CITY OF PEORIA – TRAFFIC COMMISSION

REGULAR BUSINESS MEETING

AGENDA

TUESDAY, AUGUST 21, 2012

3:00 PM – 4:30 PM

COMMISSION MEETING – TO BE HELD AT CITY OF PEORIA DRIES LANE FACILITY CONFERENCE ROOM #113, 3505 N. DRIES LANE, PEORIA, ILLINOIS 61604. (309) 494-8800.

CITY OF PEORIA – TRAFFIC COMMISSION

AGENDAS AND MINUTES

ISSUED BY:

JOE HUDSON, CHAIRMAN

VIA TRAFFIC ENGINEERING DIVISION, PUBLIC WORKS DEPARTMENT

3505 N. DRIES LANE, PEORIA IL 61604

(309) 494-8800

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*Citizens wishing to address an item not on the agenda should contact a commission member prior to the meeting. All other public input will be heard under public comment near the end of the committee meeting.

Note: The order in which agenda items are considered may be moved forward or delayed by at least 2/3 vote of the commission members present.

The City of Peoria – Traffic Commission Meets in Regular Business sessions the Third Tuesday of the Month at 3:00 PM at 3505 N Dries Lane Conference Room #113, Peoria, Illinois. (309) 494-8800.

Notices of any special meeting are posted at least 48 hours prior.
CITY OF PEORIA – TRAFFIC COMMISSION
DRIES LANE, CONFERENCE ROOM
3:00 PM – 4:30 PM

ROLL CALL

ANNOUNCEMENTS, Etc.

AGENDA ITEMS

ITEM NO. 1 DISCUSSION AND CONSIDERATION of A COMMUNICATION TO THE PEORIA CITY COUNCIL TO PROVIDE INPUT REGARDING THE BUDGETING OF FUNDS FOR A FEASIBILITY STUDY REGARDING THE PROPOSED CONVERSION OF ADAMS AND JEFFERSON Streets TO TWO-WAY STREETS

UNFINISHED BUSINESS

NEW BUSINESS

PUBLIC COMMENT

NEXT MEETING

ADJOURNMENT
To: Traffic Commission  
From: Nick Stoffer, Traffic Engineer

AGENDA DATE REQUESTED: August 21, 2012

ACTION REQUESTED: DISCUSS AND PROVIDE COUNCIL INPUT ON WHETHER TO BUDGET FUNDS FOR A FEASIBILITY STUDY REGARDING CONVERSION OF ADAMS AND JEFFERSON TO TWO-WAY STREETS.

BACKGROUND: Adams and Jefferson Streets, which are both considered principal arterials in downtown Peoria, are currently operating as a one-way roadway couple. They were established as one-way streets in the 1950s to reduce crashes and to help bring traffic into and out of the downtown area. Since that time, they have served their function to move traffic into and through the downtown.

More recently, the consultant working on the Heart of Peoria Plan suggested that streets in downtown Peoria should be two-way, rather than one-way. This new urbanism principle of promoting two-way streets is meant to provide better circulation and keep traffic speeds lower than what might occur on one-way streets.

Conversion of Adams and Jefferson from one-way to two-way traffic will have a lasting impression on downtown Peoria. Since both one-way and two-way streets have advantages within a city’s roadway system and a conversion will have both positive and negative effects on the traveling public and businesses and will involve implementation costs, its cost/benefits should be studied. Therefore, in order to pursue the concept of converting Adams and Jefferson to two-way roadways, a feasibility study should be considered. To give direction as to the appropriate treatment for these roadways, some of the issues that a study would address are:

- How to accommodate streetscape, pedestrians, parking, and bicycles
- The effect of changing the traffic patterns on these and adjacent streets
- Traffic and pedestrian safety
- Congestion management
- The effect on air quality
- How to address the entrances to parking garages, which are set up for one-way streets
- Assess potential jurisdictional transfers from IDOT
- The overall cost of conversion in capital and community costs

Attachment A is a brief report, which further discusses these issues.

To answer these questions before implementation, the next logical step in the process to convert these streets from one-way to two-way would be to perform a feasibility study. The Peoria Traffic Commission is asked to discuss the issue of converting Jefferson and Adams Streets from one-way to two-way traffic and to provide a written recommendation to Council on this subject.
ATTACHMENT A
CONVERSION TO TWO-WAY STREETS

To determine the feasibility of converting the Adams-Jefferson one-way couple to a two-way street network, consideration should be given to the following:

- **Streetscape, Pedestrians, Parking, and Bicycles.** Full consideration needs to be given to leave space for streetscape, pedestrians, parking, and bicycles. Two-way streets tend to require more pavement than one-way streets for turning lanes. This can mean less space within the ROW for bike lanes, parking, streetscape and pedestrians.

