

MAJOR SUBDIVISION APPLICATION
AND CHECKLIST

Chatham County Planning Department
P.O. Box 54
Pittsboro, NC 27312
Tel: (919) 542-8204
Fax: (919) 542-2698

Type of Review
 Sketch
 Preliminary
 Final

MAJOR SUBDIVISION APPLICATION

Name of Subdivision: Briar Chapel – Phase 5 North

Subdivision Applicant:

Subdivision Owner:

Name: Bill Mumford, Assistant Vice President

Name: NNP Briar Chapel LLC

Address: 16 Windy Knoll Circle
Chapel Hill, NC 27516

Address: 16 Windy Knoll Circle
Chapel Hill, NC 27516

Phone:(W) (919) 951-0713

Phone:(W) (919) 951-0713

Phone:(H) _____ Fax: (919) 951-0711

Phone:(H) _____ Fax: (919) 951-0711

E-Mail bmumford@newlandco.com

E-Mail bmumford@newlandco.com

Township: Baldwin Zoning: CUD-CC

P. I. N. # 9765-67-9169.000

Flood Map # 3710976500J Zone: AE

Parcel # 88052

Watershed: WS-IV PA

Existing Access Road: S.R. #1528/1526
S.R. road name Andrews Store / Parker Herndon

Total Acreage: Overall: 1586.26 ac

Total # of Lots: Overall: 2,389

Min. Lot Size: N/A per CCO approval

Ph. 5 North: 45.92 ac

Ph. 5 North # of lots 174

Max. Lot Size: N/A

Ph. II Acreage: _____

Ph. II # of lots _____

Avg. Lot Size: N/A

Ph. III Acreage _____

Ph. III # of lots _____

Name and date of contact with Chatham County Historical Association: Jane Pyle – 4/9/2003

Type of new road: Private/ Length 4,645 LF

Public/ Length 8,655 LF

Road Surface:

paved

gravel

Water System:

individual wells

community wells

public system

name Chatham County

Sewer System:

septic systems

community system

public system

name Provided by on-site facility

List other facilities: commercial, recreation, etc., and the approximate acreage or square footage:

Bumford 9-8-10 Date _____
Signature of Applicant

Bumford Date 9-8-10
Signature of Owner

For Office Use Only:

Notes: _____

Approved by County Commissioners:

Sketch _____

Preliminary _____

Final _____

Payment: Date _____ / _____ / _____ Amount: \$ _____

ADJACENT LAND OWNERS (Property owners across a road, easement, or waterway are considered adjacent land owners):

Legal notices are mailed to these owners, please **type or write neatly**, and include zip codes.

1. Cameron Properties LTD & Five Star Group LLC	11.
P.O. Box 3649	
Wilmington, NC 28406	
2. Marvin Meacham	12.
2915 Meacham Road	
Chapel Hill, NC 27516	
3. Briar Chapel Community Association	13.
50101 Governors Drive, Suite 100	
Chapel Hill, NC 27517	
4.	14.
5.	15.
6.	16.
7.	17.
8.	18.
9.	19.
10.	20.

**CHATHAM COUNTY
MAJOR SUBDIVISION
REVIEW CHECKLIST**

Subdivision Name Briar Chapel – Phase 5 North

Review For: Sketch Prelim Final

Attach all supporting documentation regarding these approvals. If approvals are still pending, attach applications for approval.

SKETCH DESIGN REVIEW	APPROVAL DATE
<input type="checkbox"/> 25 Copies of Plat with topo along with one (1) 8-1/2 x 11 copy	-----
<input type="checkbox"/> Application w/Complete Adjacent Owner Addresses	-----
<input type="checkbox"/> Soil Scientist Report and soil map	-----
<input type="checkbox"/> Confirmation from Chatham County Historical Association/Jane Pyle/542-3603	
<input type="checkbox"/> 1 electronic copy of all items above (see Digital Document Requirements)	
PRELIMINARY PLAT REVIEW	
<input checked="" type="checkbox"/> 25 Copies of Plat along with one (1) 8-1/2 x 11 copy
<input checked="" type="checkbox"/> Application w/ Complete Adjacent Owner Addresses
<input type="checkbox"/> Detailed Soils Map and Letter of explanation or D.E.M. approval {see Requirements for soil scientist report}	___/___/___
<input checked="" type="checkbox"/> NCDOT Approval (if public roads)	09 / 09 / 10
<input type="checkbox"/> DOT Comm. Driveway Permit	___/___/___
<input checked="" type="checkbox"/> Erosion Control Plan Approval (if new roads or one acre disturbed)	03 / 06 / 08
<input checked="" type="checkbox"/> U.S. Army Corps of Engineers Permit (if appl)	08/ 21/ 09
<input type="checkbox"/> Road Name Request Form	___/___/___
<input checked="" type="checkbox"/> County Public Water Approval (if applicable)	09 / 01 / 10
<input checked="" type="checkbox"/> State Public Water Approval (if applicable)	09 / 10 / 10
<input type="checkbox"/> Chatham Co. Schools' Road Comments (if new roads)	___/___/___
<input checked="" type="checkbox"/> Stormwater Management Plan Approval (if appl)	02 / 08 / 08
<input type="checkbox"/> Economic & Environmental Impact Study (if appl)	___/___/___
<input type="checkbox"/> Water / Sewer Impact Statement (if appl)	___/___/___
<input checked="" type="checkbox"/> 1 electronic copy of all items above (see Digital Document Requirements)	
FINAL PLAT REVIEW	
<input type="checkbox"/> 25 Copies of Plat	-----
<input type="checkbox"/> Application
<input type="checkbox"/> 1 electronic copy of all items above (see Digital Document Requirements)	___/___/___
<input type="checkbox"/> Chatham County Environmental Health Division septic improvement permits or NCDWQ septic permits for each lot.	___/___/___
<input type="checkbox"/> Road Completion Certificate or Financial Guarantee	___/___/___
<input type="checkbox"/> Utilities Completion Cert. or Financial Guarantee	___/___/___

Comment _____

Date Complete Application Rec'd: ___/___/___ By: _____

**CONDITIONAL USE PERMIT
STIPULATIONS RESPONSES**



ENGINEERS

SURVEYORS

PLANNERS

September 10, 2010

M&C 02735-0069 (40)

Lynn Richardson
Chatham County Planning
80-A East Street
Pittsboro, NC 27312-0130

RE: Briar Chapel – Phase 5 North
Conditional Use Permit Stipulations

Ms. Richardson:

The following are our responses to the Conditional Use Permit Stipulations which are in italics. The Phase 5 North responses are in bold:

1. *Construction Deadlines*

Phase 5 North: Proposed Start Date: January 1, 2011
Proposed Completion Date: June 30, 2012

2. *Land Use Intensity*

CUP

Gross Land Area = 1,589 Acres
Maximum Impervious Surface Area = 24%
Maximum Number of Dwelling Units = 2,389

Phase 5 North

Maximum Impervious Surface = 1.11%
Number of Dwelling Units = 174

3. *Watershed Management*

Phase 5 North: Prior to Final Plat, the Developer shall submit evidence of compliance satisfactory with the Planning Department.

4. *Stormwater Management*

Phase 5 North: A Stormwater Management Plan has been designed by McKim & Creed and approved by NCDENR DWQ. In addition, Curt Blazier of McKim & Creed has been in communication with Fred Royal,

Venture IV Building

Suite 500

1730 Varsity Drive

Raleigh, NC 27606

919.233.8091

Fax 919.233.8031

www.mckimcreed.com

Chatham County Environmental Resources Director, regarding the approved Stormwater Management Plan for this section. An engineer's certification that the stormwater control measures for this phase have been constructed

5. *Fire Flow*
Phase 5 North: The proposed water main design was approved by Chatham County Public Utilities and NCDENR Public Water Supply. The permit has been included with this Preliminary Plat submittal.
6. *Lighting Plan*
Phase 5 North: The Developer shall place note on Final Plat stating that lighting shall conform with Chatham County Lighting Ordinance.
7. *Utility and Access Easements*
Phase 5 North: All utility and access easements have been shown on the construction documents and approved.
8. *Unity of Development*
Phase 5 North: The residences projected for this phase will be consistent with those approved in the previous sections.
9. *Permits*
Phase 5 North: All applicable permits required for Preliminary Plat have been submitted to the Planning Department.
10. *Improvements*
Phase 5 North: The developer shall be responsible for all off-site improvements required for Briar Chapel in accordance with this stipulation. No off-site improvements are necessary for Phase 5 North.
11. *Parking and Off-Street Loading Areas*
Phase 5 North: Sidewalks are shown throughout this phase to provide for pedestrian and bicycle circulation. Parking spaces have been provided in the southeast portion of the phase near the mail kiosk. As per the approved Briar Chapel Conditional Use Application, locations for park-and-ride spaces and transit stops will be located within or near the Town Center, the Village Center and the Community Center and/or where any authorized transit authority may determine necessary. The Community Center is currently being used as a school bus stop.

12. *Streets*

Phase 5 North: Serenity Hill Circle is being extended from Phase 5 South Section 1 and will be stubbed out for future Phase 6 South. Tobacco Farm Way is being extended from Phase 4 and will be stubbed out for future Phase 6 North. Briar Chapel Parkway North and South will be extended and stubbed out west of this phase. The roadways will be constructed in accordance with NCDOT approved sections and design standards.

13. *Utilities*

Phase 5 North: The Developer has paid the required availability fee for the 174 lots that are part of Phase 5 North. Permit WQ0028552 dated May 18, 2009 from NCDENR regarding the reclamation facility and spray areas is attached in this Preliminary Plat Submittal. This permit includes the Phase 5 North project area.

14. *Public Facilities*

Phase 5 North: These Public Facilities are not present in this phase and will be addressed in the future phases in which they are planned.

15. *Landscaping/Screening*

Phase 5 North: (a) The road adjacent to the Tripp property was removed via zoning modification in 2006. (b). The pedestrian bridge connecting to Polks Landing has been installed and meets the Chatham county Flood Ordinance and was field located (by others) for minimum impact.

16. *Archaeological Survey*

Phase 5 North: The overall Briar Chapel Archaeological Survey Findings were previously submitted with the Phase 4 Preliminary Plat by John R. McAdams.

17. *Solid Waste Management Plan*

Phase 5 North: This plan was previously submitted with the Phase 4 Preliminary Plat by John R. McAdams.

18. *Detailed Site Plan*

Phase 5 North: The Site Plan included with this Preliminary Plat submittal conforms with the intent of the approved Briar Chapel Master Plan.

19. *Stages*
Phase 5 North: The Briar Chapel development is being constructed in phases.
20. *Moderate Income Housing*
Phase 5 North: The total number of platted lots in the Briar Chapel development is 453. Currently, there are 13 AHUs designated in Briar Chapel. There will be 6 designated AHUs in Phase 5 North. With the addition of the proposed 174 lots in Phase 5 North, the total number of lots will increase to 627 and the total number of AHUs would be 19, resulting in a 3.03% AHU rate which is greater than the 2.5% requirement.
21. *Environment*
Phase 5 North: All lots were previously removed from Bennett Mountain. The Developer will comply with the requirements of this stipulation.
22. *Erosion Control*
Phase 5 North: The approved plan and permit were submitted with the Preliminary Plat.
23. *Silt Control*
Phase 5 North: The approved plan and permit were submitted with the Preliminary Plat.
24. *thru 28.*
Phase 5 North: So noted.

If you have any questions during your review, please do not hesitate to give me a call at 919.233.8091.

Sincerely,
McKIM & CREED, P.A.

Curtis M. Blazier

Curt Blazier, PE, LEED AP
Project Engineer

PHASE 5 NORTH
SITE PLAN

**NC DENR DWQ AND USACOE
STREAM AND WETLAND IMPACTS**



North Carolina Department of Environment and Natural Resources

Division of Water Quality
Coleen H. Sullins
Director

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

August 31, 2009

Mr. William S. Mumford
NNP – Briar Chapel, LLC
16 Windy Knoll Circle
Chapel Hill, NC 27516

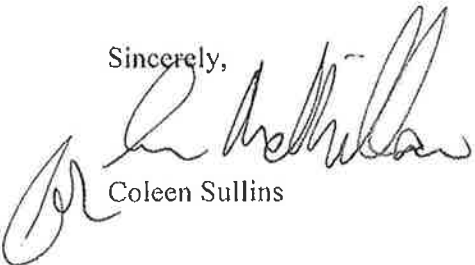
Re: Briar Chapel, Chatham County
DWQ Project # 20050732, Ver. 13; USACE Action ID. No. 200121252
APPROVAL of 401 Water Quality Certification with Additional Conditions - MODIFICATION

Dear Mr. Mumford:

Attached hereto is a copy of Certification No. 3567 issued to Mr. William S. Mumford of NNP- Briar Chapel, LLC, Inc., dated August 31, 2009. **This Certification replaces the Certification issued to you on January 11, 2008, July 21, 2009, and July 24, 2009.** In addition, you should get any other federal, state or local permits before you go ahead with your project including (but not limited to) Solid Waste, Sediment and Erosion Control, Stormwater, Dam Safety, Non-discharge and Water Supply Watershed regulations.

If we can be of further assistance, do not hesitate to contact us.

Sincerely,



Coleen Sullins

CHS/cbk/ijm

Attachments: Certificate of Completion

cc: Becky Fox, EPA, 1307 Firefly Road, Whittier, NC 28789
U.S. Army Corps of Engineers, Raleigh Regulatory Field Office, Wilmington District
Lauren Witherspoon, DWQ Raleigh Regional Office
DLR, Raleigh Regional Office
File Copy
Nicole Thomson, S&EC, P.A., 11010 Raven Ridge Road, Raleigh, NC 27614

Filename: 050732Ver13BriarChapel(Chatham)401_IC_MOD2_Revised

NORTH CAROLINA 401 WATER QUALITY CERTIFICATION

THIS CERTIFICATION is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality (DWQ) Regulations in 15 NCAC 2H, Section .0500 to Mr. William S. Mumford of NNP- Briar Chapel, LLC to fill 0.4374 acres of 404/wetland (permanent impact), 0.197 acres 404/wetland (temporary impact), 2,154 linear feet of perennial stream (permanent impact), 612 linear feet of perennial stream (temporary impact), 83 linear feet of intermittent stream (permanent impact), and 22 linear feet of intermittent stream (temporary impact), in the Cape Fear River Basin, to construct the Briar Chapel residential and mixed use development at the site. The site is located west of U.S. Highway 15-501, and north of Andrew's Store Road (SR 1528), and south of Mann's Chapel Road (SR 1532), approximately 5 miles south of Chapel Hill, in Chatham County, North Carolina, pursuant to a permit application dated May 8, 2009, and received by the DWQ on May 8, 2009, by Public Notice issued by the USACE on May 22, 2009, and received by the DWQ on May 22, 2009, and by all additional correspondences received by the DWQ on May 20, 2009 and June 25, 2009.

