

BOARD OF ALDERMEN

ITEM NO. D(5)

AGENDA ITEM ABSTRACT

MEETING DATE: February 7, 2012

TITLE: Report on Locating a Triangle Transit Stop on W. Main St.

DEPARTMENT: Planning	PUBLIC HEARING: YES ___NO__X__
ATTACHMENTS: A. Resolution B. Triangle Transit bus schedules – Routes 400/405, 800/805, and CRX C. Network distance maps	FOR INFORMATION CONTACT: Jeff Brubaker – 918-7329 Erik Landfried, Triangle Transit – 919-485-7508

PURPOSE

The Board of Aldermen is asked to receive a report on approaches and logistics of locating a Triangle Transit bus stop along W. Weaver St.

INFORMATION

On November 15, 2011, the Board of Aldermen adopted a resolution directing staff to report on the best approach and logistics for locating a Triangle Transit bus stop on W. Weaver St. Triangle Transit previously provided service to and from Carrboro Plaza in the late 1990s but does not currently serve Carrboro.

Municipal parking lot at 303 W. Weaver St.

The municipal parking lot at 303 W. Weaver St. has a capacity of 33 parking spaces. Carrboro Parking: An Exploratory study, the UNC Dept. of City and Regional Planning study presented to the Board of Aldermen in 2008, reported that this lot's peak usage rate was 11 cars, or a third of its capacity. There is also an uncovered bike rack with 6 bicycle parking spaces. The Town Code [Sec. 6-19(b)(4)(d)] limits parking duration in this lot to not more than two hours, between 7:00 a.m. and 5:30 p.m.

The municipal lot is privately owned. A lease agreement was entered into between the property owners and the Town on July 21, 2004. The lease is exclusively for the Town to operate a municipal parking lot. The lease agreement provides that the Town must receive consent from the property owners for any permanent structural alterations, signs, or additions to the lot.

Potential transit service extensions

Triangle Transit operates local bus service between downtown Chapel Hill/UNC and downtown Durham (400 and 405 routes) and between downtown Chapel Hill/UNC and Research Triangle Park (800 and 805 routes). Triangle Transit operates regional express service between Chapel

Hill and Raleigh (CRX route) to serve weekday commuters. Routes 400 and 800 also operate on abridged schedules on Saturday. Schedules and route maps are shown in *Attachment B*.

To gather information relating to proposed service enhancements for the Draft Bus and Rail Investment Plan in Orange County¹, Town staff and Triangle Transit staff discussed possible alternatives for extending the 405 service into Carrboro during commute times. A hypothetical map is shown below.

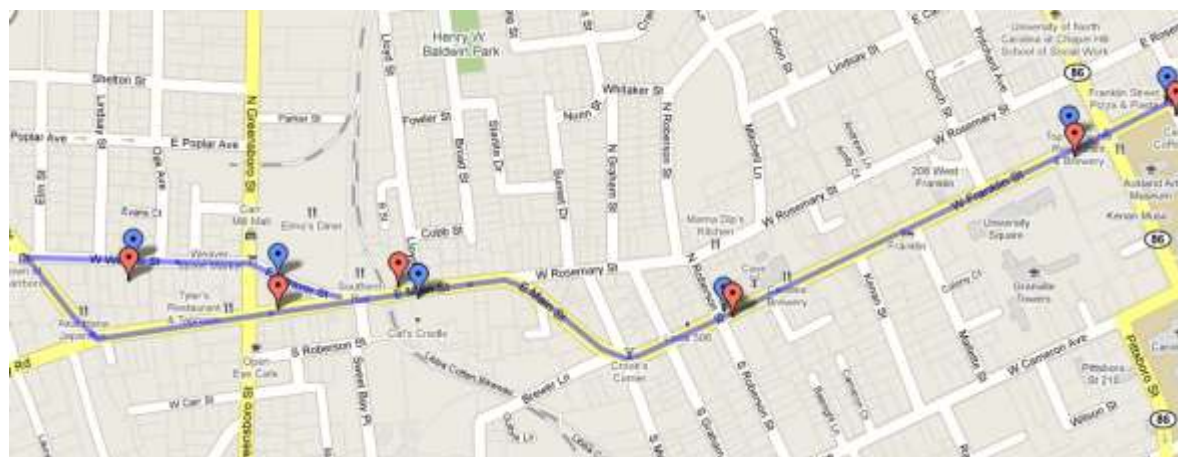


Figure 1. Sketch of hypothetical service extension into Carrboro

This map is one way in which a route extension of the 405 could serve downtown Carrboro and specifically the W. Weaver St. lot. Stops are also shown on E. Main St. and E. Weaver St.

Ridership potential

Carrboro has a 16.3 percent transit commute mode split, according to the 2006-2010 American Community Survey, compared to 9.1 percent in 2000. Creating Carrboro's Economic Future, a report commissioned by the Town in 2006, shows that in 2003 a greater percentage of Carrboro residents worked in Durham (27%) than in any other municipality. 2000 census block group data indicate that there is an 8-10% transit commuting mode split in the vicinity of the W. Weaver St. lot. Therefore, a very rough estimate with assumptions based on this work location and mode split data is that the probability of working in Durham and using transit to get to work is 2 to 3 out of every 100 employees. Not all Durham work locations may be near the bus route, however. At the same time, this estimate does not include demand for non-work trips such as school.

Walk access

The table below estimates the walk market for a transit stop at the Weaver St. lot with statistics on residential proximity to the lot. It focuses on the Weaver St. lot only and does not take into account other “downstream” stops that may be added as part of a service extension, such as on E. Weaver St. or E. Main St. Such stops could expand the number of residents who could walk to a transit stop. A quarter- to a half-mile distance is a typical range for measuring walk access to transit stops.

