

PEDESTRIAN/BICYCLE/MOTOR VEHICLE COMMISSION COVER SHEET

AGENDA ITEM D. 3.	MEETING DATE referred to 7/25/06 June 27, 2006
ITEM Adult School Crossing Guard Assignments	
ID Number NA	Council report back due date: NA
OTHER REFERRALS AND ACTIONS TAKEN TO DATE: (Asterisk indicates lead agency.) NA	
<p>STAFF DISCUSSION OF ITEM:</p> <p>The City's 2006 operating budget requires the Police Department to achieve ongoing savings of \$75,000 through operational efficiencies. One of the changes identified is the discontinuance of Adult School Crossing Guard assignments that no longer meet City Council adopted criteria.</p> <p>The City Council adopted School Crossing Protection Criteria (a copy can be viewed on-line at www.cityofmadison.com/transp/SchoolCrossing.pdf) recommends the assignment of an Adult School Crossing Guards based on traffic studies that result in a crossing hazard rating of at least 40 points, plus a minimum of 25 elementary school aged children crossing at that location. The same Criteria recommend discontinuing an Adult School Crossing Guard if the Hazard rating falls below 30 points or if the number of elementary school aged children crossing at that location falls below 15.</p> <p>We have identified two locations where these criteria are met for discontinuing an Adult School Crossing Guard: Atwood and Division Streets, and E. Buckeye and Droster Roads.</p> <p>Our studies at Atwood and Division resulted in a hazard rating of 37 points in the morning with only 5 students crossing, and a hazard rating of 23 points in the afternoon with only 9 students crossing.</p> <p>Our studies at Buckeye and Droster resulted in a hazard rating of 29 points in both the morning and afternoon, with no students observed crossing in the morning and only 4 students crossing in the afternoon.</p>	
<p>FISCAL IMPLICATIONS: Cost savings to the Police Department of approximately \$13,800</p>	
<p>MATERIALS PRESENTED WITH ITEM: School Crossing Analysis worksheets for Atwood/Division and Buckeye/Droster Letter sent to affected Principals June 7, 2006 Report from Police Department</p>	
<p>STAFF RECOMMENDATION/RATIONALE: Approve the staff report to discontinue the Adult School Crossing assignments at Atwood/Division and at Buckeye/Droster.</p> <p>Student counts at each of these locations is below the level indicated for discontinuance in the adopted <i>School Crossing Protection Criteria</i>. At Buckeye/Droster there are bump outs and a pedestrian refuge island so that pedestrians have a shorter distance to cross and only need to cross one-half of the road at a time. Atwood/Division is a crossing of two lanes of one-way traffic. The traffic signal a block away at Atwood/Dunning/Isthmus Path creates gaps in traffic for crossing at Atwood/Division.</p>	
<p>PREPARED BY: Arthur Ross Pedestrian-Bicycle Coordinator</p>	<p>SIGNED David C. Dryer, PE, City Traffic Engineer</p>



Traffic Engineering and Parking Divisions

David C. Dryer, P.E. City Traffic Engineer

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June 7, 2006

Joy Larson, Principal
Marquette Elementary School
1501 Jenifer St.
Madison, WI 53703

Lisa Kvistad, Principal
Elvehjem Elementary School
5106 Academy Dr.
Madison, WI 53716

Dear Ms. Larson and Kvistad:

As you know, the City of Madison and the Madison Metropolitan School District have been struggling with budget issues. The City's 2006 operating budget requires the Police Department to achieve ongoing savings of \$75,000 through operational efficiencies. One of the changes identified is the discontinuance of Adult School Crossing Guard assignments that no longer meet City Council Adopted criteria.

The City Council adopted School Crossing Protection Criteria (a copy can be viewed on-line at <http://www.cityofmadison.com/transp/SchoolCrossing.pdf>) recommends the assignment of an Adult School Crossing Guards based on traffic studies that result in a crossing hazard rating of at least 40 points, plus a minimum of 25 elementary school aged children crossing at that location. The same Criteria recommend discontinuing an Adult School Crossing Guard if the Hazard rating falls below 30 points or if the number of elementary school aged children crossing at that location falls below 15.

We have identified two locations where these criteria are met for discontinuing an Adult School Crossing Guard: Atwood and Division Streets, and E. Buckeye Rd and Droster Rd.

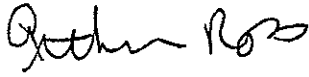
Our studies at Atwood and Division resulted in a hazard rating of 37 points in the morning with only 5 students crossing, and a hazard rating of 23 points in the afternoon with only 9 students crossing.

Our studies at Buckeye and Droster resulted in a hazard rating of 29 points in both the morning and afternoon, with no students observed crossing in the morning and only 4 students crossing in the afternoon.

