

AGENDA
PUBLIC SAFETY & WELFARE COMMITTEE MEETING
Kenosha Municipal Building - Room 204
Monday, September 10, 2012 - 5:00 pm

Chairman:	Rocco J. LaMacchia, Sr	Vice Chairman:	Chris Schwartz
Aldersperson:	Anthony Kennedy	Aldersperson:	Michael J. Orth
Aldersperson:	Kevin E. Mathewson		

Call to Order
Roll Call

A. APPROVAL OF MINUTES

A-1 Approval of the minutes of the meeting held on August 27, 2012.

C. REFERRED TO COMMITTEE

- C-1 Staff Request for a Speed Limit Change from 40mph to 35mph within the City of Kenosha's jurisdiction at 18th Street and 39th Avenue *(District 4) (Staff recommends 90-day Trial)*
- C-2 Previous Trial for a 4-way Stop Sign at 18th Street & 39th Avenue. *(District 4) (Staff recommends approval)*
- C-3 Crossing Guard at Frank Elementary School. *(District 2)*

CITIZEN COMMENTS/ALDERMEN COMMENTS/OTHER BUSINESS AS AUTHORIZED BY LAW

IF YOU ARE DISABLED AND NEED ASSISTANCE, PLEASE CALL 653-4050 BEFORE THIS MEETING

NOTICE IS HEREBY GIVEN THAT A MAJORITY OF THE MEMBERS OF THE COMMON COUNCIL MAY BE PRESENT AT THE MEETING, AND ALTHOUGH THIS MAY CONSTITUTE A QUORUM OF THE COMMON COUNCIL, THE COUNCIL WILL NOT TAKE ANY ACTION AT THIS MEETING.

PUBLIC SAFETY & WELFARE COMMITTEE
Minutes of Meeting held Monday, August 27, 2012

A meeting of the Public Safety & Welfare Committee was held on Monday, August 27, 2012 in Room 204 of the Kenosha Municipal Building. The meeting was called to order at 6:10 pm by Chairman LaMacchia.

At roll call, the following members were present: Alderpersons Schwartz, Orth, Kennedy, and Mathewson. Staff members in attendance were Michael Lemens, Director of Public Works; Michael Maki, Community Development Planner; Alderperson Jan Michalski; Alderperson Scott Gordon; and Deputy Chief Daniel Miskinski.

It was moved by Alderperson Mathewson, seconded by Alderperson Orth, to approve the minutes as amended from the meeting held on Monday, July 30, 2012. Motion carried unanimously.

B-1 Proposed Ordinance to Create Chapter XXXVIII (*of the Code of General Ordinances*) Entitled Kenosha Heritage. (*HP-Ayes 5: Noes 0*) (*Deferred from the 7/30/12 meeting*) Staff/Alderperson: Michael Maki and Alderperson Michalski spoke.
It was moved by Alderperson Kenendy, seconded by Alderperson Schwartz, to approve as presented. Motion carried unanimously.

C-1 Proposed Resolution to Remove the Existing "2 Hour Parking" Restriction on the East side of 35th Avenue North of 60th Street and Have the Existing "No Parking Here to Corner" Sign on the East Side of 35th Avenue Moved from 50 Feet to 30 Feet North of 60th Street. (*District 11*) (*Referred from Common Council at the 8/20/12 meeting*) Staff/Alderperson: Michael Lemens and Alderperson Gordon spoke.
No Action Taken.

DISCUSSION ITEMS:

1. Crosswalks at Bullen Middle School (*District 10*) – Kim Fischer, Bullen Principal; Jeff Marks, Director of Transportation at Kenosha Unified School District; Michael Lemens and Deputy Chief Daniel Miskinis spoke.
2. Allocation of Crossing Guard at Frank Elementary School on 19th Avenue and 56th Street (*District 2*) – Mary Nickel and Jennifer Stahl spoke.

ADJOURNMENT - There being no further business to come before the Public Safety & Welfare Committee, it was moved, seconded and unanimously carried to adjourn at 6:50 pm.



Engineering Division
Shelly Billingsley, P.E.
Director/City Engineer
Fleet Maintenance
Mauro Lenci
Superintendent
Park Division
Jeff Warnock
Superintendent

Street Division
John H. Prijic
Superintendent
Waste Division
Rocky Bednar
Superintendent

C-1

DEPARTMENT OF PUBLIC WORKS

Michael M. Lemens, P.E., Director

Municipal Building - 625 - 52nd Street - RM 305 - Kenosha, WI 53140
Telephone (262) 653-4050 - Fax (262) 653-4056

DATE: September 7, 2011

TO: Public Safety and Welfare Committee

FROM: Shelly Billingsley, P.E. Director of Engineering / City Engineer

SUBJECT: Staff Request for a Speed Limit Change from 40 mph to 35 mph within the City of Kenosha's jurisdiction at 18th Street and 39th Avenue. (District 4)

A staff request has been made for a Speed Limit Change from 40 mph to 35 mph within the City of Kenosha's jurisdiction at 18th Street and 39th Avenue. This change will allow for the conversion of the proposed final four way stop to be completed within the current pavement of the intersection causing no additional paving to be needed. Staff is proposing to install overhead flashing stop signs and pavement markings as shown on the attached plan.

