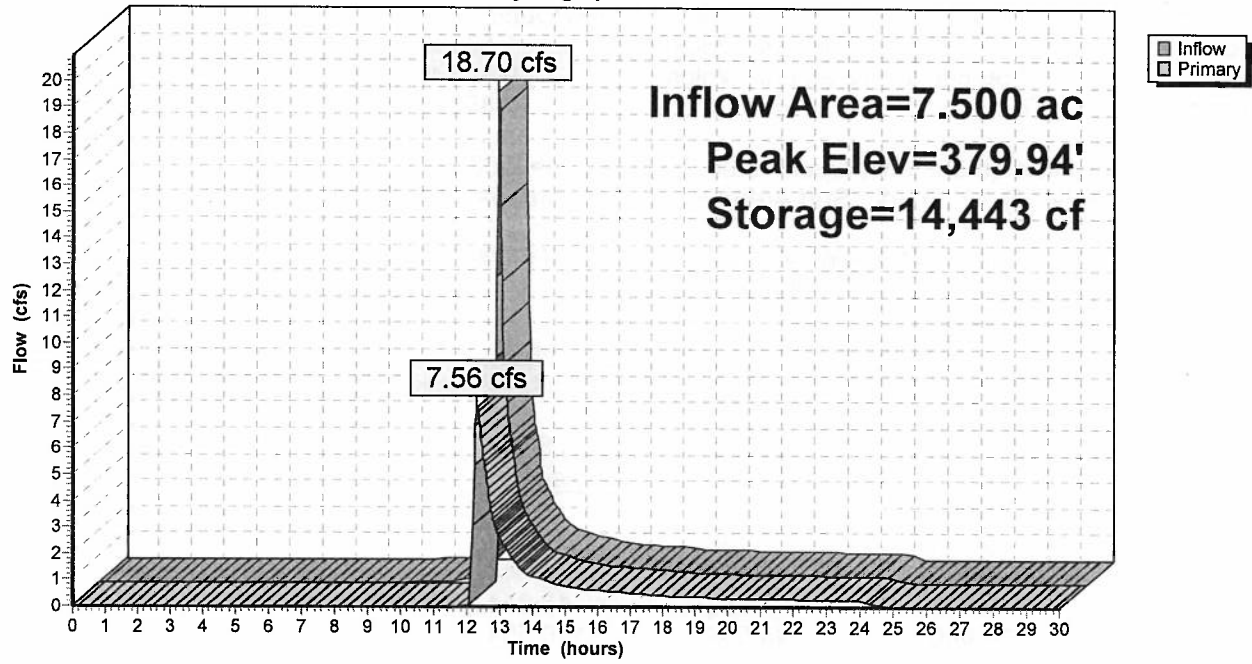
NOAA 24-hr B 25-Year Rainfall=6.42"

Printed 2/24/2023

Page 49

Pond 1P: Pond

Hydrograph



2. All members of an association shall be responsible for contributions to the association's reserve fund to cover their proportionate share of maintenance costs associated with common areas, common features, and private infrastructure.

F. FAILURE TO MAINTAIN IS A VIOLATION

Failure to maintain open space areas, common features, or infrastructure is a violation of this Ordinance and is subject to the penalties and remedies in Chapter 18.

SECTION 19.16. SUBDIVISION PLAT REQUIREMENTS

The table below identifies the kind of information required on a subdivision application filed under this Ordinance. An "R" indicates that the information is required, and a blank cell indicates that the information is not required.

*Bibby Rd. Additional 2 lots *Not in HQW*
*WS-111P**

TABLE OF SUBDIVISION APPLICATION REQUIREMENTS

INFORMATION REQUIRED	EXEMPT PLAT	FAMILY PLAT	MINOR PLAT	MAJOR PRELIM. PLAT	MAJOR FINAL PLAT
MAP SIZE AND MATERIALS					
Plat is 18X24", 21X30", or 24X36" in size	R	R	R	R	R
Legible black ink on mylar or white paper	R	R0	R	R	R
TITLE BLOCK					
Property Designation / Name of Subdivision	R	R	R	R	R
Type of plat (minor plat, preliminary plat, etc.)		R	R	R	R
Name of Property Owner	R	R	R	R	R
Township, County and State	R	R	R	R	R
Date the survey was prepared & any revision dates	R	R	R	R	R
Scale in words (Ex. 1"=200 feet)	R	R	R	R	R
Bar graph	R	R	R	R	R
Name, address, and telephone # of surveyor	R	R	R		R
The names, addresses, and telephone # of all owners, surveyors, architects, and engineers responsible for the subdivision				R	R
GENERAL INFORMATION					
Zoning district(s) of property & abutting properties		R	R	R	R
Parcel ID Number(s) <i>P.I. # provided</i>		R	R	R	R
Plat book and/or deed book reference	R	R	R	R	R
Names of abutting property owners	R	R	R	R	R
Vicinity map	R	R	R	R	R
Corporate limits & county lines	R	R	R	R	R
Surveyor and/or engineer original signature, seal, & registration #				R	
Surveyor's original signature, seal, & registration #	R	R	R		R
North arrow and orientation	R	R	R	R	R
Course and distance of existing and proposed property lines (label old property lines)	R	R	R	R	R
Tied to nearest street intersection if within 300 feet		R	R		R
Tied to USGS marker if within 2000 feet	R	R	R		R

Revised dates

Phone # to title block

PARID for property provided need PARID for adjacent

TABLE OF SUBDIVISION APPLICATION REQUIREMENTS

INFORMATION REQUIRED	EXEMPT PLAT	FAMILY PLAT	MINOR PLAT	MAJOR PRELIM. PLAT	MAJOR FINAL PLAT
Location and description of all monuments, markers and control corners		R	R		R
Minimum 2 control corners present when creating a new road right-of-way	R	R	R		R
Location of all existing and proposed buildings including distance to property lines	R	R	R	R	R
Square footage of all lots under 1 acre in size and acreage for all lots over 1 acre in size		R	R	R	R
Lots numbered consecutively		R	R	R	R
Lines not surveyed must be clearly indicated (include source data)	R	R	R	R	R
All mapping shall comply with NCGS 47-30	R	R	R		R
Required Certificates	See Section 25.16 for certificate requirements.				
If more than one sheet, each sheet must be signed, sealed, and numbered (ex. 1 of 3, 2 of 3, 3 of 3)					
AMENITIES & NATURAL FEATURES LAYOUT					
Location, dimension, and details of proposed recreation areas and facilities (golf courses, clubhouses, pools, tennis courts, playgrounds, etc.)				R	R
Required landscaping / perimeter buffer				R	R
Riding trails, pedestrian, or bicycle paths				R	R
Areas to dedicated as common area or open space – label the future ownership (HOA, dedication for public use to governmental body, etc.)				R	R
Areas to be used for uses other than residential				R	R
Name and location of any property or building on the National Register of Historic Places				R	R
Wetlands, marshes, rock outcrops, pond, lakes, streams, railroads, bridges and any other features affecting the site		R	R	R	
Location of any floodplain areas as shown on FEMA Flood Insurance Rate Maps	R	R	R	R	R
Existing and proposed topography of tract and 100 feet beyond property showing contour intervals of no greater than 5 feet				R	
Existing and proposed entrance signs including site triangles and located outside the ROW				R	R
UTILITY LAYOUT					
A note indicating that the proposed subdivision will be served by either a central or individual water supply		R	R	R	
A note indicating that the proposed subdivision will be served by either a central or individual sewer / septic system		R	R	R	

TABLE OF SUBDIVISION APPLICATION REQUIREMENTS

INFORMATION REQUIRED	EXEMPT PLAT	FAMILY PLAT	MINOR PLAT	MAJOR PRELIM. PLAT	MAJOR FINAL PLAT
Water & Sewer - Connections to existing systems, line sizes, material of lines, blowoff & valves, manholes, catch basins, force mains, location of fire hydrants				R	
Storm drains, swales, detention ponds, & other drainage facilities, if any				R	
Natural gas lines				R	
Electric Lines				R	
Telephone Lines, Cable TV, etc.				R	
Utility and other easements				R	
Any additional determined by reviewing agencies that may be required to review plat				R	
STREET LAYOUT					
Proposed and existing rights-of-way – label public or private streets	R	R	R	R	R
Right-of-way & pavement location, widths, & dimensions			R	R	R
Cul-de-sac pavement diameter				R	
Approximate grades				R	
Typical detailed cross section(s)				R	
Existing and proposed street names				R	R
SUBDIVISION INFORMATION & CALCULATIONS TABLE					
Classification of Watershed Overlay District		R	R	R	R
Existing & Proposed use(s) of land				R	
Existing & Proposed zoning classification(s)				R	
Front, side, rear setback requirements				R	
Acreage in total tract to be subdivided		R	R	R	
Acreage in recreation & open space (label)				R	
Total number of lots proposed				R	
Linear feet in streets				R	R
Percent of entire project to be covered with impervious surfaces, including totals by phase				R	
Separate impervious surface totals by streets, sidewalks, maximum allowed for each lot, etc.				R	
PERMITS AND OTHER DOCUMENTATION REQUIRED BEFORE FINAL PLAT APPROVAL					
Construction plans for all infrastructure / improvements (such as streets, water, sewer, hydrants, stormwater, etc. Approval is required by appropriate agencies before construction begins)					R
Stormwater management plan				R	
Inspection results of all improvements					R
As built drawings of all improvements					R

TABLE OF SUBDIVISION APPLICATION REQUIREMENTS

INFORMATION REQUIRED	EXEMPT PLAT	FAMILY PLAT	MINOR PLAT	MAJOR PRELIM. PLAT	MAJOR FINAL PLAT
NCDEQ Approval of the Erosion & Sediment Control Plan (if disturbing more than 1 acre)					R
NCDOT Approval of Driveway Access Permit					R
Wetland delineation of property					R
US Army Corp of Engineers Approval of earth disturbing activities in Wetlands (if applicable)					R
Submit copy of HOA agreement to be approved by the Administrator					R
Affidavit of Family Subdivision		R			
Deed of Gift		R			
Private Road Maintenance Agreement, if applicable		R	R		
Any other information the Administrator deems necessary to determine compliance with this Ordinance				R	R

SECTION 19.17. SUBDIVISION PLAT CERTIFICATION REQUIREMENTS

A. TABLE

1. The table below identifies the kind of certification statement required on a subdivision plat filed under this Ordinance. An "R" indicates that the particular certification statement is required, and a blank cell indicates that the information is not required.
2. The exact certification language to be used follows the table.
3. The Administrator may waive items if it is determined that they are not applicable.

