



TRANSPORTATION SAFETY & ADVISORY COMMISSION

CITY OF HARRISONBURG, VIRGINIA

TO: Transportation Safety & Advisory Commission Members, Council members, City Manager Kurt Hodgen

FROM: Brad Reed, Transportation Planner

DATE: November 16, 2011

RE: Transportation Safety & Advisory Commission Summary from November 3, 2011 Meeting

The Transportation Safety & Advisory Commission met on Thursday November 3, 2011 at 9:00AM in Room 205 at the City Municipal Building, 345 S. Main St.

Members and Advisory Members present included: Bill Blessing (Chair), Len Van Wyk (Citizen Member), Calvin Ferrell (Citizen Member), Doug Stader (DMV), Lee Eshelman (JMU), Paul Helmuth (Fire), Reggie Smith (Public Transportation), Brad Reed (Public Works), Thanh Dang (Public Works)

Guests Present: None

Citizens are always provided the opportunity to voice their views/concerns about any item before the commission. It is the policy of the Commission to move the agenda item to the beginning of the meeting when citizens attend Commission meetings to avoid detaining citizens for the entire meeting. However, any citizen is welcome to stay for the entire meeting.

Welcome

New Business

1. Right turn yield to pedestrian issues

Mr. Reed shared the results of an evaluation performed by the Public Works Department to create a standard for the appropriate placement of 'Turn Traffic Yield to Pedestrians' signage at signalized intersections (attached at the bottom of this document). Such signage has been discussed in past meetings as a possible countermeasure for encouraging motorists to watch and yield for pedestrians when turning. Recognizing that the City does not have the resources to install these signs at every intersection, a draft standard was developed by staff and presented to the Commission as a guide for assessing an intersection's need for this

countermeasure based upon its volume of pedestrians and turn traffic. It is proposed that this standard be utilized by the Commission when reviewing requests for improvements at intersections where citizens have observed pedestrian conflicts.

Mr. Van Wyk noted that, while signage is a possible countermeasure to help with this issue, the underlying issue is one of drivers failing to follow the law and needs to be approached at the education and enforcement level. Ms. Dang noted that staff has informed the Police Department of locations for which citizen comments have been received by Public Works, such as S Mason St & Cantrell Ave in September, but have not received any follow-up information on enforcement efforts. Methods of educating the general public on how to interact with pedestrians when driving will be explored by staff. The Commission made a few modifications to the proposed standard, recommending that it be adopted for use and signage be installed by staff at the intersections identified in the evaluation as meeting the standard.

2. Report on staff study of S Mason St & Cantrell Ave

Mr. Reed explained that City staff received a few citizen concerns in August and September regarding the removal of the exclusive pedestrian crossing and its perceived impact on pedestrian safety. All of the citizens that contacted staff about this matter are JMU professors that use this intersection regularly. City staff and the Commission recommended that the pedestrian configuration at this intersection be modified prior to the beginning of the JMU fall semester to improve its efficiency while maintaining pedestrian safety through the use of leading pedestrian intervals for the north-south crosswalks.

In response to these concerns, City staff closely monitored this intersection between August and October and collected traffic data to find the changes in traffic patterns as compared to the pre-summer conditions. It was found that northbound right turn volume on S Mason St increased by 127% to 200 vehicles in the PM peak hour, while pedestrians on this approach crossing Cantrell Ave increased by 23% to 86 people. This increase is directly attributed to the increased utilization of the former hospital parking decks by JMU students and faculty. University traffic is much more concentrated to specific times of day than the hospital traffic was. This phenomenon is evidenced by the pattern of nearly all the vehicles in the parking deck vacating around 5 PM.

In August and early September, staff observed some competition between vehicles and pedestrians that could be considered aggressive and unsafe. Vehicles seemed not to expect pedestrians to be in the crosswalk while they had the green light and sometimes pushed their way between groups of people. Observations through late September and October showed that these issues had resolved themselves as intersection users became more accustomed to the new pattern. On a couple rare occasions, vehicles were still seen squeezing between groups of pedestrians instead of yielding, but no other aggressive actions or close calls were witnessed. Overall, the vast majority of vehicles yielded to pedestrians and gave plenty of space with their

turning movements. These findings matched staff expectations, as it is common to see some conflicts and confusion in the first 1-3 months of a traffic pattern change.

Due to the high volume of pedestrians and conflicting turn traffic, the time of the leading pedestrian interval was increased from 5 to 7 seconds, and staff recommended that ‘Turn Traffic Yield to Pedestrians’ signage be installed based upon the standard in agenda item 1. The Commission agreed with this recommendation along with the signage standard.