The application and supporting documentation provides adequate assurance that the proposed work will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Sections 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application, the supporting documentation, and conditions hereinafter set forth.

This approval is only valid for the purpose and design submitted in the application materials and as described in the Public Notice. If the project is changed, prior to notification a new application for a new Certification is required. If the property is sold, the new owner must be given a copy of the Certification and approval letter and is thereby responsible for complying with all conditions of this Certification. Any new owner must notify the Division and request the Certification be issued in their name. Should wetland or stream fill be requested in the future, additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). If any plan revisions from the approved site plan result in a change in stream or wetland impact or an increase in impervious surfaces, the DWQ shall be notified in writing and a new application for 401 Certification may be required. For this approval to be valid, compliance with the conditions listed below is required.

Conditions of Certification:

1. Impacts Approved

The following impacts are hereby approved as long as all of the other specific and general conditions of this Certification (or Isolated Wetland Permit) are met. No other impacts are approved including incidental impacts:

Type of Impact	Amount Approved (Units)	Plan Location or Reference
404/401 Wetlands	0.4374 (acres) – permanent impact	Table 2, Application, and Public Notice
404/401 Wetlands	0.197 (acres) – temporary impact	Table 2, Application, and Public Notice
Stream (perennial)	2,154 (linear feet) – permanent impact	Table 2, Application, and Public Notice
Stream (perennial)	612 (linear feet) – temporary impact	Table 2, Application, and Public Notice
Stream (intermittent)	83 (linear feet) – permanent impact	Table 2, Application, and Public Notice
Stream (intermittent)	22 (linear feet) – temporary impact	Table 2, Application, and Public Notice

Sediment and Erosion Control:

2. Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to protect surface waters standards:
 - a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
 - b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
3. No waste, spoil, solids, or fill of any kind shall occur in wetlands, waters, or riparian areas beyond the footprint of the impacts depicted in the 404/401 Permit Application. All construction activities, including the design, installation, operation, and maintenance of sediment and erosion control Best Management Practices, shall be performed so that no violations of state water quality standards, statutes, or rules occur;
4. Sediment and erosion control measures shall not be placed in wetlands or waters without prior approval from the Division. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, design and placement of temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or stream beds or banks, adjacent to or upstream and down stream of the above structures. All sediment and erosion control devices shall be removed and the natural grade restored within two (2) months of the date that the Division of Land Resources or locally delegated program has released the project.
5. Protective Fencing - The outside buffer, wetland or water boundary and along the construction corridor within these boundaries approved under this authorization shall be clearly marked with orange warning fencing (or similar high visibility material) for the areas that have been approved to infringe within the buffer, wetland or water prior to any land disturbing activities.

Continuing Compliance:

6. Mr. William S. Mumford and NNP- Briar Chapel, LLC shall conduct construction activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with section 303(d) of the Clean Water Act) and any other appropriate requirements of State law and federal law. If the Division determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, the Division may reevaluate and modify this Certification to include conditions appropriate to assure compliance with such standards and requirements in accordance with 15A NCAC 2H.0507(d). Before modifying the Certification, the Division shall notify Mr. William S. Mumford and NNP- Briar Chapel, LLC and the US Army Corps of Engineers, provide public notice in accordance with 15A NCAC 2H.0503 and provide opportunity for public hearing in accordance with 15A NCAC 2H.0504. Any new or revised conditions shall be provided to Mr. William S. Mumford and NNP- Briar Chapel, LLC in writing, shall be provided to the United States Army Corps of Engineers for reference in any Permit issued

pursuant to Section 404 of the Clean Water Act, and shall also become conditions of the 404 Permit for the project;

7. Construction Stormwater Permit NCG010000

Upon the approval of an Erosion and Sedimentation Control Plan issued by the Division of Land Resources (DLR) or a DLR delegated local erosion and sedimentation control program, an NPDES General stormwater permit (NCG010000) administered by DWQ is automatically issued to the project. This General Permit allows stormwater to be discharged during land disturbing construction activities as stipulated by conditions in the permit. If your project is covered by this permit [applicable to construction projects that disturb one (1) or more acres], full compliance with permit conditions including the sedimentation control plan, self-monitoring, record keeping and reporting requirements are required. A copy of this permit and monitoring report forms may be found at http://h2o.enr.state.nc.us/su/Forms_Documents.htm.

Mitigation:

8. Compensatory Mitigation

~~Compensatory stream mitigation shall be accomplished by using 2,127 linear feet of stream mitigation credit at the Harpers Crossroads stream mitigation site and the remaining 27 linear feet of required stream credit (10:1 ratio = 270 linear feet) from the 63,412 linear feet of available onsite stream preservation. These mitigation efforts shall be protected through use of conservation easement written to satisfy the US Army Corps of Engineers. Uses which may be allowable in the protected stream buffers include water dependent activities and greenway trails upon additional written approval of the Division of Water quality and the US Army Corps of Engineers. These provisions should be explicitly reflected in the conservation easements, or similar mechanisms, written to satisfy the USACE.~~

The Permittee shall provide stream restoration in accordance with the plan entitled 'Harpers Crossroads Stream Restoration Plan,' dated September 2005. The restoration site, which was authorized with a separate DA nationwide permit (USACE Action Id No. 200420489) has already been constructed. The as-built report dated June 12, 2006 states the total stream restoration generated by the project as 2,127 linear feet. Within 90 days of the USACE's determination that the Harpers Crossroads Stream Restoration Project has met the success criteria outlined in the 'Harpers Crossroads Stream Restoration Plan,' the permittee shall arrange for the transfer of the existing conservation easements to a third-party grantee, subject to approval by the USACE.

Type of Impact	Compensatory Mitigation Required	River and Sub-basin Number
Stream (perennial)	2,154 (linear feet)	Cape Fear/03030002

9. Stormwater Management Plan Implementation Procedures (No Further Approval Needed)

- The approved SMP must be constructed and operational before any permanent building or other structure is occupied at the site. If a development is phased, then the approved SMP for each future phase must be constructed and operational before any permanent building or other structure associated with that phase is occupied.
- The approved SMP as well as drainage patterns must be maintained in perpetuity.
- The SMP may not be modified without prior written authorization from the SMP approval authority. If the SMP falls under another state stormwater program, then a copy of the approval letter and the modified SMP must be submitted to the 401 Oversight/Express Unit prior to the commencement of the modifications.

10. Culvert Installation

All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual (http://www.ncdot.org/doh/operations/BMP_manual/download/BMP_Manual.pdf) such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water.

Culverts required for this project shall be installed in such a manner that the original stream profiles are not altered. Existing stream dimensions (including the cross section dimensions, pattern, and longitudinal profile) must be maintained above and below locations of each culvert. Culverts shall be designed and installed to allow for aquatic life movement as well as to prevent head cutting of the streams. If any of the existing pipes are or become perched, the appropriate stream grade shall be re-established or, if the pipes installed in a perched manner, the pipes shall be removed and re-installed correctly.

Culvert(s) shall not be installed in such a manner that will cause aggradation or erosion of the stream up or down stream of the culvert(s). Existing stream dimensions (including the cross section dimensions, pattern and longitudinal profile) shall be maintained above and below locations of each culvert.

~~Placement of culverts and other structures in waters, streams, and wetlands must be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in disequilibrium of wetlands or streambeds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium shall be maintained if requested in writing by DWQ.~~

The establishment of native, woody vegetation and other soft stream bank stabilization techniques must be used where practicable instead of rip rap or other bank hardening methods. If rip-rap is necessary, it shall not be placed in the stream bed, unless specifically approved by the Division of Water Quality.

Installation of culverts in wetlands must ensure continuity of water movement and be designed to adequately accommodate high water or flood conditions.

Upon completion of the project, the Applicant shall complete and return the enclosed "Certificate of Completion" form to notify NCDWQ when all work included in the §401 Certification has been completed. The responsible party shall complete the attached form and return it to the 401/Wetlands Unit of the NC Division of Water Quality upon completion of the project. *Please send photographs upstream and downstream of each culvert site to document correct installation along with the Certificate of Completion form.*

11. Certificate of Completion

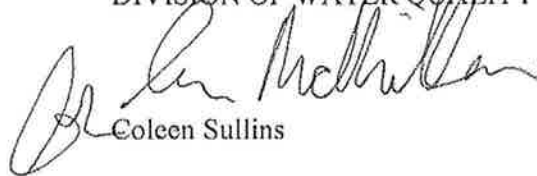
Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return the attached certificate of completion to the 401/Wetlands Unit, North Carolina Division of Water Quality, 1650 Mail Service Center, Raleigh, NC, 27699-1650.

Also, this approval to proceed with your proposed impacts or to conduct impacts to waters as depicted in your application shall expire upon expiration of the 404 or CAMA Permit.

August 31, 2009

If this Certification is unacceptable to you, you have the right to an adjudicatory hearing upon written request within sixty (60) days following receipt of this Certification. This request must be in the form of a written petition conforming to Chapter 150B of the North Carolina General Statutes and filed with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, N.C. 27699-6714. If modifications are made to an original Certification, you have the right to an adjudicatory hearing on the modifications upon written request within sixty (60) days following receipt of the Certification. Unless such demands are made, this Certification shall be final and binding.

This the 31st day of August 2009
DIVISION OF WATER QUALITY



Coleen Sullins

CHS/cbk/ijm

3567



North Carolina Department of Environment and Natural Resources
Division of Water Quality

Beverly Eaves Perdue
Governor

Coleen H. Sullins
Director

Dee Freeman
Secretary

DWQ Project No.: 05-0732 U13 County: Chatham

Applicant: _____

Project Name: _____

Date of Issuance of 401 Water Quality Certification: aug 31, 2009

Certificate of Completion

Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401/Wetlands Unit, North Carolina Division of Water Quality, 1650 Mail Service Center, Raleigh, NC, 27699-1650. This form may be returned to DWQ ~~by the applicant, the applicant's authorized agent, or the project engineer. It is not necessary to send certificates from all of these.~~

Applicant's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Agent's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

If this project was designed by a Certified Professional

I, _____, as a duly registered Professional _____ (i.e., Engineer, Landscape Architect, Surveyor, etc.) in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project, for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Registration No. _____

Date _____



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
69 DARLINGTON AVENUE
WILMINGTON, NORTH CAROLINA 28403-1343

August 21, 2009

Regulatory Division

Action ID. 200121252

Mr. William S. Mumford
NNP – Briar Chapel, LLC
16 Windy Knoll Circle
Chapel Hill, North Carolina 27516

Dear Mr. Mumford:

Reference the Department of the Army (DA) permit issued on October 2, 2006, to Mitch Barron of Newland Communities for impacts associated with the Briar Chapel Development. Also reference the modification to this permit approved in December, 2007. This development is approximately 1,589 acres in size and is located west of US Highway 15-501, north of Andrew's Store Road (SR 1528), and south of Mann's Chapel Road (SR 1532), approximately 5 miles south of Chapel Hill, in Chatham County, North Carolina. Coordinates (in decimal degrees) for the site are 35.8251 ° North, 79.1059 ° West. The site contains several unnamed tributaries and adjacent wetlands of Pokeberry Creek and Wilkinson Creek, in the Cape Fear River Basin (8-Digit Cataloging Unit 03030002).

Permanent impacts authorized by this permit and the subsequent 2007 modification totaled 1,666 linear feet of stream channel and 0.4422 acre of wetland, and temporary impacts totaled 359 linear feet of stream channel and 0.156 acre of wetlands. Mitigation was implemented for the unavoidable impacts by: a) Payment into the North Carolina Ecosystem Enhancement Program for the restoration of 0.6655 acre of riparian wetlands; b) Restoration of 2,127 linear feet of stream channel at the Harpers Crossroads Mitigation Site; and c) On-site preservation of 59.3 acres of wetlands and 63,412 linear feet of stream channel.

Also reference your permit modification request received by the Corps on May 8, 2009. This modification was to address impact amounts and location changes associated with roadway crossings in and near the development. Also included within the requested modification were impacts associated with restoration to streams and wetlands as required to satisfy an existing on-site Clean Water Act violation. On May 22, 2009, a Public Notice was issued detailing this modification request which would bring total impacts associated with Briar Chapel to: 2,237 linear feet of permanent stream channel, 634 linear feet of temporary stream channel, 0.4374 acre of permanent wetland impact,

and 0.197 acres of temporary wetland impact. Please note the attached Tables 1, 2, and 3; originally created by your consultant S&EC, which describe the impact history by site number and amount. No additional mitigation was proposed due to the relatively large amount of preservation mitigation required within the original permit.


The Corps has completed the evaluation of your request and concurs with your request for a change in impacts associated with your referenced DA permit including the change to plans as requested. No additional mitigation is required for this modification.

Special condition 1 of your permit is hereby modified to read:

“All work authorized by this permit must be performed in strict compliance with the attached plans, Exhibit A, Exhibit E, and/or Exhibit F which are a part of this permit. These plans reflect the original proposal, Exhibit A; and the modifications as depicted within the January 26, and the revised June 7, 2007, proposals as shown in Exhibit E, and the modification request of May 8, 2009, as shown in Exhibit F. Only the attached modification plans reflect approved changes to the original plans, therefore any additional deviations from the original plans are not approved per this modification and any further modification to the plans must be approved by the US Army Corps of Engineers (USACE) prior to implementation. The temporary impacts as identified on Exhibit E shall be removed by May 1, 2008, or the project shall be considered non-compliant with this condition. In addition, the following time deadlines are hereby established for work considered authorized under this 2009 permit modification: all impacts, both temporary and permanent, as shown in the stream repair and stabilization document received with the modification application on May 8, 2009, must be completed prior to April 15, 2010; and all additional temporary impacts, not requested within the stream repair and stabilization document but requested and authorized under this 2009 modification, shall be removed within 30 days of the completion of each respective crossing. Proper documentation of permit compliance for this 2009 modification shall be submitted to the Corps of Engineers Regulatory Representative via email on or before April 15, 2010, or at the time of each temporary impact removal, respectively. ”

Please note that all other permit conditions and exhibits remain in effect as written. Should you have questions, contact Mr. Monte Matthews, Raleigh Regulatory Field Office at telephone (919) 554-4884, Extension 30.

