

## **UNC DEVELOPMENT PLAN**

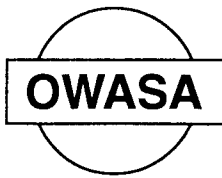
### **PUBLIC UTILITIES**

The Utility Master Plan component of the Campus Master Plan describes new utility infrastructure required to support the physical growth of the campus. It identifies new plant locations and utility corridors.

The Development Plan includes improvements to the utility systems that the University currently owns and operates. Map 8 illustrates the location of a new production facilities and major utility corridors necessary to support the buildings in the Development Plan.

Orange Water and Sewer Authority provides the University with water and sewer service, PSNC Energy supplies natural gas, Duke Power supplies electricity, and Bell South provides telephone service. All of these agencies have been consulted about the proposed Development Plan and have provided documentation that they are able to accommodate the University's planned growth. Letters from OWASA, PSNC Energy, Duke Power and Bell South are included in the Appendix.

The University has demonstrated leadership in the area of energy conservation as recognized by the recent EPA award for the Co-Generation Plant's combined heat and power technology. The University has recently formed a Sustainability Coalition and created a full-time Sustainability Coordinator position. The Energy Task Group of the Sustainability Coalition focuses on energy conservation practices at the University.



## ORANGE WATER & SEWER AUTHORITY

*Quality Service Since 1977*

June 27, 2001

Mr. Bruce L. Runberg  
Associate Vice Chancellor for Facilities Management  
UNC – Chapel Hill  
South Building - CB1000  
Chapel Hill NC, 27599-1000

**Subject: OWASA Capacity to Serve UNC Main Campus Development**

Dear Mr. Runberg :

We are in receipt of the University's letter of June 25, 2001 requesting that OWASA acknowledge its capacity to serve the main campus under the projected growth scenario outlined in the campus map entitled *UNC Draft – 8 Year Plan* and dated *June 20, 2001* and the accompanying documentation: *Area Calculation for Proposed Buildings* dated *July 3, 2001* (attached). It is our understanding this letter will accompany the University's Development Plan being submitted for approval to the Town of Chapel Hill.

Information provided by the University shows projected new buildings on the main campus site; a timeframe for construction; and gross square footage of floor area for each building. We note that the four million square feet of new development proposed to occur within the next eight to ten years represents a higher rate of campus growth than anticipated in OWASA's *Comprehensive Water and Sewer Master Plan*. Under the *OWASA Master Plan*, total projected finished (treated) water demand for 2010 for all customers is estimated to be in the range of 9.7 to 10.4 million gallons per day (mgd). Under the UNC building plans submitted for our review, that total demand may be closer to 10.7 mgd.

We believe that OWASA's Capital Improvements Program (CIP), which includes provisions for constructing improvements to water and sewer infrastructure on the main campus over the next 15 years, will adequately accommodate this growth. OWASA will maintain and upgrade its facilities, including water and wastewater treatment plants, major water transmission mains and sewer interceptors serving the main campus site. As is customary for all development projects, the construction and installation of basic water distribution and sewage collector lines, fire lines, and private service lines necessary to provide service for the proposed buildings will be the responsibility of the developing party, which in this case will be the University.

Public water and sewer mains are presently located throughout the main campus site and are available for connection to the proposed buildings in accordance with OWASA's extension policies, service policies, standard specifications, and conditions which exist at the time of development.

Water and sewer connection fees will be charged in accordance with the Schedule of Rates, Fees, and Charges in effect at the time service is initiated to the buildings on the campus site. The 8-year plan indicates that central campus development will soon exceed the 14.8 million square feet floor area exemption limit established by the January, 2001 *Agreement* between OWASA and the University. When this occurs, all subsequent UNC campus development will be subject to the same water and sewer availability fees that are charged to other OWASA customers.

If you need additional information or assistance, please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "Ed Kerwin", with a long horizontal flourish extending to the right.

Ed Kerwin  
Executive Director

Attachment (map not included)

c: Mr. Cal Horton, Chapel Hill Town Manager  
Mr. John Link, Orange County Manager  
Mr. Robert Morgan, Carrboro Town Manager  
OWASA Board of Directors  
Robert Epting, Esquire



THE UNIVERSITY OF NORTH CAROLINA  
AT  
CHAPEL HILL

Energy Services Department  
Chilled Water Systems  
Gary Tomkins, Manager  
Email [tomkins@fac.unc.edu](mailto:tomkins@fac.unc.edu)  
Telephone 919-962-9053  
Fax 919-962-4522

Facilities Services Division  
CB# 1800, Giles F. Horney Building  
Chapel Hill, North Carolina 27599-1800

June 25, 2001

**Subject:      *UNC Development Plan***

Dear Imtiaz:

The University is submitting a Development Plan to the Town of Chapel Hill and needs a general demonstration that its utility providers can accommodate the development proposed in the plan. I have attached the list of projects with type of use, space in square feet and the year we expect construction to begin for each project. I have also attached a map showing the location of projects.

