

COURSE SYLLABUS

PLAN 823 (3 AND 4) — SPRING 2008
Downtown Carrboro Parking Study

Class time:	Mondays, Wednesdays, 2:00-3:15 pm
Class location:	PEABODY HALL, 311
Instructor\client:	Adena Messinger (AMessinger@ci.carrboro.nc.us)
Coordinator:	Noreen McDonald (noreen@unc.edu) and Daniel Rodríguez (danrod@unc.edu)
Office hours:	By appointment

BACKGROUND

Part in land use planning and part in transportation, parking remains a contested topic in contemporary city planning. Although the importance of parking as a policy lever for decreasing driving is increasingly recognized among planning researchers¹, political support is weak. Furthermore, by making parking costly or inconvenient, planners may be decreasing the accessibility and attractiveness of local areas. In practice, parking policies are frequently determined based on arbitrary standards and limited evidence².

PROJECT GOAL

Examine parking demand and supply in downtown Carrboro to support the future development of a parking plan and make recommendations to planning and elected officials. Students will be presenting findings to the Carrboro Board of Aldermen.

OBJECTIVES AND TASKS

Objective 1: Characterize and quantify the supply for parking in downtown Carrboro, including its spatial and temporal dimensions.

- Identify existing capacity of paved and unpaved public lots
- Interview or survey major downtown merchants to count number and availability of private (non-public) parking spaces and identify potential patterns of peak use (defined by weekday and weekend)
- Examine approvals and permits of new development that has been recently approved and that is in the CUP stage as of January 2008 to identify additions to parking supply
- Summarize overall supply by location and peak period (some lots are not open 24/7).

Objective 2: Characterize and quantify the demand for parking in downtown Carrboro, including its spatial and temporal dimensions.

¹ Shoup, D. C. (2005) *The High Cost of Free Parking*, Planners Press, American Planning Association, Chicago.

² Marsden, G. (2006) The evidence base for parking policies--a review *Transport Policy*, 13, 447-457.

- Measure demand for parking for peak periods (defined by weekday and weekend)
- Analyze spatially actual demand for parking relative to demand of attractors in immediate area
- Identify where parkers are coming from by location (could be a license plate study or a survey)
- Determine parking duration by time of day and day of week (weekday, Sat, Sun)
- Identify parking needs for new development that has been recently approved and that is in the CUP stage as of January 2008

Objective 3: Identify areas of excess demand/undersupply and excess supply.

- Overlay demand and supply analyses by time of day, day of week and location

Objective 4: Make recommendations to planning staff.

- Analyze data, identifying areas of concern
- Provide recommendations. Consider referring to strategies used by peer communities in addressing issues of excess demand and perceived excess demand.

PRODUCTS

- IRB application
- Survey of businesses
- Parking demand assessment
- Parking supply assessment
- Recommendations
- Presentation

WORKSHOP FORMAT

The workshop is client and student driven. For the first few weeks, we expect to meet once a week. This will allow us to refine the objectives, identify critical data needs, create teams, assign responsibilities, and develop a timeline of tasks and expected completion dates. After this, we may meet less often. However, students are expected to interact with instructors and the client contact person outside of the official meeting times. Students are responsible for the on-time delivery of quality products. The faculty will assist students in key decisions regarding the work, but please remember that Carrboro is the ultimate client in this exercise.

GRADING

Grades will be assigned by instructors (50%) and by everyone else's assessment of each person's contribution to the group (50%).

RESOURCES

A small set of resources will be available on Blackboard (blackboard.unc.edu). They provide some background information. In addition, the following two resources have been placed in reserve at Chapin Library.

Shoup, Donald, 2005. *The high cost of free parking*, APA Pres: Washington DC.

ULI, 2000. *The Dimensions of Parking*, National Parking Association & ULI: Washington DC.

PURPOSE: The Town of Carrboro is seeking to update the information collected by the Parking Task Force in 2001. This information will be used to review options for public parking, as the Town continues to work with private business owners. Because your input is vital, please assist us in our efforts by answering the questions listed below.

