



CITY OF URBANA, ILLINOIS
DEPARTMENT OF PUBLIC WORKS

ENGINEERING

MEMORANDUM

TO: Mayor Laurel L. Prussing and Members of the City Council

FROM: William R. Gray, Public Works Director
Craig E. Shonkwiler, Assistant City Engineer

DATE: May 8, 2014

RE: Broadway Avenue – Parking Study and Bicycle Infrastructure Considerations

Project History

A recommendation for on-street parking restrictions on Broadway Avenue between Washington Street and Illinois Street per An Ordinance Amending Schedule J of Section 23-183 of the Urbana Local Traffic Code Prohibiting Parking at All Times on Certain Streets (Broadway Avenue) was brought to the August 12, 2013 Committee of the Whole Meeting. At that meeting, the Committee requested additional information on parking counts when Urbana High School and the University of Illinois were in session.

The report discusses the results of the parking study, possible outcomes based upon the results of the study and considerations for future traffic calming measures.

Parking Study

Existing Parking Spaces

Table 1 summarizes the amount of existing parking spaces on Broadway Avenue from Washington Street to Illinois Street.

Table 1.

Broadway Section	West Side ^a	East Side ^a	Total
Washington to Oregon	21	22	43
Oregon to California	3	4	7
California to Illinois	0 ^b	4	4
Subtotal =	24	30	54
Total =	54		

^a One Parking Space = 18-20'

^b No parking allowed

Study Area

Broadway Avenue from Washington Street to Illinois Street was the primary focus of the parking study. The study area was expanded east and west of Broadway Avenue to include the adjacent side streets and other streets north of Urbana High School and near Broadway Avenue. The parking study area included the following streets bounded by Illinois Street – Vine Street – Washington Street – Race Street (see Attachment A):

- Race Street – Washington Street to California Avenue
- Broadway Avenue – Washington Street to Illinois Street
- Walnut Street – Washington Street to California Avenue
- Nevada Street – Walnut Street to Vine Street
- Oregon Street – Race Street to Vine Street
- California Avenue – Race Street to Vine Street

No parking is currently allowed on Washington Street, Vine Street, and Illinois Street and on Race Street from California Avenue to Illinois Street within the study area.

Data Collection

Following the August 12th Committee of the Whole Meeting, city staff began counting parked cars within the study area starting on Wednesday, August 14th, prior to the start of classes, which began at Urbana High School on Wednesday, August 21st and at the University of Illinois on Monday, August 26th. (Attachment B shows a calendar of data collection dates.)

Current practice within the transportation engineering industry is to center counting efforts during midweek days, Tuesday, Wednesday, and Thursday, which usually provide a typical representation of demand rather than on Monday or Friday which typically show high variability in demand.

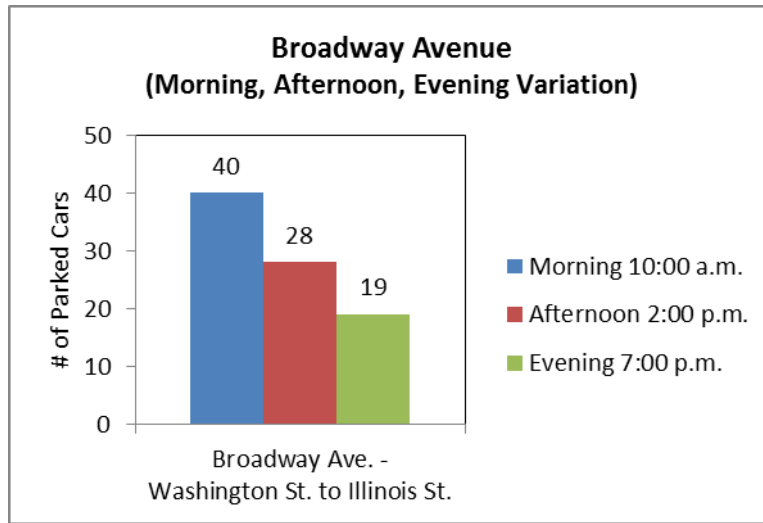
Parked car counts were performed by city staff, within the study area, for a three week period, at 10:00 a.m. in the morning, at 2:00 p.m. in the afternoon, and at 7:00 p.m. in the evening.

Upon completion of the initial study on September 5th, it was decided to check for possible weekday variations so counts were performed Monday, September 16th through Friday, September 20th. It should be noted that high school students were dismissed early at 12:26 p.m. on Friday, September 20th for Staff Development Day.