Sincerely,


for/ Jefferson M. Ryscavage
Colonel, U.S. Army
District Commander

Attachments

Copy Furnished (w/o attachment)

Ms. Cyndi Karoly
Division of Water Quality
North Carolina Department of Environment
and Natural Resources
2321 Crabtree Boulevard, Suite 250
Raleigh, NC 27604

Copy Furnished (w/attachment)

Ms. Nicole Thomson
Soil & Environmental Consultants
11010 Raven Ridge Road
Raleigh, NC 27614

TABLE 1
 PREVIOUSLY PERMITTED IMPACTS
 Regulatory Branch

Impact	Classification	Impact Type	Original permitted Stream impacts (5/9/06 & 10/2/2006)	Original permitted Wetland impacts (5/9/06 & 10/2/2006)	Approved Modification Stream impacts (12/05/07 & 1/11/08)	Approved Modification Wetland impacts (12/05/07 & 1/11/08)
A	Wetland	Road Crossing	0	0.0341 ac. perm wetland impact	N/A	N/A
B	Perennial Stream/Wetland	Road Crossing	141 LF perm. stream impact	0.0018 ac. perm. wetland impact	N/A	N/A
C	Perennial Stream	Bridge	0	0	N/A	0
D	Perennial Stream/Wetland	Road Crossing	140 LF perm. stream impact	0.0320 ac. perm. wetland impact	N/A	N/A
E	Perennial Stream	Road Crossing	129 LF perm. stream impact	0.0064 ac. perm. wetland impact	N/A	N/A
F	Perennial Stream	Road Crossing	155 LF perm. stream impact	0	197 LF perm. stream impact & 41 LF temp. stream impact	0
G	Perennial Stream/Wetland	Road Crossing	238 LF perm. stream impact	0.0030 ac. perm. wetland impact	271 LF perm. stream impact & 26 LF temp. stream impact	0.010 ac. perm. wetland impact
H	Perennial Stream	Road Crossing	166 LF perm. stream impact	0	262 LF perm. stream impact & 50 LF temp. stream impact	0
I	Perennial Stream/Wetland	Road Crossing	91 LF perm. stream impact	0.0003 ac. perm. wetland impact	83 LF perm. stream impact & 31 LF temp. stream impact	0.002 ac. perm. wetland impact & 0.019 ac. temp. wetland impact
J	Perennial Stream	Road Crossing	150 LF perm. stream impact	0	N/A	N/A
K	Intermittent Stream/Wetland	Road Crossing	150 LF perm. stream impact	0.2320 ac. perm. wetland impact	ELIMINATED	ELIMINATED
L	Perennial Stream	Road Crossing	114 LF perm. stream impact	0	N/A	N/A
M	Perennial Stream	Road Crossing	220 LF perm. stream impact	0	N/A	N/A
N	Wetland	Fill	0	0.3559 ac. perm. wetland impact	N/A	N/A
O	Perennial Stream	Road Crossing	109 LF perm. stream impact	0	N/A	N/A
*p	Wetland	Road Crossing	0	0.062 ac perm. wetland impact	N/A	N/A
Q	Perennial Stream/Wetland	Pedestrian Bridge	not part of orig. submittal	N/A	N/A	added to mod./no impact
R	Wetland/Beaver Impoundment	Pedestrian Bridge	not part of orig. submittal	N/A	N/A	added to mod./no impact

TABLE 1
 PREVIOUSLY PERMITTED IMPACTS

Impact	Classification	Impact Type	Original permitted Stream impacts (5/9/06 & 10/2/2006)	Original permitted Wetland impacts (5/9/06 & 10/2/2006)	Approved Modification Stream impacts (12/05/07 & 1/11/08)	Approved Modification Wetland impacts (12/05/07 & 1/11/08)
1	Perennial Stream	Utility	20 LF temp. stream impact	0	N/A	N/A
2	Perennial Stream	Utility	20 LF temp. stream impact	0	N/A	N/A
3	Perennial Stream	Utility	21 LF temp. stream impact	0	N/A	N/A
4	Perennial Stream	Utility	35 LF temp. stream impact	0	N/A	N/A
5	Perennial Stream	Utility	36 LF temp. stream impact	0	N/A	N/A
6	Perennial Stream	Utility	35 LF temp. stream impact	0	N/A	N/A
7	Perennial Stream	Utility	20 LF temp. stream impact	0.123 ac. temp. wetland impact	N/A	N/A
8	Perennial Stream	Utility	24 LF temp. stream impact	0	N/A	N/A
9	Wetland	Utility	0	0.0140 temp. wetland impact	N/A	N/A
Original Permitted Totals:			1,653 LF perm. Stream impact & 211 LF temp. Stream impact	0.6655 ac. perm. Wetland impact & 0.137 ac. temp. Wetland impact	1,666 LF perm. Stream impact & 359 LF temp. Stream Impact	0.4422 ac. perm. Wetland impact & 0.156 ac. temp. Wetland impact
			New Permitted Totals 2007/2008			

* Crossings J and P were eliminated prior to 404 and 401 Approvals in 2006

TABLE 2
2009 REVISED IMPACTS

Impact	Classification	Impact Type	Revised Stream Impacts	Revised Wetland Impacts
A	Wetland	Road Crossing	4 LF perm. stream impact	0.0372 ac. perm. wetland impact & 0.0264 ac. temp. wetland impact
B	Perennial Stream/Wetland	Road Crossing	166 LF perm. stream impact & 14 LF temp. stream impact	0.0018 ac. perm wetland (NO CHANGE TO PERM) & 0.0063 ac. temp. wetland impact
C	Perennial Stream	Bridge	0	0
D	Perennial Stream/Wetland	Road Crossing	181 LF perm. stream impact & 39 LF temp. stream impact	0.0282 ac. perm. wetland impact & 0.0077 ac. temp. wetland impact
E	Perennial Stream	Road Crossing	129 LF perm. stream impact & 40 LF of temp. stream impact	0.0065 ac. perm. wetland impact
F	Perennial Stream	Road Crossing	213 LF perm. stream impact & 56 LF temp. stream impact	0
G	Perennial Stream/Wetland	Road Crossing	296 LF perm. stream impact & 26 LF temp. stream impact (NO CHANGE TO TEMP.)	0.0095 ac. perm. wetland impact
H	Perennial Stream	Road Crossing	257 LF perm. stream impact & 55 LF temp. stream impact	0
I	Perennial Stream/Wetland	Road Crossing	83 LF perm. stream impact & 22 LF perm. stream impact (NO CHANGE TO PERM.)	0.0003 ac. perm. wetland impact & 0.0196 ac. temp. wetland impact
L	Perennial Stream	Road Crossing	123 LF perm. stream impact & 20 LF of temp. stream impact	0
M	Perennial Stream	Road Crossing	310 LF perm. stream impact & 50 LF temp. stream impact	0
N	Wetland	Road Crossing/Lot Fill	0	0.3449 ac. perm. wetland impact
O	Perennial	Road Crossing	148 LF perm. stream impact & 8 LF temp. stream impact	0
S	Perennial Stream	Road Widening (NEW)	58 LF perm. stream impact & 24 LF temp. stream impact	0
T	Perennial Stream	Road Widening (NEW)	36 LF perm. stream impact & 20 LF temp. stream impact	0
U	Perennial Stream	Road Widening (NEW)	233 LF perm. stream impact & 21 LF temp. stream impact	0.009 ac. perm. wetland impact
1	Perennial Stream	Utility	20 LF temp. stream impact (NO CHANGE)	0
2	Perennial Stream	Utility	20 LF temp. stream impact (NO CHANGE)	0
3	Perennial Stream	Utility	21 LF temp. stream impact (NO CHANGE)	0
4	Perennial Stream	Utility	41 LF temp. stream impact	0
5	Perennial Stream	Utility	50 LF temp. stream impact	0
6	Perennial Stream	Utility	43 LF temp. stream impact	0
7	Perennial Stream	Utility	20 LF temp. stream impact (NO CHANGE)	0.123 ac. temp. wetland impact (NO CHANGE)
8	Perennial Stream	Utility	24 LF temp. stream impact (NO CHANGE)	0 (NO CHANGE)
9	Wetland	Utility	0 (NO CHANGE)	0.0140 temp. wetland impact (NO CHANGE)
TOTALS			2,237 LF perm. stream impact & 634 LF temp. stream impact	0.4374 ac. perm. wetland impact & 0.197 ac. temp. wetland impact

TABLE 3
NET DIFFERENCES IN IMPACTS

Impact	Classification	Impact Type	Net difference Stream Impact	Net difference Wetland Impact
A	Wetland	Road Crossing	+ 4 LF perm. stream impact	+0.0031 ac. perm. wetland impact & +0.0264 ac. temp wetland impact
B	Perennial Stream/Wetland	Road Crossing	+25 LF perm. stream impact & + 14LF temp. stream impact	+0.0063 ac. temp. wetland impact
C	Perennial Stream	Bridge	0	0
D	Perennial Stream/Wetland	Road Crossing	+41 LF perm. stream impact & +39 LF temp. stream impact	-0.0038 ac. perm. wetland impact & +0.0077 ac. temp. wetland impact
E	Perennial Stream	Road Crossing	0 LF perm. stream impact & + 40 LF temp. stream impact	+0.0001 ac. perm. wetland impact
F	Perennial Stream	Road Crossing	+16 LF perm. stream impact & +15 LF temp. stream impact	0
G	Perennial Stream/Wetland	Road Crossing	+25 LF perm. stream impact	-0.0005 ac. perm. wetland impact
H	Perennial Stream	Road Crossing	-5 LF perm. stream impact & +5 LF temp. stream impact	0
I	Perennial Stream/Wetland	Road Crossing	0 LF perm. stream impact & - 9 LF temp. stream impact	-0.0017 ac. perm. wetland impact & +0.0006 ac. temp. wetland impact
L	Perennial Stream	Road Crossing	+9 LF perm. stream impact & +20 LF temp. stream impact	0
M	Perennial Stream	Road Crossing	+90 LF perm. stream impact & +50 LF temp. stream impact	0
N	Wetland	Fill	0	-0.011 ac. perm. wetland impact
O	Perennial Stream	Road Crossing	+39 LF perm. stream impact & + 8 LF temp. stream impact	
S	Perennial Stream	Road Widening (NEW)	+58 LF perm. stream impact & +24 LF temp. stream impact	0
T	Perennial Stream	Road Widening (NEW)	+36 LF perm. stream impact & +20 LF temp. stream impact	0
U	Perennial Stream	Road Widening (NEW)	+233 LF perm. stream impact & +21 LF temp. stream impact	+0.009 ac. perm. wetland impact
1	Perennial Stream	Utility	0	0
2	Perennial Stream	Utility	0	0
3	Perennial Stream	Utility	0	0
4	Perennial Stream	Utility	+6 LF temp. stream impact	0
5	Perennial Stream	Utility	+14 LF temp. stream impact	0
6	Perennial Stream	Utility	+8 LF temp. stream impact	0
7	Perennial Stream	Utility	0	0
8	Perennial Stream	Utility	0	0
9	Wetland	Utility	0	0
TOTALS NET FOR PROJECT			+571 LF perm./+275 LF temp.	-0.0048 ac. perm./+0.041 ac. temp.

NCDENR DWQ

STORMWATER MANAGEMENT PLAN



Michael F. Easley, Governor

William G. Ross Jr., Secretary
North Carolina Department of Environment and Natural ResourcesColeen H. Sullins, Director
Division of Water Quality

February 8, 2008

DWQ Project # EXP 05-0732v8
Chatham County

NNP—Briar Chapel, LLC
Attn: Mr. Mitch Barron, Vice President Newland Communities
5850 Fayetteville Road, Suite 201
Durham, NC 27713

Subject Property: Briar Chapel Community, Phase 5 North

APPROVAL OF STORMWATER MANAGEMENT PLAN

Dear Mr. Barron:

The Division of Water Quality (DWQ) has reviewed the Stormwater Management Plan dated January 25, 2008 and subsequent revisions dated February 6, 2008 prepared by your engineer, Mr. Jeremy Finch, P.E., of John R. McAdams Company, Inc. This plan has been approved by the DWQ and partially satisfies the stormwater conditions required by the Individual Water Quality Certification issued on May 9, 2006. You are required to meet the following conditions:

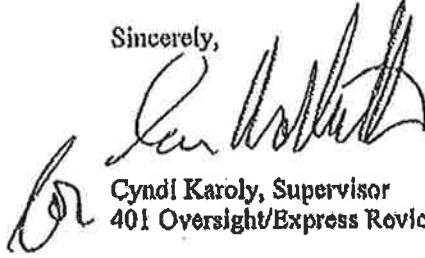
1. The stormwater treatment system, which includes two wet detention ponds (Nos. 7 & 8), permanent preformed scour holes E1 and F1, and forested filter strips, as approved by this Office, and the drainage patterns depicted on the plan sheets, must be maintained *in perpetuity*. Temporary preformed scour holes C1 and D1.2, as approved by this Office, must also be maintained until the connecting phase (Briar Chapel Phase 5 South) is completed. No changes to the structural stormwater practices shall be made without written authorization from the Division of Water Quality. The stormwater easements shall allow for the ability to maintain the structures, perform corrective actions, and shall provide protection of the structures from potential alternations by future property owners.
2. Any structure, facility or amenity that will increase the impervious amount of the low density area associated with the permanent preformed scour holes E1 and F1 shall not be constructed without prior approval of a modified stormwater treatment system from DWQ.
3. You must submit three (3) copies of an executed Declaration of Covenants and Restrictions - Riparian Areas document within thirty (30) days of recording with the Register of Deeds, Chatham County, North Carolina.
4. The applicant and/or authorized agent shall contact the DWQ Express Review Program in writing at the letterhead address within ten (10) days of the commencement of construction.

This letter completes the review of the Division of Water Quality under Section 401 of the Clean Water Act. If you have any questions, please contact Joseph Gyamfi or Lia Myott at 919-733-1786.