¹ The draft plan is available at: <http://www.dhcmpo.org/dmdocuments/DraftOrangeCountyFinancialPlan.pdf>
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Network distance	Number of residential addresses	2010 population²	2010 population, 18 and up
Within ¼ mile	78	215	183
Within ½ mile	712	1,366	1,214

Table 1. Residential proximity statistics: ¼ to ½ mile from transit stop

Attachment C shows the stop's ¼ and ½ mile network buffers.

Bike access

The table below estimates the cycling market for a transit stop. Bike lanes on W. Weaver St., Jones Ferry Rd., W. Main St., N. Greensboro St., and Fidelity St. – as well as the Frances Shetley and PTA Bike Paths – may be used to access the stop by bicycle, although there is a gap in the bike lane network on the 300-400 blocks of W. Main St., which are currently being explored for a potential road diet. The table uses a two-mile network distance. Two miles is cited as an average, non-recreational bicycle trip length.³ The Federal Transit Administration has a three-mile standard for reasonable bicycling distance to transit. However, a bicycle is used for only 2% of all trips 1.6 to 2.8 miles in the U.S.⁴ The statistics exclude addresses in Chapel Hill, as it is assumed for simplicity that transit riders in Chapel Hill would continue to use the existing downtown Chapel Hill/UNC stops. The network analysis uses the street network and does not account for additional access provided by multi-use paths.

Network distance	Number of residential addresses	2010 population	2010 population, 18 and up
Within 2 miles (not including Chapel Hill)	7,984	14,973	12,435

Table 2. Residential proximity statistics: 2 miles from transit stop, excluding Chapel Hill (assuming Chapel Hill residents will use downstream bus stops).

Attachment C shows the stop's two-mile network buffer (including Chapel Hill).

Covered bicycle parking may make the transit stop more desirable for bicycle access. Cities such as Charlotte, NC, and Portland, OR, require long-term bicycle parking at park-and-ride lots and require that some or all long-term bicycle parking be covered. Charlotte requires long-term bike parking spaces equivalent to 4% of the number of automobile spaces. Portland requires a minimum of 10 long-term bike parking spaces or five per acre. In Portland, half the long-term spaces must be covered, while in Charlotte, all long-term spaces must be covered. Covered parking can include racks covered by a roof or bike lockers. In Portland, public bike lockers administered by the city's Bureau of Transportation are available for rent, which varies on the location of the locker. Downtown lockers are \$50 for three months or \$95 for six months, while lockers at transit stations are \$25 for six months.

² Estimated by the 2010 population of census blocks whose centroid is within the given network service area.

³ Source: <http://www.bicyclinginfo.org/facts/statistics.cfm>.

⁴ Alliance for Bicycling and Walking. 2012 Benchmarking Report.

http://www.peoplepoweredmovement.org/site/index.php/site/memberservices/2012_benchmarking_report/

Feeder bus access

Some residents may access the Triangle Transit stop via a transfer from Chapel Hill Transit. The CW bus stops at 403 W. Weaver St., one block away from the municipal parking lot. The J and F buses also serve the general vicinity. The earliest eastbound CW stops for the E. Weaver St. /Century Center timepoint are 7:35 and 8:05 AM. The earliest eastbound F stops on E. Weaver St. at the Century Center are 7:03 and 7:42 AM. The J stops at 15-minute frequencies between 6:28 and 10:43 AM. at E. Main St. in front of Weaver St. Realty. The number of transfers would likely be affected by how well the feeder bus services would be timed with the express service. Residents can already use these buses to access the 405 in downtown Chapel Hill.

Park-and-ride

A benefit of locating a stop at the 303 W. Weaver St. lot is its potential to serve as a park-and-ride lot. As noted above, peak demand for this lot is well short of capacity, suggesting that the designation of a certain number of spaces as park-and-ride spaces could occur without impacting parking lot level of service. The Town Code would need to be changed to reflect this designation and allow some cars to be parked for a full day. Some registration mechanism may be advisable to ensure that the spaces are actually used for regional transit riders. If the Town were to pursue a program of installing electric car charging stations in the future, this could serve as a potential station location.

Triangle Transit Short Range Transit Plan

Service expansion to Carrboro is not currently in Triangle Transit's five-year Short Range Transit Plan.⁵ Per a communication with Triagnle Transit staff, the plan is a broad overview and is not necessarily at the level of detail to include every specific route change that could occur in the short term. An extension of the 405 route to Carrboro could improve service in the U.S. 15-501 corridor if it results in additional bus trips. Service improvement in this corridor through coordination with other transit agencies is a recommendation in the SRTP (Ch. 4, Recommendation 4.2.3).

Draft Bus and Rail Investment Plan in Orange County

Improvements to the 405 route have been discussed as a high priority in the Draft Bus and Rail Investment Plan in Orange County.⁶ These discussions have referred to the improvements including an extension of the service into Carrboro. The annual operating cost of these service improvements is estimated to be \$630,000, which would increase annual bus hours by 3,300 and lead to increased frequencies for transit riders in the U.S. 15-501 corridor.

FISCAL AND STAFF IMPACT

No fiscal or staff impacts accrue from receiving the report.

⁵ The plan is available at: <http://www.triangletransit.org/srtp>

⁶ The draft plan is available at: <http://www.dchcmpo.org/dmdocuments/DraftOrangeCountyFinancialPlan.pdf>

RECOMMENDATION

Staff recommend that the Board of Aldermen adopt the resolution receiving the report (Attachment A).