



ENGINEERS

SURVEYORS

PLANNERS

November 10, 2011

M&C 02735-0072

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

RE: Briar Chapel Parkway & Boulder Point Drive Extensions
Preliminary Plat Submittal

Ms. Richardson:

Enclosed please find our Briar Chapel Parkway & Boulder Point Drive Extensions preliminary plat submittal.

Enclosed in this submittal are the following:

- (1) Set overall preliminary plat plans – 24" x 36"
- (20) Overall site plan - 24" x 36"
- Completed major subdivision application
- Completed major subdivision checklist
- Supporting permit approval documentation
- CD with digital copies of the above information in PDF format

If you have any questions during your review, please do not hesitate to give me a call at (919) 233-8091. Thank you for your assistance.

Sincerely,

McKIM & CREED, INC.

Venture IV Building

1730 Varsity Drive

Raleigh, NC 27606

Chris Seamster, RLA
Project Manager / Landscape Architect

919.233.8091

CC: **Mr. Bill Mumford, PE**
Mr. Lee Bowman

Fax 919.233.8031

www.mckimcreed.com

**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 – Briar Chapel Parkway and Boulder Point Drive Extensions**Subdivision Applicant:** _____ **Subdivision Owner:** _____Name: Bill Mumford, Assistant Vice PresidentName: NNP Briar Chapel LLCAddress: 16 Windy Knoll Circle
Chapel Hill, NC 27516Address: 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.comE-Mail bmumford@newlandco.com**Township:** Baldwin**Zoning:** CUD-CC**P. I. N. #** 9765-45-8095.000**Flood Map #** 3710976500J**Zone:** X**Parcel #** 8095**Watershed:** WS-IV NSW**Existing Access Road:** S.R. #1528/1526**S.R. road name** Andrews Store / Parker Herndon**Total Acreage:** N/A**Total # of Lots:** N/A**Min. Lot Size:** N/A

Ph. I Acreage: _____

Ph. I # of lots _____

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 _____ ☒ Public/ Length 3,397 LF**Road Surface:**☒ paved☐ gravel**Water System:**☐ individual wells☐ community wells☒ public systemname Chatham County**Sewer System:**☐ septic systems☐ community system☒ public systemname Provided by on-site facility**List other facilities:** commercial, recreation, etc., and the approximate acreage or square footage: _____Bill Mumford 11-8-11 Date _____
Signature of ApplicantBill Mumford 11-8-11 Date _____
Signature of Owner**For Office Use Only:**

Notes: _____

Approved by County Commissioners: SketchPreliminaryFinal

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

CHATHAM COUNTY
MAJOR SUBDIVISION
REVIEW CHECKLIST – BRIAR CHAPEL

Phase Briar Chapel – Briar Chapel Parkway and Boulder Point Drive Extensions

Review For: ☒ Preliminary Plat

Submittal Date 11/10/2011

Attach all supporting documentation regarding these approvals.

PRELIMINARY PLAT	APPROVAL DATE
<input checked="" type="checkbox"/> 20 Copies of Plat (folded)
<input checked="" type="checkbox"/> Application
<input type="checkbox"/> Road name approval(s)	____/____/____
<input checked="" type="checkbox"/> NCDOT Road Plan approval (if public roads)	11 / 7 / 11
<input type="checkbox"/> NCDOT Commercial Driveway Permit (if applicable)	____/____/____
<input checked="" type="checkbox"/> Erosion Control Plan approval	11 / 09 / 11
<input checked="" type="checkbox"/> U. S. Army Corps of Engineers 404 Permit (if applicable)	08 / 21 / 09
<input checked="" type="checkbox"/> NCDENR Water Quality 401 Permit (if applicable)	10 / 04 / 11
<input checked="" type="checkbox"/> Statement regarding historical structures and/or features	04 / 09 / 03
<input type="checkbox"/> NCDENR DWQ Wastewater Collection System Extension	____/____/____
<input type="checkbox"/> NCDENR DWQ Wastewater Treatment/Reclaimed Water/Spray Irrigation Permit	____/____/____
<input checked="" type="checkbox"/> Chatham County Water Plan Approval	09 / 27 / 11
<input checked="" type="checkbox"/> NCDENR Water Main Extension	11 / 01 / 11
<input checked="" type="checkbox"/> NCDENR Authorization to Construct / Water System	10 / 20 / 11
<input checked="" type="checkbox"/> Watershed Protection Plan (includes impervious surface calculations & Monitoring plan for phase and overall project to date).	11 / 09 / 11
<input type="checkbox"/> Solid Waste Management Plan, (if applicable)	____/____/____
<input type="checkbox"/> Conditional Use Permit Stipulations Response & Master Plan updates	____/____/____
<input type="checkbox"/> Fire Flow Report, (if applicable)	____/____/____
<input type="checkbox"/> Any other permits or approval letters necessary to obtain Preliminary Plat approval	____/____/____
_____	____/____/____

<input type="checkbox"/> Preliminary plat fees (\$45.00 per residential lot)	
Paid _____ Date _____	
{ } 1 electronic copy of all items above (see Digital Document Requirements)	
Comments:	
	____/____/____

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

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.	12.
3.	13.
4.	14.
5.	15.
6.	16.
7.	17.
8.	18.
9.	19.
10.	20.