We will need a letter indicating your ability to support this growth as soon as possible. Please let me know if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Gary R. Tomkins".

Gary R. Tomkins  
Chilled Water Manager

cc:

**THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL DEVELOPMENT PLAN**

Area Calculations for Proposed Buildings

Calculated from May 2001 Plan

July 3, 2001

Building	Building Type	Utility Type	Year Construction Begins	Area Per Floor, gsf	Number of Floors	Phase I Total Area Above Grade
A-1	Academic	Office/Classroom	2005	10,600	3	31,800
A-10	Academic	Research	2003	11,600	4	46,400
A-11	Academic	Office/Classroom	2005	25,000	3	75,000
A-12	Academic	Research	2005	12,000	4	48,000
A-13	Academic	Office/Classroom	2004	3,400	3	10,200
A-14	Academic	Research	2005	11,100	4	45,800
A-15	Academic	Office/Classroom		19,900	4	79,600
A-16	Academic	Office/Classroom		10,700	1	36,800
A-17	Academic	Office/Classroom	2003	13,300	4	53,200
A-2	Academic	Office/Classroom	2005	13,400	4	73,100
A-3	Academic	Office/Classroom	2005	6,400	4	25,600
A-4	Academic	Office/Classroom	2005	5,000	4	20,000
A-5	Academic	Office/Classroom	2005	13,800	4	55,200
A-6	Academic	Research	2003	17,500	4	70,000
A-7	Academic	Research	2006	8,200	5	41,000
A-8	Academic	Research	2006	30,900	5	154,500
A-9	Academic	Research	2006	11,700	4	396,700
<b>Total Academic</b>						<b>1,231,100</b>
C-1	Cultural	Office/Classroom	2003	12,000	3	36,000
C-2	Cultural	Office/Classroom	2001	6,600	4	26,400
C-3	Cultural	Auditorium	2002	1,500	3	21,000
C-4	Cultural	Office/Classroom	2003	2,600	2	5,200
<b>Total Cultural</b>						<b>88,600</b>
H-1	Housing	Housing	2003	3,500	3	10,500
H-10	Housing	Housing	2003	7,200	3	21,600
H-11	Housing	Housing	2003	11,400	3	34,200
H-12	Housing	Housing	2003	7,300	3	21,900
H-13	Housing	Housing	2003	6,500	3	19,500
H-14	Housing	Housing	2003	7,000	3	21,000
H-15	Housing	Housing	2003	10,500	3	31,500
H-16	Housing	Housing	2003	10,500	3	31,500
H-17	Housing	Housing	2003	9,000	3	27,000
H-18	Housing	Housing	2003	8,600	3	25,800
H-19	Housing	Housing	2003	8,100	3	24,300
H-2	Housing	Housing	2003	3,500	3	10,500
H-20	Housing	Housing	2003	8,100	3	24,300
H-21	Housing	Housing	2003	8,100	3	24,300
H-3	Housing	Housing	2002	2,500	3	7,500
H-4	Housing	Housing	2002	3,300	3	9,900
H-5	Housing	Housing	2005	17,100	4	68,400
H-6	Housing	Housing	2005	15,000	4	60,000
H-7	Housing	Housing	2005	18,700	4	74,800
H-8	Housing	Housing	2005	10,800	4	43,200
H-9	Housing	Housing	2005	10,500	4	42,000
<b>Total Housing</b>						<b>633,700</b>
I-1	Infrastructure	Special	2004	20,000		20,000
I-2	Infrastructure	Special	2004	28,900	4	115,600
<b>Total Infrastructure</b>						<b>135,600</b>
O-1	Office	Office/Classroom	2004	22,200	6	133,200
O-2	Office	Office/Classroom	2004	29,800	4	119,200
O-3	Office	Office/Classroom	2003	19,200	2	38,400

**THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL DEVELOPMENT PLAN**

Area Calculations for Proposed Buildings

Calculated from May 2001 Plan

July 3, 2001

Building	Building Type	Utility Type	Year Construction Begins	Area Per Floor, gsf	Number of Floors	Phase I Total Area Above Grade
<b>Total Office</b>					<b>Total Office</b>	<b>290,800</b>
P-1	Parking		2005		2	
P-2	Parking		2006		2	
P-3	Parking		2002		3	
P-4	Parking		2006		4	
P-5	Parking		2008		4	
P-6	Parking		2003		3	
P-7	Parking		2008		3	
P-8	Parking		2005			
					<b>Total Parking</b>	
R-1	Research	Research	2008	21,800	5	109,000
R-2	Research	Research	2008	9,600	3	49,300
R-3	Research	Research	2008	6,300	3	84,400
R-4	Research	Research	2004	34,700	6	247,000
					<b>Total Research</b>	<b>489,700</b>
SL-1	Student Life	Office/Classroom	2002	-	2	54,400
SL-2	Student Life	Office/Classroom	2002	-	4	126,900
SL-3	Student Life	Office/Classroom	2005	31,000	4	124,000
					<b>Total Student Life</b>	<b>305,300</b>
UNCH-1	UNC Healthcare	Clinic	2003	64,300	3	192,900
UNCH-2	UNC Healthcare	Clinic	2008	26,600	8	343,180
UNCH-3	UNC Healthcare	Clinic	2005	27,000	8	295,270
					<b>Total UNC Healthcare</b>	<b>831,350</b>