Broadway Avenue Results**Morning, Afternoon, and Evening Variations**

The peak demand for parked cars was found to be during the morning period. The chart below shows the morning, afternoon, and evening variations in parking demand on Broadway Avenue. The number of parked cars was determined from the arithmetic mean of the three Wednesday counts after the high school and the university were in session.

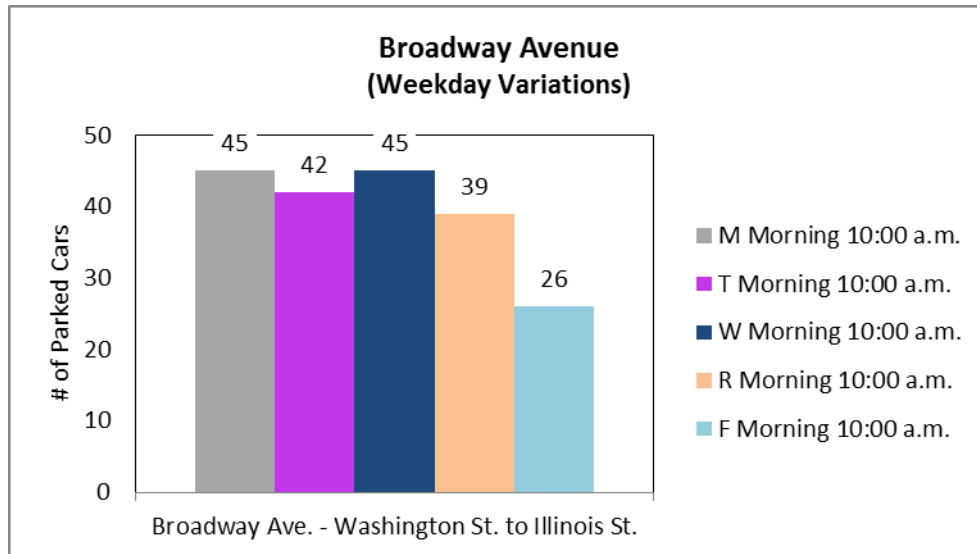
Chart 1.



Weekday Variations

Monday and Wednesday appear to be peak demand days for parking on Broadway Avenue from Washington Street to Illinois Street. The chart below shows the variations in parking demand for the morning counts performed Monday, September 16th through Friday, September 20th.

Chart 2.