These locations will be recommended for discontinuance to the Pedestrian-Bicycle-Motor Vehicle Commission at their June 27th meeting. You and others from your school community are welcome to attend this meeting and speak to the Commission. The meeting starts at 5:00 pm and is held in the Madison Municipal Building, Room 260, 215 Martin Luther King, Jr. Blvd. You will be mailed a copy the agenda plus attachments related to this item.

Please contact me if you have any questions about this process.

Sincerely,

A handwritten signature in black ink that reads "Arthur Ross". The signature is written in a cursive, flowing style.

Arthur Ross
Pedestrian-Bicycle Coordinator

cc: Alder Judy Olson
Alder Judy Compton
Craig Campbell, Principal Kennedy Elementary School
Patrick Delmore, Principal O'Keeffe Middle School
Kay Enright, Counselor, East High School
Jeanne Hoffman, Mayor's Office
Mario Mendoza, Mayor's Office
Capt. Cameron McLay, Police Department
Asst. Chief Charles Cole, Police Department
David Dryer, PE, City Traffic Engineer

CITY OF MADISON
INTER-DEPARTMENTAL
CORRESPONDENCE

DATE: June 7, 2006

TO: Mayor Cieslewicz and Members of the Common Council

FROM: Captain Cameron McLay, Traffic and Support Services

SUBJECT: **Reductions in School Crossing Guard Program**

The 2006 Operating Budget as approved by the Common Council directs the Madison Police Department to identify the means by which we could further reduce operating expenses by an additional \$75,000 annually. Department staff recently met with staff from the Mayor's Office and Comptroller's Office to present a plan to achieve that goal.

Supervisors of the Crossing Guard Program for the Madison Police Department, working in concert with Traffic Engineering have identified realistic reductions in that program that will partially satisfy this requirement by yielding a savings of approximately \$26,200 this year and potentially \$58,300 in 2007. The details of these reductions in service are detailed in this document.

After reviewing the most recent data compiled by Traffic Engineering, we have concluded that we can eliminate two locations where Crossing Guards are currently assigned, when the new school year starts. It is clearly evident that both of these intersections no longer meet the School Crossing Protection Criteria adopted by the Common Council in 1990. Representatives from Traffic Engineering and the Madison Police Department will be appearing at the Bike/Pedestrian/Vehicle Commission meeting on June 27, 2006 to recommend the elimination of crossing locations at Atwood Avenue and Division Street and at Buckeye Road and Droster Road.

We have identified twelve locations that serve primarily middle schools and high schools where assigned crossing guards can have the number of assigned hours reduced slightly, without having any impact on our ability to safely cross students that use those crossings. We have also determined that we can eliminate three permanent relief Crossing Guard positions. These positions are currently vacant and there is not a need to fill any of these positions to fulfill our staffing needs in the coming year. These changes will also be available for discussion during the Commission's June 27 meeting.

We recognize the value and importance of this program in the City of Madison. We also understand our responsibility to manage our existing resources in a thoughtful and responsible manner. We sincerely believe that we can make the reductions to this program outlined in this memo without compromising this program in any way.

Captain Cameron McLay, Traffic & Support

SCHOOL CROSSING ANALYSIS
City of Madison
Department of Transportation
Traffic Engineering Division