TABLE OF SUBDIVISION CERTIFICATION REQUIREMENTS

TYPE OF CERTIFICATE OR STATEMENT [1]	EXEMPT PLAT [2]	FAMILY PLAT	MINOR PLAT	MAJOR PRELIM. PLAT	MAJOR FINAL PLAT
Certificate of Survey Accuracy	R	R	R		R
Certificate of Purpose of Plat	R	R	R		R
Review Officer Certification	R	R	R		R
Certificate of Ownership		R	R		
Certificate of Ownership and Dedication				R	R
Certificate of Exemption	R				
Exemption 160D-802 Compliance Statement	R				
Certificate of Family Subdivision Plat Approval		R			
Family Documents Deed References		R			
Septic Suitability Certificate Statement		R			
Voluntary Agricultural District Proximity Statement		R	R	R	R
Public Water Supply Watershed Protection Statement		R	R	R	R

TABLE OF SUBDIVISION CERTIFICATION REQUIREMENTS

TYPE OF CERTIFICATE OR STATEMENT [1]	EXEMPT PLAT [2]	FAMILY PLAT	MINOR PLAT	MAJOR PRELIM. PLAT	MAJOR FINAL PLAT
Certificate of Minor Subdivision Plat			R		
Certificate of Preliminary Major Subdivision Plat				R	
Certificate of Final Major Subdivision Plat Approval					R
NCDOT Div. of Highways District Engineer Certificate					R
Public Street Maintenance Disclosure Statement					R
Private Roads Disclosure Statement					R
Certificate of Approval of the Design and Installation of Streets, Utilities, and Other Required Improvements					R
Utilities Certificate			R		R
Sediment & Erosion Control Plan Certificate					R
Stormwater Control Certificate					R
Licensed Soil Scientist Certificate					R
Certificate of Warranty					R

NOTES:

[1] Statements such as "Preliminary, Not For Recording" cannot be recorded.

[2] Preparation of an exempt plat is voluntary and at the discretion of the applicant for an exempt subdivision application.

B. CERTIFICATION STATEMENTS

1. The following paragraphs identify the text to be included as individual certification statements on subdivision plats reviewed under this Ordinance.
2. Professional preparing subdivision plat documents for review or recordation shall use the language exactly as listed in this section.

Certificate of Survey and Accuracy

I, _____, certify that this plat was drawn under my supervision from an actual survey made under my supervision (deed description recorded in Book _____, page _____, etc.) (other); that the boundaries not surveyed are clearly indicated as drawn from information found in Book _____, page _____; that the ratio of precision or positional accuracy as calculated is _____; that this plat was prepared in accordance with NCGS 47-30 as amended. Witness my original signature, license number and seal this _____ day of _____, A.D., 20_____.

Seal or Stamp of Surveyor

Professional Land Surveyor_____
License Number

HYDRANT FLOW TEST REPORT**LOCATION:** ARCHDALE DR.**DATE:** 6/5/2023**TIME:** 3:20 PM**TEST MADE BY:** JL & BP**REPRESENTATIVE OF:** MOORE COUNTY PUBLIC UTILITIES**WITNESS:** N/A**PURPOSE OF TEST:** Fire Flow**CONSUMPTION RATE DURING TEST:** N/A GPM**IF PUMPS AFFECT TEST, INDICATE PUMPS OPERATING:****PUMPS OFF**

FLOW HYDRANT #s	A ¹	A ²	A ³
	4764		
SIZE NOZZLE:	2 1/2	IN	
PITOT READING:	18	PSI	
TOTAL GPM:	710	GPM	

RESIDUAL HYDRANT #	51-153	
STATIC _B	102	PSI
RESIDUAL _B	50	PSI

PROJECTED RESULTS AT 20 **PSI** **RESIDUAL** 908 **GPM****REMARKS:** EM TANK @ 39.5'

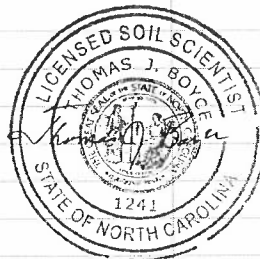


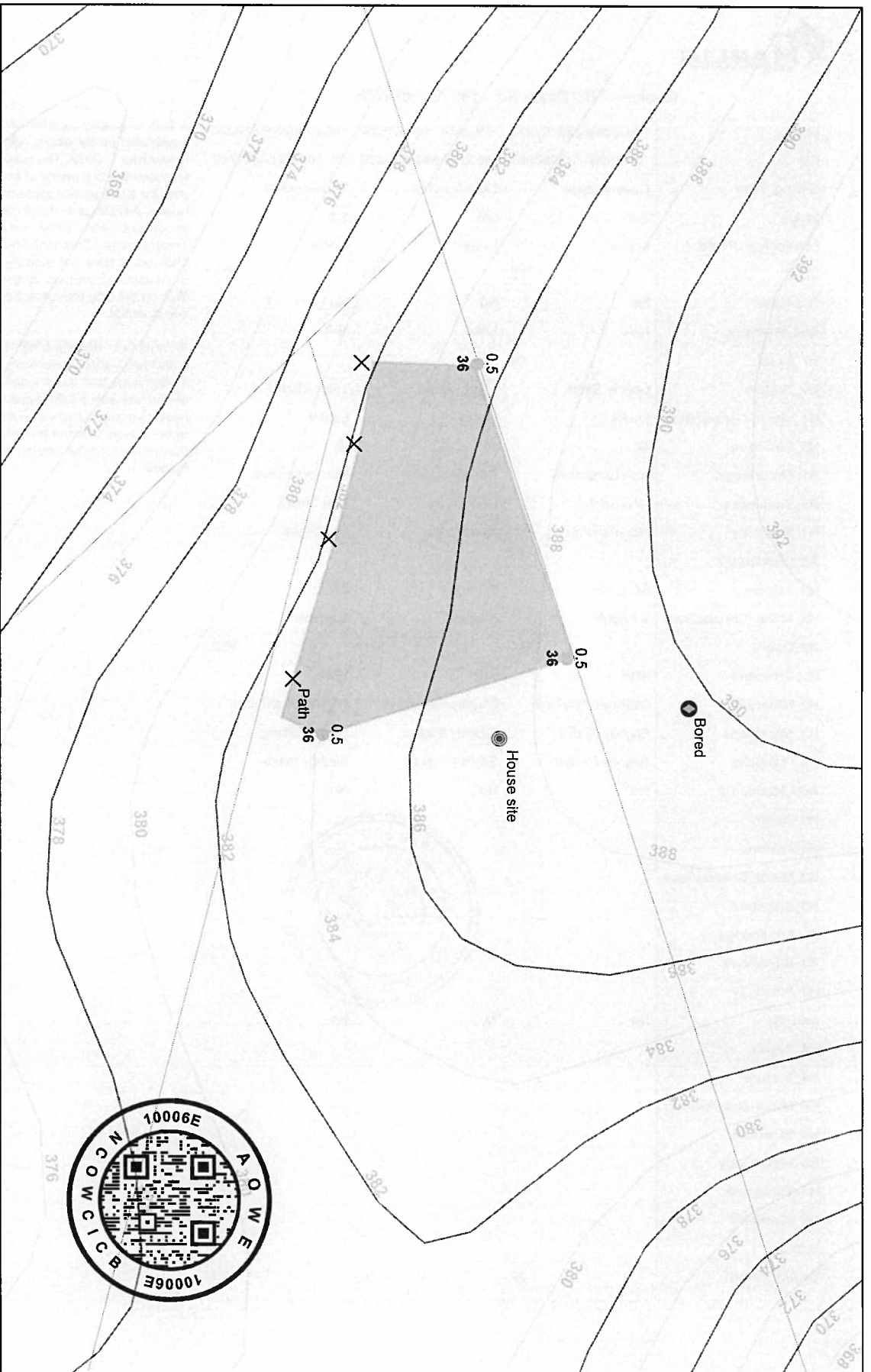
Cooley - TBD Bibey Rd - 180 Archdale Dr.