FOR OFFICE USE ONLY

Date's Adjacent Owner Letters were mailed out

Preliminary	/ /	/ /
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Dates and Actions of Planning Board Meetings

Preliminary	/ /	<input type="checkbox"/> Appv'd	<input type="checkbox"/> Denied	<input type="checkbox"/> Tabled
Final	/ /	<input type="checkbox"/> Appv'd	<input type="checkbox"/> Denied	<input type="checkbox"/> Tabled

Dates and Actions of Board of Commissioners Meetings

CC/CUP/ Sketch	2 /15 05/	<input checked="" type="checkbox"/> Appv'd	<input type="checkbox"/> Denied	<input type="checkbox"/> Tabled
Preliminary	/ /	<input type="checkbox"/> Appv'd	<input type="checkbox"/> Denied	<input type="checkbox"/> Tabled
Final	/ /	<input type="checkbox"/> Appv'd	<input type="checkbox"/> Denied	<input type="checkbox"/> Tabled

Conditions stipulated by Planning Board or Board of Commissioners (label as sketch, preliminary or final):

See A RESOLUTION APPROVING AN APPLICATION FOR A CONDITIONAL USE PERMIT FOR A REQUEST BY MITCH BARRON ON BEHALF OF NEWLAND COMMUNITIES FOR BRIAR CHAPEL PLANNED RESIDENTIAL DEVELOPMENT dated February 15, 2005 for list of Conditional Use Permit and subdivision sketch design stipulations and conditions.

Financial Guarantee (if applicable):

Submitted by: _____
 Guarantee Type: _____
 Amount: \$ _____
 Acceptance Date: ____/____/____
 Expiration Date: ____/____/____
 Release Date: ____/____/____
 Release Payable to: _____

 Planning Department

 Date

NCDENR DWQ
STORMWATER MANAGEMENT PLAN



North Carolina Department of Environment and Natural Resources

Division of Water Quality
Coleen H. Sullins
Director

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

October 4, 2011

DWQ Project # 05-0732v21
Chatham County

CERTIFIED MAIL: RETURN RECEIPT REQUESTED

NNP – Briar Chapel, LLC
Attn: Mr. William Mumford, Vice President Newland Communities
16 Windy Knoll Circle
Chapel Hill, NC 27516

Subject Property: Boulder Point Drive Extension

STORMWATER MANAGEMENT PLAN APPROVAL

Dear Mr. Mumford:

On January 11, 2008, the Division of Water Quality (DWQ) issued a revised 401 Water Quality Certification to temporarily impact 339 linear feet of stream and 0.157 acre of 404 wetlands and to permanently impact 1,666 linear feet of stream and 0.1590 acre of 4040 wetlands in order to construct the Briar Chapel Subdivision in Chatham County.

In order to meet Condition 10 of the 401 Certification for this project, a stormwater management plan for Briar Chapel Parkway and Boulder Point Drive Extension, dated June 22, 2011 and received July 1, 2011, was reviewed by the DWQ. A revised stormwater management plan for Boulder Point Drive Extension, dated September 2, 2011, was received September 6, 2011.

The DWQ has reviewed your SMP and supporting information, and approves the revised SMP to satisfy the stormwater condition required by the 401 Certification. This approval is for the purpose and design described in your application. If the property is sold, the new owner must be given a copy of this approval letter and is thereby responsible for complying with all conditions.

In order to maintain compliance with the approved SMP, please follow the conditions listed below:

1. **Description of the SMP:** The SMP approved by this office consists of a temporary low density area that will utilize Level Spreader-Vegetated Filter Strip (LS-VFS) devices to treat stormwater runoff from the roadway area as well as provide diffuse flow offsite for the one-inch storm event. As residential areas are constructed in the locations of these devices, they will be removed and stormwater will be re-directed into a permanent BMP, likely a wet detention pond that will be designed at that time. **Within 30 months after the completion of this Boulder Drive Extension Project, the permanent BMP devices must be installed and operational.**
2. **Operation and Maintenance of BMPs:** The approved LS-VFS devices must be maintained in accordance with the LS-VFS operation and maintenance (O & M) agreements signed by you on June 28, 2011. The O & M agreements must transfer with the sale of the property or transfer of

October 4, 2011

ownership/responsibility for the BMP facilities. DWQ must be notified promptly of every transfer.

Thank you for your attention to this matter. If you have any questions or wish to discuss these matters further please do not hesitate to contact me at 919-807-6381.