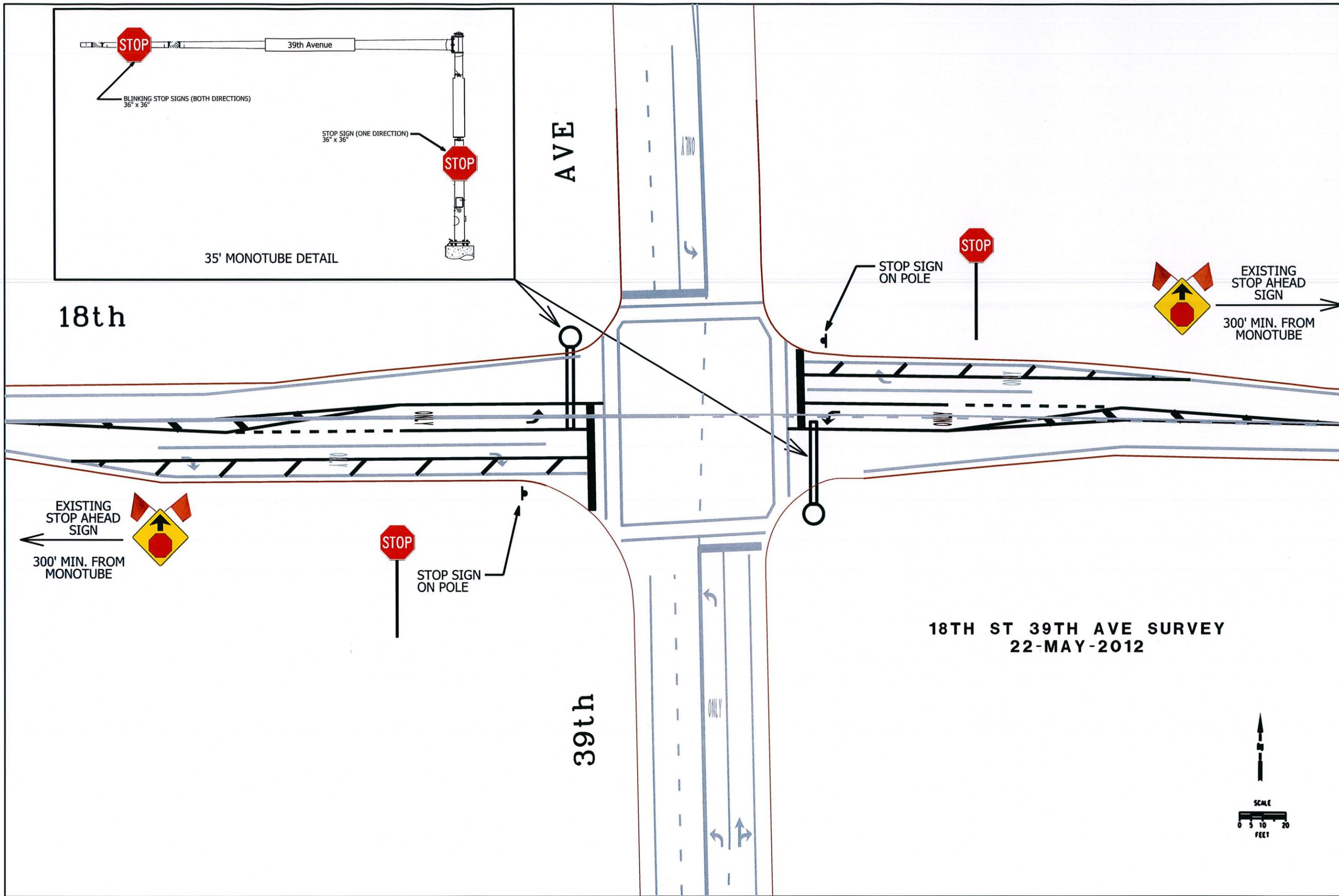
Staff recommends that the speed be changed on 18th Street from 40 mph to 35 mph within the City of Kenosha jurisdiction.

Staff is also working with Kenosha County to have the speed limit changed from 40 mph to 35 mph, within their jurisdiction, between 30th Avenue and 39th Avenue.

Staff is recommending a 90 day trial is recommended.