Long	-79.35504528766470	-79.35547591396080	-79.35493338812300
Lat	35.28531142450050	35.28520644852530	35.28502284821740
Boring_Type	Conventional	Conventional	Conventional
Slope	5-8	5-8	5-8
Landscape_Position	Linear	Linear	Linear
LTAR	0.5	0.5	0.5
Saprolite	No	No	No
Soil_Wetness	N/A	N/A	N/A
H1_Depth	24	18	24
H1_Texture	Loamy Sand	Loamy Sand	Loamy Sand
H1_Moist_Consistency	Loose	Loose	Loose
H1_Structure	Gr	Gr	Gr
H1_Mineralogy	Non Expansive	Non Expansive	Non Expansive
H1_Stickiness	Non Sticky	Non Sticky	Non Sticky
H1_Plasticity	Non Plastic	Non Plastic	Non Plastic
Add_Horizon_2			
H2_Texture	SC Loam	SC Loam	SC Loam
H2_Moist_Consistency	V Friable	Friable	V Friable
H2_Depth	36.0	36.0	36.0
H2_Structure	SBK	SBK	SBK
H2_Mineralogy	Slightly Expansive	Slightly Expansive	Slightly Expansive
H2_Stickiness	Slightly Sticky	Slightly Sticky	Slightly Sticky
H2_Plasticity	Slightly Plastic	Slightly Plastic	Slightly Plastic
Add_Horizon_3	No	No	No
H3_Depth			
H3_Texture			
H3_Moist_Consistency			
H3_Structure			
H3_Mineralogy			
H3_Stickiness			
H3_Plasticity			
Add_H4	No	No	No
H4_Depth			
H4_Texture			
H4_Moist_Consistency			
H4_Structure			
H4_Mineralogy			
H4_Stickiness			
H4_Plasticity			
Notes			
Usable_Depth	36	36	36

A soils evaluation, performed by soils auger, was completed on the above referenced property on November 7, 2022. The purpose of the evaluation was to determine the ability of soils to support a subsurface wastewater disposal system for a three bedroom house. All ratings and determinations were done in accordance with "Laws and Rules for Sewage Treatment and Disposal Systems, 15A NCAC .1900". This report does not guarantee or represent approval or issuance of permits by the local health department. This report only represents my opinion as a licensed soil scientist.

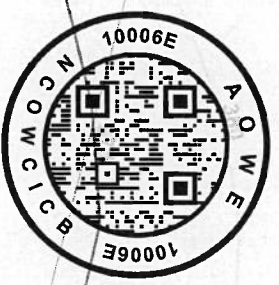
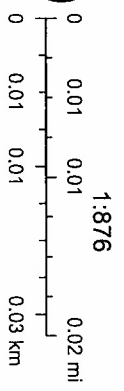
An area was identified that may be possible to use for a 360 GPD/3BR subsurface wastewater system. The system type and exact location would need to be confirmed with a field layout/design. The client would need to confirm there are not restrictions, easements, right of ways or other encumbrances on the property that would limit the use of the area shown on the report.



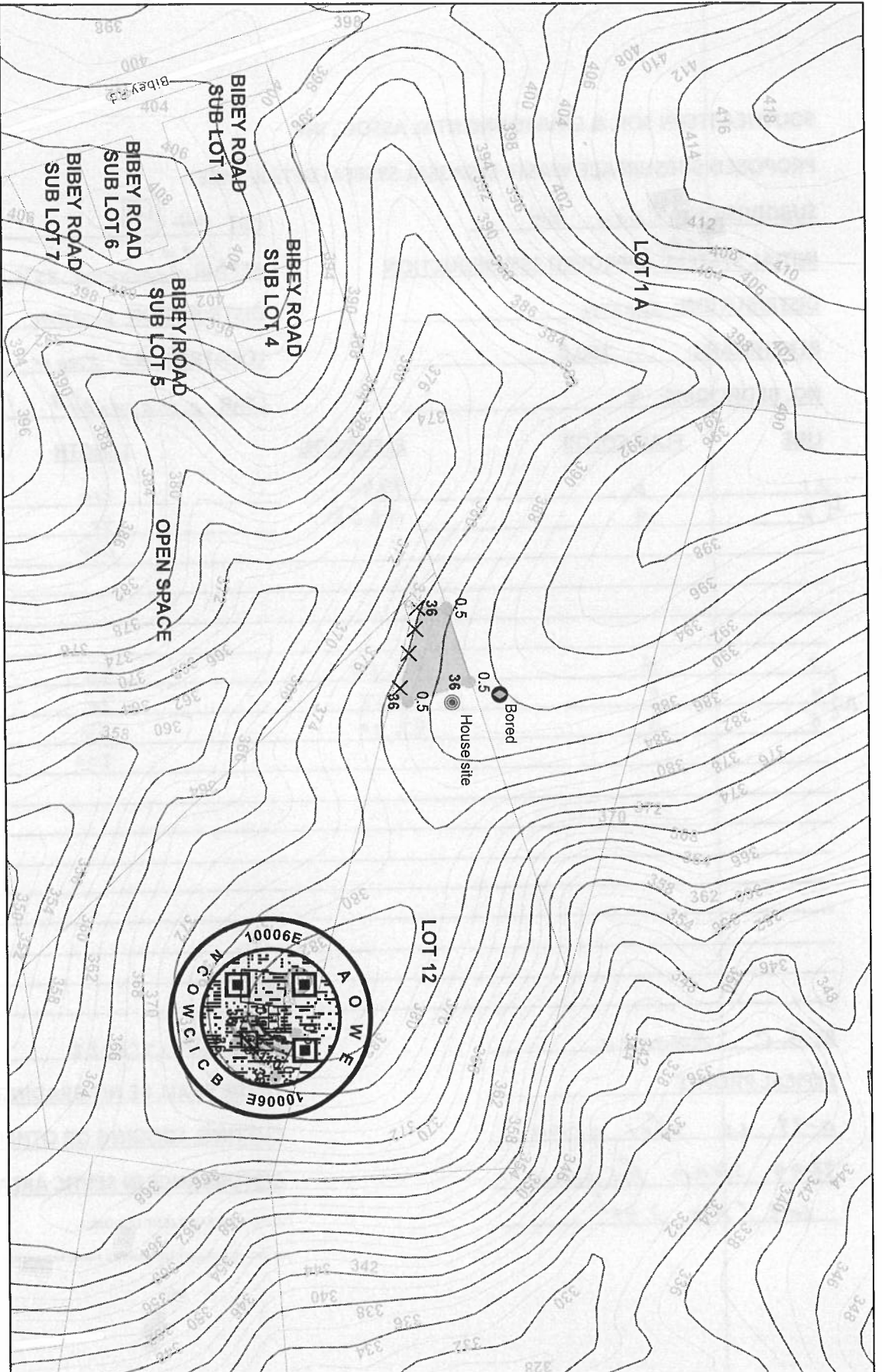


11/23/2022

- Contours: 2' Interval - BaseContour2feet
- PSC - Borings
- Conventional
- Bad Topo
- Point Generic
- Well
- System Area - Usable Soils Area
- Usable Soils Area
- taxparcels - MoCo_TaxParcels



Coolley 2022 / 180 Archdale



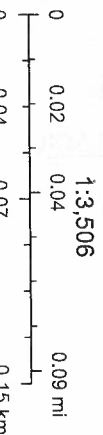
11/23/2022

Contours: 2' Interval - BaseContour2feet

Initial Area

PSC - Berings

Conventional



Esri Community Maps Contributors, Moore County GIS (NC), State of North Carolina, DOT, © OpenStreetMap, Microsoft, Esri, HERE, Garmin,