Sincerely,



Annette M. Lucas, P.E.
Wetlands, Buffers and Stormwater Compliance and
Permitting (WeBSCaPe) Unit

AML/aml

cc: U.S. Army Corps of Engineers, Raleigh Regulatory Field Office, Wilmington District, USACOE
Lauren Witherspoon, DWQ Raleigh Regional Office
File Copy
Grant Livengood, PE, McKim & Creed, 1730 Varsity Drive, Raleigh, NC 27606

Filename: 050732v21BriarChapelParkway(Chatham)_SW_Approve

**CHATHAM COUNTY STORMWATER
IMPERVIOUS SURFACE AREA TABLE**

Briar Chapel Estimated Impervious Calculations Residential

LOT TYPE	Impervious Per Lot	PH 2	PH 4	PH 5S	PH 5N	PH 6S	PH 6N	PH 7	PH 8	PH 9	PH10	PH 11	PH 12	PH 13	PH 14	PH 15	PH16	TOTAL	IMPERVIOUS
TH	2,400	-	-	-	74	-	-	74	15	-	95	58	-	-	-	-	-	316	758,400 sf
30'-40' Lots	2,400	-	-	-	63	-	-	62	16	39	68	49	-	-	-	-	-	297	712,800 sf
50' Lots	3,400	-	-	-	48	-	20	-	12	37	19	-	25	-	-	53	19	233	792,200 sf
60' Lots	3,700	-	-	-	-	-	44	38	50	-	7	1	39	-	-	58	38	275	1,017,500 sf
70' Lots	4,000	-	-	-	-	-	27	15	19	35	-	-	46	18	-	17	50	227	908,000 sf
80' Lots	4,300	-	-	-	-	-	7	8	7	-	-	-	34	10	-	12	38	116	498,800 sf
90' Lots	4,500	-	-	-	-	-	9	-	-	-	-	-	20	7	-	-	13	49	220,500 sf
100' Lots	4,600	-	-	-	-	-	-	-	-	-	-	-	17	13	25	-	19	74	340,400 sf
Total		-	-	-	185	134	107	197	119	111	189	108	181	48	25	140	177	1587	
Impervious SF		-	1,416,400 sf	240,000 sf	492,000 sf	473,100 sf	409,400 sf	561,400 sf	406,300 sf	359,400 sf	481,700 sf	260,500 sf	727,700 sf	206,300 sf	115,000 sf	514,400 sf	714,500 sf		7,378,100 sf
Impervious AC		-	32.52 ac	5.51 ac	11.29 ac	10.86 ac	9.40 ac	12.89 ac	9.33 ac	8.25 ac	11.06 ac	5.98 ac	16.71 ac	4.74 ac	2.64 ac	11.81 ac	16.40 ac		169.38 ac
IMPERVIOUS TYPE		PH 2	PH 4	PH 5S	PH 5N	PH 6S	PH 6N	PH 7	PH 8	PH 9	PH10	PH 11	PH 12	PH 13	PH 14	PH 15	PH16		TOTAL
Road	-	228,382 sf	884,567 sf	54,163 sf	277,162 sf	178,084 sf	147,677 sf	263,690 sf	139,437 sf	258,614 sf	256,887 sf	108,101 sf	413,444 sf	81,568 sf	63,832 sf	220,430 sf	303,378 sf		3,679,416 sf
Alley	-	-	219,499 sf	-	64,632 sf	10,705 sf	40,456 sf	45,851 sf	36,586 sf	46,637 sf	47,719 sf	52,897 sf	43,992 sf	-	-	-	-		608,974 sf
Sidewalk	-	314 sf	255,556 sf	15,757 sf	67,003 sf	50,332 sf	39,924 sf	68,580 sf	37,223 sf	70,140 sf	67,227 sf	25,640 sf	76,787 sf	18,756 sf	-	40,815 sf	76,433 sf		910,487 sf
Bridge	-	1,392 sf	4,448 sf	-	-	-	-	-	-	-	-	-	-	-	-	-	-		5,840 sf
Building	-	-	13,661 sf	-	-	-	-	-	-	-	78,001 sf	59,606 sf	-	-	-	-	-		151,268 sf
Parking Lot	-	-	44,748 sf	-	-	-	-	-	-	-	86,188 sf	45,870 sf	-	-	-	-	-		176,806 sf
Retaining Wall	-	-	3,703 sf	-	-	-	-	-	-	-	-	-	-	-	-	-	-		3,703 sf
Miscellaneous	-	752 sf	2,717 sf	-	-	-	-	-	-	-	-	-	-	-	-	-	-		3,469 sf
County Park	76,314 sf	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		76,314 sf
County School	318,823 sf	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		318,823 sf
Woods Charter School	180,911 sf	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		180,911 sf
Water Tank Site	13,755 sf	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		13,755 sf
Water Treatment Plant	38,590 sf	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		38,590 sf
BC Civic Building	41,274 sf																		
BC Village Market (@15-501)	123,156 sf																		
BC Town Center (@15-501)	1,353,948 sf	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		1,353,948 sf
Total Impervious SF	2,146,771 sf	230,840 sf	1,228,899 sf	69,920 sf	408,797 sf	239,121 sf	228,057 sf	378,121 sf	213,246 sf	375,391 sf	536,022 sf	292,114 sf	534,223 sf	100,324 sf	63,832 sf	261,245 sf	379,811 sf		7,686,734 sf
Total Impervious AC	49.28 ac	5.30 ac	28.21 ac	1.61 ac	9.38 ac	5.49 ac	5.24 ac	8.68 ac	4.90 ac	8.62 ac	12.31 ac	6.71 ac	12.26 ac	2.30 ac	1.47 ac	6.00 ac	8.72 ac		176.46 ac
Total SF	2,146,771 sf	230,840 sf	2,645,299 sf	309,920 sf	900,797 sf	712,221 sf	637,457 sf	939,521 sf	619,546 sf	734,791 sf	1,017,722 sf	552,614 sf	1,261,923 sf	306,624 sf	178,832 sf	775,645 sf	1,094,311 sf		15,064,834 sf
Total AC	49.28 ac	5.30 ac	60.73 ac	7.11 ac	20.68 ac	16.35 ac	14.63 ac	21.67 ac	14.22 ac	16.87 ac	23.36 ac	12.69 ac	28.97 ac	7.04 ac	4.11 ac	17.81 ac	25.12 ac		345.84 ac