SB:dh

cc: Alderperson Rocco J. LaMacchia - w/a
Alderperson G. John Ruffolo - w/a
Michael M. Lemens, Director of Public Works - w/a
File - w/a



18th STREET & 39th AVENUE
 INTERSECTION
 PROPOSED SIGNAGE

JOB NO. _____ of _____
 Sheet No. _____ of _____
 pgx

CITY OF KENOSHA
 DEPARTMENT OF PUBLIC WORKS - ENGINEERING

625 57th ST. Room 302 Kenosha, Wisconsin 53140
 ph (262) 652-4150 fax (262) 652-4056

REVISIONS	Survey By :	Date :
	Design By :	Date :
	Drawn By :	Date :
	Checked By :	Date :
	Approved By :	Date :



Engineering Division
Shelly Billingsley, P.E.
Director/City Engineer
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Superintendent
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C-2

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Municipal Building - 625 - 52nd Street - RM 305 - Kenosha, WI 53140
Telephone (262) 653-4050 - Fax (262) 653-4056

DATE: September 7, 2012

TO: Public Safety and Welfare Committee

FROM: Shelly Billingsley, P.E., Director/City Engineer

SUBJECT: Previous Trial for a 4-way Stop Sign at 18th Street and 39th Avenue. (District 4)

This request has been on trial as indicated with no complaints or problems reported. Staff has requested crash history at this location for the last four months which is anticipated to be received next week.

Staff recommends approval for a 4-way Stop Sign at the above intersection.

The following amendment to the Ordinance is suggested:

Amend Section 7.12B (All vehicles shall stop before entering the intersection of) by adding 39th Avenue and 18th Street

CA:dh

cc: Alderperson G. John Ruffolo - w/a
Michael M. Lemens, Director of Public Works - w/a
Shelly Billingsley, Director of Engineering - w/a
Clement Abongwa, Assistant City Engineer - w/a
File - w/a

**4-WAY STOP SIGN AT 39th AVENUE AND 18th STREET
EXISTING SIGNAGE**

Southbound Direction



Eastbound Direction



Northbound Direction



Westbound Direction





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DEPARTMENT OF PUBLIC WORKS
Michael M. Lemens, P.E., Director

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May 11, 2012

To: Rocco J. LaMacchia Sr., Chairman
Public Safety and Welfare Committee

From: Shelly Billingsley, P.E. *Shelly Billingsley*
Director of Engineering / City Engineer

cc: G. John Ruffolo
District 4

Subject: *Aldermanic Request for a 4-Way Stop Sign at 39th Avenue and 18th Street Intersection*
****Deferred from April 30, 2012 Meeting****

BACKGROUND INFORMATION

In 2011, the City constructed a new road along 39th Avenue between 24th Street and 18th Street. The intersection of 39th Avenue and 18th Street was converted from a T-intersection to a 4-way intersection. The new four leg intersection is controlled by stop signs on 39th Avenue in the northbound and southbound directions. 39th Avenue is posted 30 mile per hour while 18th Street is posted 40 mile per hour.

On April 2, 2012 the Common Council approved an intergovernmental agreement with Kenosha County transferring jurisdiction of this intersection to the City of Kenosha. By this agreement, the City is responsible for installing traffic control at this intersection by August, 2012.

Since construction of the intersection was completed, residents and motorists have expressed concerns regarding traffic safety at the intersection. The concerns include speeding on 18th Street, inadequate gaps for northbound and southbound traffic during peak hours and near miss accident potential.

A traffic engineering consultant was engaged to study the intersection. In the meantime, PW- Engineering Division staff monitored the traffic during AM and PM peaks etc. Based on these preliminary observations, staff is recommending a 4-Way Stop Sign be installed on a 90-day trial to mitigate some of the concerns raised by road users.

Staff also conducted traffic counts at the intersection and has submitted the data to the consultant for analysis. They are currently waiting for updated traffic projections using the new traffic count data from the Department of Transportation. However, our consultant reported that when comparing the recently completed traffic counts data to the projected volumes previously provided by WisDOT during the design of this intersection, the current traffic volumes exceed the 20-year projected traffic used for the design.

RECOMMENDATION

Staff recommends a 90-day trial for a 4-Way Stop Sign at 39th Avenue and 18th Street intersection.