PROPOSED SUBSURFACE WASTE DISPOSAL SYSTEM DETAIL SHEET

LOT ~~73~~ 14

GRAV
REPAIR Approved 25% Reduction

DISTRIBUTION SERIAL

LOCATION BC INON 4113

LTAR 0.6 gpd/ft²

BY B. C. Raynor

DATE 07/17/2022

TYPICAL PROFILE

THERE SHALL BE NO GRADING,

0-33 15 vfri gran

CUTTING, LOGGING OR OTHER SOIL

33-48 sloam fri gran

DISTURBANCE IN SEPTIC AREA

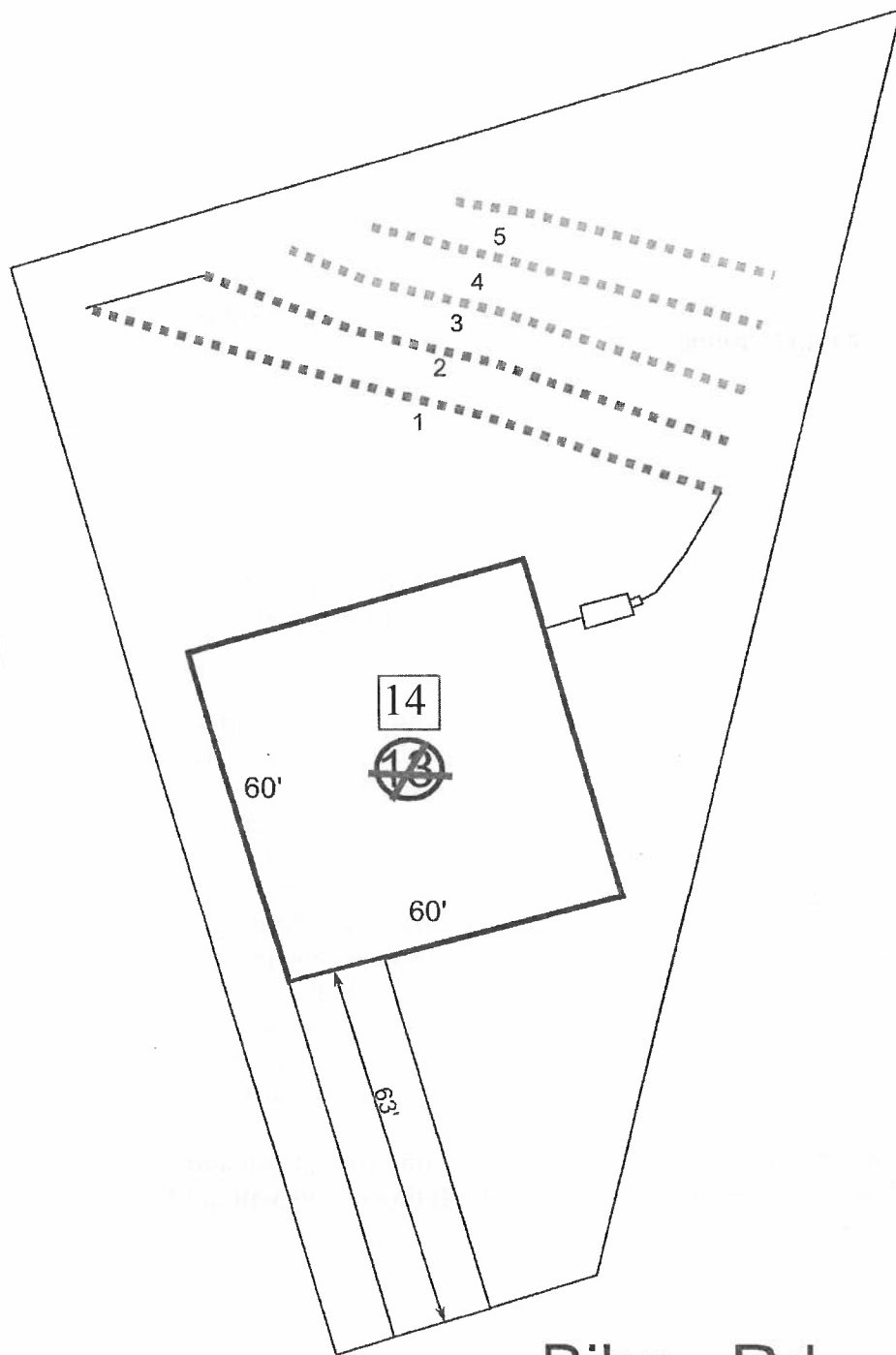
CR2 / PM $\geq 49''$

HEALTH DEPARTMENT USE ONLY.

DESIGNS DO NOT GURANTEEE FUNCTIONALITY

Southeastern Soil & Environmental Associates, Inc.

P.O. Box 9321
Fayetteville, NC 28311
Phone/Fax (910) 822-4540
Email mike@southeasternsoil.com



Bibey Rd.

Lot ~~13~~ 14

1" = 30'

Southeastern Soil & Environmental Associates, Inc.

P.O. Box 9321
Fayetteville, NC 28311
Phone/Fax (910) 822-4540
Email mike@southeasternsoil.com

July 18, 2022

Moore County Health Department
PO Box 279
Carthage, N.C. 28327

Re: Soil evaluation and final septic recommendation, Lot 14, Bibey Road Subdivision,
Bibey Road, Moore County, North Carolina

To whom it may concern,

A preliminary soils investigation has been completed for the above referenced lot. The property is located off Bibey Road as shown on the accompanying map. The purpose of the investigation was to determine the ability of the soil to support any subsurface waste disposal system for the proposed lot. The lot will be served by public water. All ratings and determinations were made in accordance with "Laws and Rules for Sanitary Sewage Collection, Treatment, and Disposal, 15A NCAC 18A .1900".

The lot appears to contain at least one area that meets minimum criteria for subsurface waste disposal systems for at least a typical (50' x 50') 4-bedroom home (may include the use of conventional drainlines, gravelless drainlines, low pressure pipe, pumps, fill, large diameter pipe, low profile chamber, French drains, pretreatment, drip irrigation, etc.). Soil characteristics in the usable areas were dominantly provisionally suitable to at least 18 inches (fill, drip irrigation and/or pretreatment) or 24 inches (conventional or LPP) including .1940, .1941, .1942, .1943, .1944 and .1945. A soil map indicating typical soil areas that meet these criteria is enclosed. The lot appears to contain sufficient available space for a repair area for at least a typical 4-bedroom home (may include the use of any of the systems mentioned above). These soil areas are dominated by loamy sand and/or sandy loam textures (in upper 48 inches) and would typically allow for long term acceptance rates in the 0.6 to 0.8 gpd/sq. ft. (conventional/innovative).

Note: The lot does not contain adequate space to permit a foundation drain and meet setbacks as required in rule .1950 (15). As such, foundation drains will not be allowed on the proposed house.

The lot may require additional specific design/layout on our part prior to action by the local health department due to space and soil considerations (at separate cost to client). Alternative systems (mentioned above) could be required on any lot to compensate for shallow unsuitable soil conditions. Due to the small lot size, a specific house location, house size, driveway location and/or side entry garage may be required. There should be no grading, logging or other site disturbance in soil areas designated as usable for subsurface waste disposal until approved by the local health department (any site disturbance could remove soil any render the area unusable).

When evaluated, the soil areas designated as usable for subsurface waste disposal were dry. During wetter time periods, subsurface water could be found in any of these soil areas. The local health department has the authority to deny a permit to any soil where water saturates a soil boring. SSEA cannot be certain that this will not occur on any of these lots. If this occurs (and cannot be remedied with a French drain or other drainage), any of these lots could become unsuitable due to .1942 (soil wetness).

As with any property, this report does not guarantee, represent or imply approval or issuance of improvement permit as needed by the client from the local health department (as such, any potential buyers of these properties should obtain appropriate permits from the local health department prior to making and/or completing purchase obligations or financial commitments. Since professional opinions sometimes differ, an actual improvement permit issuance by the local health department is the only guarantee of a site's suitability for a buyers intended use.). Further, this report does not guarantee or imply that a septic system will function for any specific length of time. This report only addresses rules in force at the time of evaluation. Permits will only be granted if the local health department concurs with the findings of this report. This report only represents my professional opinion as a licensed soil scientist. I trust this is the information you require at this time. If you have any questions, please call.

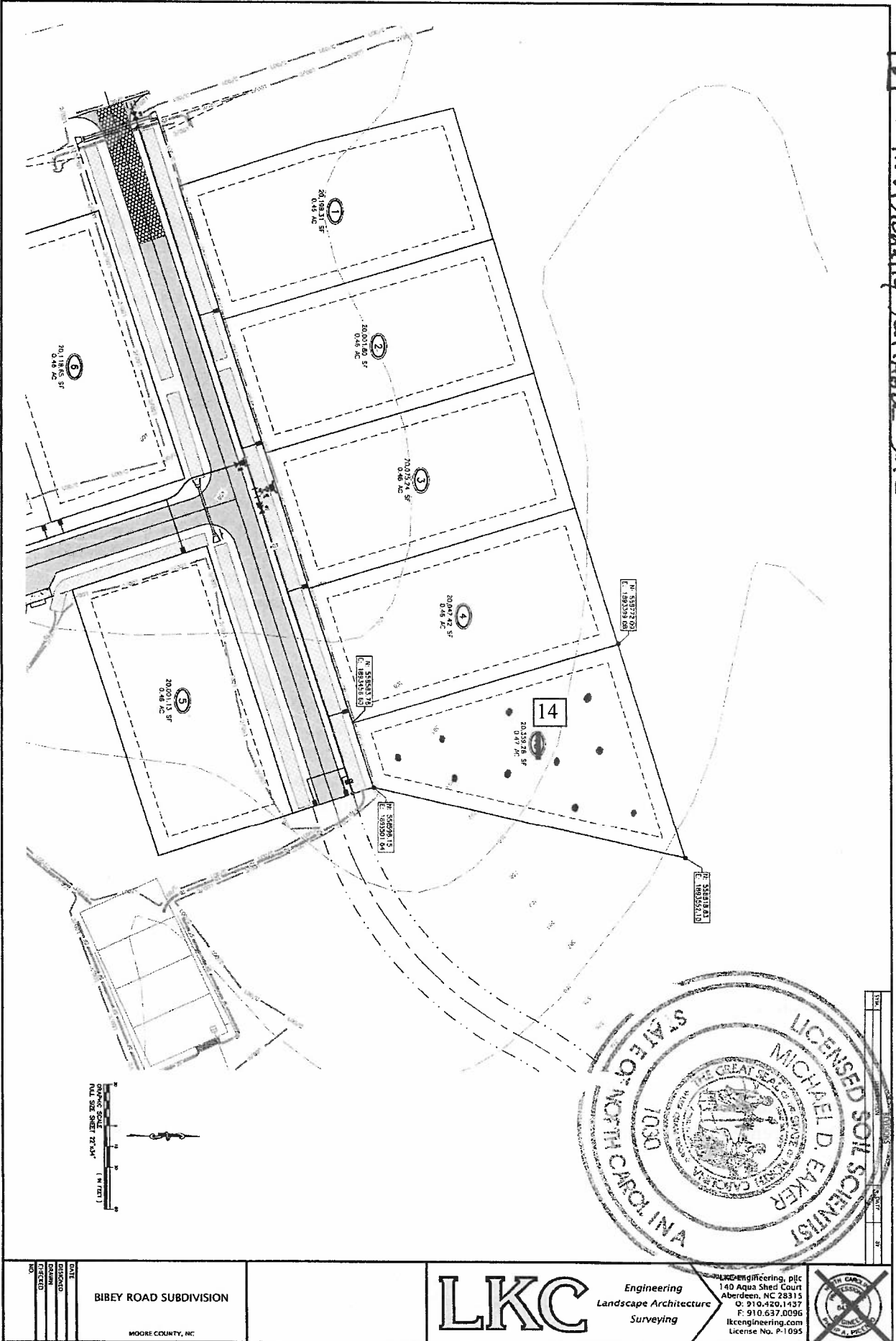
Sincerely,



Mike Eaker
NC Licensed Soil Scientist



 = Provisionally Suitable Soil



BIBEY ROAD SUBDIVISION			
DATE	DESIGNED	DRAWN	CHECKED
MOORE COUNTY, NC			

LKC

Engineering
Landscape Architecture
Surveying



Ruth Pedersen

From: Randy Gould
Sent: Tuesday, May 30, 2023 3:28 PM
To: Ruth Pedersen
Cc: Brian Patnode; Bryan Phillips
Subject: Re: Bibey Rd. Major Subdivision Two Additional Lots