BUSINESS NAME:

LOCATION: (Please click on the number of the square that most closely approximates your location)

1. What type of business do you have?
 - a. Retail/Commercial {Grocery, General merchandise, Auto , etc.]
 - b. Hospitality (Restaurant, Social Club)
 - c. Office
 - d. Medical

2. What hours does it operate? (Check all that apply)

Weekday Hours	Weekend Hours
8-11am	
11am-2pm	
2-5pm	
5-8pm	
8-11pm	

3. How many employees do you have?

4. Typically, when do they work? (Check all that apply)

	Weekday	Weekend
	# of Employees	# of Employees
8-11am		
11am-2pm		
2-5pm		
5-8pm		
8-11pm		

5. Do you provide your employees with parking in a private lot?

- a. Yes
 - i. Number of spaces provided
- b. No
 - i. Where do they park? (Check all that apply)
 - 1. Private off-street lot
 - 2. Public off-street lot
 - 3. On-street (curb)
 - 4. Other

6. Do you provide your customers with parking in a private lot?

- a. Yes

- i. Number of spaces provided
- b. No
 - i. Where do they park? (Check all that apply)
 - 1. Private off-street lot
 - 2. Public off-street lot
 - 3. On-street (curb)
 - 4. Other

7. When have you noted or been informed of a parking shortage by customers or employees?
(Check all that apply)

	Weekday Shortages	Weekend Shortages
8-11am		
11am-2pm		
2-5pm		
5-8pm		
8-11pm		

8. How many extra spaces do you think you would need to overcome that shortage?

a. ____ spaces

9. How would you describe parking in downtown Carrboro?

- a. There is enough parking
- b. There is insufficient parking
- c. There is too much parking

10. What is the average time to make a transaction at your business?
- a. Under 15 minutes
 - b. 15-30 minutes
 - c. 30-40 minutes
 - d. 45-60 minutes
 - e. 1-2 hours
 - f. 2 hours or more
11. Do you think that strict enforcement of parking in the downtown would make a difference in the parking supply?
- a. Yes
 - b. No
12. How often do you tow cars from your parking lot{s}?
- a. Never
 - b. Every 6months-1 year
 - c. Every 3-6 months
 - d. Every month
 - e. More frequently
13. Do you participate in a shared parking situation?
- a. Yes
 - b. No
14. If yes, are you satisfied with the arrangement?

- a. Yes
- b. No

15. If no, would you be interested in participating in a shared parking arrangement with other businesses as:

- a. A user of spaces
 - i. Yes
 - ii. No
- b. A provider of spaces
 - i. Yes
 - ii. No

16. Are you in favor of structured parking for the downtown?

- a. Yes
- b. No

17. Are you interested in exploring park-and-ride opportunities for your employees?

- a. Yes
- b. No

18. Do you currently rent or charge for any of the parking spaces in your business' private lot?

- a. Yes
 - i. How many spots?
 - ii. How much? ___ hourly/daily
- b. No
 - i. Would you consider it?

Summary of Parking Discussion Points from Board of Aldermen Retreat on January 28, 2008

- Importance of free public parking
- Balance between accommodating people who need to drive downtown versus encouraging everyone to drive downtown
- Desire to maintain an environment where people can park and walk to many businesses
- Desire to look at multi-modal solutions
- Interest in the Blue Urban Bikes program
- How does transit enter into the picture
- Idea of residential parking permits for downtown neighborhoods
- Need to understand financial implications of any proposal

Dear Mayor and Board of Alderman,

Thank you for the opportunity to comment on the Roberson Place project this week. In light of your retreat, I wish to share some ideas for the Board to consider as it prepares to deal with broader parking and mobility issues in downtown Carrboro. If there is anything I mention below that you have questions about, I would be glad to respond by email or phone to explain in further detail. With that in mind, here are four over-arching themes to consider, followed by seven specific strategies and tactics for access management in downtown Carrboro.

*****FRAME THE ISSUE BROADLY.** We all know the adage "when the only tool you have is a hammer, every problem looks like a nail." This is an easy trap to fall into when, in any parking-constrained area, people say "there's not enough parking!" This statement implies that everyone does (and perhaps far more importantly, should) come downtown by car, and that the only solution is providing more parking, probably in a deck. I assert that Carrboro does not have a *parking* problem, but that it has a growing ****ACCESS**** problem. People want to access the various attractions of downtown Carrboro--restaurants, stores, bars, the Arts Center, the Cradle, DSI. When they come downtown, these attractions are their primary goals, not a parking space. The primary question to be asking is not "how can we provide more parking downtown?" It is "how can we make it easier for people to access the businesses and activities that they wish to enjoy downtown?" If you focus on the latter question, I believe that you will find more tools at your disposal to make access to downtown easier, and that in doing so, you will also make parking easier for those who wish to park downtown.

*****CONSIDER THE POWER OF MANY SMALL CHANGES.** Let's say you have 10 downtown employees, all of whom drive to work every day. Generally speaking, you will have a much easier time getting all ten of them to find a way to drive 4 out of 5 days instead of getting two of them to stop driving downtown altogether. Either approach still reduces this group of ten's collective demand for downtown parking by 20 percent. I doubt that there is any single strategy that will solve the downtown access issue, but a host of strategies that all temper parking demand by 3% here and 6% there can cumulatively have a big impact. Look for opportunities to pursue multiple strategies simultaneously.