TRAFFIC FORECAST REPORT

PROJECT ID(S): 3831-06-00

ROUTE(S): 39th Ave

SE Region/COUNTY(IES): Kenosha

LOCATION: 18th Street to 27th Street

COMPLETED: June 10, 2009

Traffic Forecasting Section; Southeast Region; Wisconsin DOT

Developed by: James Harris
 E-Mail ID: james.harris-jr@dot.wi.gov
 Phone: 262-521-5455
 FAX #: 262-521-4425

Design Values (%'s)

ROUTE(S):			
Design Volume(s):			
K250	11.7		
K100	13.1		
K30	14.4		
P(PHV)	18.4		
T(DHV)	2.8		
T(PHV)	2.5		
D (Dsgn hr)	58/42		
K9(ADT)			
T(A8HV)			

Truck Class %'s

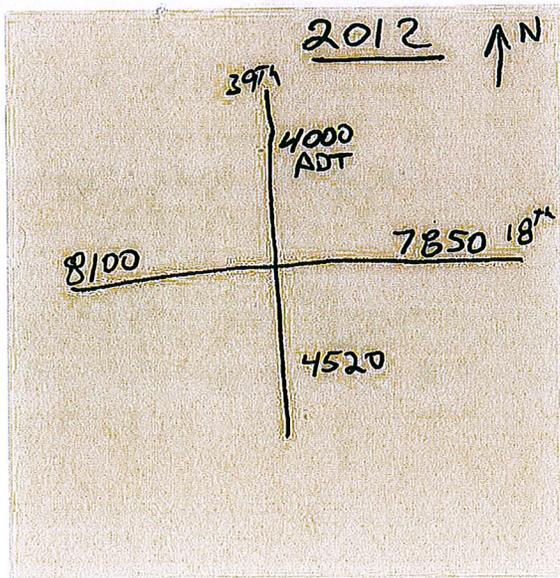
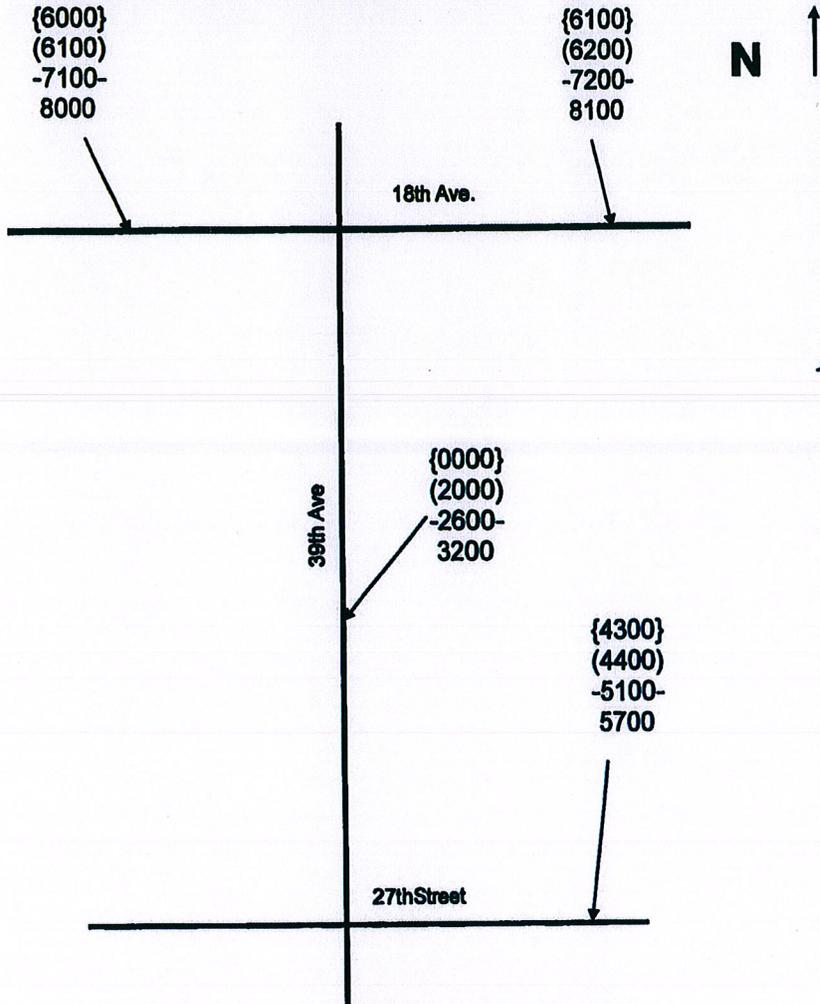
Truck Class	Seg. 1	Seg. 2	Seg. 3
2D	1.3		
3AX	1.4		
2S1+2S2	0.2		
3-S2	0.3		
DBL-8TM	0.1		
TOTAL	3.3%		

Specify Last Count & Forecast Years:

(000) 2008 AADT
 (000) 2009 AADT
 -000- 2019 AADT
 000 2029 AADT

Notes on the Forecast:

- The forecast is based on the traffic in the surrounding area and assumes new subdivisions on both sides of 39th Avenue will be developed in the area.
- 39th Avenue is a factor group II highway indicating low to moderate fluctuation in traffic throughout the year. It is considered an urban collector highway for count purposes at this location.
- Truck type percentages were obtained from formulas based upon similar type highways throughout the state.
- 2008 was the most recent year traffic count data was collected in Kenosha County.







