



TOWN OF CARRBORO

NORTH CAROLINA

MEMORANDUM

DELIVERED VIA: ☐ HAND ☐ MAIL ☐ FAX ☒ EMAIL

DATE: April 11, 2014

TO: David Andrews, Town Manager
Mayor and Board of Aldermen

CC: Christina Moon, Planning Administrator
Patricia McGuire, Planning Director

FROM: Jeff Brubaker, Transportation Planner JSB

RE: Bike Corral Trial Installation Update

On June 18, 2013, the Board of Aldermen adopted a resolution accepting the offer of a donation of a bike rack from the Carrboro Bicycle Coalition and Performance Bike to be installed in a bike corral on E. Weaver St. The resolution authorized a trial period for the bike corral, directing staff to report back to the Board based on information collected during the trial period for further direction on the possibility of a permanent installation. The resolution also directed staff to

communicate with businesses before and during the trial period.



The bike corral was installed on August 22, 2013, by the Public Works Dept., with the assistance of the Planning Dept. and staff from Performance Bike. The corral was installed in place of an automobile parking space near the mid-block of E. Weaver St.

To study the impact of the bike corral, Town staff and volunteers collected data before and after installation on parking and loading zone utilization on E. Weaver St. Specifically, detailed turnover studies were collected on June 5-6 and October 2-3, 2013 (both Wednesday-Thursdays). The June data

were presented to the Board at the June 18 meeting. Town staff have also been in communication with business owners along the street.

Notes on methodology

Data for October 2-3 were collected in a similar manner as data for June 5-6.¹ The data collection period each day was for 12 hours, from 7:00 am to 7:00 pm. Volunteers logged the times of movements into and out of parking spaces and loading zones and the destination visited by passengers or the location served by delivery drivers. Unlike for the auto spaces, bike corral data include the number of bicycles parked at any one time but not the duration of individual bicycles. According to the Town Code, the five auto spaces have a one-hour maximum parking duration, and the two loading zones are reserved for loading and unloading only between 7:00 am and 5:30 pm. The auto parking spaces were labeled between Space 1 (nearest to the Main-Weaver-Roberson intersection) and Space 5 (farthest from the intersection). Space 6 in the June collection period became the bike corral for the October period. The loading zone behind Jade Palace is the east loading zone, while the loading zone in front of Market Street Coffee is the west loading zone.

Summary of parking data – October 2013

Parking duration (applies to all 24 hours – two 12-hour periods – unless otherwise noted)

- Total vehicle minutes in the five auto parking spaces averaged 1099 over the 24 hours surveyed (two 12-hour periods each day), with a range of 931 to 1180.
- Total passenger vehicle minutes in the two loading zones were 311 in the east loading zone and 209 in the west loading zone. This included both passenger vehicles parked during the restricted time and passenger vehicles parked during the permitted time.
- Total vehicle minutes in the bike corral were 1483.
- The five auto spaces had an average parking duration of 57 minutes, ranging from 24 minutes (Space 1) to 105 minutes (Space 2).²
- Loading zone east had an average delivery vehicle parking duration of 16 minutes. Loading zone west's average was 7 minutes. Both durations are less than the 30 min. maximum time allowed by the Town Code. Only one delivery vehicle in the 24-hour period exceeded the 30 min. maximum.
- 24 percent of all vehicles in the five auto spaces exceeded the one-hour time limit, ranging from 7% in Space 1 to 44% in Space 2. Only two vehicles parked in Space 2 on Thurs., Oct. 3, within the 7:00 am to 5:30 pm period, one for 100 minutes and one for 459 minutes (approx. 7.5 hours).

Percentage of time occupied

- The five auto parking spaces were occupied an average of 76% of the time, with a range between 65% and 82%.

¹ One difference between the two data collection periods is that UNC was in its summer session during the June 5-6 period.

² Does not include vehicles still parked at the end of each day's data collection period, as assuming a 7:00pm parking completion time would have been inaccurate.

- The loading zones were occupied an average of 21% of the time. They were occupied with delivery vehicles 6% of the time.
- The bike corral was occupied with at least one bike an average of 53% of the time.
- All parking and loading zones were occupied an average of 60% of the time.

Vehicle turnover

- A total of 167 vehicles parked in the parking spaces and loading zones.
 - The five auto spaces had a total of 98 vehicles.
 - The bike corral had a total of 27 vehicles.
 - The loading zones had a total of 15 delivery vehicles and 27 passenger vehicles.
 - 18 of the 27 passenger vehicles parked in the loading zone parked there before 5:30 pm, in violation of the Town Code
 - No delivery vehicles parked in the loading zones after 4:00 pm.
- The five auto spaces had an average turnover of 0.8 vehicles per hour, ranging from 0.5 to 1.5.
- The bike corral had an average turnover of 1.1 vehicles per hour.
- The largest number of bicycles parked in the corral at any one time was 6, at 2:48 PM on October 3.
- The longest duration the bike corral had no bicycles parked at it was 298 minutes, on Oct. 3 from 7:00 am to 11:58 am