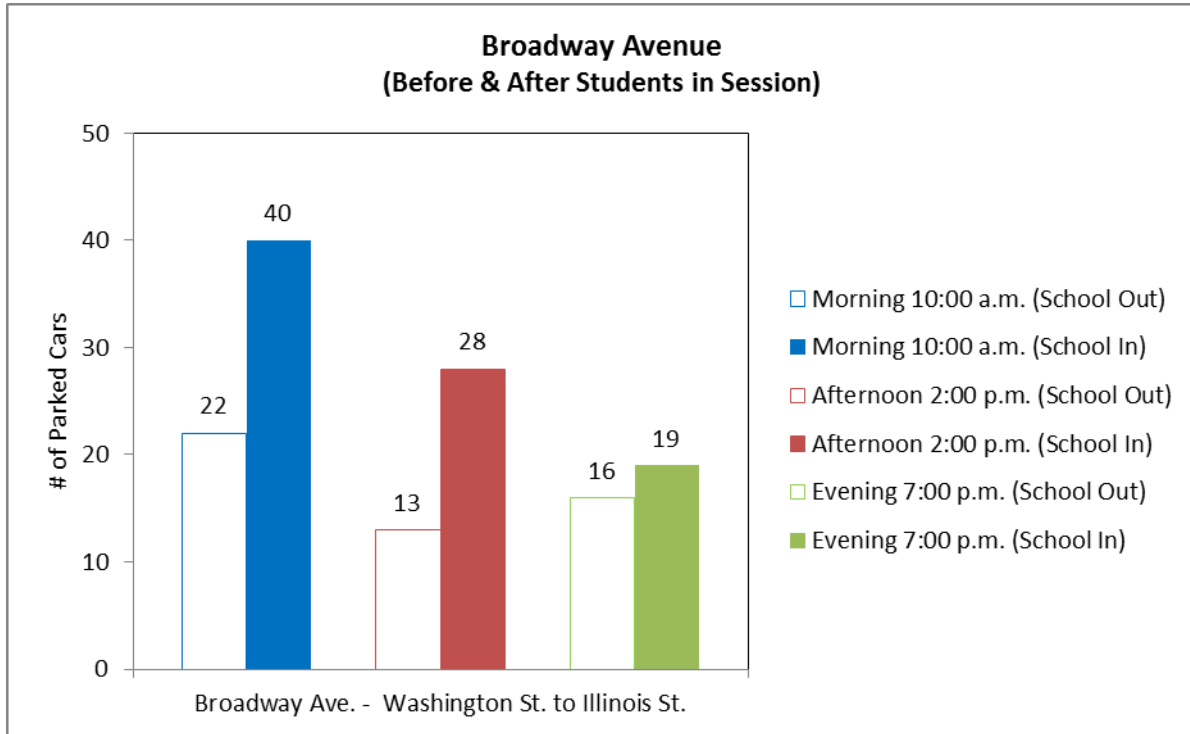
Peak Period for Analysis Purposes

The peak demand period for parking spaces was found to be either Monday or Wednesday morning. For analysis purposes the Wednesday morning period was used as the peak demand period for the subject parking study.

Comparison of Parking Demand Before and After Students in Session

The chart below shows the difference in demand on Broadway Avenue before and after the high school started classes on August 21st and the University of Illinois began classes on August 26th. The before counts (labeled “School Out”) were performed on Wednesday August 14th. The after counts (labeled “School In”) are the arithmetic mean of the three Wednesday counts performed on August 28th and September 4th and 18th.

Chart 3.



Parking Space Utilization

Table 2 summarizes the existing parking demand at three distinct locations in the morning and evening in the study area while both Urbana High School and the University of Illinois were in session:

- 1 - Broadway Avenue (Only)
 - Broadway Avenue - Washington Street to Illinois Street
- 2 - Broadway Avenue and the side streets one block east and west of Broadway Avenue
 - Broadway Avenue – Washington Street to Illinois Street
 - California Avenue – Race Street to Walnut Street
 - Oregon Street – Race Street to Walnut Street
- 3 – Streets one block north of Urbana High School (Oregon Street not included)
 - Broadway Avenue – Washington Street to Oregon Street
 - Race Street – Washington Street to Oregon Street
 - Walnut Street – Washington Street to Oregon Street
 - Nevada Street – Walnut Street to Vine Street

Table 2.

Analysis Location	Existing Capacity	# of Parked Cars	Existing % Utilization	# of Parked Cars	Existing % Utilization	Proposed Capacity ^a
		Morning 10:00 a.m.		Evening 7:00 p.m.		
1 -Broadway (Only)						
Broadway	54	40	74.1%	19	35.2%	24
2 -Broadway and 1-block East & West of Broadway						
Broadway	54	40	74.1%	19	35.2%	24
California	14	5	35.7%	3	21.4%	14
Oregon	17	14	82.4%	10	58.8%	17
Total =	85	59	69.4%	32	37.6%	55
3 - Streets one block north of Urbana High School (Oregon not included)						
Broadway	43	37	86.0%	16	37.2%	21
Race	15	8	53.3%	6	40.0%	15
Walnut	17	8	47.1%	6	35.3%	17
Nevada	8	1	12.5%	2	25.0%	8
Total =	83	54	65.1%	30	36.1%	61

^a Capacity if bicycle lanes are installed on Broadway

Properties with No Entrances

The following properties do not have entrances (driveways) on Broadway Avenue. Underlined values indicate properties that do not have entrances on Broadway Avenue, adjacent side streets or rear of the property:

- 723 Broadway Avenue – residential property with entrance on Washington Street
- 724 Broadway Avenue – residential property with entrance on Washington Street
- 722 Broadway Avenue – 4 unit apartment building, no entrance
- 720 Broadway Avenue – 2 unit apartment, no entrance
- 707 Broadway Avenue – residential property, no entrance
- 704 Broadway Avenue – garage in rear of property with access on Oregon Street
- 701 Broadway Avenue – 5 unit apartment, no entrance. There is an entrance on Oregon Street with two spaces available to tenants.
- 103 E. Oregon Street – 4 unit apartment, parking in rear of property with access on Oregon Street
- 608 Broadway Avenue – residential property, no entrance

Properties with No Entrances (continued)

- 607 Broadway Avenue – residential property with entrance on Oregon Street
- 606 Broadway Avenue – residential property with parking in rear and north side with access from alleys
- 604 Broadway Avenue – residential property with parking in rear with access from alley
- 602 Broadway Avenue – residential property with parking in rear with access from alley
- 601 Broadway Avenue – residential property with entrance on California Avenue
- 508 Broadway Avenue – law office with parking on north and east sides of building

Residents at 703 Broadway Avenue (3 units) and 703.5 Broadway Avenue (3 units) share a single narrow entrance with minimal parking available on-site.