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C-3

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Telephone (262) 653-4050 - Fax (262) 653-4056

DATE: September 7, 2011

TO: Public Safety and Welfare Committee

FROM: Shelly Billingsley, P.E. Director of Engineering / City Engineer

SUBJECT: Crossing Guard at Frank Elementary School. (*District 2*)

Staff has conducted a school crossing hazard rating in accordance with Council guidelines per resolution 30-91.

Staff has reviewed the police department data relative to the number of students crossing (see page 6 of the attached memo dated June 11, 2012). There is an average of 42 students in the morning and 30 in the afternoon dismissal period. The counts were completed on April 27, 2012.

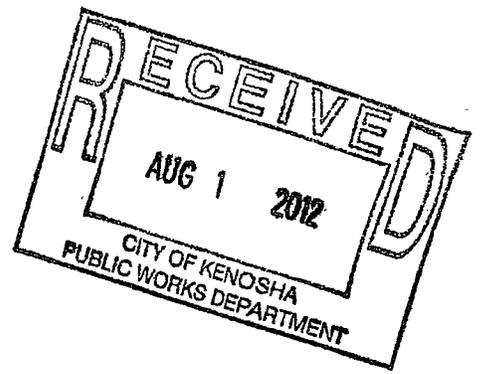
The relative hazard rating is as shown on the attached form as 49 points.

Criteria for establishing an adult school crossing guard location is to have a hazard rating of 40 points or greater with at least 30 elementary school children crossing.

Staff is recommending that a crossing guard be placed at 56th Street and 19th Avenue since the rating does meet the hazard and student number criteria.

SB:sb

cc: Alderperson Rocco J. LaMacchia
Alderperson Chris Schwartz
Michael M. Lemens, Director of Public Works
File



Date: 6/11/2012

To: Public Safety & Welfare Committee
Chief of Police John Morrissey
City Clerk Debbie Salas
Director of Public Works Mike Lemens

Cc: Kay Gierl, Crossing Guards

From: Officer Dennis Walsh

RE: Crossing Guard Location Studies

Recently, I instructed the Crossing Guards at the following locations to do a student count to see how many students were crossing at the corners manned by crossing guards. Those locations were:

85 th Street & 26 th Ave.	(Count started 03-15-12)
75 th Street & 33 rd Ave.	(Count started 03-29-12)
43 rd Street & 22 nd Ave.	(Count started 02-16-12)
45 th Street & 32 nd Ave.	(Count started 02-17-12)
30 th Street & Roosevelt Road	(Count started 09-12-11)

Each count ended on Friday (05-11-12). The reason I chose these corners for a count was because of low student counts in the past or my actual working of the corner.

The first corner I looked at was **85th Street & 26th Ave.** This is a dismissal crossing only corner. This corner services Jane Vernon Elementary. Originally when this corner was implemented, one of the concerns was the children crossing during Tremper High School dismissal. Both schools at the time had a dismissal within minutes of each other and it created a traffic problem for elementary crossing. This past school year, the two school's dismissals did not conflict. Tremper dismissed at 2:55pm and Jane Vernon at 3:30pm. I also spoke to the Crossing Guard and asked which direction the elementary children were crossing. North, across 85th Street or West across 26th Avenue? He stated it was pretty much a split.

The reason I asked this question is because we already have a crossing guard located at 85th Street & 22nd Avenue. If the elementary students need to cross 85th Street, it should be done at 22nd avenue, thus alleviating the need for the guard at 26th avenue. The only concern then would be crossing westbound at 26th avenue.

Elementary Student usage for 85th Street & 26th Avenue is as follows:

34 dismissal crossings	208 total students	6.0 average
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Crossing Guard Location Eliminations

March 2012

10 dismissal crossing	66 total students	6.6 average
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April 2012

15 dismissal crossings	79 total students	5.2 average
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May 2012

9 dismissal crossings	63 total students	7.0 average
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Again, these numbers fall well below the required 15 students during any peak crossing.

Recommendation: Eliminate as a Crossing Guard location. The small number of students that had crossed at 85th Street & 26th Avenue can be redirected to cross north at 85th Street & 22nd Avenue. They can then walk west up to 26th Avenue. I also spoke to Jane Vernon Elementary; their dismissal hour will be 55 minutes later than Tremper High School. This time difference will alleviate problems crossing west across 26th Avenue at 85th Street.

The second corner is 43rd Street & 22nd Avenue. This corner had served Jefferson Elementary and All Saints North Campus until the 2011-12 school years. Kenosha Unified changed boundaries last year and Jefferson would no longer have students crossing at this corner. The numbers of crossings obviously lowered.