June 26, 2001

Mr. Raymond DuBose  
Director, Energy Services Department  
Facilities Services Division  
University of North Carolina at Chapel Hill  
CB# 1800, Airport Drive  
Chapel Hill, NC 27599-1800

Dear Ray:

I am writing in response to your request for PSNC Energy to review our ability to serve the University of North Carolina at Chapel Hill's expected natural gas load growth over the next 8 to 10 years. In your request, you estimate your campus requirements will increase to 955,000 cfh (cubic feet per hour) during this time frame.

PSNC Energy can supply up to 955,000 cfh of natural gas to the University to meet the 8 to 10 year projected load growth. This will require the installation of new high-pressure gas mains and/or other modifications to our current piping system. All extensions and modifications to our system are run through our economic feasibility model and reviewed in accordance with PSNC Energy's line extension policies and the appropriate tariff and rules and regulations approved by the North Carolina Utilities Commission to determine if any contribution in aid of construction will be required.

We appreciate your business and value you as a customer. We look forward to working with you on this and other projects on your campus.

Sincerely,

A handwritten signature in black ink, appearing to read "Marc R. Worth".

Marc R. Worth  
Large Customer Group

c: Greg Staton  
Bill Williams



**Duke Power**  
2500 Fairfax Road  
Greensboro, NC 27407

Wednesday, June 20, 2001

Pat Andrews  
Manager, Electric Systems  
University of North Carolina at Chapel Hill  
Energy Services Department  
Facilities Services Division  
CB# 1800, Airport Drive  
Chapel Hill, NC 27599-1800

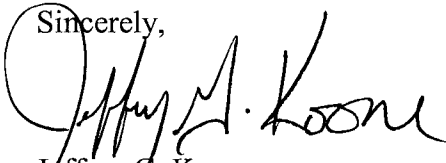
Dear Pat:

I am writing in response to your request for Duke Power Company to review our ability to serve the University of North Carolina at Chapel Hill's expected electrical load growth over the next 8 to 10 years. In your request, you estimate that your campus requirements will increase from their current maximum of approximately 69 megawatts to somewhere in the range of 110 megawatts during this time frame.

I have consulted with representatives of Duke Power's Electric Transmission group concerning this matter. We have reviewed the transmission facilities that currently serve the University from both a "lines" (energy delivery) and "substation" (voltage conversion) standpoint. Based on that review, we feel that we will be able to meet your needs as you have presented them to us.

We appreciate your business and look forward to expanding our relationship in the future.

Sincerely,



Jeffrey G. Koone  
Account Executive

cc: Steve Marshall (DPCo)  
John Wicker (DPCo)  
Paul Morgan (DPCo)





BellSouth Telecommunications, Inc.

5715 GLENWOOD AVE  
ROOM 204  
RALEIGH, NC 27612

June 28, 2001

Steve Harward, Director  
Telecommunications Office  
University of North Carolina  
CB#1830 Giles F. Horney Building  
Chapel Hill, North Carolina 27599-1830

**Re: Service Availability- UNC CAMPUS MASTER PLAN**

Steve Harward,

BellSouth will provide permanent telephone cable for the expansion of the UNC Campus when it is required. Service will be contingent upon the following conditions:

- A. It will be the responsibility of the developer to provide BellSouth with a final site plan showing all phases and their estimated schedules. It must also include official street names and street address numbers approved by the appropriate jurisdiction. This plat will be required when any grading or construction on the site starts or by the time of requirements in Item "B" below:
- B. A minimum of 120 calendar days will be required from the time BellSouth starts design work until permanent telephone facilities are available.
- C. All buried power company facilities must be in place prior to start of any telephone cable construction.
- D. A final grade and adequate, clear right-of-way for placing telephone facilities must be available for telephone construction to start. No cable will be placed before final grade exists due to high probability that it will be damaged because of changes in the existing grade.
- E. Billing will be rendered for any rearrangements or relocations of permanent cables and/or terminals.
- F. It may be necessary for the University to supplement its own internal underground Duct infrastructure to accommodate additional outside plant facilities.

Sincerely,

Rebecca Berrios  
BellSouth Engineer  
(O)- 919-785-7736

H:\rebecca\servicereqform.doc

# The University of North Carolina at Chapel Hill

## Development Plan

### Proposed Utilities

-  New and Existing Utility Corridors in Areas of Major Growth
-  Public Utility Corridor
-  New or Upgraded Plant
-  Proposed Development
-  Existing Buildings



0 300 600 900 1200  
Scale in Feet

Map 8  
3 July 2001