3. Report on staff study of S High St & W Grace St

Upon receiving a concern from Councilman Chenault regarding westbound right turning vehicles on Grace St failing to yield to pedestrians in the northern east-west crosswalk, staff observed the intersection and collected turning movement data during the midday and PM peak traffic periods. Within these four hours, all vehicles safely yielded to pedestrians in the crosswalk and no safety problems were seen.

During the midday peak hour, 84 pedestrians crossed in the east-west crosswalk, while 52 westbound vehicles turned right. During the PM peak hour, 53 pedestrians crossed in the east-west crosswalk, while 62 westbound vehicles turned right. Since these volumes were not sufficient to meet the ‘Turn Traffic Yield to Pedestrians’ signage standard and no conflicts were observed, staff recommended that no action be taken at this time. The Commission noted that they had not seen any pedestrian safety issues at this location since the signal configuration on Grace Street was changed last year to separate East and West movements and recommended that no action be taken. Traffic volumes will continue to be collected and evaluated each year and staff will alert the Commission if any significant changes are observed.

4. City procedures for installing Accessible Pedestrian Signals (APS)

Mr. Reed shared that a visually impaired citizen spoke to City Council at its October 25th meeting, explaining that he has encountered safety hazards with regard to drivers failing to yield to pedestrians in the crosswalk. While this particular failure to yield issue is one that is not limited to disabled citizens, it does bring to mind that there are no facilities in the City that help visually impaired individuals cross the street at a signalized intersection. There are devices available that have been implemented in many other localities called Accessible Pedestrian Signals (APS), which provide audible and vibrotactile feedback to guide pedestrians to the push button and alert them when it is safe to cross.

The Rights-of-Way Accessibility Guidelines published by the United States Access Board set forth on the technical regulations for what a municipality must do to comply with the Americans with Disabilities Act (ADA). Past policy guided that APS be installed where requested by the public; however, the most recent draft version of these guidelines dictates that APS must be installed in place of traditional pedestrian buttons at all new or redesigned traffic signals. This draft version is commonly accepted as the current set of best practice guidelines by other municipalities. For this reason, it is recommended that the City policy match that of the draft standard to include

APS at all new or redesigned traffic signals and that City staff continue to consider retrofit installations at existing signals where requested by disabled citizens. The Commission agreed with this recommendation, but would like to see a report on the cost increase of APS versus traditional push buttons at the next meeting.

Old Business

5. Update on W Fairview Ave @ S Main St left turn restriction

Mr. Reed announced that the City is waiting on Columbia Gas to complete a paving operation at this intersection prior to installation of the turn island. When installed, the turn island will be constructed using plastic breakaway delineators as a temporary installation. When Street Department crews time in the spring, the delineators will be replaced with a permanent mountable curb.

6. Neighborhood Traffic Calming Program – Pleasant Hill Acres update

Ms. Dang updated the Commission on the status of the Pleasant Hill Acres Neighborhood Traffic Calming proceedings. A neighborhood meeting was held on August 4, 2011, at which a consensus was reached on a traffic calming plan by those attending. Since attendance at this meeting and all those preceding it was very low and only represented a small fraction of the neighborhood, it is difficult for staff to proceed with adoption of the plan. An update was given to City Council on September 27, 2011 to inform them of the status of efforts with the neighborhood and they recommended that a method be found to gather more input from the neighborhood before the traffic calming plan is adopted. Public Works has been working on preparing a referendum for the neighborhood in the form of a mailer through which neighbors can supply their vote for particular items on the proposed plan.

Other Business/ Announcements

7. Presentations at the next Bicycle & Pedestrian Subcommittee meeting

Ms. Dang informed the Commission that there will be two special presentations given at the next Bicycle & Pedestrian Subcommittee meeting on Monday November 28 at 6 PM in the Community Development classroom, 409 S Main St. New Community Project will be presenting on the North End Greenway Trail and Rich Edwards will be presenting on the Bluestone Trail.

8. Click-it-or-Ticket Campaign

Mr. Stader announced that a mini Click-it-or-Ticket campaign will take place November 13-20 to coincide with increased traffic leading up to Thanksgiving. Virginia State police report that the seatbelt usage rate has increased to 83%, which moves the state closer to a goal of 85%.

9. Port Republic Rd & I-81 South Ramp

Mr. Van Wyk requested that staff consider solutions at this intersection due to poor sight distance for those on the I-81 ramp approach. It is difficult to see oncoming traffic traveling westbound on Port Republic Rd, requiring motorists on the ramp to block the crosswalk to gain adequate visibility when turning right on red.