- **Traffic Patterns.** The Adams-Jefferson one-way couple currently moves approximately 20,000 vehicles per day through the Warehouse District. The Warehouse District represents about 5 blocks out of the 50 blocks of the Adams-Jefferson one-way couple. If a conversion to two-way traffic were to be done, it should be for the entire length of the couple, not just a small piece in the middle of downtown. The transitions points and methods at each end would need to be defined. Another issue would be how to make the transitions at I-74. It would be expected that each street would have at least one lane of traffic in each direction, along with a center turn lane.

- **Safety.** One-way streets are safer than two-way streets because there are fewer conflict points at intersections, and head-on vehicle crashes are very unlikely. For example, Jefferson Street around O’Brien Field has sharp curves that could cause vehicles to cross over the centerline and crash head-on into oncoming vehicles. Additionally, pedestrians only need to look in one direction when crossing the street, and crosswalks at one-way street intersections are usually shorter because turn lanes are not needed and less through lanes are required.

- **Congestion.** While minimum design standards would require only one lane in each direction, the high density of existing access points, short blocks with traffic signals, and the ability to synchronize traffic signal timings would logically encourage the implementation of a center two-way left-turn lane in order to reduce congestion, emissions, and crashes caused by left-turning vehicles. The Adams-Jefferson couple currently has coordinated traffic signals that move traffic smoothly at about 30 mph through the area. They are also coordinated with the other one-way couples and side streets to optimize traffic flow. If there is a conversion, then a new coordination plan will need to be implemented, which will be less efficient. As motorists come and go in the morning and afternoon, there will be additional congestion due to the reduced efficiency of two way streets.

- **Air Quality.** The local area is currently an attainment area. New stricter regulations or increased air pollution may result in a downgrade to a non-attainment area and this would increase community wide compliance requirements. Increased congestion, as a result of decreased efficiency, as discussed previously, will lead to more air pollution as well as increase delay. Both of these have a cost to the community.

- **Parking Garages.** There are several parking garages in the downtown area that have their entrances set up for the current one-way patterns. If a garage has a left-in and left out, such as the Jefferson garage, then a conversion would negatively affect this. Traffic would be able to turn both ways in and both ways out, resulting in multiple conflict points, which do not currently exist. Switching the in and out sides of the entrance would be either costly or structurally prohibitive in many cases. Thus, there will be problems with traffic safety and delay at the entrances and exits.

- **Jurisdiction.** North of I-74 the Illinois Department of Transportation has jurisdiction of both Adams and Jefferson. If there were to be a conversion, IDOT would need to approve the plans and, most likely, would want the City to take over one of the streets while having the other remain as a state route. They also may want to remove any current parking from the street which becomes designated as the state route, and that could affect businesses. If the City were to take over Adams or Jefferson, significant additional cost to the City for maintenance and repair of the roadway would result.

- **Costs.** Construction costs to convert from a one-way to a two-way street are hard to estimate because costs can seem hidden until a detailed design or study is completed. However, it can be assumed that approximately $150,000 per signalized intersection and $50,000 per un-signalized intersection would be needed to reconfigure traffic signals and reconstruct the curb radii that, in the existing condition, are not designed for right-turning vehicles. Some other items that could incur cost are additional or amended signage, changes to roadway geometry where one-way and two-way sections transition, changes to the entrances and exits to parking decks, changes to the bridges over I-74, and geometric changes to I-74 on and off ramps. Online research indicates that some communities have estimated costs up to $2 million per mile of...
conversion from one-way streets to two-way streets, depending on the existing street network, impacts to private property access, and travel patterns. It is probable that the total cost of conversion would exceed $10 million.

In 2006, a study was undertaken by Berger and Associates which looked at conversion to two-way streets. That study was never completed, but a set of questions was posed to IDOT. Those questions and IDOT’s responses follow, to provide some additional information to Council.

1. **Are there statistics on the severity of the accidents for one-way vs. two-way rather than just the number of accidents?** We have researched the IL 29/US 24 corridor on the north side of town and found the following statistics:

   **Adams Street 2-way section from Y to US 150** Approx. 1.0 miles:
   - 150 accidents over 3 yr period of which 75 had injuries
   - Rate: 8.5 crashes/mvm driven
   - ADT is 17,400
   - 85\(^{th}\) percentile speed 42 MPH
   - Severity rate is twice as high as Adams one way section and 20% higher than Jefferson one way section.