We talked to Phillip. MCPW is good with supplying water to Lots 13 and 14.

Get [Outlook for iOS](#)

From: Ruth Pedersen <rpetersen@moorecountync.gov>
Sent: Tuesday, May 30, 2023 2:41:48 PM
To: Randy Gould <rgould@moorecountync.gov>
Cc: Brian Patnode <cpatnode@moorecountync.gov>; Bryan Phillips <bphillips@moorecountync.gov>
Subject: RE: Bibey Rd. Major Subdivision Two Additional Lots

Randy,

Okay, understood. I am going to forward this information to Philip and have him reach out to you if he has any questions.

Thanks!

Ruth Pedersen, MPA
 Senior Planner
 Moore County Planning & Inspections
rpetersen@moorecountync.gov
 910-947-5010 (phone)
 910-947-1303 (fax)

From: Randy Gould <rgould@moorecountync.gov>
Sent: Tuesday, May 30, 2023 2:39 PM
To: Ruth Pedersen <rpetersen@moorecountync.gov>
Cc: Brian Patnode <cpatnode@moorecountync.gov>; Bryan Phillips <bphillips@moorecountync.gov>
Subject: Re: Bibey Rd. Major Subdivision Two Additional Lots

We have added remote houses greater than the serviceable distance from a hydrant, but new subdivisions must have hydrants to serve the proposed lots.

Get [Outlook for iOS](#)

From: Ruth Pedersen <rpetersen@moorecountync.gov>
Sent: Tuesday, May 30, 2023 2:36:21 PM
To: Randy Gould <rgould@moorecountync.gov>
Cc: Brian Patnode <cpatnode@moorecountync.gov>; Bryan Phillips <bphillips@moorecountync.gov>
Subject: RE: Bibey Rd. Major Subdivision Two Additional Lots

Randy,

Forgive me, but just so I'm clear, are you saying that it may not be possible to add a new service for lot 13? Or that they may not be able to use the existing service for lot 13.

I just talked to Philip again and he says the owners are thinking they will either use a well for lot 12 and connect lot 13 to the existing service, or run a new service to lot 12 so that lots 12 and 13 are both connected to public water.

Thank you,

Ruth Pedersen, MPA
Senior Planner
Moore County Planning & Inspections
rpedersen@moorecountync.gov
910-947-5010 (phone)
910-947-1303 (fax)

From: Randy Gould <rgould@moorecountync.gov>
Sent: Tuesday, May 30, 2023 1:49 PM
To: Ruth Pedersen <rpedersen@moorecountync.gov>
Cc: Brian Patnode <cpatnode@moorecountync.gov>; Bryan Phillips <bphillips@moorecountync.gov>
Subject: RE: Bibey Rd. Major Subdivision Two Additional Lots

Okay thanks. I'm not sure if we could allow Lot 13 to have a water service even if the house is not serviceable by the hydrant.

From: Ruth Pedersen <rpedersen@moorecountync.gov>
Sent: Tuesday, May 30, 2023 1:40 PM
To: Randy Gould <rgould@moorecountync.gov>
Cc: Brian Patnode <cpatnode@moorecountync.gov>; Bryan Phillips <bphillips@moorecountync.gov>
Subject: RE: Bibey Rd. Major Subdivision Two Additional Lots

Randy,

Good afternoon, I hope you had a great weekend! I just talked to Philip, and he has informed me that it is 175 feet from the hydrant to the nearest corner of lot 14 and 225 feet to the far front corner of lot 14. He said that the water system is already installed, and they are just proposing to add one more service to the existing line.

Additionally, it looks like there is one service for lot 12 currently. Philip said that the owners may decide to use that service for lot 13 and then dig a well for lot 12. In our UDO, it says the subdivision shall install and connect to public water, so I don't think that would be in conformance, but I wanted to check and see what your perspective is on this.

Feel free to give me a call anytime if you would like to discuss.

Thank you,

Ruth Pedersen, MPA
Senior Planner
Moore County Planning & Inspections
rpedersen@moorecountync.gov
910-947-5010 (phone)
910-947-1303 (fax)

From: Randy Gould <rgould@moorecountync.gov>
Sent: Thursday, May 25, 2023 4:02 PM
To: Ruth Pedersen <rpetersen@moorecountync.gov>
Cc: Brian Patnode <cpatnode@moorecountync.gov>; Bryan Phillips <bphillips@moorecountync.gov>
Subject: RE: Bibey Rd. Major Subdivision Two Additional Lots

Thank you!

From: Ruth Pedersen <rpetersen@moorecountync.gov>
Sent: Thursday, May 25, 2023 3:48 PM
To: Randy Gould <rgould@moorecountync.gov>
Cc: Brian Patnode <cpatnode@moorecountync.gov>; Bryan Phillips <bphillips@moorecountync.gov>
Subject: RE: Bibey Rd. Major Subdivision Two Additional Lots

Randy,

Thank you. I have reached out to Philip with LKC to find out about that distance and will let you know.

Best,

Ruth Pedersen, MPA
Senior Planner
Moore County Planning & Inspections
rpetersen@moorecountync.gov
910-947-5010 (phone)
910-947-1303 (fax)

From: Randy Gould <rgould@moorecountync.gov>
Sent: Thursday, May 25, 2023 3:40 PM
To: Ruth Pedersen <rpetersen@moorecountync.gov>
Cc: Brian Patnode <cpatnode@moorecountync.gov>; Bryan Phillips <bphillips@moorecountync.gov>
Subject: FW: Bibey Rd. Major Subdivision Two Additional Lots

Let me check with Brian Patnode when he gets back next week. Obviously the fire hydrant at the intersection will not serve lot 13 and may not serve lot 14. How far is it from the FH to Lot 14?

From: Ruth Pedersen <rpetersen@moorecountync.gov>
Sent: Thursday, May 25, 2023 3:28 PM
To: Bryan Phillips <bphillips@moorecountync.gov>; Randy Gould <rgould@moorecountync.gov>
Subject: Bibey Rd. Major Subdivision Two Additional Lots

Good afternoon,

I am reaching out due to the upcoming SRB meeting for the two lots that are proposed to be added to the existing Bibey Rd. subdivision. We have already had a PRT meeting on this, but I wanted to reach out to you both and make sure that there are no red flags for either of you with this proposal as far as water supply, fire flow, etc.

Lot 14 is proposed to be served by the existing water line that was installed when the subdivision was originally built, while lot 13 is proposed to be served by an individual private well. I've attached the preliminary plat and fire flow test results. Please let me know if there is any other information I can provide that would be helpful.

Thank you,

Ruth Pedersen, MPA
Senior Planner
Moore County Planning & Inspections
rpedersen@moorecountync.gov
910-947-5010 (phone)
910-947-1303 (fax)

Ruth Pedersen

From: Brian Patnode
Sent: Monday, June 5, 2023 4:45 PM
To: Ruth Pedersen
Cc: Debra Ensminger
Subject: Bibey Rd Subdivision Lot(s)
Attachments: 6.5.23 Flow Test Report.pdf

Hi Ruth, the addition of 2 lots in the Bibey Rd Subdivision should not have an impact on the water service or fire flow availability.

We also updated our fire flow test today on the new hydrant, results attached.

Brian Patnode
County Engineer
910-947-4309

For Registration Register of Deeds

Judy D. Martin

Moore County, NC

Electronically Recorded

December 3, 2021 10:35:02 AM

Book: 5755 Page: 245 - 248 #Pages: 4

Fee: \$26.00

NC Rev Stamp: \$400.00

Instrument # 2021026235

NORTH CAROLINA GENERAL WARRANTY DEED

This instrument prepared by: Frank C. Thigpen, Thigpen and Jenkins, L.L.P.
 Mail after recording to: Grantee

Revenue Stamps-\$

Brief description for the index:

This Deed made this 15th day of December, 2021 by and between:

GRANTOR:	GRANTEE:
C&C PROPERTIES OF MC, LLC, a North Carolina Limited Liability Company 2573 Bethlehem Church Road Carthage, NC 28327	TRI SOUTH BUILDERS, INC., a North Carolina Corporation PO Box 1200 West End, NC 27376

WITNESSETH, that the Grantor, for a valuable consideration paid by the Grantee, the receipt of which is hereby acknowledged, has bargained and sold, and by these presents does grant, bargain, sell and convey unto the Grantee in fee simple, all that certain lots, tracts, or parcels of land situated in the McNeill Township of Moore County, North Carolina, and more particularly described as follows:

SEE EXHIBIT "A" ATTACHED HERETO AND INCORPORATED HEREIN.