Briar Chapel Phase 5 North SWMP

Page 2 of 2
February 8, 2008

Sincerely,



Cyndi Karoly, Supervisor
401 Oversight/Express Review Program

CBK/jg

cc: USACE Raleigh Regulatory Field Office
DWQ Raleigh Regional Office
File Copy
Central Files
Jeremy Finch, P.E., John R. McAdams Co., Inc., 2905 Meridian Pkwy., Durham, NC 27713

NCDENR DWQ

SANITARY SEWER EXTENSIONS



North Carolina Department of Environment and Natural Resources
Division of Water Quality

Beverly Eaves Perdue
Governor

Coleen H. Sullins
Director

Dee Freeman
Secretary

September 1, 2010

Bill Mumford, Assistant Vice President
NNP Briar Chapel, LLC
16 Windy Knoll Circle
Chapel Hill, NC 27516

Subject: Permit No. WQ0033071 Modification
Briar Chapel Phase 5 North
Wastewater Collection System Extension
Chatham County

Dear Mr. Mumford:

In accordance with your permit modification application received August 24, 2010, we are forwarding herewith modified Permit No. WQ0033071 dated September 1, 2010, to NNP Briar Chapel, LLC, for the construction and operation of the subject wastewater collection system extension. This permit shall be effective from the date of issuance until rescinded, shall void modified permit WQ0033071 issued April 14, 2009, and shall be subject to the conditions and limitations as specified therein. This cover letter shall be considered a part of this permit and is, therefore, incorporated therein by reference. This modification changes the number of lots covered by this permit from 192 to 174, and allocates flow for the 174 lots permitted herein.

Please pay particular attention to:

- a) Permit Condition 3 that requires the wastewater collection facilities be properly operated and maintained in accordance with 15A NCAC 02T .0403 or any individual system-wide collection system permit issued to the Permittee, and
- b) Permit condition 3.e which requires high-priority aerial sewer lines be inspected at least once per every six-month period of time, and
- c) Permit Condition 6 that requires Engineering Certification prior to operation of this collection system extension.

Permitting of this project does not constitute an acceptance of any part of the project that does not meet 15A NCAC 2T; the Division of Water Quality's (Division) Gravity Sewer Minimum Design Criteria adopted February 12, 1996 as applicable; and the Division's Minimum Design Criteria for the Fast-Track Permitting of Pump Stations and Force Mains adopted June 1, 2000 as applicable, unless specifically mentioned herein. Division approval is based on acceptance of the certification provided by a North Carolina-licensed Professional Engineer in the application. It shall be the Permittee's responsibility to ensure that the as-constructed project meets the appropriate design criteria and rules. Failure to comply may result in penalties in accordance with North Carolina General Statute §143-215.6A through §143-215.6C, construction of additional or replacement wastewater collection facilities, and/or referral of the North Carolina-licensed Professional Engineer to the licensing board.

One
North Carolina
Naturally

In accordance with the provisions of Article 21 of Chapter 143, General Statutes of North Carolina as amended, and other applicable Laws, Rules, and Regulations, permission is hereby granted to NNP Briar Chapel, LLC, for the construction and operation of

- approximately 8,860 linear feet of 8-inch gravity sewer

to serve 174 single family dwellings as part of the Briar Chapel Phase 5 North project, and the discharge of 43,500 gallons per day of collected domestic wastewater into the Briar Chapel Utilities' existing sewerage system, pursuant to the modification application received August 24, 2010, and in conformity with 15A NCAC 2T; the Division's Gravity Sewer Minimum Design Criteria adopted February 12, 1996 as applicable; the Division's Minimum Design Criteria for the Fast-Track Permitting of Pump Stations and Force Mains adopted June 1, 2000 as applicable; and other supporting data subsequently filed and approved by the Department of Environment and Natural Resources and considered a part of this permit.

The sewage and wastewater collected by this system shall be treated in the Briar Chapel Utilities Wastewater Treatment Facility, Permit number WQ0028552, prior to being land applied by spray irrigation.

If any parts, requirements, or limitations contained in this permit are unacceptable, you have the right to request an adjudicatory hearing upon written request within 30 days following receipt of this permit. This request must be in the form of a written petition, conforming to Chapter 150B of North Carolina General Statutes, and filed with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC 27699-6714. Unless such demands are made, this permit shall be final and binding.

If you have any questions regarding this permit or require any additional information, please contact Barry Herzberg at (919) 791-4200, or by e-mail to barry.herzberg@ncdenr.gov.

Sincerely,



for Coleen H. Sullins, Director
Division of Water Quality

by S. Daniel Smith
Surface Water Quality Supervisor
Raleigh Regional Office

cc: Chatham County Health Department
RRO, SWP Files
RRO, APS, Jay Zimmerman
Grant Livengood, PE; McKim & Creed, 1730 Varsity Drive Suite 500, Raleigh, NC 27606
Central Files

NORTH CAROLINA
ENVIRONMENTAL MANAGEMENT COMMISSION
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
RALEIGH
WASTEWATER COLLECTION SYSTEM EXTENSION PERMIT

This permit shall be effective from the date of issuance until rescinded and shall be subject to the following specified conditions and limitations:

1. This permit shall become voidable unless the wastewater collection facilities are constructed in accordance with the conditions of this permit; 15A NCAC 2T; the Division of Water Quality's (Division) Gravity Sewer Minimum Design Criteria adopted February 12, 1996 as applicable; the Division's Minimum Design Criteria for the Fast-Track Permitting of Pump Stations and Force Mains adopted June 1, 2000 as applicable; and other supporting materials unless specifically mentioned herein.
2. This permit shall be effective only with respect to the nature and volume of wastes described in the application and other supporting data.
3. The wastewater collection facilities shall be properly maintained and operated at all times. The Permittee shall maintain compliance with an individual system-wide collection system permit for the operation and maintenance of these facilities as required by 15A NCAC 2T .0403. If an individual permit is not required, the following performance criteria shall be met as provided in 15A NCAC 2T .0403:
 - a. The sewer system shall be effectively maintained and operated at all times to prevent discharge to land or surface waters, and any contravention of the groundwater standards in 15A NCAC 2L .0200 or the surface water standards in 15A NCAC 2B .0200.
 - b. A map of the sewer system shall be developed and shall be actively maintained.
 - c. An operation and maintenance plan shall be developed and implemented.
 - d. Pump stations that are not connected to a telemetry system shall be inspected every day (i.e. 365 days per year). Pump stations that are connected to a telemetry system shall be inspected at least once per week.
 - e. High-priority sewer lines shall be inspected at least once per every six-month period of time, such that no more than 6 months elapses between inspections.
 - f. A general observation of the entire sewer system shall be conducted at least once per year.
 - g. Inspection and maintenance records shall be maintained for a period of at least three years.
 - h. Overflows and bypasses shall be reported to the appropriate Division regional office in accordance with 15A NCAC 2B .0506(a), and public notice shall be provided as required by North Carolina General Statute §143-215.1C.
4. **This permit shall not be transferable.** In the event there is a desire for the wastewater collection facilities to change ownership, or there is a name change of the Permittee, a formal permit request shall be submitted to the Division accompanied by documentation from the parties involved, and other supporting materials as may be appropriate. The approval of this request shall be considered on its merits and may or may not be approved.

5. Construction of the gravity sewers, pump stations, and force mains shall be scheduled so as not to interrupt service by the existing utilities nor result in an overflow or bypass discharge of wastewater to the surface waters of the State.
6. Per 15A NCAC 2T .0116, upon completion of construction and prior to operation of these permitted facilities, the completed Engineering Certification form attached to this permit shall be submitted with the required supporting documents to the address provided on the form. A complete certification is one where the form is fully executed and the supporting documents are provided as applicable. Gravity sewers installed below the minimum required slope per the Division's Gravity Sewer Minimum Design Criteria shall not be acceptable and shall not be certified until corrected. If there is an unforeseen obstacle in the field where all viable solutions have been examined, a slope variance can be requested from the Division with firm supporting documentation. This shall be done through a permit modification with fee. Such variance requests will be evaluated on a case-by-case basis. Resolution of such request shall be evident prior to completing and submitting the construction certification.
7. A copy of the construction record drawings shall be maintained on file by the Permittee for the life of the wastewater collection facilities.
8. Failure to abide by the conditions and limitations contained in this permit; 15A NCAC 2T; the Division's Gravity Sewer Design Criteria adopted February 12, 1996 as applicable; the Division's Minimum Design Criteria for the Fast-Track Permitting of Pump Station and Force Mains adopted June 1, 2000 as applicable; and other supporting materials may subject the Permittee to an enforcement action by the Division, in accordance with North Carolina General Statutes §143-215.6A through §143-215.6C.
9. In the event that the wastewater collection facilities fail to perform satisfactorily, including the creation of nuisance conditions, the Permittee shall take immediate corrective action, including those as may be required by this Division, such as the construction of additional or replacement facilities.
10. The issuance of this permit shall not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by other government agencies (local, state and federal) which have jurisdiction, including but not limited to applicable river buffer rules in 15A NCAC 2B .0200, erosion and sedimentation control requirements in 15A NCAC Ch. 4 and under the Division's General Permit NCG010000, and any requirements pertaining to wetlands under 15A NCAC 2B .0200 and 15A NCAC 2H .0500.

11. Noncompliance Notification:

The Permittee shall verbally report to a water quality staff member at the Raleigh Regional Office, telephone number 919-791-4200, as soon as possible, but in no case more than 24 hours or on the next working day, following the occurrence or first knowledge of the occurrence of either of the following:

- a. Any process unit failure, due to known or unknown reasons, that renders the facility incapable of adequate wastewater transport, such as mechanical or electrical failures of pumps, line blockage or breakage, etc.; or
- b. Any failure of a pumping station or sewer line resulting in a by-pass directly to receiving waters without treatment of all or any portion of the influent to such station or facility.

Initial voice mail messages or faxed information shall not be considered as the initial verbal report. Overflows and spills occurring outside normal business hours may also be reported to the Division of Emergency Management at telephone number (800) 858-0368 or (919) 733-3300. Persons reporting any of the above occurrences shall file a spill report by completing Part I of Form CS-

SSO (or the most current Division approved form), within five days following first knowledge of the occurrence. This report shall outline the actions taken or proposed to ensure that the problem does not recur. The Director, Division of Water Quality, may take enforcement action for SSO's that are required to be reported to the Division unless it is demonstrated that:

1. The discharge was caused by severe natural conditions and there were no feasible alternatives to the discharge; or
2. The discharge was exceptional, unintentional, temporary, and caused by factors beyond the reasonable control of the Permittee and/or owner, and the discharge could not have been prevented by the exercise of reasonable control.

Permit issued this the 1st Day of September 2010.

Permit Number WQ0033071
NNP Briar Chapel, LLC
Briar Chapel Phase 5 North

NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION



for Coleen H. Sullins, Director
Division of Water Quality
by Authority of the Environmental Management Commission

by S. Daniel Smith
Surface Water Quality Supervisor
Raleigh Regional Office

FAST TRACK ENGINEERING CERTIFICATION

Permit No. WQ0033071
NNP Briar Chapel, LLC
Briar Chapel Phase 5 North
September 1, 2010

Complete and submit this form (NO SUBSTITUTES) to the Raleigh Regional Office together with the following:

- One copy of the project record drawings (plan & profile views of sewer lines) of the wastewater collection system extension.
- Supporting design calculations (selected pumps, system curve, operating point, available storage if portable generator(s) or storage greater than longest past three year outage reliability option selected) for any pump stations permitted as part of this project

Changes to the project should be clearly identified on the record drawings or in written summary form. Permit modifications are required for any changes resulting in non-compliance with this permit, regulations or minimum design criteria.

This project shall not be considered complete nor allowed to operate until the Division has received this Engineer's Certification and all required supporting documentation. It is highly recommended that this certification be sent in a manner that provides proof of receipt by the Division. The Division does not acknowledge receipt of Fast Track Engineering Certifications!

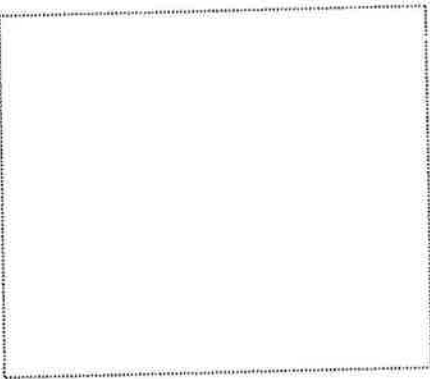
ENGINEER'S CERTIFICATION

Partial

Final

I, _____, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the subject project for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance of this permit; 15A NCAC 02T; the Division of Water Quality's (Division) Gravity Sewer Minimum Design Criteria adopted February 12, 1996 as applicable; the Division's Minimum Design Criteria for the Fast-Track Permitting of Pump Stations and Force Mains adopted June 1, 2000 as applicable; and other supporting materials.

**North Carolina Professional Engineer's
Seal, signature, and date:**



**SEND THIS FORM & SUPPORTING DOCUMENTATION
WITH REQUIRED ATTACHMENTS TO THE FOLLOWING ADDRESS**

**RALEIGH REGIONAL OFFICE
1628 MAIL SERVICE CENTER
RALEIGH NC 27699-1628**

The Permittee is responsible for tracking all partial certifications up until a final certification is received. Any wastewater flow made tributary to the wastewater collection system extension prior to completion of this Engineer's Certification shall be considered a violation of the permit and shall subject the Permittee to appropriate enforcement actions.

DWQ use only:

Flow from this project is tributary to: Briar Chapel

NCDENR DWQ

WASTEWATER TREATMENT / RECLAIMED
WATER / SPRAY IRRIGATION



North Carolina Department of Environment and Natural Resources

Division of Water Quality

Coleen H. Sullins

Director

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

May 18, 2009

WILLIAM MUMFORD – ASSISTANT SECRETARY
BRIAR CHAPEL UTILITIES, LLC
16 WINDY KNOLL CIRCLE
CHAPEL HILL, NORTH CAROLINA 27516

Subject: Permit No. WQ0028552
Briar Chapel Development
Wastewater Treatment, Irrigation
and Non-Conjunctive Reclaimed
Water Utilization System
Chatham County

Dear Mr. Mumford:

In accordance with your permit modification request received April 23, 2009, and subsequent additional information received May 7, 2009, we are forwarding herewith Permit No. WQ0028552, dated May 18, 2009, to Briar Chapel Utilities, LLC for the continued operation of the Phase A wastewater treatment plant, 5-day upset pond and main wet weather storage pond, and the construction and operation of the remaining subject wastewater treatment, wastewater irrigation and non-conjunctive reclaimed water utilization facilities.

The subject modification is to add approximately 9.5 acres of non-conjunctive reclaimed utilization area along the existing parkway between US 15-501 and the bridge at Pokeberry Creek. This additional utilization area shall be known as Phase 1C.

This permit shall be effective from the date of issuance until March 31, 2010, shall void Permit No. WQ0028552 issued May 22, 2008, and shall be subject to the conditions and limitations as specified therein. Please pay particular attention to the monitoring requirements in this permit. Failure to establish an adequate system for collecting and maintaining the required operational information will result in future compliance problems.