= From DWQ Permit

= Asbuilr from Aerial Planimetrics

**NCDENR 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

Doe Freeman
Secretary

August 31, 2009

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

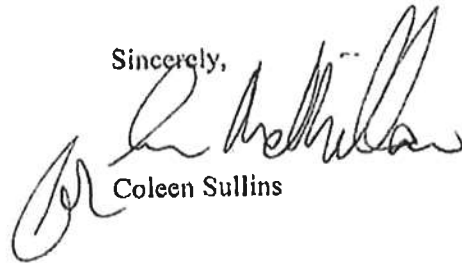
Re: Briar Chapel, Chatham County
DWQ Project # 20050732, Ver. 13; USACE Action ID. No. 200121252
APPROVAL of 401 Water Quality Certification with Additional Conditions - MODIFICATION

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

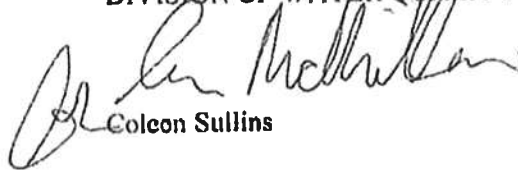
Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return the attached certificate of completion to the 401/Wetlands Unit, North Carolina Division of Water Quality, 1650 Mail Service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



Colcon Sullins

CHS/cbk/ljm

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: _____



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

REPLY TO
ATTENTION OF

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.

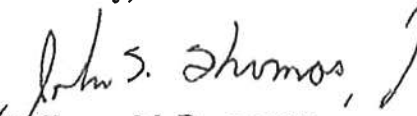
The Corps has completed the evaluation of your request and concurs with your request for a change in impacts associated with your referenced DA permit including the change to plans as requested. No additional mitigation is required for this modification.

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**

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		
New Permitted Totals 2007/2008					1,666 LF perm. Stream impact & 359 LF temp. Stream Impact	0.4422 ac. perm. Wetland impact & 0.156 ac. temp. Wetland impact

* 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	0.123 ac. temp. wetland impact (NO CHANGE)
7	Perennial Stream	Utility	20 LF temp. stream impact (NO CHANGE)	0 (NO CHANGE)
8	Perennial Stream	Utility	24 LF temp. stream impact (NO CHANGE)	0.0140 temp. wetland impact (NO CHANGE)
9	Wetland	Utility	0 (NO CHANGE)	0.4374 ac. perm. wetland impact & 0.197 ac. temp. wetland impact
TOTALS			2,237 LF perm. stream impact & 634 LF temp. stream impact	

MODIFICATION REQUEST
BRIAR CHAPEL, CHATHAM CO., NC

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 & + 14 LF 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	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	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	-571 LF perm./+275 LF temp.	-0.0048 ac. perm./+0.041 ac. temp.
TOTALS NET FOR PROJECT				

**NCDENR DEH PUBLIC WATER SUPPLY
WATER LINE EXTENSIONS**



North Carolina Department of Environment and Natural Resources

Division of Water Resources

Beverly Eaves Perdue
Governor

Thomas A. Reeder
Director

Dee Freeman
Secretary

October 31, 2011

Mr. David Hughes, Public Works Director
Chatham County Department of Public Works
964 East Street
Pittsboro, NC 27312

Re: Engineering Plans and Specifications Approval
Water Main Extension for
Briar Chapel Parkway Extensions by
Chatham County Department of Public Works
Water System No: NC 03 19 126
Chatham County
Serial Number: 11-00932

This is not an Authorization to Construct

Dear Mr. Hughes:

Enclosed please find one copy of the "Application for Approval..." together with one copy of the referenced engineering plans and specifications bearing the Division of Water Resources stamp of approval for the referenced project. These engineering plans and specifications for the water main extension are approved under serial number 11-00932, dated October 20, 2011.

Engineering plans and specifications prepared by Grant Livengood, P.E. call for the installation and construction of approximately 1,259 linear feet of 12-inch ductile iron pipe water main, 1,794 linear feet of 8-inch ductile iron pipe, 8 fire hydrants, and other appurtenances. This information is shown on plans titled "Briar Chapel Development-Briar Chapel Parkway & Boulder Point Drive Extensions", signed and sealed October 5, 2011 and October 13, 2011.