Being the same property as described in Deed Book 5203 at Page 443, Moore County Registry.

TO HAVE AND TO HOLD THE AFORESAID LOT OR PARCEL OF LAND AND ALL PRIVILEGES AND APPURTENANCES THERETO BELONGING TO THE GRANTEE IN FEE SIMPLE.

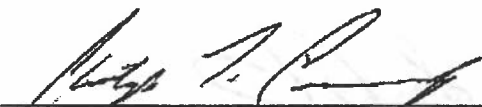
submitted electronically by "Robbins May & Rich LLP"
 in compliance with North Carolina statutes governing recordable documents
 and the terms of the submitter agreement with the Moore County Register of Deeds.

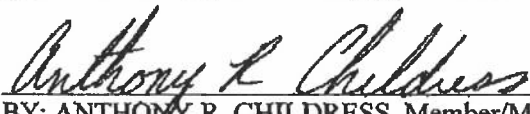
And the Grantor covenants with the Grantee, that Grantor is seized of said premises in fee simple and has the right to convey in fee simple; that the title is marketable and free and clear of all encumbrances and that the Grantor will warrant and defend the title against the lawful claims of all persons whomsoever except for the exceptions hereinafter stated.

The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context.

IN WITNESS WHEREOF, the said Grantors have hereunto set their hands and seals the day and year first above written.

C&C PROPERTIES OF MC, LLC

 (SEAL)
BY: CHRISTOPHER T. CUMMINGS, Member/Manager

 (SEAL)
BY: ANTHONY R. CHILDRESS, Member/Manager

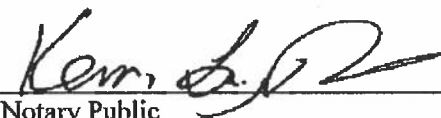
NORTH CAROLINA

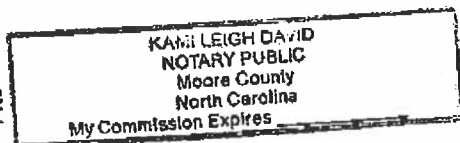
COUNTY OF MOORE

I, a Notary Public of the County and State aforesaid, certify that Christopher T. Cummings personally came before me this day and acknowledged that he is Member/Manager of C&C Properties of MC, LLC., a North Carolina limited liability company and that by authority duly given and as the act of the corporation, the foregoing instrument was signed in its name.

Witness my hand and official stamp or seal this the 12 day of Dec, 2021.

My Commission Expires: 11/1/22


Notary Public



257

NORTH CAROLINA

COUNTY OF MOORE

I, a Notary Public of the County and State aforesaid, certify that Anthony R. Childress personally came before me this day and acknowledged that he is Member/Manager of C&C Properties of MC, LLC., a North Carolina limited liability company and that by authority duly given and as the act of the corporation, the foregoing instrument was signed in its name.

Witness my hand and official stamp or seal this the 1st day of Dec, 2021.

My Commission Expires: 11/11/21

Kami Leigh David
Notary Public

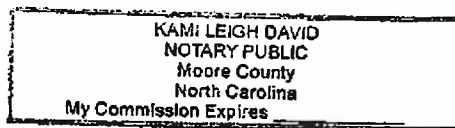


Exhibit A

Being all of Lot 2A, containing 19.94 acres, as shown on a plat entitled "Division of Property with Access Easement for C & C Properties of MC, LLC" prepared by Jeffrey L Green, PLS and recorded in Plat Cabinet 19, Slide 160, Moore County Registry

For Registration Register of Deeds

Judy D. Martin

Moore County, NC

Electronically Recorded

April 14, 2022 11:40:41 AM

Book: 5831 Page: 502 - 505 #Pages: 4

Fee: \$26.00 NC Rev Stamp: \$270.00

Instrument # 2022006588

Prepared by:
 John M. May, Esq.
 Robbins May & Rich LLP
 120 Applecross Road, Pinehurst, NC 28374
 No Title Exam By Drafting Attorney

NORTH CAROLINA GENERAL WARRANTY DEED

Excise Tax: \$

Parcel Identifier No. _____ Verified by _____ County on the ____ day of _____, 20____
 By: _____

Brief description for the Index: Lot 12, Bibey

THIS DEED entered into as of this the 13th day of April, 2022, by and between

Grantor	Grantee
C&C Properties of MC, L.L.C., a North Carolina limited liability company 2573 Bethlehem Church Road Carthage, NC 28327	Brandon John Cooley and wife, Emily Kristine Cooley 1376 Farm Life School Road Carthage, NC 28327

The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context.

WITNESSETH, that the Grantor, for a valuable consideration paid by the Grantee, the receipt of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto the Grantee in fee simple, all that certain lot or parcel of land situated in Moore County, North Carolina and more particularly described as follows:

See Exhibit "A" attached hereto and incorporated herein by reference.

Submitted electronically by "Robbins May & Rich LLP"
 in compliance with North Carolina statutes governing recordable documents
 and the terms of the submitter agreement with the Moore County Register of Deeds.

Subject and together with utility easements, other easements and restrictive covenants that are enforceable against or a benefit to the property, if any, and to the lien for ad valorem property taxes for the current year to be prorated at closing.

The property hereinabove described was acquired by Grantor by instrument recorded in Book 5203, Page 443, Moore County Registry, North Carolina.

All or a portion of the property herein conveyed does not include the primary residence of a Grantor.

TO HAVE AND TO HOLD the aforesaid lot or parcel of land and all privileges and appurtenances thereto belonging to the Grantee in fee simple.

And Grantor covenants with Grantee that Grantor is seized of the Property in fee simple, has the right to convey the Property in fee simple, that title is marketable and free and clear of all encumbrances, and that Grantor will warrant and defend the title against the lawful claims of all persons whomsoever except for the exceptions noted herein.

[Signature Page to Follow]

IN WITNESS WHEREOF, this instrument is executed (a), if by individuals, by hereunto setting their hands under seal by adoption of the word "SEAL" appearing next to the individuals' names or signatures, (b), if by a corporation, by the duly authorized officers, directors or shareholders of the corporation on its behalf under seal by adoption of the facsimile seal printed hereon for such purpose or, if an impression seal appears hereon, by affixing such impression seal or by adoption of the word "SEAL" appearing next to the name of the corporation or the signatures of the officers, directors or shareholders, (c), if by a partnership, by the duly authorized partners of the partnership on its behalf under seal by adoption of the word "SEAL" appearing next to the name of the partnership or the signatures of the partners or (d), if by a limited liability company, by the duly authorized members or managers on its behalf under seal by adoption of the word "SEAL" appearing next to the name of the limited liability company or the signatures of the members or managers, on the day and year first above written.

C&C Properties of MC, L.L.C.

By: [Signature] (SEAL)
 Printed Name: Christopher Todd Cummings
 Title: Manager

STATE OF NORTH CAROLINA
 COUNTY OF MOORE

I certify that the following person personally appeared before me this day and acknowledged to me that the following person voluntarily signed the foregoing document for the purpose stated therein and in the capacity indicated:

Name	Capacity
Christopher Todd Cummings	Manager

- ☒ I have personal knowledge of the identity of the principal;
☐ I have seen satisfactory evidence of the principal's identity, by a current state or federal identification with the principal's photograph in the form of a _____; or
☐ A credible witness has sworn to the identity of the principal

Witness my hand and official stamp or seal on this the 15th day of APRIL, 2022.



[Signature]
 Notary Public

Print notary name: NATASHA MASAR
 (notary name must be exactly as on notary seal)

My commission expires: 7/29/2025

[affix notary seal above, which must be fully legible]

EXHIBIT "A"

Being all of Lot 12, as shown on a map entitled "Major Final Plat for Bibey Road Subdivision, 12 Lots, 33.98 Total Gross Acreage, McNeill Township, Moore County, North Carolina" dated December 20, 2021, drawn from an actual survey by LKC Engineering Landscape Architecture Surveying, and recorded in Plat Cabinet 19, Slide 225, Moore County Registry, reference to which is hereby made.

STATE OF NORTH CAROLINA

COUNTY OF MOORE

Applicant: C & C Properties of MC, LLC

ParID # 00039436

BEFORE THE MOORE COUNTY
BOARD OF COMMISSIONERS

FILE NO.: _____

ORDER OF FINDINGS OF FACT AND
CONCLUSIONS IN SUPPORT OF
GRANTING A SPECIAL USE PERMIT

THIS CAUSE, being heard by the Moore County Board of Commissioners on April 20, 2021 at 5:30 p.m. in the Historic Courthouse, 2nd Floor Meeting Room, Carthage, NC for a quasi-judicial hearing on C & C Properties of MC, LLC application for a Special Use Permit: Major Conservation Subdivision Preliminary Plat for 12 lots on a 34-acre parcel owned by C & C properties of MC, LLC as identified in Deed Book 5203, Page 443. The Moore County Board of Commissioners has proper jurisdiction over the parties and subject matter and the parties are properly before the Moore County Board of Commissioners. After reviewing the documents of record and hearing from all parties and witnesses present at the hearing, the Board of Commissioners by sufficient evidence, based on the standards and *Unified Development Ordinance of Moore County, NC and North Carolina General Statutes* enters the following order.