Please note this permit contains two new permit conditions since the last permit issuance. Please review these conditions carefully:

- Condition I.3. – This condition requires the Permittee to abandon water supply well WSW-38 prior to operation of Phase 1C spray heads that throw within 100 feet of the aforementioned well.

AQUIFER PROTECTION SECTION

1636 Mail Service Center, Raleigh, North Carolina 27699-1636

Location: 2726 Capital Boulevard, Raleigh, North Carolina 27604

Phone: 919-733-3221 \ FAX 1: 919-715-0588; FAX 2: 919-715-6048 \ Customer Service: 1-877-623-6748

Internet: www.ncwaterquality.org

An Equal Opportunity / Affirmative Action Employer

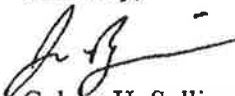
One
North Carolina
Naturally

- Condition II.17. – This condition requires the Permittee to aerate those areas in Phase 1C affected by significant compaction prior to any utilization of reclaimed water on those sites.

If any parts, requirements, or limitations contained in this permit are unacceptable, you have the right to request an adjudicatory hearing upon written request within thirty (30) days following receipt of this permit. This request must be in the form of a written petition, conforming to Chapter 150B of the North Carolina General Statutes, and filed with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC 27699-6714. Unless such demands are made this permit shall be final and binding.

One set of approved plans and specifications is being forwarded to you. If you need additional information concerning this matter, please contact Nathaniel Thornburg at (919) 715-6160 or nathaniel.thornburg@ncdenr.gov.

Sincerely,


for Coleen H. Sullins

cc: Chatham County Health Department
Raleigh Regional Office, Aquifer Protection Section
Mark P. Ashness, PE – CE Group
Technical Assistance and Certification Unit
APS Central Files
LAU Files

NORTH CAROLINA
ENVIRONMENTAL MANAGEMENT COMMISSION
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
RALEIGH

**WASTEWATER TREATMENT, WASTEWATER IRRIGATION AND NON-CONJUNCTIVE
RECLAIMED WATER UTILIZATION SYSTEM PERMIT**

In accordance with the provisions of Article 21 of Chapter 143, General Statutes of North Carolina as amended, and other applicable Laws, Rules, and Regulations

PERMISSION IS HEREBY GRANTED TO

Briar Chapel Utilities, LLC
Chatham County

FOR THE

operation of a wastewater treatment, wastewater irrigation and non-conjunctive reclaimed water utilization facility consisting of the:

continued operation of a 250,000 gallon per day (GPD) extended aeration wastewater treatment plant (i.e., Phase A) consisting of: dual static screens for grit removal (serving Phases A, B and C); a manually cleaned bar screen; a 75,400 gallon aerated flow equalization basin with two (2) 225 gallon per minute (GPM) variable speed pumps each with an influent flow meter and one (1) 7.5 horsepower (hp) aerator; two (2) 31,500 gallon anoxic chambers each with two (2) 3 hp mixers; two (2) 189,000 gallon aeration basins each with two (2) 10 hp aerators; two (2) 31,500 gallon clarifiers each with one (1) variable speed sludge return pump; a 75,400 gallon sludge holding basin with one (1) variable speed decanting pump and one (1) 7.5 hp aerator; a 10,730 gallon chlorine contact chamber with two (2) variable speed chlorine injection pumps; a 16,800 gallon mudwell with two (2) 200 GPM return pumps; two (2) 90 square foot (ft²) tertiary filters; a 13,800 gallon clearwell with four (4) 675 GPM backwash pumps (pumps serve Phases A, B and C); dual banks of ultraviolet (UV) modules each with 10 bulbs; a 6,850 gallon dechlorination chamber with two (2) air diffusers; an effluent flow measuring device (serving Phases A, B and C); an effluent turbidimeter (serving Phases A, B and C); a permanent auxiliary generator (serving Phases A, B and C); and all associated piping, valves and appurtenances; the

continued operation of: a 3.5 million gallon (MG) clay lined five day upset pond with a 400 GPM dual submersible pumps station and audible/visual alarms; and a 21.3 MG clay lined central storage pond with dual 2,000 GPM flooded suction pumps; the

construction and operation of two additional 250,000 GPD extended aeration wastewater treatment plants to be constructed (i.e., Phases B and C) with each phase consisting of: a manually cleaned bar screen; a 75,400 gallon aerated flow equalization basin with two (2) 225 GPM variable speed pumps each with an influent flow meter and one (1) 7.5 hp aerator; two (2) 31,500 gallon anoxic chambers each with two (2) 3 hp mixers; two (2) 189,000 gallon aeration basins each with two (2) 10 hp aerators; two (2) 31,500 gallon clarifiers each with one (1) variable speed sludge return pump; a 75,400 gallon sludge holding basin with one (1) variable speed decanting pump and one (1) 7.5 hp aerator; a 10,730 gallon chlorine contact chamber with two (2) variable speed chlorine injection pumps; a 16,800 gallon mudwell with two (2) 200 GPM return pumps; two (2) 90 ft² tertiary filters; dual banks of ultraviolet (UV) modules each with 10

bulbs; a 6,850 gallon dechlorination chamber with two (2) air diffusers; and all associated piping, valves and appurtenances; the

construction and operation of a 253,027 GPD reclaimed water utilization system (Phase 1A: Fields C-1A through E-4C) consisting of: thirty-five (35) irrigation zones comprising approximately 82.2 acres; a 14.1 MG clay lined east storage pond with dual 1,200 GPM vertical turbine pumps serving nine (9) irrigation zones consisting of approximately 42.1 acres; and all associated piping, valves and appurtenances; the

construction and operation of a 51,499 GPD wastewater irrigation system (Phase 1B: Fields B-1A through B-9C) consisting of: sixteen (16) irrigation zones comprising approximately 22.0 acres; and all associated piping, valves and appurtenances; and the

construction and operation of a 21,749 GPD non-conjunctive reclaimed water utilization system (Phase 1C) consisting of: one (1) irrigation zone comprising approximately 9.48 acres; and all associated piping, valves and appurtenances; and the

to serve the Briar Chapel Development, with no discharge of wastes to the surface waters, pursuant to the application received April 23, 2009, and subsequent additional information received by the Division of Water Quality (Division), and in conformity with the project plan, specifications, and other supporting data subsequently filed and approved by the Department of Environment and Natural Resources and considered a part of this permit.

This permit shall be effective from the date of issuance until March 31, 2010, shall void Permit No. WQ0028552 issued May 22, 2008, and shall be subject to the following specified conditions and limitations:

I. SCHEDULES

1. Upon completion of construction and prior to operation of this permitted facility, a certification (see attached form) must be received from a professional engineer certifying that the permitted facility has been installed in accordance with this permit, the approved plans and specifications, and other supporting materials including the location of all monitoring wells as applicable. If this project is to be completed in phases and partially certified, you shall retain the responsibility to track further construction approved under the same permit, and shall provide a final certificate of completion once the entire project has been completed. Mail the Certification to the Aquifer Protection Section, Division of Water Quality, 1636 Mail Service Center, Raleigh, NC 27699-1636.
2. The Raleigh Regional Office, telephone number (919) 791-4200, shall be notified at least forty-eight (48) hours in advance (excluding weekends and holidays) of operation of the installed facilities so that an in-place inspection can be made. Such notification to the regional supervisor shall be made during the normal office hours from 8:00 a.m. until 5:00 p.m. on Monday through Friday, excluding State Holidays.
3. Prior to operation of any Phase 1C spray heads that throw within 100 feet of water supply well WSW-38, said well shall be permanently abandoned. Within thirty (30) days of abandonment, a Well Abandonment Record (GW-30 form) that lists this permit number and the appropriate well identification number shall be completed for each well abandoned and mailed to N.C. Division of Water Quality, Aquifer Protection Section, 1636 Mail Service Center, Raleigh, N.C. 27699-1636. The well shall be abandoned by a North Carolina Certified Well Contractor according to the North Carolina Well Construction Standards (15A NCAC 02C .0113) and local county rules.

4. No later than six months prior to the expiration of this permit, the Permittee shall request renewal of this permit on official Division forms. Upon receipt of the request, the Division will review the adequacy of the facilities described therein, and if warranted, will renew the permit for such period of time and under such conditions and limitations as it may deem appropriate. Please note that Rule 15A NCAC 02T .0105(d) requires an updated site map to be submitted with the permit renewal application.
5. Prior to commencement of irrigation, an updated soil scientist site evaluation shall be submitted for all areas that have been significantly impacted during construction or altered by grading, cutting or filling. This report shall specifically address, but not be limited to, soil features such as soil compaction and saturated hydraulic conductivity of the least permeable layer, as well as any other properties that might impact the soil's ability to accept irrigation water. The report shall certify that the disturbed areas are capable of accepting the designed annual hydraulic loading rate. The requested information must be received and acknowledged in writing by the Aquifer Protection Section, 1628 Mail Service Center, Raleigh, NC 27699-1628, prior to any irrigation of wastewater.

II. PERFORMANCE STANDARDS

1. The wastewater irrigation and non-conjunctive reclaimed water utilization facilities shall be effectively maintained and operated at all times so that there is no discharge to the surface waters, nor any contravention of groundwater or surface water standards. In the event that the facilities fail to perform satisfactorily, including the creation of nuisance conditions due to improper operation and maintenance, or failure of the irrigation area to adequately assimilate the wastewater, the Permittee shall take immediate corrective actions including those actions that may be required by the Division, such as the construction of additional or replacement wastewater treatment and disposal facilities.
2. The issuance of this permit shall not relieve the Permittee of the responsibility for damages to ground or surface waters resulting from the operation of this facility.
3. Effluent limitations shall not exceed those specified in Attachment A.
4. Application rates, whether hydraulic, nutrient, or other pollutant shall not exceed those specified in Attachment B.
5. The compliance and review boundaries for the specified reclaimed utilization areas (i.e., Phase 1A) are established at the property boundary. Any exceedance of standards at the Compliance or Review Boundary shall require action in accordance with 15A NCAC 02L .0106.
6. The compliance and review boundaries for the specified reclaimed utilization areas (i.e., Phase 1C) and the wastewater irrigation areas complying with 15A NCAC 02T .0506(c) (i.e., Phase 1B) are established at the irrigation/utilization area boundaries. Any exceedance of standards at the Compliance or Review Boundary shall require action in accordance with 15A NCAC 02L .0106.
7. The Permittee shall apply for a permit modification prior to any sale or transfer of property that affects a compliance boundary to establish a new compliance boundary.
8. In accordance with 15A NCAC 02L .0107(d), no wells, other than monitoring wells, shall be constructed within the compliance boundary except as provided by 15A NCAC 02L .0107(g).

9. Except as provided for in 15A NCAC 02L .0107(g), the Permittee shall ensure that any landowner who owns land within the compliance boundary, but who is not the Permittee, shall execute and file with the Register of Deeds in the county in which the land is located an easement running with the land that contains the following items:
 - a. A notice of the permit and number or other description as allowed in 15A NCAC 02L .0107(f)(1);
 - b. Prohibits construction and operation of water supply wells within the compliance boundary; and
 - c. Reserves the right of the Permittee or the State to enter the property within the compliance boundary for purposes related to the permit.

The Director may terminate the easement when its purpose has been fulfilled or is no longer needed.

10. The facilities permitted herein must be constructed according to the following setbacks:

- a. The setbacks for reclaimed utilization sites (Phase 1A & Phase 1C) shall be as follows (all distances in feet):
 - i. Surface waters not classified SA: 25
 - ii. Surface waters classified SA: 100
 - iii. Any well with exception to monitoring wells 100
- b. The setbacks for the wastewater irrigation sites (Phase 1B) shall be as follows (all distances in feet):
 - a. Any habitable residence or place of public assembly under separate ownership: 400
 - b. Any habitable residence or place of public assembly owned by the Permittee: 200
 - c. Any private or public water supply source: 100
 - d. Surface waters: 100
 - e. Groundwater lowering ditches: 100
 - f. Surface water diversions: 25
 - g. Any well with exception of monitoring wells: 100
 - h. Any property line: 150 *
 - i. Top of slope of embankments or cuts of two feet or more in vertical height: 15
 - j. Any water line from a disposal system: 10
 - k. Subsurface groundwater lowering drainage systems: 100
 - l. Any swimming pool: 100
 - m. Public right of way: 50
 - n. Nitrification field: 20
 - o. Any building foundation or basement: 15

* Setback may be reduced to zero in accordance with 15A NCAC 2T .0506(c).

- c. The setbacks for treatment and storage units shall be as follows (all distances in feet):
 - i. Any habitable residence or place of public assembly under separate ownership: 100
 - ii. Any private or public water supply source: 100
 - iii. Surface waters: 50
 - iv. Any well with exception of monitoring wells: 100
 - v. Any property line: 50

11. The following shall be requirements for the reclaimed water distribution, storage, and utilization facilities (at a minimum Phase 1A & Phase 1C, but may include Phase 1B at the Permittee's discretion):
 - a. All reclaimed water valves, storage facilities, and outlets shall be tagged or labeled to warn the public or employees that the water is not intended for drinking. Where appropriate, such warning shall inform the public or employees to avoid contact with the water.
 - b. All reclaimed water piping, valves, outlets, and other appurtenances shall be color-coded, taped, or otherwise marked to identify the source of the water as being reclaimed water.
 - i. All reclaimed water piping and appurtenances shall be either colored purple (i.e., Pantone 522) and embossed or integrally stamped or marked "CAUTION: RECLAIMED WATER – DO NOT DRINK" or be installed with a purple (i.e., Pantone 522) identification tape or polyethylene vinyl wrap. The warning shall be stamped on opposite sides of the pipe and repeated every three feet or less.
 - ii. Identification tape shall be at least three inches wide and have white or black lettering on purple (i.e., Pantone 522) field stating "CAUTION: RECLAIMED WATER – DO NOT DRINK." Identification tape shall be installed on top of reclaimed water pipelines, fastened at least every 10 feet to each pipe length and run continuously the entire length of the pipe.
 - c. All reclaimed water valves and outlets shall be of a type, or secured in a manner, that permits operation by authorized personnel only.
 - d. Above-ground hose bibs (i.e., spigots or other hand-operated connections) shall not be present. Hose bibs shall be located in locked below-grade vaults that shall be clearly labeled as being of non-potable quality. As an alternative to the use of locked below-grade vaults with standard hose bibs services, hose bibs, which can only be operated by a special tool or connected to a special hose connection, may be placed in non-lockable underground services boxes clearly labeled as non-potable water.
12. The Permittee shall maintain an active cross-connection control program that shall have the following minimum requirements (at a minimum Phase 1A & Phase 1C, but may include Phase 1B at the Permittee's discretion):
 - a. No direct cross-connections shall be allowed between the reclaimed water and potable water systems.
 - b. A reduced pressure principle backflow preventer, an approved air gap separation, or other device approved by the Division of Environmental Health shall be installed at the potable water service connection to the use area where both reclaimed water and potable water are supplied to a reclaimed water use area. The installation of the reduced pressure principle backflow prevention device shall allow proper testing.
 - c. An air gap separation, approved and regularly inspected by the Permittee shall be provided between the potable water and reclaimed water systems where potable water is used to supplement a reclaimed water system.
13. Reclaimed water distribution lines (at a minimum Phase 1A & Phase 1C, but may include Phase 1B at the Permittee's discretion) shall be located 10 feet horizontally from and 18 inches below any water line where practicable. Where these separation distances cannot be met, the piping and integrity testing procedures shall meet water main standards in accordance with 15A NCAC 18C.
14. Reclaimed water distribution lines (at a minimum Phase 1A & Phase 1C, but may include Phase 1B at the Permittee's discretion) shall not be less than 100 feet from a well unless the piping and integrity testing procedures meet water main standards in accordance with 15A NCAC 18C, but no case shall they be less than 25 feet from a private well or 50 feet from a public well.