School Marquette Elementary School

Crossing Location Atwood and Division

Elementary School Children Crossing Atwood

					POINTS	
					a.m.	p.m.
1) Number of elementary students crossing	<u>number</u>	<u>points</u>	<u>number</u>	<u>points</u>		
	0 - 19	0	50 - 74	20		
a.m. peak hour (7:15 to 7:45) <u>5</u>	20 - 29	4	75 - 99	24	0	0
	30 - 34	8	100-124	28		
p.m. peak hour (2:45 to 3:15) <u>9</u>	35 - 39	12	125-149	32		
	40 - 49	16	150+	36		
2) Gap Availability						
crossing distance = <u>26</u> feet	<u>% safe</u>	<u>points</u>	<u>% safe</u>	<u>points</u>		
	80 +	0	45 - 49	20	32	16
	70 - 79	4	40 - 44	24		
minimum safe crossing time = <u>9</u> seconds	60 - 69	8	30 - 39	28		
	55 - 59	12	20 - 29	32		
% safe crossing time = <u>25.3</u> % a.m.	50 - 54	16	0 - 20	36		
<u>51.5</u> % p.m.						
3) Motor Vehicle Speed	<u>mph</u>	<u>points</u>	<u>mph</u>	<u>points</u>		
85th percentile speed = <u>est. 26 - 30</u> mph a.m.	0 - 25	0	36 - 40	6	2	2
	26 - 30	2	41 - 45	8		
<u>est. 26 - 30</u> mph p.m.	31 - 35	4	46 +	10		
4) Sight Distance			<u>design stopping distance</u>	<u>85th %ile speed</u>		
available sight distance: _____ feet _____ bound			25 - 30 mph	200		
_____ feet _____ bound			31 - 35 mph	240		
			36 - 40 mph	275		
ratio: available sight distance / design stopping distance			41 - 45 mph	310		
_____ feet _____ bound			46 + mph	350		
_____ feet _____ bound			<u>ratio</u>	<u>points</u>		
			2.1 +	0		
			1.5 - 2.0	1		
			1.0 - 1.5	5		
			< 1.0	15		
5) Safety History - Previous Five Years						
a) Number of reported crashes at study location involving elementary school children going to or coming from school.	<u>crashes</u>	<u>points</u>			0	0
	0	0				
<u>0</u> reported crashes	1	5	each add'l	20		
b) Reported crashed not involving children going to or coming from school, but of types and/or at times that could conflict with school crossing at this location.					0	2
<u>1</u> reported crashes. Type: <u>Rear end when one driver stopped for crossing guard</u>	<u>points</u>					
_____ reported crashes. Type: _____	0 - 5					
_____ reported crashes. Type: _____	0 - 5					
6) Other Factors				<u>points</u>		
Foreign traffic route.				0 to +5	3	3
For each approach in excess of four.				+5		
For complex signal or crossing design.				+5 to +10		
For simple signal or crossing design.				-5 to -10		
Safer crossing one block out of the way.				-10		
Large percentage of grades K and 1 students (over 40%).				0 to +5		
An intersection of two arterial streets where total weekday traffic approach volume exceeds 25,000 vehicles.				+4		
Children crossing multiple crosswalks at an intersection.				0 to +10		
Stopped buses and/or other obstructions.				0 to +5		
Volume of turning traffic not reflected in gap availability.				0 to +5		
TOTAL HAZARD RATING					37	23

Interpretation of Hazard Rating

Using the hazard rating as a guide, the following measures are appropriate:

1. **Mark as a school crossing** when the hazard rating is greater than 20 points at a crossing used by at least 25 elementary school students during the peak crossing hour. The Traffic Engineer is authorized to mark such a crossing with appropriate warning signs and special crosswalk markings.

2. **Install flashing beacons** if any one of the following conditions is met:

- a. The 85th percentile speed is in excess of 40 mph measured at existing school crossing signs which have been in place at least 30 days.
- b. The street crossed is a U.S. or State Trunk Highway on which a significant percentage of "foreign " drivers can be expected.
- c. The ratio of sight distance to safe stopping distance is less than 1.5.
- d. The hazard rating is greater than 30 at an unguarded location where at least 25 elementary students cross and the available safe crossing gaps are less than 50 percent.

3. **Recommend the assignment of an adult school crossing guard** when the hazard rating is greater than 40 points at a crossing used by at least 25 elementary school students during the peak crossing hour.

If the school has only grades K through 2, recommend the assignment of an adult school crossing guard in the hazard rating is greater than 30 points at a crossing used by at least 15 elementary school students during the peak crossing hour.

4. **Recommend the discontinuance of adult school crossing guard protection** at a crossing where the hazard rating falls below 30 points or if the number of elementary school students crossing during the peak hour in less than 15.

At the intersection of two arterial streets where the total weekday entering traffic volume exceed 25,000 vehicles, the total number of students crossing at the intersection will be used to compare to the minimum of 15 students required to retain an adult school crossing guard.

Remarks/Recommendations

Traffic Signal at Atwood/Dunning/Isthmus Path creates gaps in traffic for crossing Atwood/Division.

Crash occurred Sept 15, 2005. first driver was stopped for ASCG with stop sign. Second driver rear ended the first.

Some students (mostly middle and high school aged) cross Atwood at Division St. and at Corscot Ct. I observed 1 student cross at Corscot in the morning. In the afternoon there were 7, all of which appeared to be middle school aged.

by _____ Date

SCHOOL CROSSING ANALYSIS
 City of Madison
 Department of Transportation
 Traffic Engineering Division