FINDINGS OF FACT

1. That all parties were notified of the hearing; and
2. That the Applicants are C & C Properties of MC, LLC; and
3. That the Property Owner is C & C Properties of MC, LLC; and
4. That witnesses Debra Ensminger, Planning Director Moore County, Phillip Picerno, Project Manager, LKC Engineering and Julia Simmons, Coldwell Banker Advantage were sworn and testified; and
5. Attorney Nicolas P. Robinson of Bradshaw, Robinson, Slawter LLP represented Applicants and Property Owner. Attorney Robinson summarized his clients' case and tendered Phillip Picerno, Project Manager, LKC Engineering and Julia Simmons, Coldwell Banker Advantage as expert witnesses; and
6. That Applicants, C & C Properties of MC, LLC are requesting approval of a Preliminary Plat for a Major Conservation Subdivision for 12 lots on a 34-acre parcel: and
7. That the property is zoned Residential and Agricultural-40 and allows Major Conservation Subdivisions upon the issuance of a Special Use Permit.
8. That the proposed site details are as follows:

Zoning	Residential and Agricultural-40
Acreage	34
Watershed	Little River WS-III-P

Highway Corridor Overlay	N/A
Floodplain	N/A
Historical Use	Vacant

9. That the applicant agreed to the following conditions below at the Quasi-Judicial Hearing of even date herewith:

1. The proposed site plan meets all the requirements of the Unified Development Ordinance Section 18.6 Major Subdivisions – Preliminary Plat Submittal and Review

A. The developer shall complete the following items before construction begins or as otherwise indicated:

1. The applicant shall post a "Subdivision Decision" sign on the site and provide evidence to the Administrator with 10 days of preliminary plat approval, including contact information of the Administrator, for a minimum of 10 days to notify the neighbors of the subdivision decision, or the plat shall be null and void.
2. The applicant, prior to commencing any work within the subdivision, shall make arrangements with the Administrator to provide for adequate inspections.
3. All roads shall comply with the applicable provisions of the "Moore County Road Name and Addressing Ordinance."
4. Utility Construction Plans shall be approved by Moore County Public Utilities, Fire Marshal, and other applicable agencies such as power, telephone, cable, etc.
5. NCDOT Driveway Permit Approval
6. The streets including drainage shall be designed, constructed, and paved in accordance with the most current edition of NCDOT's "Subdivision Roads Minimum Construction Standards" as approved by the NCDOT.
7. Sediment Erosion Control Plan approval by NCDEQ.
8. Soils Evaluations Report approved by the Moore County Environmental Health Department required before final plat approval.
9. Shall meet the Type 3 landscaping requirements and approved by the Planning Department (inspection required before final plat approval).
10. Street trees must be installed and inspected before a Certificate of Occupancy is issued for each lot.
11. Bylaws and restrictive covenants approved before final plat approval to include that open space, cluster mailboxes, utilities easements for cable and power, and street trees will be maintained by the HOA.
12. All other provisions as indicated in Chapter 18 of the Unified Development Ordinance, and any other applicable local and state requirement, before construction begins and/or final plat approval.

CONCLUSIONS OF LAW

Based on the foregoing Findings of Fact the Moore County Board of Commissioners makes the following Conclusions with respect to the requested special use permit:

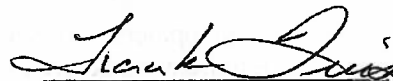
1. The use will not materially endanger the public health or safety if located where proposed and developed according to plan. **The proposed use Major Conservation Subdivision, is consistent with the uses in the area, and therefore does not pose danger to life or property.**
2. The use meets all required conditions and specifications. **Specifically, the proposed use meets the Unified Development Ordinance Regulations, Section 18.6 Major Subdivisions- Preliminary Plat Submittal and Review**
3. The use will not substantially injure the value of adjoining or abutting property unless the use is a public necessity. **Due to the proposed use being near other Major Conservation Subdivisions and consistent with the uses in the area, the use will not injure the value of adjoining property owners.**
4. The use will be in harmony with the surrounding area and compatible with the surrounding neighborhood. **Due to the use being a Major Conservation Subdivision and being near to other Major Conservation Subdivisions in the area, the proposed Major Conservation Subdivision of 12 lots is in harmony with the surrounding area.**
5. The use will be in general conformity with the approved Moore County Land Use Plan. **The proposed use is reflected in the goals of the Moore County Land Use Plan adopted in November 2013: Action 1.5.2: Support new developments that utilize existing or implement planned infrastructure that most economically preserves open space. Action 1.8.5: Support and promote infill development that will optimize the use of existing infrastructure.**

IT IS THEREFORE ORDERED, ADJUDGED AND DECREED:

The Special Use Permit request of C & C Properties of MC, LLC is hereby GRANTED for the reasons stated above. The Special Use Permit shall expire (2) years from the date of issuance unless the proposed development is pursued as set forth in the Moore County Unified Development Ordinance. Continued compliance with the original site plan and this permit issued by the Board shall entitle applicants to the continued use of the property.

A copy of these FINDINGS AND CONCLUSIONS shall be filed with the Clerk of the County of Moore, and a copy of such order shall be served by certified mail, return receipt to the applicants C & C Properties of MC, LLC and shall be served by means of certified mail, return receipt requested upon any person specifically requesting service of the same.

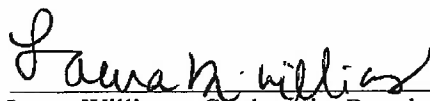
So ORDERED this the 4th day of May 2021.



Frank Quis, Chair

Moore County Board of Commissioners

Attest:


Laura Williams, Clerk to the Board



CHAPTER 19. SUBDIVISIONS**SECTION 19.9. MAJOR SUBDIVISIONS – OPTION 1 – CONSERVATION DESIGN STANDARDS****E. OWNERSHIP OF OPEN SPACE**

1. Land dedicated for open space shall be designated on both the preliminary and final plat(s) of the subdivision.
2. All open space shall be permanently restricted from further subdivision.
3. Open space shall be owned and/or administered by one or more of the following methods:
 - i. Fee simple dedication to a public government entity or a private non-profit land conservancy which public access shall be provided.
 - ii. Ownership by a homeowners' association (HOA) where specific development restrictions and maintenance requirements are included as part of its bylaws and restrictive covenants filed in the Register of Deeds Office. The fee-simple title of the common area shall be conveyed by the subdivider or developer to the HOA before any lots are sold. The required organizational documents and by-laws shall include, but are not limited to, the following: Membership shall be mandatory for each buyer and any successive buyer. The developer shall be responsible for all maintenance and other responsibilities of the HOA until 60% of all units to be sold are sold. After 60% of all units are sold, the HOA shall levy assessments and assume its responsibilities. The HOA shall be responsible for liability insurance, taxes and maintenance of all recreational open space facilities, grounds and common areas. Any sums levied by the HOA that remain unpaid shall become a lien on the individual property.
 - iii. A private landowner may retain ownership of the open space, provided a conservation easement established for that express purpose is recorded in the public records of Moore County prior to the approval of a plat or issuance of a building permit for a vertical building or structure on the property. The responsibility for maintaining the open space and any facilities shall be borne by the private land owner.

F. PERMITTED DENSITY

1. All lots shall be required to meet County Environmental Health Department requirements as well as NC State requirements for septic system installation.
2. Permitted density is calculated by dividing the minimum lot size for each dwelling unit by the gross area of the site. The table below provides an example of the permitted density calculation.

PERMITTED DENSITY DETERMINATION	
REQUIREMENT	NUMERIC VALUE
Gross Area of Project Site	100 acres (4,356,000 square feet)
Minimum Lot Size of the Zoning District	43,560 square feet (RA zoning district)
Permitted Density	1.0 dwelling units per acre
Total Number of Units Permitted	100 units

G. BONUSES

In the event that a developer seeks to contribute additional open space beyond the minimum required, the developer will receive an additional density bonus based on the following scale:

DENSITY BONUSES IN CONSERVATION SUBDIVISIONS	
OPEN SPACE PROVIDED (% OF TOTAL DEVELOPMENT SITE)	DENSITY BONUS (% INCREASE IN ALLOWABLE NUMBER OF DWELLING UNITS)
30%	0%
31% - 35%	10%
36% - 40%	15%
41% - 45%	20%

CHAPTER 19. SUBDIVISIONS**SECTION 19.10. MAJOR SUBDIVISIONS – OPTION 2 – CONVENTIONAL SUBDIVISION DESIGN STANDARDS**

DENSITY BONUSES IN CONSERVATION SUBDIVISIONS	
OPEN SPACE PROVIDED (% OF TOTAL DEVELOPMENT SITE)	DENSITY BONUS (% INCREASE IN ALLOWABLE NUMBER OF DWELLING UNITS)
46% - 50% [1]	25%
NOTES: [1] No additional units will be granted in the form of a density bonus for additional open space beyond 50% of the total site (gross area).	