We conducted student counts in September 2010 & 11. The numbers were as follows:

September 2010

10 morning crossings	28 total students	2.8 average
10 dismissal crossings	83 total students	8.3 average

September 2011

13 morning crossings	25 total students	1.9 average
13 dismissal crossings	67 total students	5.1 average

In February 2012 we conducted another student count through May 11, 2012. Those numbers were as follows:

February 2012 (Average Temperature 36 degrees)

8 morning crossings	2 total students	0.25 average
9 dismissal crossings	33 total students	3.6 average

March 2012

21 morning crossings	13 total students	0.61 average
21 dismissal crossings	99 total students	4.7 average

Crossing Guard Location Eliminations

April 2012

13 morning crossings	19 total students	1.4 average
13 dismissal crossings	50 total students	3.8 average

May 2012

8 morning crossings	12 total students	1.5 average
8 dismissal crossings	42 total students	5.25 average

Again, these numbers fall well below the required 15 students during any peak crossing.

Note: This corner is our only private school crossing location. If any formal action is to be taken on this corner, consideration should be taken reference the low number of student usage.

Our 3rd corner is **45th Street & 32nd Avenue**. This corner serves Wilson Elementary School. Although these numbers will also be low, this corner may serve the school better if it is moved closer to Wilson Elementary at the northeast corner of the school. A crosswalk would need to be added going across 45th street at this location. A landing may also need to be added on the north side of 45th street across from the school.

September 2010

14 morning crossings	82 total students	5.8 average
14 dismissal crossings	120 total students	8.5 average

September 2011

14 morning crossings	81 total students	5.7 average
14 dismissal crossings	69 total students	4.9 average

Our most current count took place between February 2012 and May 11, 2012. The numbers are as follows:

Total Morning Crossings 54	175 total students	3.2 average
Total Dismissal Crossings 54	260 total students	4.8 average

I also broke these numbers down by month.

February 2012

9 morning crossings	32 total students	3.5 average
9 dismissal crossings	38 total students	4.2 average

March 2012

21 morning crossings	67 total students	3.1 average
21 dismissal crossings	90 total students	4.2 average

Crossing Guard Location Eliminations

April 2012

15 morning crossings	39 total students	2.6 average
15 dismissal crossings	63 total students	4.2 average

May 2012

9 morning crossings	37 total students	4.1 average
9 dismissal crossings	69 total students	7.6 average

Again, these numbers fall well below the required 15 students during any peak crossing.

Recommendation: Move location to 45th Street and 33rd Avenue and add a landing on the north side across from this location.

Our fourth corner is **75th Street & 33rd Avenue**. I have no history on this corner reference previous numbers. Our past counts in September for this corner had always been adequate. I noticed numbers dropping when I would drive by and worked the corner myself.

There were 26 total crossing days from March to May of 2012. Numbers are below:

26 total morning crossings	52 total students	2.0 average
26 total dismissal crossings	183 total students	7.0 average

March 2012

2 morning crossings	7 total students	3.5 average
2 dismissal crossings	17 total students	8.5 average

April 2012

15 morning crossings	25 total students	1.6 average
15 dismissal crossings	90 total students	6.0 average

May 2012

9 morning crossings	20 total students	2.2 average
9 dismissal crossings	76 total students	8.4 average

Again, these numbers fall well below the required 15 students during any peak crossing.

Recommendation: Eliminate as a Crossing Guard location or eliminate the morning crossing and keep dismissal crossing. Student usage numbers for the morning fall well below the required numbers to keep as a crossing location / time.

Our fifth corner studied was **Roosevelt Road & 30th Avenue**. This corner was originally Roosevelt Road & 26th Avenue (Columbus School). When Columbus School closed, we moved the crossing guard up to Roosevelt Road & 30th Avenue to handle the transfer of

Crossing Guard Location Eliminations

students from Columbus to Roosevelt Elementary. This count started in September 2011 and ended May 2012.

There were 76 total morning crossings counted and 75 total dismissal crossings counted. Numbers are below:

76 morning crossings	654 total students	8.6 average
75 dismissal crossings	537 total students	7.1 average

September 2011

15 morning crossings	164 total students	10.9 average
15 dismissal crossings	141 total students	9.4 average

October 2011

19 morning crossings	147 total students	7.7 average
19 dismissal crossings	137 total students	7.2 average

November 2011

16 morning crossings	108 total students	6.7 average
15 dismissal crossings	72 total students	4.8 average

March 2012

2 morning crossings	18 total students	9.0 average
2 dismissal crossings	12 total students	6.0 average

April 2012

15 morning crossings	120 total students	8.0 average
15 dismissal crossings	105 total students	7.0 average

May 2012

9 morning crossings	97 total students	10.7 average
9 dismissal crossings	70 total students	7.7 average

Again, these numbers fall well below the required 15 students during any peak crossing, yet a new corner needs two years to see a better trend on how its crossing usage develops.