Current Parking Restrictions

Parking is currently allowed on most of the streets within the study area. See Attachment C for locations where parking is allowed, restricted, or metered.

Available Parking for Urbana High School Students

Parking lots within the Urbana High School grounds are for the use of faculty, staff, and visitors. Parking is not provided by Urbana High School on its grounds for students. Students who drive vehicles to school currently park on city residential streets that do not have parking restrictions and are near the high school.

Parking Study Findings***Broadway Avenue***

The demand for parking spaces along Broadway Avenue during the day when students are in session is expected to exceed the proposed supply if parking is removed for installation of the bicycle lanes. The proposed parking supply appears to be sufficient for residents along Broadway Avenue during the evenings when the high school is not in session.

Some additional parking capacity can be gained by counting available side street capacity on Oregon Street and California Avenue one block east and west of Broadway Avenue. The additional side street capacity is not expected to be enough to offset the demand during the day when the high school is in session.

Streets North of Urbana High School

There is excess capacity on Race Street, Walnut Street and Nevada Street one block north of Urbana High School. These streets do not have parking restrictions and are available for use by high school students during the day when the high school is in session. The excess capacity on these streets could offset the parking demand during the day when the high school is in session.

Bicycle Infrastructure Considerations***Bicycle Master Plan***

Bicycle lanes on Broadway Avenue were recommended in the Urbana Bicycle Master Plan approved by the City Council in April 2008. The Bicycle Master Plan is currently being updated in 2014 to reflect changes in bicycle infrastructure design that have occurred since that time and seek public input on bicycle infrastructure that has been implemented to date and preferences for bicycle infrastructure in the near future.

Two-phase Approach

A two-phased approach to the installation of some of the more challenging bicycle infrastructure components of the plan is currently being developed in the 2014 update of the Bicycle Master Plan. The two-phased approach, to be used at select locations which usually require the removal of on-street parking, is to install short-term/long-term bicycle infrastructure. Short-term infrastructure would consist of bike route signs and shared lane pavement markings. Long-term infrastructure, such as bicycle lanes, would be installed upon the satisfaction of predetermined metrics or warrants as a result of a detailed engineering and safety analysis.

Bike Lanes

Bicycle lanes are typically installed where roadway width is sufficient for bicyclists to ride at their preferred speed without interference from motor vehicles.

Per the Urbana Bicycle Master Plan, some of the benefits of bike lanes include:

- More predictable movements by both cars and bikes
- A decrease in bad cycling with cyclist better adhering to laws about riding on the right side of the road
- Higher bike usage
- Passive traffic calming effect from lane width narrowing
- Additional visual definition and clarification on the roadway, making it easier for motorists and cyclists to share the road

Bike Route and Shared Lane Pavement Markings

Bike routes consist of signs indicating a route is preferred for bicycle travel. Bike routes are typically installed on minor roads with low volumes and direct bicyclists to a specific destination.

Share the road markings consist of a bicycle symbol and directional arrows (i.e., sharrows) placed at defined locations within the travel lane and at periodic intervals along a street. Sharrows guide bicyclists to the best place to ride on the road to avoid car doors and remind drivers to share the road with cyclists.

Traffic Commission Meeting

A notification letter regarding the proposed on-street parking removals was sent to all affected properties along Broadway Avenue on June 24, 2013. A copy of that notification letter is presented in Attachment D. The proposed on-street parking removals along Broadway Avenue were discussed at the July 2, 2013 Traffic Commission Meeting. Public input was received regarding the on-street parking removals from three residents against the removal of on-street parking. Those residents indicated a preference for the proposed bicycle facilities on Broadway Avenue to be changed from bike lanes to a bike route. Additionally, three residents contacted city staff prior to the Traffic Commission Meeting with two in favor of the plan to remove on-street parking and one against the on-street parking removals. With two of three commission members present, the Traffic Commission moved this item to City Council without recommendation.

Notice was also sent to all affected properties along Broadway Avenue on July 16, 2013 to notify affected residents and/or property owners of the action taken at the July 2, 2013 Traffic Commission Meeting and of their opportunity to provide input at the Committee of the Whole meeting on August 12, 2013. A copy of that notification letter is presented in Attachment E.

Comments were also received by city staff after the Traffic Commission Meeting by two affected property owners in favor of the plan to remove on-street parking.