SECTION 19.10. MAJOR SUBDIVISIONS – OPTION 2 – CONVENTIONAL SUBDIVISION DESIGN STANDARDS**A. APPLICABILITY**

The conventional subdivision option is permitted in all residential zoning districts shall comply with the requirements and standards specified in this Chapter and in all respects with other applicable codes and Ordinances. The stricter standards shall apply.

B. CLEARING & GRADING LIMITS

1. A maximum disturbance area of no more than 75 percent of a lot within a conventional option subdivision may be cleared of natural vegetation or otherwise disturbed.
2. This would allow for 25 percent of each lot to be preserved.
3. Clearing and grading limit line shall be delineated on each lot.

C. OPEN SPACE REQUIREMENTS

1. At least 5 percent of the tract to be subdivided must be preserved as public or private recreation and/or open space including the preservation of natural and cultural resources and/or to serve the leisure needs of the residents of the subdivision.
2. Passive or active recreation areas shall be located so as to provide accessibility to all residents of the subdivision.
3. Recreation and open space areas shall adhere to the standards set forth in Section 19.9.D.

D. PAYMENTS IN LIEU OF DEDICATION OF RECREATION REQUIREMENTS

1. Recreation and/ or open space required for conventional subdivisions may make a payment in lieu of dedication or make a combination of land dedicated and payment.
2. Before approving a payment in lieu of dedication, the Board of Commissioners shall find that no recreation/open space sites have been designated on any officially adopted Recreation Plan.
3. The Moore County Parks and Recreation Board shall submit any and all recommendations concerning the payment of fees in lieu of dedication to the Board of Commissioners.
4. The fees in lieu of dedication shall be paid prior to final plat approval.
5. The amount of the payment shall be the product of the number of acres to be dedicated and the assessed value for property tax purposes of the land being subdivided, adjusted to reflect its current fair market value at the time such payment is due to be paid.
6. All monies received by the County pursuant to this Section shall be used only for the acquisition or development of parks, greenways, and open space sites.

SECTION 19.11. MAJOR SUBDIVISION – CONSTRUCTION PROCESS**A. CONSTRUCTION PLAN SUBMITTAL**

1. Following preliminary plat approval, the subdivider shall submit eight paper copies and a digital copy of the construction plans to the Administrator.

CHAPTER 13. SPECIAL USE PERMITS

SECTION 13.4. APPLICATION PROCESS

2. MAJOR MODIFICATIONS

- i. Changes that materially affect the basic configuration of the development, basic parameters of conditions of approval, or that exceed the scope of a minor modification are considered major modifications.
- ii. Major modifications include, but are not limited to:
 - 01. Increases in building height;
 - 02. Changes in use designations;
 - 03. Changes in density or intensity;
 - 04. Decreases in open space;
 - 05. Substantial changes in the location of streets (particularly if streets are to be deleted or access points to the development moved so traffic flows both inside and outside the development are affected); and
 - 06. Change in the location of any public easement.
- iii. Major modifications shall be treated as an amendment that must be reviewed and considered in accordance with the procedures and standards established for the original approval of a special use permit application.

3. REPLACEMENT

If a special use is replaced by a use otherwise permitted by right in the zoning district, the special use permit approval is deemed abandoned and the special use permit approval is null and void.

4. EXPIRATION

Unless otherwise stated in the special use permit approval, a special use permit shall expire and become null and void two years after the date of issuance if:

- i. Substantial commencement of construction has not yet taken place; or
- ii. The authorized use has not commenced.

H. REVOCATION

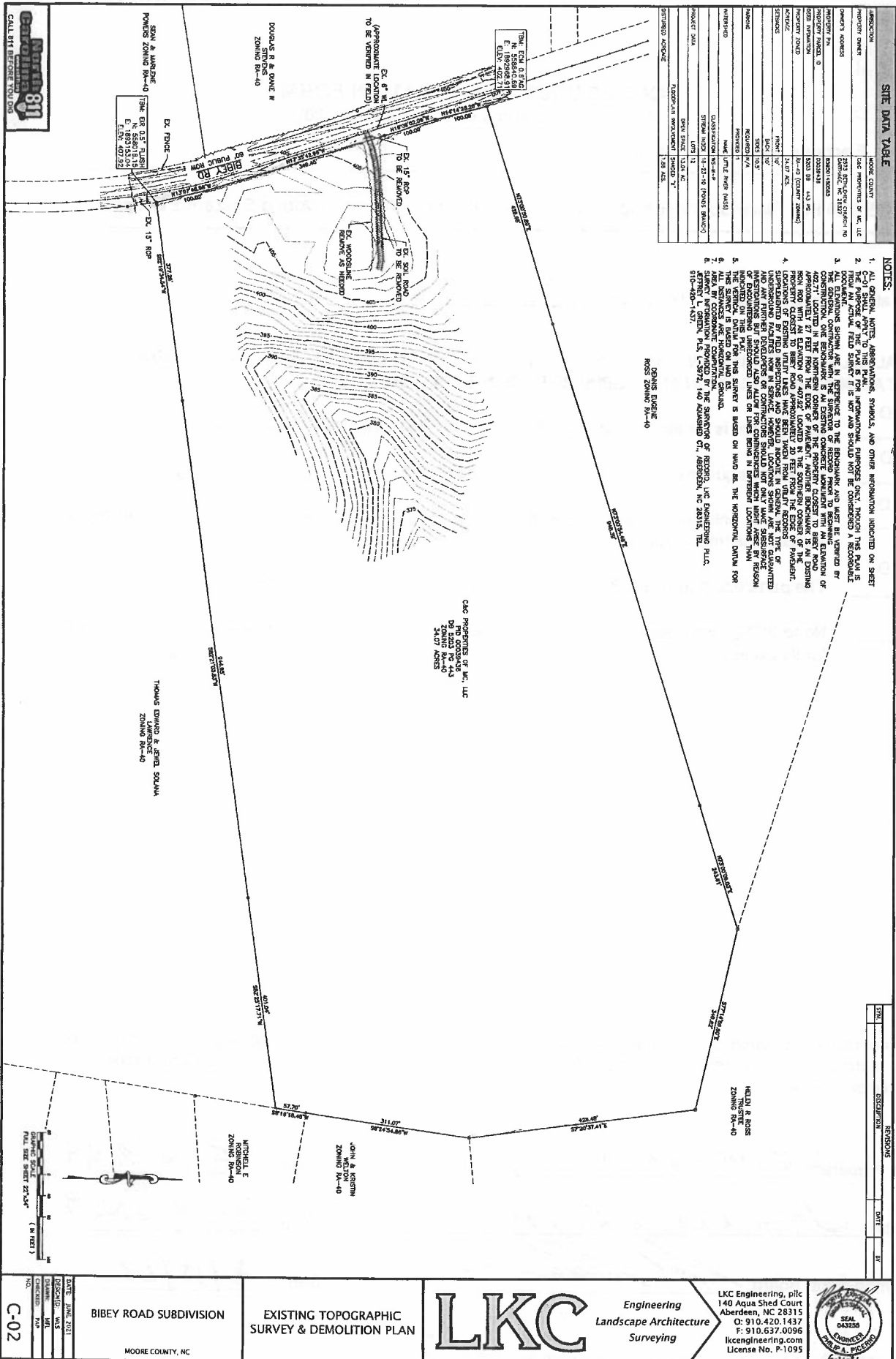
1. In the event of failure to comply with the plans or any other conditions imposed upon the special use permit approval, the Administrator shall give the permit holder 10 days written notice of intent to revoke the permit and request the permit holder to contact staff to set a reasonable time for the violation to be corrected.
2. If the permit is revoked and the special use has not ceased, the use is considered a violation of this Ordinance and subject to enforcement and penalties in Chapter 18.
3. A special use permit may only be revoked in accordance with the procedure used to grant its approval.

I. APPEAL

Appeal of a quasi-judicial decision made by the Board of Commissioners with respect to a special use permit application shall be made to the Superior Court for Moore County in accordance with Section 14.2, Appeal of Quasi-Judicial Decision.

[illegible]

File: L:\10-21-01\Bibey Rd. Subdivision.dwg - Drawing: 1010 Design: 1010 Date: 10/21/01 By: M. J. Moore, P.E. Plot Date: 10/21/01 At: 10:00 AM



SOLE SOURCE JUSTIFICATION FORM

(For items equal to or greater than \$30,000.00)

Vendor: Elections Systems & Software LLCItem: DS 200 Poll Place Scanner and Tabulator: Express Vote Universal Voting System ElectionsEstimated expenditure for the Above Item: \$ \$309,610.00

INITIAL ALL ENTRIES BELOW THAT APPLY TO THE PROPOSED PURCHASE. ATTACH A MEMO CONTAINING JUSTIFICATION AND SUPPORT DOCUMENTATION.

1. TDD Sole source is for the original manufacturer or provider, there are no area distributors.
2. TDD The parts/equipment are not interchangeable with similar parts of another manufacturer.
3. TDD This is the only known item or service that will meet the specialized needs of this department or perform the intended function.
4. TDD The parts/equipment are required from this source to permit standardization.
5. None of the above apply. Please comment below or attach a detailed explanation and justification for this sole source.

The undersigned requests that competitive procurement be waived and that the vendor identified as the supplier of the material or service described in this sole source justification be authorized as a sole source for the material or service.

Form Preparer: Jovanna D. Dyer Date: 8/04/2023Director: Jovanna D. Dyer Date: 8/04/2023Chairman of the Board: [Signature] Date: 8/15/23