Recommendation: Allow corner one more year to get usage trend.

I'm adding one last corner to this report. Assistant Chief Dan Miskinis requested we do a student count at Frank Elementary School corner **56th Street & 18th Avenue**. This corner is not an established Crossing Guard location. The request for the count came from outside our department.

The count began on April 16, 2012 and ended on April 27th. Numbers are below:

10 morning crossings	421 total students	42.1 average
10 dismissal crossings	304 total students	30.4 average

As you can see these numbers far exceed the required 15 total students crossing at any peak driving time.

Recommendation: Typically I like to recommend corners that provide the best assistance to the crossing guard. 56th St. & 18th Ave does not provide this help. The parking on the north side of 56th street creates blind spots for the crossing guard. If you were to look at placing a guard on the north side of Frank School, a better option would be 56th St. & 19th Ave. This corner provides traffic assistance to the guard with a four way stop and we would be able to access any children needing assistance west of 19th Ave at 56th St. The students that had crossed at 56th St. & 18th Ave would be redirected one block west to cross at 56th St. & 19th Ave.

None of the schools were contacted with these findings or that counts were taking place. I do this to get a true count of student usage.

If traffic studies need to take place prior to eliminating any corners, then we will need to wait until September when school open.

The Crossing Guards conduct counts every September at every corner. These counts are the basis for my evaluating whether or not further study needs to take place.

For your information.

SCHOOL CHILDREN CROSSING

<u>Volume</u>	<u>Points</u>
0-10	0
11-20	4
21-30	8
31-40	12
41-50	16
→ 51-75	20
76-100	24
101-125	28
126-150	32
Over 150	36

VEHICLE GAP AVAILABILITY

<u>Range</u>	<u>Points</u>
Over 90%	0
75-90%	4
50-74%	8 ←
35-49%	12
25-34%	16
20-24%	20
16-25%	24
10-15%	28
6-9%	32
0-9%	36

VEHICULAR SPEED

<u>Speed (MPH)</u>	<u>Points</u>
0-25	0
→ 26-30	1
31-35	2
36-40	3
41-45	4
Over 45	5

SIGHT DISTANCE

<u>Ratio</u>	<u>Points</u>
Over 2.0	0
1.5-2.0	1
1.0-1.4	5
Less than 1.0 ..	15 ←

ACCIDENT HISTORY

<u>Accidents</u>	<u>Points</u>
→ 0	0
1	5
2	15
Ea. Add'l	20

OTHER FACTORS

	<u>POINTS</u>
Complex Intersection Design	+5
Complex Signal Design	+5
Divided Highway Without Safe Refuge	+5
Vehicle Turning Movements	+5
(Turning movements exceed 200 VPH across crosswalk being used by school children)	
Vehicle Parking To Intersection On Major Through Street	+5
→ Forty Percent Of Students Crossing In Grades K-3	+5
Safer Crossing One Block Out Of Way	-10
Safer Crossing Two Blocks Out Of Way	-5

Score

20
1
0
5
8
15

49

E. School Crossing Protection Options. The following options may be utilized to afford school crossing protection for elementary school students, with due regard to the numerical rating of school crossing hazards:

RESOLUTION NO. 30-91

BY: COMMITTEE ON PUBLIC
SAFETY & WELFARE

**TO ESTABLISH A POLICY & PROCEDURE FOR DETERMINING
THE LOCATION OF CITY SCHOOL CROSSING GUARDS**

BE IT RESOLVED by the Common Council of the City of Kenosha, Wisconsin that the following policy and procedure for determining the location of City School Crossing Guards be and is hereby established:

A. Requests For School Crossing Hazard Study. Requests for a school crossing hazard study of a location relative to the need for a City school crossing guard may be made by the School Traffic Safety Committee, School Representatives, Parent-Teacher Organizations, Aldermen, or individual citizens. Such requests shall be filed with the City Clerk and forwarded simultaneously to the Committee on Public Safety & Welfare and to the City Traffic Engineer. The City Traffic Engineer will make the necessary study and evaluation of the request in accord with the following criteria, using the Numerical Hazard Rating Guide, and submit same to the Committee on Public Safety & Welfare, in a timely fashion, along with a recommendation regarding the use of any traffic control devices or other measures which may alleviate or eliminate whatever hazards may be identified. Upon review of the report and recommendation, the Committee on Public Safety & Welfare shall prepare a recommendation to the Common Council based upon the results of this study and in accordance with this policy.