*****PURSUE CARRBORO-SPECIFIC RESEARCH.** Your staff probably has some books from the Institute of Transportation Engineers (ITE) called "Parking Generation" and "Trip Generation," that are used all over the country to estimate the "need" for parking in municipalities. There are case studies for 64 types of land uses in Parking Generation. Half the reported parking generation rates are based on four or fewer case studies, and 22 are based on a single case study. In all seriousness, Carrboro will be best served if these books are thrown in the garbage. The ITE itself explains why Parking Generation is an effectively useless book for downtown Carrboro:

"a vast majority of the data... is derived from suburban developments with little or no significant transit ridership The ideal site for obtaining reliable parking generation data would ... contain ample, convenient parking facilities for the exclusive use of the traffic generated by the site ... The objective of the survey is to count the number of vehicles parked at the time of peak parking demand (ITE 1987, vii, xv).

Carrboro, meanwhile, is one of the top 25 towns for bicycle commuting in the 10,000 - 50,000 population size range in the USA, and has a transit commuting

mode share 5 times the national average. (see below, and keep in mind that these numbers predate fare-free transit)

http://www.bikesatwork.com/carfree/census-lookup.php?state_select=ALL_STATES&lower_pop=1000&upper_pop=50000&sort_num=1&show_rows=25&first_row=0

I recommend the town determine Carrboro trip generation rates, meaning, on a daily basis, how many trips does Weaver Street Market generate, and how do people who shop there get there? Is it 80% auto access? 57% auto access? What about Open Eye, or Nested, or Carr Mill Mall stores, or the Arts Center? What are their percentages of people by mode? Knowing this will be far more helpful than the dubious national figures in the ITE books. The City and Regional Planning folks at UNC could probably help the Town with this. Strategies will differ as we work to accommodate downtown visitors from Chapel Hill/Carrboro, and others from further afield. But most importantly, we need to know how Carrboro works, not the mean average of how suburbs of Tampa or Cleveland work.

***RECOGNIZE THE TRAGEDY OF THE COMMONS INHERENT IN THE PROVISION OF FREE PARKING

When I moved to Carrboro seven years ago in 2001, I-40 provided free, unpriced access between RTP and Cary on a two-lane road section of Interstate in either direction. During peak traffic demand hours, it was an arduous, 9-mile-per-hour slog from RTP to Cary in the afternoon. In 2008, seven years and hundreds of millions of dollars later, we now have a three-lane, unpriced Interstate in either direction, and it is an arduous, 6-mile per hour slog from RTP to Cary in the afternoon. While OWASA is in decent shape, other Triangle cities have underpriced and undermanaged their water, and face difficult circumstances. I am sensitive to the comments of the business owners downtown, but if any of them believes that providing more free parking with no parking management will solve the problem, they are mistaken. Just as Raleigh's water users and the motorists on I-40 have no signals (price or otherwise) to help them use these resources more efficiently, a "free parking everywhere always" approach will yield similar results.

With those ideas in mind, what can Carrboro do to make it easier for people to access the businesses and attractions downtown?

1. START A DOWNTOWN TRANSPORTATION MANAGEMENT ASSOCIATION (TMA). What's a TMA? It's an organization, usually composed of public and private entities, that works to solve transportation issues that individuals or businesses cannot solve on their own. SmartCommute in RTP is an example of TMA that has been very successful at educating employees in RTP about their transportation options beyond driving alone. TMAs often focus on those who make regular, frequent trips to the TMA zone. In Carrboro, working with employers to spread information about bus routes which access downtown Carrboro, providing tips on all-weather bicycle commuting, etc., could begin to convert those who drive downtown to work 4-5 days per week to those who drive downtown 2-4 days per week.

2. IMPLEMENT A ZIPCAR PROGRAM IN DOWNTOWN CARRBORO. Zipcar (www.zipcar.com) is a car-sharing service where you can rent a car by the hour, and it is already in use at UNC. Imagine a downtown Carrboro worker who has managed to start biking or taking the bus to work most days. There are still those times when he/she has to go to the dentist, run an errand midday, etc. that would ordinarily necessitate bringing the car downtown and parking it all

day. Zipcar allows the employee to work around it by renting the Zipcar for an hour or two. In cities where residents live near Zipcars, member households begin to "shed" cars and one Zipcar can often fill the second-car needs of 7 one-car households simultaneously. This can reduce the need for residential parking downtown with the many new buildings coming on line. The last time I talked to Claire Kane at UNC-Chapel Hill about this, Zipcar wants around \$1500 in guaranteed revenue per month from rentals of the car. Some months at UNC, the cars are subsidized by the university. Other months, the cars turn a profit. You can reach Claire at (919) 843-4414.