Options to Consider

The following are options for the Mayor and City Council to consider:

Option 1: Install bike lanes

Pros:

- Provides dedicated street space for the exclusive use of bicyclists.
- Creates separation between bicyclists and automobiles.
- Increases predictability of interaction between bicyclists and motorists.
- Encourages bicycle use.
- Ultimately connects Urbana High School and Washington Street bike route with Lincoln Square and downtown Urbana via dedicated bike lanes.
- Follows the recommendations approved in the 2008 Urbana Bicycle Master Plan.

Cons:

- Reduces the amount of on-street parking.

Recommended Parking Restriction Changes:

If option 1 is selected it is recommended the 2 hour parking restrictions on Broadway Avenue from Oregon Street to California Avenue be changed to no restrictions to allow residents use of the remaining parking on the east side of the street at this location. Separate Council action will be necessary to implement this parking restriction change.

Option 2: Install bike route & shared lane markings (short-term), install bike lanes (long-term)

Pros:

- Maintains current on-street parking.
- Indicates that Broadway Avenue is a preferred route for bicyclists.
- Indicates that motorists should expect to see bicyclists on the street.
- Allows for further review and evaluation of the installation of bicycle lanes upon satisfaction of predetermined metrics or warrants as a result of detailed engineering and safety analysis.
- Is consistent with two-phased approach recommendation under consideration in the 2014 Urbana Bicycle Master Plan.

Cons:

- Decreases predictable interaction between bicyclists and motorists.
- Hinders bike ridership by eliminating dedicated street space for bicyclists.
- Eliminates only north-south bike lanes between Washington Street and Illinois Street in the area between Urbana High School and Lincoln Square Village.
- Conflicts with recommendations in the 2008 Urbana Bicycle Master Plan.

Option 2 would only include the installation of the bike route and shared lane markings at this time. Installation of bike lanes and associated removal of parking would be decided by the City Council at a later date upon satisfaction of predetermined criteria.

Option 3: No Action

Pros:

- Maintains current on-street parking.

Cons:

- Decreases the predictability of interaction between bicyclist and motorists.
- Discourages bike ridership by offering no facilities for bicyclists.
- Eliminates only north-south bike lanes between Washington Street and Illinois Street in the area between Urbana High School and Lincoln Square.
- Conflicts with recommendations in the 2008 Urbana Bicycle Master Plan.

Additional Measures for Future Consideration***Traffic Calming***

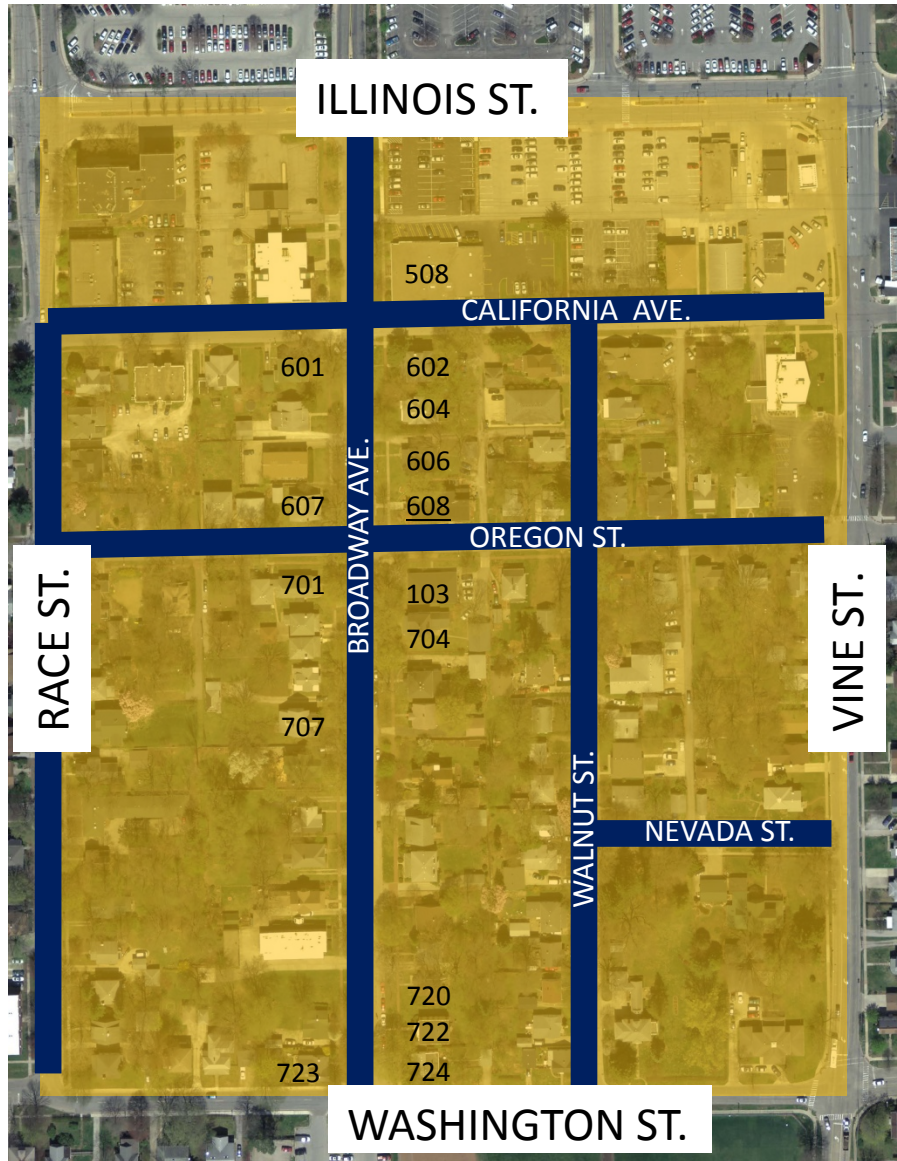
At the August 12, 2013, potential traffic calming measures, such as a mini-roundabout at the Broadway Avenue and Oregon Street intersection, were mentioned by City Council as a possible alternative solution to the current two-way stop signs at that intersection.