   **Adams Street 1-way section from I-74 to Y** Approx. 1.5 miles:
   - 90 accidents over 3 yr period of which 30 had injuries
   - Rate: 5.0 crashes/mvm driven
   - ADT is 10,300
   - 85\(^{th}\) percentile speed 45 MPH

   **Jefferson 1-way section from I-74 to Y** Approx. 1.5 miles:
   - 84 accidents over 3 yr period of which 35 had injuries
   - Rate 5.2 crashes/mvm driven
   - ADT is 11,400
   - 85\(^{th}\) percentile speed 42 MPH

   Note: The rate is based on length, ADT (average daily traffic) and number of accidents and is used to equalize different segments of roadways. (Apples to Apples)

   **This is over a 60% difference in crashes on the one-way verses the two-way.**

2. **Is there a possibility to keep the downtown one way, but have Adams and Jefferson be two way just outside of downtown (i.e. move the transition from two to one way (on Adams and Jefferson) closer to the edges of downtown)?**

   This could be done. At first glance, the best transition location would be at Bryan St on the north and Lincoln Ave on the south. The north end would also require a relocation of Jefferson at or near VanBuren to tie it into the Adams two-way. The south end would require some minor work along Western and possibly converting Lincoln Ave to two way system. There would be impacts (possibly major) to the buildings, businesses and homes located on those streets as well as those adjacent to the transitions. Other issues would be impacts to access, parking, capacity and the overall cost of implementation. One other issue that wasn’t addressed at the previous meeting is that the state route markings for US 24 and IL 29 would be removed from one of the facilities (most likely Adams) which would move a good percentage of the drive-by traffic from Jefferson to Adams.

3. **What are some alternative strategies for delivery trucks in order to reduce the congestion of traffic?**

   This is more of a city/business owner issue involving codes, enforcement, etc. However, just looking at it from a practical stand point and depending on the section of road under consideration, Loading Zones would be the best alternative. This would require removal of parking or possibly impact the sidewalk width, or possibly could be combined with the sidewalk. Most deliveries are made in the early AM when pedestrians are not present so the sidewalks could have a double duty. Another way is a thru system of alleys behind the stores.

4. **What case studies are there for cities with similar traffic counts as Peoria? Are there cities of like size that have two way streets and a vibrant downtown with a strong retail base?**
We were able to talk to the following cities (of similar size to Peoria) about their conversion experience and found the following:

Des Moines, IA – Did major study to convert one to two way and decided on minor collectors only and maintain one-way on the major collectors for traffic flow in and out of downtown.

Lincoln, NE – Switched some collectors from one way to two way with success. When they switched the arterials to two way there was major congestion and public outcry. After a three month time period, the city council voted to turn the arterials back to one way at a total cost of over a million dollars.

5. Are there preliminary cost estimates and possible funding sources identified to change from one-way to two-way, both for the public and private sectors?

There have not been any formal looks at costs associated with a conversion to two-way. Any cost would be dependent on how much is converted and where the transition points are located. In general, each signalized intersection converted from one-way to two-way would cost ~$150,000. There are also the costs to transition Jefferson into Adams, changing/adding signing, geometric improvements at minor intersections, resurfacing and striping both facilities, land acquisition costs, and widening the new structures on Adams and Jefferson (if everything is two way). The overall cost would probably be over $10 Million not including widening the bridges or the addition of wider sidewalks, trees, planters, bike paths, etc. The Department would not be looking to participate in improvements not related to safety, capacity, different modes or condition of the existing state system.

6. Considering three distinct business areas and several bridges, is it possible to safely create different traffic patterns to address the physical characteristics and economic needs of each area?

This is similar to questions number 2 and 10 above. The answer is dependent on what physical characteristics and economic needs we are looking for. Two-way streets may increase drive-by traffic but will most likely replace parking with turn lanes. One-way streets maintain the existing volumes and speeds can be reduced by reducing or narrowing lanes, allowing room for sidewalks/bike lanes and parking.

7. Is there a willingness to use traffic engineering firms with expertise in new urbanism to guide the IDOT and City team?

The question to ask is what do you want to see done in the downtown and leading into downtown? New urbanism is going to bring in bikes, pedestrians, lighting, trees and different facades generally making the area more appealing and friendlier to all modes of transportation. This can be accomplished without bringing in outside firms unfamiliar with the area. The question for this group is, “Do you want new urbanism with two-way or one-way streets?” It can be done with either. It is just a matter of setting the priorities on how you want to spend available funds—be it parking, sidewalks, bike lanes, capacity, traffic calming, roadside treatments, etc., they all come with a price tag. It should be noted that safety is the Department’s number one priority and will not be compromised for other means or modes.