Please note that an "Authorization to Construct" requires both this approval of Engineering Plans and Specifications and submittal of a complete Water System Management Plan. No construction shall be undertaken, and no contract for construction, alteration, or installation shall be entered into until the Department issues an Authorization to Construct letter in accordance with 15A NCAC 18C.0305(a).

These plans and specifications cited in the foregoing application are approved insofar as the protection of public health is concerned as provided in the rules, standards and criteria adopted under the authority of Chapter 130A-317 of the General Statutes. This approval does not constitute a warranty of the design, construction or future operation of the water system.

One copy of each enclosed document is being forwarded to our Raleigh Regional Office. The third copy is being retained in our permanent files.

Public Water Supply Section – Jessica C. Godreau, Chief
1634 Mail Service Center, Raleigh, North Carolina 27699-1634
Phone: 919-733-2321 \ FAX: 919-715-4374 \ Lab Form FAX: 919-715-6637 \ Internet: ncdrinkingwater.state.nc.us

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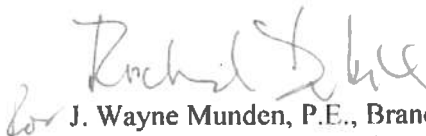
One
North Carolina
Naturally

Mr. David Hughes
Chatham County Public Works Director
Briar Chapel Parkway Extensions
October 31, 2011

page 2 of 2

If Public Water Supply can be of further service, please call (919) 733-2321.

Sincerely,


for J. Wayne Munden, P.E., Branch Head
Technical Services Branch
Public Water Supply Section

JWM/RJD/db

Enclosures: Approval Documents

cc: Michael Douglas, P.E., Raleigh Regional Office
Chatham County Health Department
Grant Livengood, P.E., McKim & Creed

Consultant's mailing info:
McKim & Creed
1730 Varsity Drive, Suite 500
Raleigh, NC 27606



North Carolina Department of Environment and Natural Resources

Division of Water Resources

Beverly Eaves Perdue

Thomas A. Reeder

Dee Freeman

Governor

Director

Secretary

November 1, 2011

David Hughes, Public Works Utility Director
Chatham County Dept Of Public Works
964 East Street
Pittsboro, NC 27312

Re: **Authorization to Construct
Briar Chapel Parkway Extension
Chatham Co Water System
Chatham County NC0319126**

Authorization to Construct (This is not a Final Approval)

Dear Applicant:

This letter is to confirm that a complete Engineer's Report and a Water System Management Plan have been received, and that engineering plans and specifications have been approved by the Department for **Briar Chapel Parkway Extension, Serial No. 11-00932**.

The Authorization to Construct is valid for 24 months from the **Issue Date** (refer to next page). Authorization to Construct may be extended if the Rules Governing Public Water Supplies and site conditions have not changed (see Rule .0305). The Authorization to Construct and the engineering plans and specifications approval letter shall be posted at the primary entrance of the job site before and during construction.

Upon completion of the construction or modification, **and prior to placing the new construction or modification into service**, the applicant must submit an Engineer's Certification and Applicant Certification directly to RICHARD DICKIE, P.E. of this office.

- **Engineer Certification:** in accordance with Rule .0303 (a), the applicant shall submit a certification statement signed and sealed by a registered professional engineer stating that construction was completed in accordance with approved engineering plans and specifications, including any provisions stipulated in the Department's engineering plan and specification approval letter.
- **Applicant Certification:** in accordance with Rule .0303 (c), the applicant shall submit a signed certification statement indicating that the requirements for an Operation and Maintenance Plan and Emergency Management Plan have been satisfied in accordance with Rule .0307 (d) and (e) and that the system has a certified operator in accordance with Rule .1300. The "Applicant Certification" form is available at <http://www.deh.enr.state.nc.us/pws/> (click on Plan Review Forms, under Plan Review heading).

If this Authorization to Construct is for a new public water system, the owner must submit a completed **application for an Operating Permit** and the appropriate fee. For a copy of the application for an Operating Permit please call (919) 715-3214.

Once the certifications and permit application and fee, (if applicable), are received and determined adequate, the Department will issue a Final Approval letter to the applicant. In accordance with Rule .0309 (a), **no portion of this project shall be placed into service until the Department has issued Final Approval.**

If Public Water Supply Section can be of further assistance, please call (919) 733-2321.

Sincerely,

J. Wayne Munden, P.E., Branch Head
Technical Services Branch
Public Water Supply Section

JWM: RJD

cc: MICHAEL DOUGLAS, P.E., Regional Engineer
Mckim And Creed PA-Raleigh

Public Water Supply Section – Jessica C. Godreau, Chief

1634 Mail Service Center, Raleigh, North Carolina 27699-1634

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

Public Water System Authorization to Construct

**Public Water System Name
and Water System No.
(if available):**

Chatham Co Water System
NC0319126

Project Name:

Briar Chapel Parkway Extension

Serial No.:

11-00932

Issue Date:

10/20/2011

Expiration Date:

24 Months after Issue Date

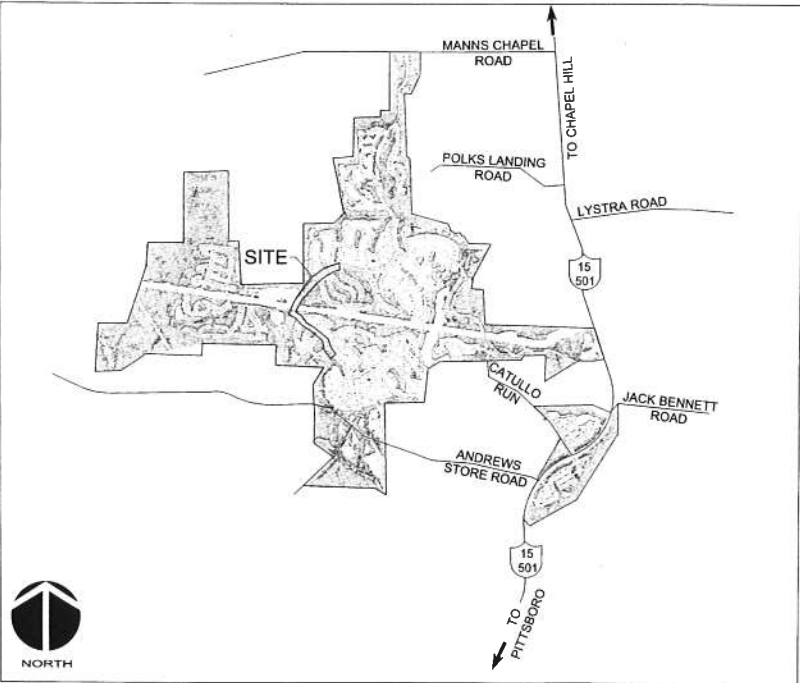
In accordance with NCAC 18C .0305, this Authorization to Construct must be posted for
At the primary entrance to the job site during construction.

NCDENR PUBLIC WATER SUPPLY SUBMITTAL
BRIAR CHAPEL DEVELOPMENT
BRIAR CHAPEL PARKWAY &
BOULDER POINT DRIVE EXTENSIONS
FOR

NNP BRIAR CHAPEL, LLC
CHATHAM COUNTY, NC
DATE: JULY 12, 2011

COUNTY AND AGENCY CONTACTS

- A. Chatham County
Environmental Services
Dunlap Building
80 East Street
Pittsboro, NC 27312
(919) 542-8268 phone
Contact: Dan Lamontagne
Email: dan.lamontagne@chathamnc.org
- B. Chatham County
Soil Erosion and Sedimentation Control
Dunlap Building
80 East Street
Pittsboro, NC 27312
(919) 545-8339 phone
Contact: Rachael Thom
Email: rachael.thom@chathamnc.org
- C. NCDOT
Division 8, District 1
300 Country Club Drive
P.O. Box 1164
Asheboro, NC 27204
(336) 629-1423 phone
Contact: Reuben Blakley, PE
Email: rblakley@ncdot.gov
- D. NCDENR
Division of Water Quality
2321 Crabtree Blvd., Suite 250
Raleigh, NC 27604
(919) 791-4200 phone
Contact: Annette Lucas
Email: Annette.Lucas@ncdenr.gov
- E. NCDENR
Division of Environmental Health
Public Water Supply Section
1634 Mail Service Center
Raleigh, NC 27699-1634
(919) 715-3226 phone
Contact: Henri Ou
Email: heinrich.ou@ncdenr.gov
- F. NCDENR
Division of Water Quality
Surface Water Protection
3800 Barrett Drive
Raleigh, NC 27609
(919) 791-4200 phone
Contact: Barry Herzberg
Email: barry.herzberg@ncdenr.gov



VICINITY MAP

NTS

BRIAR CHAPEL™
by
Newland COMMUNITIES

MCKIM & CREED
1730 Varsity Drive, Suite 500
Raleigh, North Carolina 27606
Phone: (919)233-8091, Fax: (919)233-8031
F-1222

www.mckimcreed.com

WATER PLAN REVIEW
REVIEW IS FOR GENERAL CONFORMANCE WITH
THE CHATHAM COUNTY, NC EDITION OF
THE N.C. STANDARD SPECIFICATIONS FOR
CONSTRUCTION. THE REVIEW DOES NOT
GUARANTEE THE DESIGN OR THE
DESIGNER FROM DESIGN, CONSTRUCTION,
OR OTHER
ENVIRONMENTAL REVIEW.
APPROVED
APPROVED WITH MODIFICATIONS
REVIS AND RESUBMIT
DISAPPROVED
CHATHAM COUNTY PUBLIC WORKS DEPARTMENT
200 West 17th Street, North Carolina 27512
Date: 7/27/11 By: [Signature]
Public Works Director

PROJECT DATA

NAME OF PROJECT:
BRIAR CHAPEL DEVELOPMENT -
BRIAR CHAPEL PARKWAY AND BOULDER POINT DRIVE EXT.
CHATHAM COUNTY, NORTH CAROLINA

OWNER:
NNP BRIAR CHAPEL, LLC
16 WINDY KNOLL CIRCLE
CHAPEL HILL, NC 27516
PHONE: (919) 951-0700
FAX: (919) 240-4963
CONTACT: BILL MUMFORD, PE
EMAIL: bmumford@newlandco.com

PREPARED BY:
McKIM & CREED
1730 VARSITY DRIVE, SUITE 500
RALEIGH, NORTH CAROLINA 27606
PHONE: (919) 233-8091
FAX: (919) 233-8031
CONTACT: GRANT LIVENGOOD, PE
EMAIL: glivengood@mckimcreed.com

PROJECT AREA: 12.80 AC
These improvements shall be constructed in accordance with the
following plans, and the Standard Specifications of NCDOT and
Chatham County.