3. CONTINUE THE COMMITMENT TO SIDEWALK CONTINUITY IN AND AROUND DOWNTOWN. You guys are doing great here. Keep it up!

4. CONSIDER HOW TO TAKE ADVANTAGE OF EXISTING FACILITIES. Carrboro has a large park-and-ride lot at University Lake off of Jones Ferry Rd, just 1.35 miles from the corner of Greensboro and Main St. A smaller, more nimble transit vehicle than the standard Chapel Hill Transit bus could probably cover the park/ride lot, Jones Ferry Rd, a right on Roberson St, a Right on Greensboro, a left on Main and back in 12 minutes, or 6 minutes for a one-way trip. That's five roundtrips per hour. This type of bus service might be very effective in bringing people from out of town to evening events at the arts venues, or to bars and restaurants. I also suspect it might cost less to operate than the debt service on a parking deck.

5. CONSIDER CONVERTING BIKE LANES TO METERED ON-STREET PARKING. This one probably looks controversial at first glance. However, there are some bike lanes whose need is somewhat questionable, such as the stretch of Main St from PTA Thrift to the Century Center. Speeds are slow enough that bicycles should probably be merging with car traffic here anyway. Metered, on-street parking may work well here. However, if it's the only paid parking, it will fail. Any pricing needs to be part of a holistic strategy of pricing and management.

6. UNBUNDLE RESIDENTIAL PARKING IN NEW DOWNTOWN BUILDINGS. This is the strategy I mentioned Tuesday. Those who buy condos or rent apartments have the opportunity to buy or lease up to a certain number of residential parking spaces. If a 2-person household only wants one parking space, we shouldn't force two spaces to be reserved for them. Let residents decide how much auto parking they need, and ask developers to provide covered, secure bicycle parking. You will see lower numbers of spaces used by residents. Typical reductions from unbundling are in the 10-30% of residential demand range. Asheville has had some success with this downtown. Spaces that go unused by residents due to unbundling can be allocated for office and retail uses in the same mixed-use buildings.

7. IMPROVE DOWNTOWN SIGNAGE TO COMMUNICATE TO MOTORISTS ABOUT EXISTING PARKING. The distance from the public lot on West Weaver Street to Tyler's is about 900 feet. The distance from the movie theater to the food court at Southpoint is about 1000 feet. However, it is a little difficult for an out-of-towner looking for parking for Tyler's to figure out that there may be 15 open spaces on West Weaver. Consider putting up wayfinding signs that read "parking- 3 minute walk from this intersection," or some similar message that emphasizes the ease of walking from the parking to destinations. Portland, Oregon and Philadelphia have excellent wayfinding signage systems. Example below:

<http://www.portlandonline.com/shared/cfm/image.cfm?id=150334>

ATTACHMENT D-4

Hopefully, this provides a few ideas that the town can consider to address the access challenges downtown will face as it grows in accordance with our Downtown Vision Plan. I've also attached Todd Litman's "Parking Management Strategies, Evaluation and Planning," a report from the Victoria Transport Policy Institute that has many, many more approaches to this issue. Litman has an excellent summary on pages 7 to 9 where he talks about auto dependency and the need to shift to a new parking paradigm from the one that is currently used.

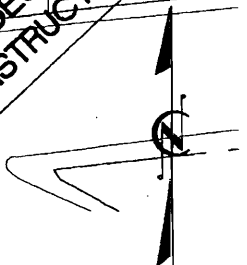
If you have questions about any of the strategies I've written about here, feel free to call me at (919)485-7455 or email patrick1@unc.edu.

Thanks for reading!

Yours Truly,
Patrick McDonough



**PRELIMINARY DESIGN
NOT FOR CONSTRUCTION**



SITE DATA

PROPOSED PARKING SPACES _____ 26 SPACES
 PROPOSED VEHICLE ACCOMODATION AREA _____ 14,659 SF
 (BROWNING PROPERTIES ONLY)

SCALE: 1"=30'-0"

<p>Browning Property Municipal Parking Feasibility Study Conceptual Design Layout</p>	<p>SUNGATE DESIGN GROUP, P.A. 915 Jones Franklin Road Raleigh, NC 27606 Phone: (919) 859-2243 Fax: (919) 859-6258</p>	<p>Jan 23, 2008</p>
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