School Elvehjem Elementary School

Crossing Location Buckeye at Droster

Elementary School Children Crossing Buckeye

					POINTS	
					a.m.	p.m.
1) Number of elementary students crossing	<u>number</u>	<u>points</u>	<u>number</u>	<u>points</u>		
	0 - 19	0	50 - 74	20		
	a.m. peak hour (7:30 to 8:30) <u>0</u>	20 - 29	4	75 - 99	24	0
		30 - 34	8	100-124	28	
	p.m. peak hour (3:00 to 3:50) <u>4</u>	35 - 39	12	125-149	32	0
	40 - 49	16	150+	36		
2) Gap Availability						
crossing distance = <u>21*</u> feet		<u>% safe</u>	<u>gap time</u>	<u>points</u>	<u>% safe</u>	<u>gap time</u>
*curb extension to ped refuge island		80 +	0	45 - 49	20	
		70 - 79	4	40 - 44	24	
minimum safe crossing time = <u>7</u> seconds		60 - 69	8	30 - 39	28	
		55 - 59	12	20 - 29	32	
% safe crossing time = <u>47</u> % a.m.		50 - 54	16	0 - 20	36	
						20
<u>49</u> % p.m.						20
3) Motor Vehicle Speed						
	<u>mph</u>	<u>points</u>	<u>mph</u>	<u>points</u>		
85th percentile speed = <u>est 31 - 35</u> mph a.m.	0 - 25	0	36 - 40	6	4	
	26 - 30	2	41 - 45	8		
<u>est 31 - 35</u> mph p.m.	31 - 35	4	46 +	10		4
4) Sight Distance						
available sight distance: _____ feet _____ bound			<u>design stopping distance</u>	<u>85th %ile speed</u>	<u>feet</u>	
			25 - 30 mph	200		
_____ feet _____ bound			31 - 35 mph	240		
			36 - 40 mph	275		
ratio: available sight distance / design stopping distance			41 - 45 mph	310		
			46 + mph	350		
_____ feet _____ bound			<u>ratio</u>	<u>points</u>		
			2.1 +	0	0	
_____ feet _____ bound			1.5 - 2.0	1		
			1.0 - 1.5	5		
			< 1.0	15		0
5) Safety History - Previous Five Years						
a) Number of reported crashes at study location involving elementary school children going to or coming from school.			<u>crashes</u>	<u>points</u>		
			0	0		
<u>none</u> reported crashes			1	5		
			each add'l	20	0	0
b) Reported crashed not involving children going to or coming from school, but of types and/or at times that could conflict with school crossing at this location.						
<u>none</u> reported crashes. Type: _____			<u>points</u>		0	0
			0 - 5			
_____ reported crashes. Type: _____			0 - 5			
			0 - 5			
_____ reported crashes. Type: _____			0 - 5			
6) Other Factors						
Foreign traffic route.			<u>points</u>		5	5
For each approach in excess of four.			0 to +5			
For complex signal or crossing design.			+5			
For simple signal or crossing design.			+5 to +10			
Safer crossing one block out of the way.			-5 to -10			
Large percentage of grades K and 1 students (over 40%).			-10			
An intersection of two arterial streets where total weekday traffic approach volume exceeds 25,000 vehicles.			0 to +5			
Children crossing multiple crosswalks at an intersection.			+4			
Stopped buses and/or other obstructions.			0 to +10			
Volume of turning traffic not reflected in gap availability.			0 to +5			
			0 to +5			
TOTAL HAZARD RATING					29	29

Interpretation of Hazard Rating

Using the hazard rating as a guide, the following measures are appropriate:

1. **Mark as a school crossing** when the hazard rating is greater than 20 points at a crossing used by at least 25 elementary school students during the peak crossing hour. The Traffic Engineer is authorized to mark such a crossing with appropriate warning signs and special crosswalk markings.

2. **Install flashing beacons** if any one of the following conditions is met:

- a. The 85th percentile speed is in excess of 40 mph measured at existing school crossing signs which have been in place at least 30 days.
- b. The street crossed is a U.S. or State Trunk Highway on which a significant percentage of "foreign " drivers can be expected.
- c. The ratio of sight distance to safe stopping distance is less than 1.5.
- d. The hazard rating is greater than 30 at an unguarded location where at least 25 elementary students cross and the available safe crossing gaps are less than 50 percent.

3. **Recommend the assignment of an adult school crossing guard** when the hazard rating is greater than 40 points at a crossing used by at least 25 elementary school students during the peak crossing hour.

If the school has only grades K through 2, recommend the assignment of an adult school crossing guard in the hazard rating is greater than 30 points at a crossing used by at least 15 elementary school students during the peak crossing hour.

4. **Recommend the discontinuance of adult school crossing guard protection** at a crossing where the hazard rating falls below 30 points or if the number of elementary school students crossing during the peak hour in less than 15.

At the intersection of two arterial streets where the total weekday entering traffic volume exceed 25,000 vehicles, the total number of students crossing at the intersection will be used to compare to the minimum of 15 students required to retain an adult school crossing guard.

Remarks/Recommendations

Very few students are using this crossing, thus this crossing location no longer meets the criteria for assigning an Adult School Crossing Guard. Recommend discontinuing this ASCG assignment.

Pedestrian refuge islands and curb extensions were installed when Buckeye was reconstructed in 2001, making this an easier crossing for pedestrians. Pedestrians have a shorter crossing distance thanks to the curb extensions and only need to cross one half of the road at a time thanks to the pedestrian refuge island.

by _____

Date