DRAWING INDEX

- C-1 COVER SHEET
C-2 EXISTING CONDITIONS PLAN
C-3 OVERALL SITE PLAN
C-4 SIGNAGE & STRIPING PLAN
C-5 GRADING, DRAINAGE & EROSION CONTROL PLAN
BOULDER POINT DRIVE
C-6 GRADING, DRAINAGE & EROSION CONTROL PLAN
BRIAR CHAPEL PARKWAY
C-7 UTILITY PLAN
BRIAR CHAPEL PARKWAY
C-8 UTILITY PLAN
BOULDER POINT DRIVE
PP-1 PLAN AND PROFILE
BOULDER POINT DRIVE STA 20+38 TO STA 33+00
PP-2 PLAN AND PROFILE
BOULDER POINT DRIVE STA 33+00 TO STA 36+95
BRIAR CHAPEL PKWY STA 10+00 TO STA 14+43
PP-3 BRIAR CHAPEL PKWY S STA 10+00 TO STA 25+00
PP-4 BRIAR CHAPEL PKWY S STA 25+00 TO STA 26+80
STORM DRAINAGE OUTFALL "A"
STORM DRAINAGE OUTFALL "B"
PP-5 BRIAR CHAPEL PKWY N STA 10+00 TO STA 25+00
PP-6 BRIAR CHAPEL PKWY N STA 25+00 TO STA 27+50
WATER LINE CROSSING "A"
D-1 EROSION AND SEDIMENTATION CONTROL DETAILS
D-2 EROSION AND SEDIMENTATION CONTROL DETAILS
D-3 NCDOT DRAINAGE DETAILS
D-4 NCDOT ROADWAY DETAILS
D-5 NCDOT ROADWAY DETAILS
D-6 SITE DETAILS
D-7 UTILITY
D-8 STORMWATER MANAGEMENT DETAILS
D-9 STORM DRAINAGE TABLE



ISSUED FOR
PERMITTING

CHATHAM COUNTY EROSION AND SEDIMENTATION CONTROL



**Sustainable Communities Development Department
Soil Erosion & Sedimentation Control Division**

LETTER OF APPROVAL

November 9, 2011

NNP – Briar Chapel, LLC
16 Windy Knoll Circle
Chapel Hill, NC 27516
Attn: Bill Mumford, PE

RE: Project Name: Briar Chapel Parkway and Boulder Point Drive Extensions
Project Number: 2011-013
Acres approved: 12.66
Total Acres: 24.69
Submitted By: McKim & Creed, Inc.
Date Received: 10-24-11

Dear Sir or Madam:

This office has reviewed the subject erosion and sedimentation control plan. We find the plan to be acceptable and hereby issue this Letter of Approval. The enclosed Certificate of Approval must be posted at the job site. This plan approval shall expire two (2) years following the date of approval, if no land-disturbing activity has been undertaken.

Section 10 (I) of the Chatham County Sedimentation and Erosion Control Ordinance requires that a copy of the approved erosion control plan be on file at the job site. Also, this letter gives the notice required by G.S. 113A-61.1(a) of our right of periodic inspection to insure compliance with the approved plan.

North Carolina's Sedimentation Pollution Control Act is performance-oriented, requiring protection of existing natural resources and adjoining properties. If, following the commencement of this project, the erosion and sedimentation control plan is inadequate to meet the requirements of the Chatham County Sedimentation and Erosion Control

Ordinance, this office may require revisions to the plan and implementation of the revisions to insure compliance with the Act.

Acceptance and approval of this plan is conditioned upon your compliance with Federal and State water quality laws, regulations, and rules. In addition, local city or county ordinances or rules may also apply to this land-disturbing activity. This approval does not supersede any other permit or approval.

Please be aware that your project will be covered by the enclosed NPDES General Stormwater Permit NCGO1000 (Construction Activities). You should first become familiar with all of the requirements for compliance with the enclosed general permit.

Please note that this approval is based in part on the accuracy of the information provided in the Financial Responsibility Form, which you provided. You are requested to file an amended form if there is any change in the information included on the form. Please notify us when you would like to schedule a preconstruction conference. Notification shall be given at least 7 days prior to initiation of activity.

Your cooperation is appreciated.

Sincerely,

A handwritten signature in black ink that reads "Rachael Thorn". The signature is fluid and cursive, with the first name "Rachael" being more prominent than the last name "Thorn".