Destinations

- The percentage of people who parked on E. Weaver St. and visited various destinations was as follows:
 - Weaver Street Market: 59%
 - Unknown: 11%
 - Spotted Dog: 10%
 - Multiple: 5%
 - Other: 5%
 - Market Street Coffee: 4%
 - Carr Mill Mall: 3%
 - Beehive: 2%
- The percentage of delivery drivers who parked on E. Weaver St. and delivered to various destinations was as follows:
 - Spotted Dog: 33%
 - Market Street Coffee: 20%
 - Jade Palace: 13%
 - Beehive, Carr Mill Mall, Century Center, Multiple, and Unknown: 7% (1 vehicle each)

Comparison of October 2013 with June 2013 data

The following table offers a comparison of data from each survey period (before and after bike corral installation), each representing 24 hours of data collection.

ATTACHMENT B-4

Statistic	June 5-6, 2013	October 2-3, 2013
Total vehicles parked	174	167
Total passenger vehicles parked	164	152
Total passenger vehicles parked in auto spaces	134 (Spaces 1-6)	125 (Spaces 1-5 + corral)
Average duration of passenger vehicles parked in auto spaces (minutes)	48 (Spaces 1-6)	57 (Spaces 1-5)
Percent violation of 1-hr. limit in auto spaces	21%	24%
Percent of time occupied by a vehicle – loading zones	19%	21%
Percent of time occupied by a delivery vehicle – loading zones	4%	6%
Number of delivery vehicles parked in loading zone	10	15
Number of passenger vehicles parked in loading zone	30	27
Number of passenger vehicles parked in loading zone before 5:30 pm	19	18
Average turnover (veh./hr.) – auto spaces	0.9 (Spaces 1-6)	0.8 (Spaces 1-5)
Average turnover (veh./hr.) – Space 6 compared to bike corral	1.3 (Space 6)	1.1 (Bike corral)

Destination – number of parkers (percentage of total) – autos – auto spaces and loading zones

Destination	June 5-6, 2013	October 2-3, 2013
Weaver Street Market	104 (63%)	72 (59%)
Spotted Dog	12 (7%)	12 (10%)
Beehive	7 (4%)	3 (2%)
Market Street Coffee	4 (2%)	5 (4%)
Carr Mill Mall	2 (1%)	4 (3%)
Century Center	2 (1%)	1 (1%)
Multiple	4 (2%)	6 (5%)
Other	11 (7%)	6 (5%)
Unknown	18 (11%)	13 (11%)
Total	164 (100%)	122 (100%)

Destination – number of parkers (percentage of total) – Space 6 (June): autos; Bike corral (October): bicycles

Destination	June 5-6, 2013 Space 6 autos	October 2-3, 2013 Corral – bicycles
Weaver Street Market	21 (66%)	17 (58%)
Spotted Dog	1 (3%)	0 (0%)
Beehive	3 (9%)	2 (7%)
Market Street Coffee	1 (3%)	1 (4%)
Century Center	1 (3%)	0

Multiple	1 (3%)	0
Other	1 (3%)	0
Unknown	3 (9%)	7 (26%)
Total	32 (100%)	27 (100%)

Feedback from businesses

Businesses were contacted at the time of the installation and after it. The owners or managers of Spotted Dog, Beehive, and Market Street Coffee expressed concern for the impact of the corral on the availability of automobile parking for their businesses. A Weaver Street Market contact expressed support for the corral. A summary of the feedback is provided below. Comments spanned the full spectrum of support and concern.

- The corral is a horrible, terrible idea.
- The corral should be larger.
- Passenger vehicles are parking in the loading zone. This should be enforced.
- Concerned about large tractor trailer delivery trucks clipping cars.
- Bikes parked at the corral will get crushed by trucks.
- Someone will get hurt.
- Concerned about people not crossing at the crosswalk.
- Concerned about parking spaces being used by tractor trailers.
- Worried about delivery trucks blocking drop-off locations for elderly clients in paratransit vehicles.
- I have seen at most one bike on the rack at any given time. It makes more sense to have a parking space used over an unused bike corral.
- A delivery vehicle could not park in the loading zone due to not being able to pull forward into the bike corral space so as to not block eastbound vehicles moving between it and the in-street yield to pedestrian sign. The delivery vehicle used the police department parking lot. The east loading zone was reportedly being used at the time.

Planning Department staff have received positive comments about the corral from users of the corral, and also a comment from a delivery driver urging that the loading zones be retained.

Options for the Board of Aldermen to consider

Based on the above information, the Board of Aldermen may wish to pursue one or more of the following options for proceeding with the bike corral.

- Direct staff to collect more data on parking utilization on E. Weaver St., including use of the corral.
- Direct staff to move the corral to another location on E. Weaver St.
- Direct staff to remove the corral and return it to the Carrboro Bicycle Coalition, or coordinate to see if it could be moved to another location.
- Direct staff to make the current location permanent.

ATTACHMENT B-6

- Modify the loading zone parking restrictions to allow for additional auto parking, e.g. changing the evening time limit to 4:00 pm instead of 5:30 pm.