15. Reclaimed water distribution lines (at a minimum Phase 1A & Phase 1C, but may include Phase 1B at the Permittee's discretion) shall meet the separation distances to sewer lines in accordance with Rule .0305 of Subchapter 02T.
16. The wastewater irrigation and reclaimed water utilization systems shall be connected to a rain or moisture sensor that shall indicate when reclaimed water application is not appropriate in accordance with Condition III.4. and III.5. of this permit.
17. Areas in Phase 1C affected by significant compaction shall be identified and the soil aerated prior to any irrigation in Zone C with reclaimed water.

III. OPERATION AND MAINTENANCE REQUIREMENTS

1. The facilities shall be properly maintained and operated at all times. The facilities shall be effectively maintained and operated as a non-discharge system to prevent the discharge of any wastewater resulting from the operation of this facility. The Permittee shall maintain an Operation and Maintenance Plan pursuant to 15A NCAC 02T .0507 & .0913 including operational functions, maintenance schedules, safety measures, and a spill response plan.
2. Upon classification of the wastewater treatment, wastewater irrigation and non-conjunctive reclaimed water utilization facilities by the Water Pollution Control System Operators Certification Commission (WPCSOCC), the Permittee shall designate and employ a certified operator to be in responsible charge (ORC) and one or more certified operator(s) to be back-up ORC(s) of the facilities in accordance with 15A NCAC 08G .0200. The ORC shall visit the facilities in accordance with 15A NCAC 08G .0200 or as specified in this permit and shall comply with all other conditions specified in these rules.
3. A suitable year round vegetative cover shall be maintained such that crop health is optimized, allows for even distribution of effluent, and allows inspection of the wastewater irrigation and non-conjunctive reclaimed water utilization systems.
4. Adequate measures shall be taken to prevent wastewater ponding or runoff from the wastewater irrigation and non-conjunctive reclaimed water utilization sites.
5. Wastewater irrigation and non-conjunctive reclaimed water utilization shall not be performed during inclement weather or when the ground is in a condition that will cause ponding or runoff.
6. All waste application equipment must be tested and calibrated at least once per permit cycle. Records of the calibration must be maintained for five years.
7. No type of wastewater other than that from the Briar Chapel Development shall be applied to the wastewater irrigation and non-conjunctive reclaimed water utilization sites.
8. An automatically activated standby power source shall be on site and operational at all times capable of powering all essential treatment units. If a generator is employed as an alternate power supply, it shall be tested weekly by interrupting the primary power source.
9. No traffic or equipment shall be allowed on the wastewater irrigation and non-conjunctive reclaimed water utilization sites except while installation occurs or while normal maintenance is being performed.
10. Public access to the land application sites shall be controlled.
11. The residuals generated from these treatment facilities must be disposed / utilized in accordance with 15A NCAC 02T .1100. The Permittee shall maintain a residual management plan pursuant to 15A NCAC 02T .0508 & .0914.

12. Diversion or bypassing of the untreated wastewater from the treatment facilities is prohibited.
13. Freeboard in the five-day upset pond, central storage pond and east storage pond shall not be less than two (2) feet at any time.
14. Gauges to monitor waste levels in the five-day upset pond, central storage pond and east storage pond shall be provided. These gauges shall have readily visible permanent markings indicating the maximum liquid level at the top of the temporary liquid storage volume, minimum liquid level at the bottom of the temporary liquid storage volume, and the lowest point on top of the dam elevations.
15. A protective vegetative cover shall be established and maintained on all earthen basin embankments (outside toe of embankment to maximum allowable temporary storage elevation on the inside of the embankment), berms, pipe runs, erosion control areas, and surface water diversions. Trees, shrubs, and other woody vegetation shall not be allowed to grow on the earthen basin dikes or embankments. Earthen basin embankment areas shall be kept mowed or otherwise controlled and accessible.
16. All wastewater shall be routed to the five-day holding pond should the limit for fecal coliform (daily maximum concentration of 25 per 100 ml) or turbidity (instantaneous maximum of 10 NTU) be exceeded, until such time that the problems associated with the treatment capability of the wastewater treatment plant have been corrected. The wastewater in the five-day holding pond shall be pumped back to the treatment plant for re-treatment or treated in the five-day pond prior to discharge to the storage pond.
17. The permitted wastewater treatment facility shall treat domestic strength wastewater only. The wastewater treatment plant shall not accept any wastewater from commercial facilities deemed industrial (i.e., from processes of trade or business, Laundromats, or vehicle/equipment washes) per Regulation 15A NCAC 2T .0103(20).

IV. MONITORING AND REPORTING REQUIREMENTS

1. Any monitoring (including groundwater, surface water, soil or plant tissue analyses) deemed necessary by the Division to ensure surface and ground water protection will be established and an acceptable sampling reporting schedule shall be followed.
2. All laboratory analyses for effluent, ground waters, or surface waters shall be made by a laboratory certified by the Division for the required parameter(s) under 15A NCAC 02H .0800.
3. Flow through the treatment facility shall be continuously monitored and daily flow values shall be reported on Form NDMR.

The Permittee shall install and maintain an appropriate flow measurement device consistent with approved engineering and scientific practices to ensure the accuracy and reliability of flow measurement. Flow measurement devices selected shall be capable of measuring flows with a maximum deviation of less than 10 percent from true flow, accurately calibrated at a minimum of once per year, and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. The Permittee shall keep records of flow measurement device calibration on file for a period of at least three years. At a minimum, data to be included in this documentation shall be:

- a. Date of flow measurement device calibration,
 - b. Name of person performing calibration, and
 - c. Percent from true flow.
4. The effluent from the subject facilities shall be monitored by the Permittee at the frequencies and locations for the parameters specified in Attachment A.

5. The Permittee tracking the amount of wastewater irrigation and non-conjunctive reclaimed water utilization shall maintain adequate records. These records shall include, but are not necessarily limited to, the following information:
 - a. Date of wastewater irrigation and non-conjunctive reclaimed water utilization,
 - b. Volume of wastewater irrigated and reclaimed water utilized,
 - c. Field irrigated/utilized,
 - d. Length of time field is irrigated/utilized,
 - e. Continuous weekly, monthly, and year-to-date hydraulic (inches/acre) loadings for each field,
 - f. Continuous monthly and year-to-date loadings for any non-hydraulic parameter specifically limited in Attachment B for each field,
 - g. Weather conditions, and
 - h. Maintenance of cover crops.
6. Freeboard (waste level to the lowest elevation on the top of the embankment) in the 5-day upset pond, central storage pond and east storage pond shall be recorded weekly.
7. A record shall be maintained of all residuals removed from this facility. This record shall include the name of the hauler, permit authorizing the disposal or a letter from a municipality agreeing to accept the residuals, date the residuals were hauled, and volume of residuals removed.
8. A maintenance log shall be maintained at this facility including but not limited to the following items:
 - a. Visual observations of the plant and plant site.
 - b. Record of preventative maintenance (i.e., changing of equipment, adjustments, testing, inspections and cleanings, etc.).
 - c. Date of calibration of flow measurement device.
 - d. Date and results of power interruption testing on alternate power supply.
9. Three (3) copies of all monitoring data [as specified in Conditions IV.3. and IV.4.] on Form NDMR for each PPI and three (3) copies of all operation and disposal records [as specified in Conditions IV.5 and IV.6.] on Form NDAR-1 for every field shall be submitted on or before the last day of the following month. If no activities occurred during the monitoring month, monitoring reports are still required documenting the absence of the activity. All information shall be submitted to the following address:

Division of Water Quality
 Information Processing Unit
 1617 Mail Service Center
 Raleigh, North Carolina 27699-1617
10. An annual representative soils analysis (Standard Soil Fertility Analysis) shall be conducted on each wastewater irrigation field (i.e., Phase 1B) and the results maintained on file by the Permittee for a minimum of five years. The Standard Soil Fertility Analysis shall include, but is not necessarily limited to, the following parameters:

Acidity	Manganese	Potassium
Calcium	Percent Humic Matter	Sodium
Copper	pH	Zinc
Magnesium	Base Saturation (by calculation)	Phosphorus
Cation Exchange Capacity	Exchangeable Sodium Percentage	

11. Noncompliance Notification:

The Permittee shall report by telephone to the Raleigh Regional Office, telephone number (919) 791-4200, as soon as possible, but in no case more than 24 hours or on the next working day following the occurrence or first knowledge of the occurrence of any of the following:

- a. Any occurrence at the wastewater treatment facility which results in the treatment of significant amounts of wastes which are abnormal in quantity or characteristic, such as the dumping of the contents of a sludge digester; the known passage of a slug of hazardous substance through the facility; or any other unusual circumstances including ponding in the wastewater irrigation or reclaimed utilization areas or runoff from the wastewater irrigation or reclaimed utilization areas.
- b. Any process unit failure, due to known or unknown reasons, that render the facility incapable of adequate wastewater treatment such as mechanical or electrical failures of pumps, aerators, compressors, etc.
- c. Any failure of disposal system resulting in a by-pass directly to receiving waters.
- d. Any time that self-monitoring information indicates that the facility has gone out of compliance with its permit limitations including, but not limited to, freeboard measurements, effluent limitations, exceedances of groundwater standards, or overloading of any irrigation or utilization area.

For any emergency that requires immediate reporting (e.g., discharges to surface waters, imminent failure of a storage structure, etc.) outside normal business hours must be reported to the Division's Emergency Response personnel at telephone number (800) 662-7956, (800) 858-0368, or (919) 733-3300. Persons reporting such occurrences by telephone shall also file a written report in letter form within five (5) days following first knowledge of the occurrence. This report must outline the actions taken or proposed to be taken to ensure that the problem does not recur.

V. INSPECTIONS


1. Adequate inspection and maintenance shall be provided by the Permittee to ensure proper operation of the subject facilities.
2. The Permittee or his designee shall inspect the wastewater treatment and disposal facilities to prevent malfunctions and deterioration, operator errors and discharges which may cause or lead to the release of wastes to the environment, a threat to human health, or a nuisance. The Permittee shall keep an inspection log or summary including at least the date and time of inspection, observations made, and any maintenance, repairs, or corrective actions taken by the Permittee. This log of inspections shall be maintained by the Permittee for a period of five years from the date of the inspection and shall be made available upon request to the Division or other permitting authority.
3. Any duly authorized officer, employee, or representative of the Division may, upon presentation of credentials, enter and inspect any property, premises or place on or related to the disposal site or facility at any reasonable time for the purpose of determining compliance with this permit; may inspect or copy any records that must be maintained under the terms and conditions of this permit, and may obtain samples of groundwater, surface water, or leachate.

VI. GENERAL CONDITIONS

1. Failure to abide by the conditions and limitations contained in this permit may subject the Permittee to an enforcement action by the Division in accordance with North Carolina General Statute 143-215.6A to 143-215.6C.
2. This permit shall become voidable unless the facilities are constructed in accordance with the conditions of this permit, the approved plans and specifications, and other supporting data.
3. This permit is effective only with respect to the nature and volume of wastes described in the application and other supporting data. No variances to applicable rules governing the construction and / or operation of the permitted facilities are granted unless specifically requested and granted in this permit.
4. The issuance of this permit does not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances, which may be imposed by other government agencies (local, state, and federal) that have jurisdiction. Of particular concern to the Division are applicable river buffer rules in 15A NCAC 02B .0200, erosion and sedimentation control requirements in 15A NCAC Chapter 4 and under the Division's General Permit NCG010000, and any requirements pertaining to wetlands under 15A NCAC 02B .0200 and 02H .0500.
5. In the event there is a desire for the facilities to change ownership, or there is a name change of the Permittee, a formal permit request must be submitted to the Division on official Division form(s), documentation from the parties involved, and other supporting materials as may be appropriate. The approval of this request will be considered on its merits and may or may not be approved. The Permittee of record shall remain fully responsible for compliance until a permit is issued to the new owner.
6. The Permittee shall retain a set of approved plans and specifications for the life of the facilities permitted herein.
7. The Permittee shall maintain this permit until all permitted facilities herein are properly closed or permitted under another permit issued by the appropriate permitting authority.
8. The Permittee must pay the annual fee within thirty (30) days after being billed by the Division. Failure to pay the fee accordingly may cause the Division to initiate action to revoke this permit pursuant to 15A NCAC 02T .0105(e).

Permit issued this the 18th day of May 2009

NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION



for Coleen H. Sullins, Director
Division of Water Quality
By Authority of the Environmental Management Commission

Permit Number WQ0028552

Permit No. WQ0028552
May 18, 2009

ENGINEER'S CERTIFICATION

_____ Partial _____ Final

I, _____, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project,

_____ , _____
Project Name

Location and County

for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of this permit, the approved plans and specifications, and other supporting materials.