The City of Urbana does not have a traffic calming policy to guide the placement of speed and volume control devices within its corporate limits. Speed control devices can consist of speed humps or tables, raised crosswalks or intersections, textured pavement, traffic circles or mini roundabouts, chicanes, neckdowns or other miscellaneous devices that could be installed to reduce the speed of vehicles on select city streets. Volume control devices can consist of full closures, half closures, diagonal diverters, median barriers or other miscellaneous devices that could be used to reduce the volume of vehicles on select city streets. For more information about traffic calming measures, refer to <http://trafficalming.org/>.

A traffic calming policy is needed to guide the temporary and permanent proper placement and funding before the implementation of traffic calming devices are installed. Development of a traffic calming policy could be undertaken by city staff with the direction of the Mayor and City Council.

Attachments: A – Parking Study Area
 B – Data Collection Calendar
 C – Current Parking Restrictions within Study Area
 D – Traffic Commission Broadway Avenue Parking Removal Notice, June 24, 2013
 E – Traffic Commission Broadway Avenue Parking Removal Notice, July 16, 2013
 F – Ordinance

Attachment A – Parking Study Area
Broadway Avenue Parking Study



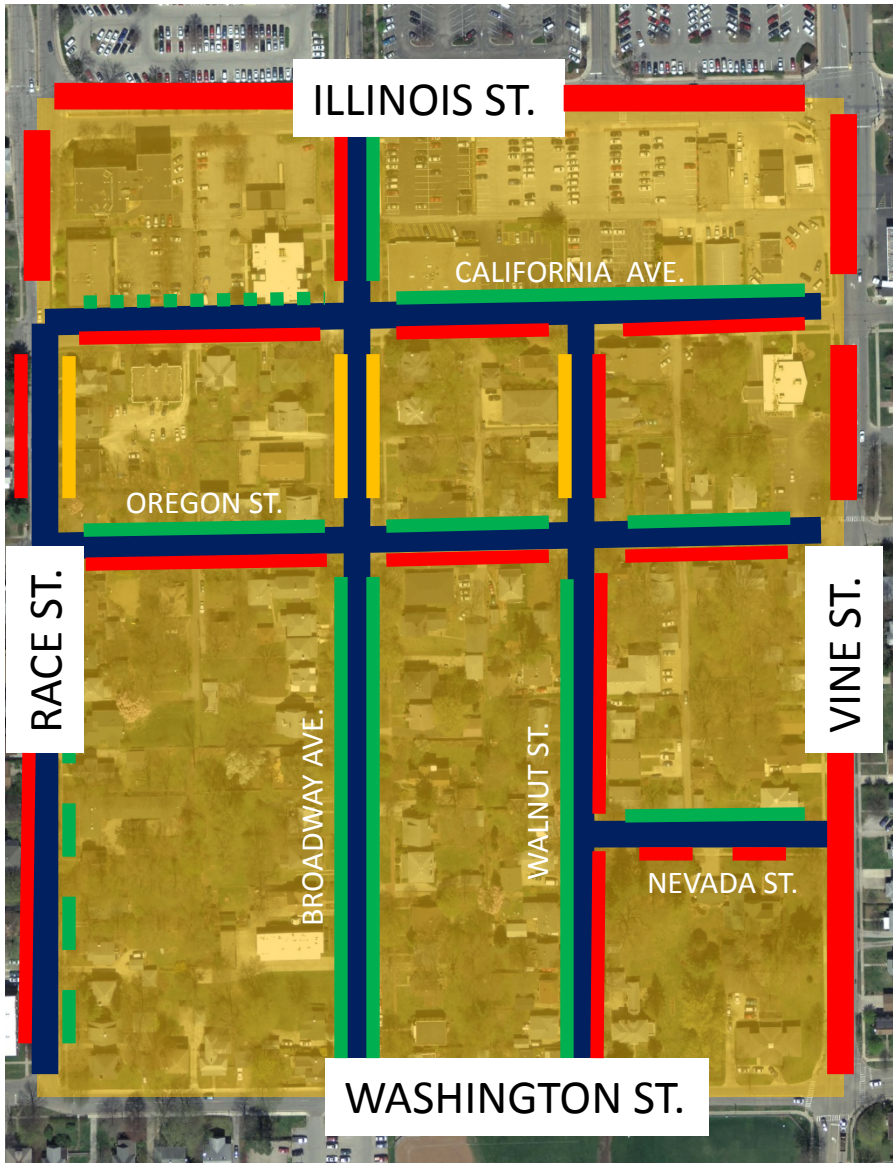
Note: Addresses shown do not have entrances on Broadway Avenue. Underlined values do not have entrances on Broadway Avenue, adjacent side streets or rear of the property.