Adjourn

Evaluation of Appropriate Locations for 'Turn Traffic Yield to Pedestrian Signage'

November 2011

Department of Public Works

Case #	Location	Travel Direction	Time Period	Count Date	Reason for Selection	Pedestrians	Conflicting Right Turns	Existing Countermeasures	Proposed Countermeasures
1	S Mason St & Cantrell Ave	NB	PM Peak Hour	10/4/2011	Citizen concerns	86	200	Pedestrian Signal w/LPI (7 sec)	Signage (Staff Judgement)
2	S Mason St & Cantrell Ave	SB	PM Peak Hour	10/4/2011	Citizen concerns	49	152	Pedestrian Signal w/LPI (7 sec)	Signage (Staff Judgement)
3	S Main St & Cantrell Ave	NB	PM Peak Hour	10/6/2011	Staff selection	41	291	Pedestrian Signal	Signage (Staff Judgement)
4	S Main St & Cantrell Ave	SB	PM Peak Hour	10/6/2011	Staff selection	51	113	Pedestrian Signal	Signage (Meets Standard)
5	S Main St & Bluestone Dr/Warsaw Ave	EB	PM Peak Hour	10/4/2011	Citizen concerns	16	165	Pedestrian Signal w/LPI (5 sec)	None
6	S Main St & Port Republic Rd	WB	PM Peak Hour	10/5/2011	Citizen concerns	9	371	Pedestrian Signal	Signage (Staff Judgement)
7	S Main St & Port Republic Rd	NB	PM Peak Hour	10/5/2011	Staff selection	21	330	Right Turn Island & Pedestrian Signal	Signage (Meets Standard)
8	Port Republic Rd & Bluestone Dr/Hillside Ave	NB	PM Peak Hour	10/11/2011	Staff selection	131	108	Pedestrian Signal	Signage (Staff Judgement)
9	Port Republic Rd & Bluestone Dr/Hillside Ave	WB	PM Peak Hour	10/11/2011	Staff selection	18	184	None	Add Pedestrian Signal
10	Port Republic Rd & Forest Hill Rd	EB	PM Peak Hour	10/26/2011	Staff selection	37	171	Pedestrian Signal	Signage (Staff Judgement)
11	S High St & W Grace St	WB	PM Peak Hour	10/27/2011	Citizen concerns	53	62	None	None
12	S High St & W Grace St	WB	MD Peak Hour	11/2/2011	Citizen concerns	84	52	None	None

Recommendation

This evaluation was performed to determine a standard for the placement of 'Turning Vehicles Yield to Pedestrians' signage (shown at right) so that the City can respond to citizen concerns and apply this countermeasure in an appropriate and consistent manner. The cases above represent locations at which the City has either received citizen concerns about pedestrian safety or observed high levels of conflicting right turn traffic where there is a crosswalk. The sites chosen are all heavily influenced by JMU student traffic and are all on corridors that are considered by staff to be high priority streets for pedestrian safety.

The volumes of pedestrians and conflicting right turns varied heavily at the study locations, with pedestrian volumes between 9 and 131 and right turn volumes between 113 and 371. Through observations during traffic studies, staff acknowledges that S Mason St & Cantrell Ave (NB & SB), S Main St & Cantrell (NB), S Main St & Port Republic Rd (WB), Port Republic Rd & Forest Hill Rd (WB), and Port Republic Rd & Hillside Ave/Bluestone Dr (NB) justify signage to help encourage driver awareness of the possible presence of pedestrians and the law regarding yielding to pedestrians. Based on the data for these locations, a rough criteria for sign placement can be developed. It is recommended that, if the signage is deemed appropriate for a particular intersection approach, the signs should be placed on all other legs of the intersection with marked crosswalks, the intention being to emphasize that pedestrians have the right of way in all of the crosswalks.

Standard Sign Criteria:

The 'Turning Vehicles Yield to Pedestrians' sign should be considered only at signalized intersections where there is a suitable mounting location. At locations that do not meet the following criteria or option, signage may be considered if there is documented pedestrian accident history that can be directly attributed to failure to yield by conflicting turn traffic or if it is determined through field observation and consideration by the Transportation Safety & Advisory Commission that the location is in need of safety enhancement.

Signage can be justified where both of the following minimum criteria are met:

- a. At least 40 pedestrians in a single hour on the approach in question, and
- b. At least 100 conflicting right and/or left turning vehicles on the concurrent approach(es) in the same hour
(Left turn vehicles should be considered only when the conflicting left turn is a permissive-only lane and receives a green light concurrently with the crosswalk.)

Option:

Where there are fewer than 40, but greater than 0, pedestrians in a signal hour with very high conflicting turn volumes, signage should be considered if the following criterion is met:

- a. At least 200 conflicting right and/or left turning vehicles on the concurrent approach(es) in the same hour

Locations with Citizen Concerns

Avg Pedestrians	Avg Conflicting Vehicles
43	190

Locations Selected by Staff

Avg Pedestrians	Avg Conflicting Vehicles
50	200

Locations Justified by Staff through Field Observations

Avg Pedestrians	Avg Conflicting Vehicles
59	216



2009 MUTCD: Sign R10-15