Signature _____ Registration No. _____

Date _____

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ATTACHMENT A - LIMITATIONS AND MONITORING REQUIREMENTS

Permit Number: WQ0028552

Version: 1.3

PPI 001 – WWTF Effluent

EFFLUENT CHARACTERISTICS	EFFLUENT LIMITS					MONITORING REQUIREMENTS	
	Monthly Average	Monthly Geometric Mean	Daily Minimum	Daily Maximum	Measurement Frequency	Sample Type	
BOD, 5-Day (20 Deg. C) - 00310	10			15	mg/l	2 x Month	Composite
Chloride (as Cl) - 00940						3 x Year ²	Composite
Chlorine, Total Residual - 50060						5 x Week	Grab
Coliform. Fecal MF, M-FC Broth, 44.5C - 31616		14		25	#/100ml	2 x Month ¹	Grab
Flow, in conduit or thru treatment plant - 50050	316,412 ³				GPD	Continuous	Recording
Nitrogen, Ammonia Total (as N) - 00610	4			6	mg/l	2 x Month	Composite
Nitrogen, Nitrate Total (as N) - 00620						2 x Month	Composite
pH - 00400			6	9	s.u.	5 x Week	Grab
Solids, Total Dissolved - 70300						3 x Year ²	Composite
Solids, Total Suspended - 00530 - Summer	5			10	mg/l	2 x Month	Composite
Turbidity, NCH Turbidimeter - 00076				10	ntu	Continuous	Recording

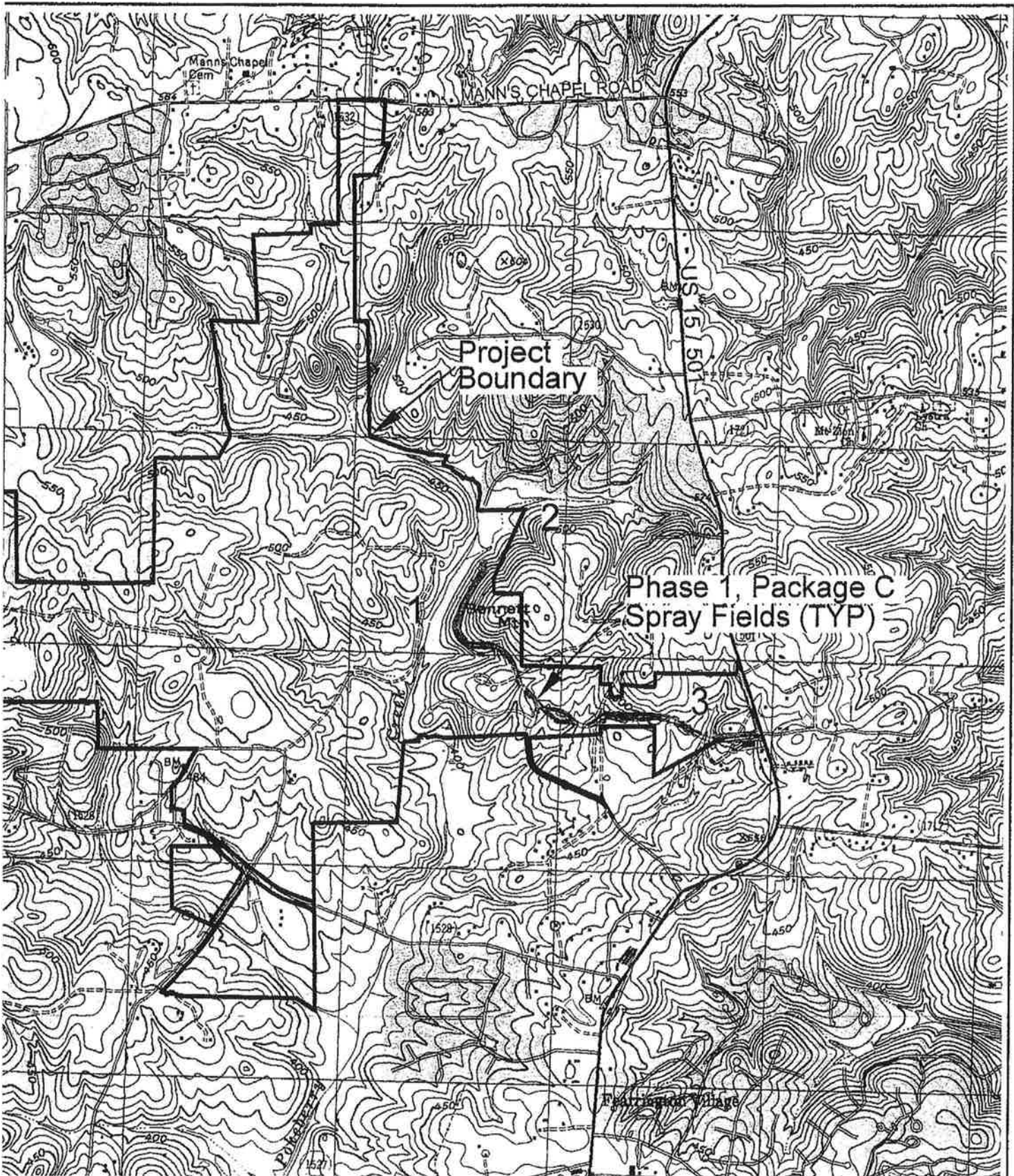
1. Monthly average for Fecal Coliform shall a geometric mean.
2. 3 x Year monitoring shall be conducted in March, July & November.
3. The monthly average daily flow is limited to 316,412 GPD due to available wet weather storage capacity.

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IRRIGATION / UTILIZATION AREA INFORMATION										APPLICATION LIMITATIONS			
Field	Owner	County	Latitude	Longitude	Net Acreage	Dominant Soil Series	Parameter	Hourly Rate	Yearly Max	Units			
B-1A	Briar Chapel Utilities LLC	Chatham	35° 49' 28"	-79° 05' 58"	9.90	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches			
B-1B	Briar Chapel Utilities LLC	Chatham	35° 49' 25"	-79° 06' 05"	1.70	Helena	01284 - Application Surface Irrigation	0.10	19.95	inches			
B-2A	Briar Chapel Utilities LLC	Chatham	35° 49' 22"	-79° 06' 15"	0.30	Helena	01284 - Application Surface Irrigation	0.10	19.95	inches			
B-3B	Briar Chapel Utilities LLC	Chatham	35° 49' 36"	-79° 06' 11"	0.20	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches			
B-3C	Briar Chapel Utilities LLC	Chatham	35° 49' 41"	-79° 06' 11"	0.20	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches			
B-4A	Briar Chapel Utilities LLC	Chatham	35° 49' 42"	-79° 06' 17"	0.60	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches			
B-5A	Briar Chapel Utilities LLC	Chatham	35° 49' 07"	-79° 06' 34"	0.40	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches			
B-6A	Briar Chapel Utilities LLC	Chatham	35° 49' 07"	-79° 06' 31"	1.10	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches			
B-7A	Briar Chapel Utilities LLC	Chatham	35° 49' 59"	-79° 06' 28"	2.30	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches			
B-7B	Briar Chapel Utilities LLC	Chatham	35° 50' 16"	-79° 06' 32"	0.60	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches			
B-8A	Briar Chapel Utilities LLC	Chatham	35° 50' 14"	-79° 06' 26"	0.10	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches			
B-8B	Briar Chapel Utilities LLC	Chatham	35° 50' 32"	-79° 06' 27"	1.90	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches			
B-8D	Briar Chapel Utilities LLC	Chatham	35° 50' 25"	-79° 06' 25"	0.70	Helena	01284 - Application Surface Irrigation	0.10	19.95	inches			
B-8E	Briar Chapel Utilities LLC	Chatham	35° 50' 37"	-79° 06' 22"	0.50	Helena	01284 - Application Surface Irrigation	0.10	19.95	inches			
B-9A	Briar Chapel Utilities LLC	Chatham	35° 50' 42"	-79° 06' 26"	1.10	Helena	01284 - Application Surface Irrigation	0.10	19.95	inches			
B-9C	Briar Chapel Utilities LLC	Chatham	35° 50' 41"	-79° 06' 20"	0.40	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches			
C-1A	Briar Chapel Utilities LLC	Chatham	35° 48' 35"	-79° 06' 47"	8.00	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches			
C-2A	Briar Chapel Utilities LLC	Chatham	35° 48' 45"	-79° 06' 38"	1.40	Helena	01284 - Application Surface Irrigation	0.10	19.95	inches			
C-2B	Briar Chapel Utilities LLC	Chatham	35° 48' 44"	-79° 06' 35"	0.90	Helena	01284 - Application Surface Irrigation	0.10	19.95	inches			
C-2C	Briar Chapel Utilities LLC	Chatham	35° 48' 38"	-79° 06' 35"	6.10	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches			
C-2D	Briar Chapel Utilities LLC	Chatham	35° 48' 41"	-79° 06' 36"	1.80	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches			
C-3A	Briar Chapel Utilities LLC	Chatham	35° 48' 52"	-79° 06' 55"	0.90	Wedowee	01284 - Application Surface Irrigation	0.10	19.95	inches			
C-3B	Briar Chapel Utilities LLC	Chatham	35° 48' 50"	-79° 06' 50"	0.80	Wedowee	01284 - Application Surface Irrigation	0.10	19.95	inches			
C-3C	Briar Chapel Utilities LLC	Chatham	35° 48' 47"	-79° 06' 49"	0.40	Wedowee	01284 - Application Surface Irrigation	0.10	19.95	inches			

C-3D	Briar Chapel Utilities LLC	Chatham	35° 48' 43"	-79° 06' 46"	0.40	Wedowee	01284 - Application Surface Irrigation	0.10	19.95	inches
C-3E	Briar Chapel Utilities LLC	Chatham	35° 48' 50"	-79° 06' 53"	9.80	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches
C-3F	Briar Chapel Utilities LLC	Chatham	35° 48' 42"	-79° 06' 44"	3.40	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches
C-5A	Briar Chapel Utilities LLC	Chatham	35° 49' 05"	-79° 06' 25"	4.10	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches
C-6A	Briar Chapel Utilities LLC	Chatham	35° 49' 10"	-79° 06' 01"	0.50	Rion	01284 - Application Surface Irrigation	0.10	19.95	inches
C-6B	Briar Chapel Utilities LLC	Chatham	35° 49' 10"	-79° 06' 54"	0.10	Helena	01284 - Application Surface Irrigation	0.10	19.95	inches
C-6C	Briar Chapel Utilities LLC	Chatham	35° 49' 13"	-79° 06' 58"	0.20	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches
C-6D	Briar Chapel Utilities LLC	Chatham	35° 49' 10"	-79° 06' 58"	0.70	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches
C-9A	Briar Chapel Utilities LLC	Chatham	35° 49' 21"	-79° 07' 11"	4.20	Helena	01284 - Application Surface Irrigation	0.10	19.95	inches
C-9B	Briar Chapel Utilities LLC	Chatham	35° 49' 15"	-79° 07' 09"	3.20	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches
C-12A	Briar Chapel Utilities LLC	Chatham	35° 49' 29"	-79° 07' 23"	2.00	Rion	01284 - Application Surface Irrigation	0.10	19.95	inches
C-12B	Briar Chapel Utilities LLC	Chatham	35° 49' 28"	-79° 07' 12"	2.60	Helena	01284 - Application Surface Irrigation	0.10	19.95	inches
C-12C	Briar Chapel Utilities LLC	Chatham	35° 49' 25"	-79° 07' 19"	3.40	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches
C-12D	Briar Chapel Utilities LLC	Chatham	35° 49' 18"	-79° 07' 15"	0.40	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches
C-13A	Briar Chapel Utilities LLC	Chatham	35° 49' 26"	-79° 07' 00"	0.40	Helena	01284 - Application Surface Irrigation	0.10	19.95	inches
C-13B	Briar Chapel Utilities LLC	Chatham	35° 49' 29"	-79° 06' 59"	1.00	Helena	01284 - Application Surface Irrigation	0.10	19.95	inches
C-13C	Briar Chapel Utilities LLC	Chatham	35° 49' 33"	-79° 07' 03"	1.10	Rion	01284 - Application Surface Irrigation	0.10	19.95	inches
C-13D	Briar Chapel Utilities LLC	Chatham	35° 49' 36"	-79° 06' 59"	1.00	Rion	01284 - Application Surface Irrigation	0.10	19.95	inches
C-13E	Briar Chapel Utilities LLC	Chatham	35° 49' 31"	-79° 06' 59"	2.70	Pacolet	01284 - Application Surface Irrigation	0.10	37.31	inches
C-13F	Briar Chapel Utilities LLC	Chatham	35° 49' 28"	-79° 07' 03"	6.40	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches
C-15A	Briar Chapel Utilities LLC	Chatham	35° 49' 32"	-79° 06' 46"	3.50	Helena	01284 - Application Surface Irrigation	0.10	19.95	inches
C-15B	Briar Chapel Utilities LLC	Chatham	35° 49' 38"	-79° 06' 40"	0.90	Helena	01284 - Application Surface Irrigation	0.10	19.95	inches
C-15C	Briar Chapel Utilities LLC	Chatham	35° 49' 25"	-79° 06' 38"	0.90	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches
C-15D	Briar Chapel Utilities LLC	Chatham	35° 49' 32"	-79° 06' 50"	0.90	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches
C-15E	Briar Chapel Utilities LLC	Chatham	35° 49' 40"	-79° 06' 45"	1.40	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches
C-16A	Briar Chapel Utilities LLC	Chatham	35° 49' 25"	-79° 06' 26"	6.20	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches
C-20A	Briar Chapel Utilities LLC	Chatham	35° 49' 48"	-79° 07' 00"	0.40	Helena	01284 - Application Surface Irrigation	0.10	37.31	inches
E-1A	Briar Chapel Utilities LLC	Chatham	35° 49' 21"	-79° 06' 01"	10.40	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches
E-2A	Briar Chapel Utilities LLC	Chatham	35° 49' 16"	-79° 06' 49"	9.00	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches

E-3A	Briar Chapel Utilities LLC	Chatham	35° 49' 13"	-79° 05' 30"	0.80	Helena	01284 - Application Surface Irrigation	0.10	19.95	inches
E-3B	Briar Chapel Utilities LLC	Chatham	35° 49' 11"	-79° 05' 22"	2.20	Helena	01284 - Application Surface Irrigation	0.10	19.95	inches
E-3C	Briar Chapel Utilities LLC	Chatham	35° 49' 10"	-79° 05' 27"	3.50	Wedowee	01284 - Application Surface Irrigation	0.10	37.31	inches
E-3D	Briar Chapel Utilities LLC	Chatham	35° 49' 12"	-79° 05' 39"	0.90	Rion	01284 - Application Surface Irrigation	0.10	37.31	inches
E-4A	Briar Chapel Utilities LLC	Chatham	35° 49' 16"	-79° 05' 35"	3.10	Helena	01284 - Application Surface Irrigation	0.10	19.95	inches
E-4B	Briar Chapel Utilities LLC	Chatham	35° 49' 18"	-79° 05' 18"	2.90	Helena	01284 - Application Surface Irrigation	0.10	19.95	inches
E-4C	Briar Chapel Utilities LLC	Chatham	35° 49' 16"	-79° 05' 26"	9.30	Rion	01284 - Application Surface Irrigation	0.10	37.31	inches
Phase 1C	Briar Chapel Utilities LLC	Chatham	35° 49' 14"	-79° 05' 46"	9.48	Wedowee	01284 - Application Surface Irrigation	0.10	30.84	inches
TOTAL					155.68					



0 2000' 4000'



SCALE: 1" = 2000'



NORTH

FARRINGTON, NC

1993

NIMA 6155 1 6E-SERIES V842



CE Group, inc.

