



**Division of Environmental Health**  
Terry L. Pierce, Director

State of North Carolina  
Michael F. Easley, Governor

**Public Water Supply Section**  
Jessica G. Miles, Section Chief

Department of Environment  
and Natural Resources  
William G. Ross, Secretary

July 24, 2007

Mr. Charlie Horn  
County of Chatham  
Post Office Box 1550  
Pittsboro, North Carolina 27312

Re: Engineering Plans and Specifications Approval  
Water Main Extension  
Great Ridge Parkway Northeast  
Chatham County Water System  
Chatham County  
I.D. # 03-19-126

**This is not an Authorization to Construct**

Dear Mr. Horn:

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 Environmental Health stamp of approval for the referenced project. These engineering plans and specifications are approved under Division of Environmental Health serial number 07-01051, dated July 24, 2007.

Engineering plans and specifications prepared by Richard J. Dickie, P.E., call for the installation of approximately 5,760 feet of 12-inch and 490 feet of 8-inch water mains, valves, hydrants and other related appurtenances along Great Ridge Parkway Northeast.

**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.

If we can be of further service, please call on us at (919) 733-2321.

Sincerely,

A handwritten signature in black ink, appearing to read "Tony C. Chen".

Tony C. Chen, P.E.  
Lead Engineer, Plan Review  
Technical Services Branch

TCC/HSO/db  
Enclosures: Approval Documents  
cc: Michael L. Douglas, P.E., Regional Engineer  
Chatham County Health Department  
The John R. McAdams Company

1634 Mail Service Center, Raleigh, North Carolina 27699-1634  
Telephone 919-733-2321 ▲ Fax 919-715-4374 ▲ Lab Form Fax 919-715-6637  
<http://ncdrinkingwater.state.nc.us/>

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**SUMMARY OF IMPERVIOUS SURFACE CALCULATIONS**

**BRIAR CHAPEL DEVELOPMENT**

October 10, 2017

**OVERALL IMPERVIOUS SUMMARY**

<b>Original Total Site Area</b>		<b>1,589.36 ac</b>
<b>Minus Dollar Property Tract</b>		<b>11.22 ac</b>
<b>NEW Total Site Area</b>		<b>1,578.14 ac</b>
	<b>TOTAL PHASE IMPERVIOUS (SF)</b>	<b>TOTAL PHASE IMPERVIOUS (AC)</b>
Total Phase 2	230,840	5.30 ac
Total Phase 4	2,645,299	60.73 ac
Total Phase 5S	167,420	3.84 ac
Total Phase 5N	801,283	18.39 ac
Total Phase 6S	821,992	18.87 ac
Total Phase 6N	588,450	13.51 ac
Total Phase 7	1,099,106	25.23 ac
Total Phase 8	506,074	11.62 ac
Total Phase 9	576,704	13.24 ac
Total Phase 10	470,900	10.81 ac
Total Phase 11	797,859	18.32 ac
*Total Phase 12	1,020,971	23.44 ac
Total Phase 13 - Section 1 & 2	132,552	3.04 ac
*Total Phase 13 - Section 3	278,524	6.39 ac
*Total Phase 14	243,632	5.59 ac
Phase 15S	794,230	18.23 ac
Phase 15N/Boulder Point Ext.	339,676	7.80 ac
Phase 16S	652,653	14.98 ac
*Phase 16N	424,901	9.75 ac
County Park	76,314	1.75 ac
Margaret B Pollard Middle School	318,823	7.32 ac
Woods Charter School	180,911	4.15 ac
Water Tank Site	13,755	0.32 ac
Water Treatment Plant	38,590	0.89 ac
*County School Parcel (Planned)	348,480	8.00 ac
BC SD North	154,399	3.54 ac
BC Tennis Center (Sport Courts)	122,625	2.82 ac
Andrews Store Connector	41,968	0.96 ac
*BC Commercial - SD West	990,555	22.74 ac
*BC Commercial - SD East	869,458	19.96 ac
Catullo Run/Taylor Road Improvements	25,883	0.59 ac
BC Parkway Gravel Rumble Strips	2,505	0.06 ac
*County Fire/EMS Site (planned)	38,502	0.88 ac
*Chapel in the Pines	28,750	0.66 ac
<b>Total Impervious</b>	<b>15,844,584</b>	<b>363.74</b>
<b>Total Impervious Percent</b>	<b>23.05%</b>	

\*Future development impervious area projections estimated based on early preliminary land planning efforts at date of submittal.

October 13, 2017

Lynn Richardson  
Chatham County Planning  
80-A East Street  
Pittsboro, NC 27312-0146

Re: Briar Chapel Phase 13 – Section 1 & 2-Conditional Use Permit Stipulations

Dear Ms. Richardson:

The following are our responses to the Conditional Use Permit Stipulations for Briar Chapel Phase 13 – Section 1 & 2.

1. Construction Deadlines
  - a. Estimated Start Date: December 18, 2017
  - b. Estimated Completion Date: May 1, 2018
  
2. Land Use Intensity
  - a. Overall Briar Chapel
    - i. Gross land area (acres) = 1,589
    - ii. Maximum impervious surface area = 24%
    - iii. Maximum number of dwelling units = 2,500
  
  - b. Phase 13 – Section 1 & 2
    - i. Gross land area (acres) = 11.03
    - ii. Impervious surface area (acres) = 3.04
    - iii. Number of dwelling units = 43
    - iv. Maximum impervious surface (relative to overall) = 0.19%
    - v. \*Cumulative impervious surface = 23.05%

Venture IV Building

Suite 500

1730 Varsity Drive

Raleigh, NC 27606

919.233.8091

Fax 919.233.8031

www.mckimcreed.com

\*Cumulative percentage is based on actual phase design for phases platted prior to Phase 13 - Section 1 & 2 and projected for future phases.