**Attachment B – Data Collection Calendar
Broadway Avenue Parking Study**

~ August 2013 ~						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12 COTW Meeting	13	14 Parked Cars Counted		15	16
18	19	20	21 All H.S. Students in Session	22	23	24
25	26 Uofl Classes Begin	27	28 Parked Cars Counted		29	30
					31	

~ September 2013 ~						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2 Labor Day	3	4 Parked Cars Counted		5	6
8	9	10	11	12	13	14
15	16 Parked Cars Counted					17
22	23	24	25	26	27	28
29	30					

Attachment C – Current Parking Restrictions within Study Area
Broadway Avenue Parking Study



-  Parking Allowed
-   2-6 a.m. Restriction Nov - Mar
-  Metered
-   M-F Restriction
-  No Parking
-  2 Hr Parking 8-5 M-F

ATTACHMENT D



CITY OF URBANA, ILLINOIS
DEPARTMENT OF PUBLIC WORKS

June 24, 2013

The City of Urbana is preparing to resurface Broadway Avenue from Washington Street to just south of Illinois Street. As part of the resurfacing, the City intends to install bicycle lanes on both sides of Broadway Avenue as noted in the Urbana Bicycle Master Plan.

The installation of bicycle lanes on Broadway Avenue will require the removal of on-street parking from the west side of Broadway Avenue from Washington Street to California Avenue and from the east side of Broadway Avenue from California Avenue to Illinois Street.

The attached exhibit highlights the areas proposed for on-street parking removal. The installation of bike lane markings is anticipated to occur in the fall of 2013. Until then, the on-street parking will remain as is.

The Urbana Traffic Commission will meet on **Tuesday July 2, 2013 at 4:00 p.m.** in the Executive Conference Room on the second floor of the City Building, 400 South Vine Street to discuss the parking impacts. The topic of this meeting may be of special interest to you since the removal of on-street parking on your street is proposed. You are invited to attend the meeting to express your concerns about this proposed action.

If you are unable to attend the meeting, you may write or call any of the Commissioners to discuss your feelings on the item.

Urbana Traffic Commission Members

Michael P. Madigan, Chair
Council Member, Ward 6
303 Artesia Crossing
Urbana, IL 61801
217/609-5664; e-mail: mpmadigan@urbanaillinois.us

Joseph L. Smith, P.E.
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706 South Glover Avenue
Urbana, IL 61802
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Pat Connolly
Chief of Police, Urbana Police Department
400 South Vine Street
Urbana, IL 61801
217/384-2321; e-mail: connolpj@urbanaillinois.us



ATTACHMENT E

Public Works Department
706 South Glover Avenue
Urbana, IL 61802
(217) 384-2342
FAX (217) 384-2400

July 16, 2013

Dear Resident and/or Property Owner:

At the July 2nd meeting of the Urbana Traffic Commission, the commissioners moved to refer to the Committee of the Whole, without recommendation, an ordinance restricting on-street parking on the west side of Broadway Avenue between California Avenue and Washington Street and at various locations on the east side of Broadway Avenue between Washington Street and Illinois Street as part of the plan to implement the Urbana Bicycle Master Plan, which includes the installation of northbound and southbound bicycle lanes on Broadway Avenue.