LAND PLANNING
CIVIL ENGINEERING
LAND SURVEYING

January 15, 2010

Ms. Lynn Richardson c/o
Chatham County Planning Department
P.O. Box 87
Pittsboro, NC 27312

RE: Briar Chapel
Bond / Letter of Credit Estimate for Reclaimed Wastewater System
Chatham County, NC

Dear Ms. Richardson:

Currently Briar Chapel has constructed reclaimed wastewater infrastructure to support

- 250,000 GPD Treatment Plant
- Incident Weather Storage that exceeds 250,000 GPD
- Upset Storage that exceeds 250,000 GPD
- Irrigation installed and certified that supports 73,512 GPD
- Irrigation Areas substantially installed but not yet certified that support another 30,368 GPD

The combination of completed, substantially installed, and permitted (but not constructed) sprayfields will support over 315,000 GPD in total. Bill Mumford, with Newland Communities, has asked us to determine the cost required to complete irrigation infrastructure to support up to 125,000 GPD in total.

1. We estimate the cost to complete the substantially installed areas (30,368 GPD) to be \$65,000.
2. We estimate the cost to install permitted spray fields (approximately 10 AC to support additional 21,120 GPD) to be \$ 150,000

Including a 40% Contingency, the estimated amount is \$301,000.

The reclaimed wastewater (reuse) system has been constructed in accordance with Briar Chapel Utility and NCDENR standards and specifications.

I would anticipate that these costs will be valid for 1 year from this date.

Please contact us if you have any questions for need any additional information.

Respectfully submitted,

Mark P. Ashness, PE
CE Group, Inc.

11000 Regency Parkway, Suite 410 – Cary, N.C. 27518

Voice (919) 367-8790, X101 – Fax (919) 367-8791 – email mark@cegroupinc.com

1/15/2010
Professional Engineer Seal
Mark P. Ashness, PE
CE Group, Inc.

**NC DENR DEH PUBLIC WATER SUPPLY
WATER LINE EXTENSIONS**

Curtis M Blazier

From: Tomaino, Vincent [vincent.tomaino@ncdenr.gov]
Sent: Friday, September 10, 2010 9:58 AM
To: Curtis M Blazier; Grant Livengood
Cc: Douglas, Michael; Horne, Charlie
Subject: RE: 08-00901R1 -chathamcountybriarchapel-com-vjt

Per my phone discussion with Curt Blazier, the project lacks for approval only a sealed cover sheet for the specifications.

--

Please call or email me if you have any questions.

Vincent Jude Tomaino, P.E., Environmental Engineer
DENR-DEH-PWS-TSS
1634 Mail Service Center, Raleigh, NC 27699-1634
2728 Capital Boulevard, Raleigh, NC 27604
vincent.tomaino@ncdenr.gov PHONE 919/715-3234 FAX 919/715-4374

Do you hear that? That's the sound of us turning against you. -- Betty White

North Carolina Department of Environment
And Natural Resources
Division of Environmental Health
Public Water Supply Section

Application for Approval
of Engineering Plans and Specifications
For Water Supply Systems

Instructions & Checklist: To apply for approval for plans and specifications, submit the following materials & information:

Project Name: Briar Chapel - Phase 5 North

(This is the name to appear on Public Water Supply records and tracking system)

Attached are three copies of each of the following items:

- This completed "Application for Approval...;"
- The plan drawings;
- The Engineering Report (ER) addressing each of the items listed in 15A NCAC 18C .0307(b), including the design basis of the project.[15A NCAC 18C .0307(b)(12)]

One of the following:

- The project will use the following system's previously approved standard specifications:

Name of System: _____

PWS Approval Number & Date: _____

OR

- Attached are three copies of the specifications.

One of the following:

- The applicant is the Public Water System;

OR

- Attached is a letter from the Owner of the Public Water System agreeing to serve the project and stating that the system has adequate supply.

Note the following:

- Beginning January 1, 2007, attached is a check for the proper plan review fee amount, in accordance with NCGS 130A-328. See note 4 on page 4.

Date _____
(for DENR use only)

Serial No. _____
(for DENR use only)

To: Division of Environmental Health,
Department of Environment and Natural Resources

The David Hughes, Public Works Utility Director
(name of board, or council, authorized official and title, or owner)

of Chatham County
(name of city, town, corporation, sanitary district, water company or other)

in the County of Chatham, State of North Carolina authorized by law to act for the said

Chatham County Public Works Utility Department
(name of city, town, corporation, sanitary district, water company or other)

and to expend its funds for the water project described below, herewith submit for the counsel and advice of the Division of

Environmental Health plans and specifications prepared by McKim & Creed, PA
(engineer or firm)

(919) 233-8091 glivengood@mckimcreed.com
(Phone Number of Engineer – optional for faster contact) (Email Address of Engineer – optional for faster contact)

of 1730 Varsity Drive, Suite 500, Raleigh, NC 27606 for the installation or construction of
(address of engineer)

8,240 LF of 8-inch ductile iron water main, services for 174 lots,
and associated appurtenances
(description of project)

1,500 LF west of intersection of Briar Chapel Pkwy and Great Ridge Pkwy
(location of project)

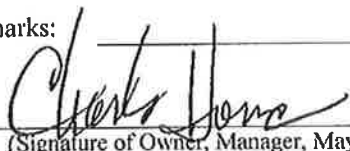
in Chatham County, and make application to the Division of Environmental Health for

the approval of said plans and specifications as related to public health and protection of public water supplies and public water systems.

These plans have been approved and accepted by the applicant.

This application is made under and in full accord with the provision of NCGS 130A-317, and such other statutes as related to public water systems. The applicant agrees that no change or deviation from the engineering plans and specifications approved by the Division of Environmental Health will be made except as allowed by 15A NCAC 18C .0306 or with the written consent and approval of the Division of Environmental Health or its authorized representative. The applicant agrees that a professional engineer licensed to practice in the State of North Carolina shall submit a statement reflecting that adequate observations during and upon completion of construction, by the engineer or by a representative of the engineer's office who is under the engineer's supervision, indicates that construction was completed in accordance with approved plans and specifications.

Remarks:



(Signature of Owner, Manager, Mayor or Chairman)

Charlie Horne

(Type Name Signed Above)

(919) 542-8201

(Phone Number – optional for faster contact)

12 East Street

(Street or Box Number)

Pittsboro, NC 27312

(City, State, Zip Code)

charlie.horne@chathamnc.org

(Email Address – optional for faster contact)

Status of Water System Management Plan (WSMP)

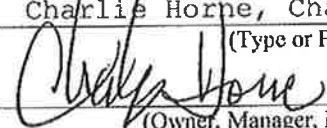
Check one of the following, and if applicable, provide the required information:

- The WSMP for the project, as defined in the attached engineering plans and specifications, is submitted with this application.
- The WSMP that includes this project, as defined in the attached engineering plans and specifications, was previously submitted.

Provide the following:

Water System Name: North Chatham
Owner Name: Chatham County
PWS I.D. No.: 03-19-126
WSMP No.: 05 00592
WSMP Submittal Date: 12-09-99 - revised - 03-2005
County: Chatham

By my signature below, I certify that the previously submitted WSMP contains the information required by 15A NCAC 18C .0307(c) for the project defined in the attached engineering plans and specifications.

NAME: Charlie Horne, Chatham Cnty Manager
(Type or Print Name)
SIGNATURE:  DATE: 9/1/10
(Owner, Manager, Mayor or Chairman)

- The WSMP for the project, as defined in the attached engineering plans and specifications, has not been submitted.

Note: When the WSMP is submitted, the applicant must clearly identify the previously submitted project engineering plans and specifications for which the WSMP was prepared.

Status of Engineer's Report

Check one of the following, and if applicable, provide the required information.

- The Engineer's Report for the project, as defined in the attached engineering plans and specifications, is submitted with this application.
- The Engineer's Report that includes this project, as defined in the attached engineering plans and specifications, was previously submitted.

Provide the following:

Water System Name: _____
Owner Name: _____
PWS I.D. No.: _____
Engineer's Report No.: _____
Engineer's Report Title: _____
Engineer's Report Submittal Date: _____
County: _____

Note: If the previously submitted Engineer's Report covered multiple projects, then attach to this Application, a letter from the engineer stating that the previously submitted Engineer's Report contains the information required by 15A NCAC 18C .0307(b) for the project defined in the attached engineering plans and specifications.

In accordance with NCGS 130A-328, there will be a fee charged for plan review by the NC DENR Public Water Supply Section. Any documents submitted for review on or after January 1, 2007 must be accompanied by a check payable to *DENR-Public Water Supply Section* before the review will begin.

**** There is a \$25 fee for returned checks ****

The charges for review of plans are shown below. Check one of the following.

Distribution System fees

- Construction of water lines, less than 5000 linear feet **\$150**
- Construction of water lines, 5000 linear feet or more **\$200**
- Other construction or alteration to a distribution system **\$ 75**

Ground Water System fees

- Construction of a new ground water system or adding a new well **\$200**
- Alteration to an existing ground water system **\$100**

Surface water system fees

- Construction of a new surface water treatment facility **\$250**
- Alteration to existing surface water treatment facility **\$150**

Other fees

- Water System Management Plan review **\$ 75**
- Miscellaneous changes or maintenance not covered above **\$ 50**

Notes:

1. The fee is not refundable if the plans are not approved
2. Revisions to plans to address PWS or other state agency's comments do not incur an additional fee.
3. If one set of plans has multiple related sheets, such as a new well with construction of water lines, only one fee must be submitted for highest price item (the amounts are not cumulative, except fees for Water System Management Plans).
4. Water System Management Plan review fees stand alone and must be included in addition to those for the review of the plans themselves.
5. Ten days after the receipt of plans and specifications for approval, if the appropriate plan review fee is not received, then all plan documents will be recycled. A new set of documents must then be submitted with the appropriate fee for approval.

These plans and specifications cited in the foregoing application, including any provisos in the approval letter, are approved insofar as the protection of public health is concerned as provided in the rules, standards and criteria adopted under the authority of NCGS 130A-315 and 130A-317. This approval does not address all applicable laws, rules, standards and criteria, and other approvals and licenses that may be required by the local, state or federal government.

This approval is given with the understanding that upon installation of such works, its operation shall be placed under the care of a competent person, and the operation shall be carried out according to best accepted practice and in accordance with the recommendations of the Division of Environmental Health.

The official copies of plans and specifications accompanying this application have been sealed and stamped with the serial number of this application _____. Any erasures, additions or alterations of the proposed improvements except those permitted in 15A NCAC 18C .0306 will make this approval null and void.

This approval does not constitute a warranty of the design, construction or future operation of the water system.

Signed: _____
Public Water Supply Section
Division of Environmental Health

NCDOT CORRESPONDENCE
ROADWAY PLANS

Curtis M Blazier

From: Bullock, Justin E [jebullock@ncdot.gov]
Sent: Thursday, September 09, 2010 5:35 PM
To: Curtis M Blazier; Doug Brown
Cc: Britt, Jennifer L; Lynn Richardson
Subject: Briar Chapel Phase 5 North

Curt & Doug,

The NCDOT District Office has reviewed the Phase 5 North Briar Chapel subdivision plans. Based on our review, the plans are in line with NCDOT specifications and will be approved with minor redlines. The approved plans will be mailed next week.

If you have any questions, contact me.

Justin Bullock, P.E.
Asst. District Engineer
Division 8, District I

PO Box 1164
300 Country Club Drive
Asheboro, N.C. 27204
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**CHATHAM COUNTY EROSION AND
SEDIMENTATION CONTROL**

Curtis M Blazier

From: Rachael Thorn [rachael.thorn@chathamnc.org]
Sent: Thursday, September 09, 2010 10:56 AM
To: Lynn Richardson; Curtis M Blazier
Subject: Briar Chapel Phase 5 South
Follow Up Flag: Follow up
Flag Status: Red

Lynn,

The revised plan submitted for this site involves only small changes to the existing plan/permit. I have yet to do a full review but the project is fine to move forward from an e/c standpoint as a permit is in place. This revision is not very technical and changes little in the scope of the project. I will complete the review in the next day or so but have given Curt the go ahead to get started.

Thanks,
Rachael Thorn
Chatham County
Soil Erosion and Sedimentation Control

9/10/2010



Chatham County, North Carolina
Certificate of Sedimentation and Erosion Control Plan Approval and
Land-Disturbing Permit
For

NNP-Briar Chapel Phase 5-Construction ^{North}

Project Name and Location

2007-047

Permit Number

The posting of this certificate certifies that an erosion and sedimentation control plan has been approved for this project by Chatham County, North Carolina in accordance with North Carolina General Statute 113A-57 (4) and 113A-54 (d)(4), the North Carolina Administrative Code, Title 15A, Chapter 4B.0007 (c) and as per applicable sections of the Chatham County Soil Erosion and Sedimentation Control Ordinance. This certificate must be posted at the primary entrance of the job site before construction begins and until establishment of permanent ground cover as required by North Carolina Administrative Code, Title 15A, Chapter 4B.0027 (b) and as per Chatham County's Erosion and Sediment Control Ordinance, Section 5 (d).

Responsible Person: Mitch Barron Phone: 919-361-7000

This plan was approved with "modifications" Yes No and / or
"performance reservations" Yes No.

Reviewer: *Jan Pull*

Date: 3-6-08

THE ORDINANCE REQUIRES THAT A COPY OF
THE EROSION CONTROL PLAN
MUST BE KEPT AVAILABLE AT THE JOB SITE
AT ALL TIMES FOR INSPECTION