Rachael Thorn
Lead Sedimentation and Erosion Control Officer
Chatham County Environmental Quality Department

Enclosures: Certificate of Approval
NPDES Permit

NCDOT

ROADWAY PLANS



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

DIVISION OF HIGHWAYS

EUGENE A. CONTI, JR.
SECRETARY

November 7, 2011

Chatham County

Newland Communities
c/o Bill Mumford, PE
13777 Ballantyne Corporate Pl, Ste 550
Charlotte, North Carolina 28277

**Subject: Subdivision Final Plan Review - Briar Chapel Parkway/Boulder Point Drive
Extensions - Briar Chapel Subdivision off of Briar Chapel Parkway near SR 1528**

Dear Mr. Mumford:

The N. C. Department of Transportation, Division of Highways has reviewed the construction plans signed and sealed by Grant Livengood, PE on November 3, 2011 as submitted to this office and approval is granted subject to the following stipulations and recommendations:

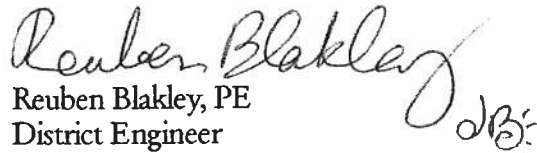
1. All Construction is to be in accordance with the details as shown on the plans, as well as conform to the most recent edition of the *Standard Specifications for Roads and Structures*.
2. A Driveway Permit is not needed for this package.
3. The entire proposed right of way is to be cleared and grubbed throughout the whole phase of the project. Please be aware that the areas within the sight distance quadrants are to be treated as right of way.
4. All soil areas within the proposed right of way and any other soil areas disturbed during construction shall be seeded and mulched immediately upon completion of roadway construction. The seeding shall be done as outlined in the seeding specification attachment.
5. The crossline drainage is approved as proposed on the construction plans. If, however field conditions dictate any changes, these shall be made upon approval by NCDOT. If any of the property owners desire to pipe their ditches within the proposed NCDOT right of way, please advise them that this work should conform to NCDOT specifications for this type of work (see attached). If any ditches are piped and not satisfactorily completed to NCDOT specifications, this could result in the road not being accepted for addition to the state maintained system of roads. Any ditches piped or other encroachment prior to addition to the state maintained system are subject to an encroachment agreement, as are utility companies, when the road is added.

6. The typicals as shown in the plans, are approved.
7. The Division of Highways will only allow mailboxes, with non-rigid type post, such as 4" x 4" wooden or small diameter metal type on new additions. Brick columns or mailboxes on rigid stands such as block, stone or any other type deemed to be a traffic hazard will not be allowed within the right of way. This policy applies to all roads being considered for addition to the State Maintained System.
8. An erosion control plan shall require approval from Chatham County. The developer should forward this plan to Mr. Jim Willis, Erosion and Sediment Control Officer, 80 East, P.O. Box 130, Pittsboro, N.C. 27312, phone (919) 545-8343 for his review and approval.
9. As this subdivision is proposed to be public and is likely to be requested to be added to the state maintained system of roads, the developer will be responsible for providing a PE Certification, (See Attached) and testing results for base and asphalt density stating that the streets have been built in accordance with the most current "Subdivision Roads: Minimum Construction Standards" manual and with the attached approved plans. Please be advised that this PE Certification does not approve the road for addition to the State Highway System for maintenance. When the proper home density is achieved and roads have been satisfactorily maintained, the developer or property owners must submit Form SR-1, Petition for Road Addition (copy attached to this correspondence), and four (4) copies of the recorded plat to request that the road or roads be added to the State Highway system. Any maintenance problems found when the road is requested to be added must be repaired by the developer prior to the road becoming state maintained. As stated in GS 136-102.6, final acceptance by the Division of Highways of the public streets and placing them on the State highway system for maintenance shall be conclusive proof that the streets have been constructed according to the minimum standards of the Board of Transportation.
10. The developer shall comply with all applicable local, state, and federal environmental regulations, and shall obtain all necessary local, state, and federal environmental permits, including, but not limited to, those related to sediment control, stormwater, wetlands, streams, endangered species, and historical sites.
11. A properly completed Verification of Compliance with the Department of Environment and Natural Resources (DENR)(page 35, attached) must be submitted prior to the road(s) being considered for addition to the NCDOT System.
12. In preparing the final plat for certification by this office and subsequent recording, the following information will be incorporated:
 - A. The sight distance quadrants at the intersections shall be shown either as a public easement or as the property line.
 - B. Public easements for drainage throughout the development.
 - C. All roads shall be shown as public and the right of way width shown

13. This approval does not approve the utilities within this subdivision. Any utilities shall be submitted for approval to this office via a properly executed Encroachment Agreement to be approved at the time the roads within the subdivision are petitioned to be added to the state system for maintenance. Please note that water valves should be located a minimum of 6' from edge of pavement, fire hydrants should be behind the right of way line and all service taps should be installed prior to paving.

If you have any further questions regarding this matter, please do not hesitate to call this office at 336.318.4000

Yours truly,


Reuben Blakley, PE
District Engineer

Attachments

cc: Tim Johnson, P.E., Division Engineer
Justin Bullock, P.E., Chatham County Maintenance Engineer
Lynn Richardson, Chatham County Planning
Chris Seamster, P.E., McKim & Creed
File