Before parking restrictions can be enacted, the City Council will discuss and vote on the parking restriction ordinance. Discussion will occur at the Committee of the Whole meeting on Monday, August 12, 2013 in the Urbana City Council Chambers, 400 South Vine Street, Urbana. If the Committee recommends that the item go to Council, the City Council will vote on the ordinance at its meeting on Monday, August 19, 2013 to be held at the same location. Both meetings will begin at 7:00 p.m. Agendas for those meetings will be available the Fridays before the meetings on the City's website, www.urbanaininois.us.

We appreciate all of the input provided during this process. If you would like to provide input, please feel free to contact the Recording Secretary, Barbara Stiehl at 217.384.2342 or at blstiehl@urbanaininois.us.

Sincerely,
Urbana Traffic Commission

ATTACHMENT F

ORDINANCE NO. 2014-05-047

AN ORDINANCE AMENDING SCHEDULE J OF SECTION 23-183 OF THE URBANA LOCAL
TRAFFIC CODE PROHIBITING PARKING AT ALL TIMES ON CERTAIN STREETS

(Broadway Avenue)

WHEREAS, the City of Urbana has the authority to establish parking restrictions on city roadways; and

WHEREAS, the City has committed to the installation of bicycle lanes in accordance with the City of Urbana Bicycle Master Plan and where approved by the City Council; and

WHEREAS, unrestricted bicycle lanes provide for greater safety for bicyclists by allowing them to have their own travel lane outside the vehicle travel lane;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF URBANA, ILLINOIS, as follows:

Section 1. That Schedule J of Section 23-183, entitled "Parking Prohibited At All Times on Certain Streets" of Article XIV of the Urbana Local Traffic Code, is hereby amended by ADDING to that schedule the following portions of streets where no person shall park a vehicle at any time:

<u>Street</u>	<u>Between</u>	<u>Side of Street</u>
Broadway Avenue	From the centerline of California Avenue to the centerline of Washington Street	West Side
Broadway Avenue	From 85 feet south of the centerline of Oregon Street to 70 feet south of the centerline of Oregon Street	East Side
Broadway Avenue	From 100 feet south of the centerline of California Avenue to 75 feet south of	East Side

the centerline of
California Avenue

Broadway Avenue

From the centerline of
California Avenue to
the centerline of Illinois
Street.

East Side

Section 2. All ordinances, resolutions, motions, or parts thereof, in conflict with the provisions of this Ordinance, to the extent of such conflict, are hereby repealed.

Section 3. This Ordinance shall not be construed to affect any suit or proceeding pending in any court, or any rights acquired, or a liability incurred, or any cause or causes of action acquired or existing prior to the effective date of this Ordinance; nor shall any right or remedy of any nature be lost, impaired, or affected by this Ordinance.

Section 4. The City Clerk is directed to publish this Ordinance in pamphlet form by authority of the corporate authorities, and this Ordinance shall be in full force and effect from and after its passage and publication in accordance with Section 1-2-4 of the Illinois Municipal Code.

PASSED by the City Council this _____ day of _____, _____.

AYES:

NAYS:

ABSTAINS:

Phyllis D. Clark, City Clerk

APPROVED by the Mayor this _____ day of _____, _____.

Laurel Lunt Prussing, Mayor

CERTIFICATE OF PUBLICATION IN PAMPHLET FORM

I, Phyllis D. Clark, certify that I am the duly elected and acting Municipal Clerk of the City of Urbana, Champaign County, Illinois.

I certify that on the _____ day of _____, the corporate authorities of the City of Urbana passed and approved Ordinance No. _____, entitled "AN ORDINANCE AMENDING SCHEDULE J OF SECTION 23-183 OF THE URBANA LOCAL TRAFFIC CODE PROHIBITING PARKING AT ALL TIMES ON CERTAIN STREETS (Broadway Avenue)," which provided by its terms that it should be published in pamphlet form.

The pamphlet form of Ordinance No. _____ was prepared, and a copy of such Ordinance was posted in the Urbana City Building commencing on the _____ day of _____, _____, and continuing for at least ten (10) days thereafter. Copies of such Ordinance were also available for public inspection upon request at the Office of the City Clerk.

DATED at Urbana, Illinois, this _____ day of _____,
_____.

SEAL

CITY CLERK