3. Watershed Management
  - a. Updated impervious surface calculations are included with this submittal.

4. Stormwater Management
  - a. A Stormwater Management Plan has been designed by McKim & Creed, Inc. and approved by NCDEQ-DWQ. A certificate of completion stating that stormwater control measures were 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, will be submitted to NCDEQ-DWQ upon completion of the work. Also, impervious surface calculations are included with this submittal.
5. Commercial Use
  - a. Commercial use is not proposed in this phase.
6. Lighting Plan
  - a. Applicant shall place note on the final plat stating that all area lighting shall meet County standards and not adversely affect adjoining residential areas.
7. Utility and Access Easements
  - a. Utility and access easements have been shown on the approved construction documents.
8. Unity of Development
  - a. The residences projected for Phase 13 – Section 1 & 2 will be consistent with those approved in the previous phases.
9. Permits
  - a. Applicable permits required for Preliminary Plat have been obtained and are included within this submittal.
10. Improvements
  - a. No off-site improvements are necessary for this phase.
11. Parking and off-street loading areas
  - a. Sidewalks are shown throughout this phase to provide for pedestrian and bicycle circulation.
12. Streets
  - a. Two (2) private alleys are included in Phase 13 – Section 1 & 2.
13. Utilities
  - a. The proposed water main design was approved by Chatham County Public Utilities and NCDEQ Public Water Supply. The permits are included with this submittal.
  - b. The proposed sanitary sewer design for Phase 13 – Section 1 & 2 was approved by NCDEQ-DWR and is included with this submittal. Also, the NCDEQ-DWR wastewater treatment/reclaimed water/spray irrigation permit is included with this submittal.

14. Public Facilities
  - a. The public facilities listed in the Conditional Use Permit are not proposed within this phase.
15. Landscaping/Screening
  - a. Not applicable in this phase.
16. Archaeological Survey
  - a. Based on the August 2006 report by ESI (entitled "An Intensive Cultural Resource Investigation: Briar Chapel, Chatham County, NC"), there are no cemeteries or structures eligible for the National Register within the project area of Phase 13 – Sections 1 & 2 nor any structures or cemeteries 50 years old or older. The Blake cemetery (identified as "31CH807" in 2006 ESI report) is located to the west of Phase 13 within the Roberts tract, which is not a part of the Briar Chapel CUP.
17. Solid Waste Management Plan
  - a. A solid waste management plan has been previously submitted and no changes are proposed for this phase.
18. Detailed site plan
  - a. The detailed site plan included with this submittal conforms to the intent of the approved Briar Chapel Master Plan.
19. Stages
  - a. Phase 13 – Section 1 & 2 will be constructed as a phase of the overall Briar Chapel development.
20. Moderate Income Housing
  - a. Requirements have been met. No further obligations are required.
21. Environment
  - a. This stipulation involves the Bennett Mountain area of the development. Phase 13 – Section 1 & 2 is not located in or near the Bennett Mountain area.
22. Erosion Control
  - a. The approved erosion control plan and permit are included with this submittal.
23. Silt Control
  - a. Silt control is part of the approved erosion control plan. See response to Erosion Control above.

24. Items #24-#29 in the CUP Stipulation List
  - a. Items #24-#29 are duly noted.

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

Sincerely,  
McKim & Creed, Inc.



Chris Seamster, PLA  
Project Manager

Cc: Mr. Lee Bowman

## BRIAR CHAPEL - TRANSECT ZONE

### Frontage by Zone/Area

<b>BRIAR CHAPEL - TRANSECT ZONE</b>													
<b>Frontage by Zone/Area</b>													
<b>T3 Zone</b>	<b>Phase 6 N</b>	<b>Ph 7</b>	<b>Ph 8</b>	<b>Ph 9</b>	<b>Ph 11</b>	<b>Ph 15N</b>	<b>Ph 16S</b>	<b>Ph 10</b>	<b>Ph 15S</b>	<b>Ph 13 Section 1 &amp; 2</b>	<b>Cumulative (LF)</b>	<b>Cumulative (%)</b>	
50,500 LF	5,000 LF	2,355 LF	1,110 LF	3,000 LF	1,000 LF	2,970 LF	6,375 LF	740 LF	3,400 LF	1,118 LF	27,068 LF	54%	
<b>T4a Zone</b>	<b>Phase 6 N</b>	<b>Ph 7</b>	<b>Ph 8</b>	<b>Ph 9</b>	<b>Ph 11</b>	<b>Ph 15N</b>	<b>Ph 16S</b>	<b>Ph 10</b>	<b>Ph 15S</b>	<b>Ph 13 Section 1 &amp; 2</b>	<b>Cumulative (LF)</b>	<b>Cumulative (%)</b>	
30,000 LF	600 LF	3,440 LF	4,150 LF	3,200 LF	1,888 LF	765 LF	00 LF	3,397 LF	2,875 LF	00 LF	20,315 LF	68%	
<b>T4b Zone</b>	<b>Phase 6 N</b>	<b>Ph 7</b>	<b>Ph 8</b>	<b>Ph 9</b>	<b>Ph 11</b>	<b>Ph 15N</b>	<b>Ph 16S</b>	<b>Ph 10</b>	<b>Ph 15S</b>	<b>Ph 13 Section 1 &amp; 2</b>	<b>Cumulative (LF)</b>	<b>Cumulative (%)</b>	
5,500 LF	00 LF	780 LF	64 LF	00 LF	3,550 LF	00 LF	00 LF	00 LF	160 LF	00 LF	4,554 LF	83%	