B. Study Timing And Procedure. School crossing hazard studies will be taken on "normal days" and not during inclement weather. A normal day is considered one of moderate temperature, and without excessive precipitation, for the time of year when the study is to be conducted. Studies will be taken during peak morning and afternoon times when the majority of school children and traffic is present, preferably in the Spring or Autumn months. Winter months studies may also be conducted, especially in borderline situations, and where timing is critical.

Pedestrian counts are made during the peak school crossing periods (both morning and afternoon). The exact hours counted will vary depending upon school starting and dismissal times. Only elementary school children are counted. Vehicular traffic and traffic gaps will be measured during the same periods as the pedestrian counts. Totals will be made by quarter hours.

With respect to speed studies, spot speeds of traffic approaching on the major approaches to the crossing are measured with a radar speed meter or traffic counter. These speed studies are generally taken approximately two hundred fifty (250) feet in advance of the crossing. Speed studies are not necessary where the crossing is at a signalized intersection or where the approach is controlled by a stop sign. Historical speed studies in the area may be sufficient for estimating motor vehicle speeds. The eighty-fifth (85th) percentile speed on each major approach is desired.

Physical conditions of the school crossing, at uncontrolled approaches, including street width, length of crosswalk, and approach sight distance shall be considered. The street width is the curb-to-curb width or width of paved surface where shoulder construction is used. Where there is considerable skew to the crosswalk or normal

crossing path, the length of such crosswalk shall be measured. Sight distance is the distance from the crossing at which the driver first receives a continuous view of a three (3) foot high object.

Traffic counts shall be conducted to determine the average daily pedestrian traffic and vehicular traffic gap availability for a particular location. If doubt arises as to the accuracy and validity of a traffic count, a second count may be made. In such event, the study containing the higher Numerical Hazard Rating shall be applicable.

C. Elements Of School Crossing Hazard Study. To properly evaluate the hazard inherent in a given street crossing used by elementary school children, certain data is necessary concerning the quantity and characteristics of the vehicular and pedestrian traffic. The following elements, as defined, shall be the criteria for the Numerical Rating of school crossing hazards:

1. School Children Crossing. The criteria for this element shall be the number of elementary school children crossing during the peak crossing periods. At an intersection consisting of a major through street and a minor street or streets controlled by "stop" signs, the number of children crossing the major street approach shall be used.

2. Vehicle Gap Availability. The criteria for this element shall be the percentage of gaps between vehicles which are equal to or exceed the safe crossing time. The safe crossing time shall be considered as the time necessary for an elementary school child to cross from one refuge point to another, specifically from one curb to another, at a walking speed of three (3.0) feet per second.

3. Vehicle Speed. The criteria for this element shall be the eighty-five (85) percentile speed observed on the major approaches, irrespective of traffic control devices.

4. Sight Distance. The criteria for this element shall be the ratio of the sight distance of a vehicle driver observing a three (3) foot high object in the crosswalk to design stopping distances, as recommended by the American Association of State Highway Officials, which are as follows:

25 - 30 MPH	200 Feet
30 - 35 MPH	240 Feet
35 - 40 MPH	275 Feet
40 - 45 MPH	310 Feet
45 - 50 MPH	350 Feet

5. Accident History. Special criteria for this element shall be the number of personal injury pedestrian accidents occurring at the study location involving elementary school children going to or from school during the previous three (3) year period.

6. Other Factors. Special criteria for this element shall be any factor which would tend to increase or decrease the hazard at that location, such as:

- Complex Intersection Design
- Complex Signal Design
- Divided Highway Without Safe Refuge
- Vehicle Turning Movements
- Vehicle Parking
- Other Vision Obstruction
- Age Of Children
- Safer Crossing Points

D. Numerical Rating Of School Crossing Hazards. The following point values shall be used in determining the degree of hazard caused by each element of school crossing hazard. The sum of the points for all elements shall determine the relative hazard of the crossing.

SCHOOL CHILDREN CROSSING

<u>Volume</u>	<u>Points</u>
0-10	0
11-20	4
21-30	8
31-40	12
41-50	16
51-75	20
76-100	24
101-125	28
126-150	32
Over 150	36

VEHICLE GAP AVAILABILITY

<u>Range</u>	<u>Points</u>
Over 90%	0
75-90%	4
50-74%	8
35-49%	12
25-34%	16
20-24%	20
16-25%	24
10-15%	28
6-9%	32
0-9%	36

VEHICULAR SPEED

<u>Speed (MPH)</u>	<u>Points</u>
0-25	0
26-30	1
31-35	2
36-40	3
41-45	4
Over 45	5

SIGHT DISTANCE

<u>Ratio</u>	<u>Points</u>
Over 2.0	0
1.5-2.0	1
1.0-1.4	5
Less than 1.0 ..	15

ACCIDENT HISTORY

<u>Accidents</u>	<u>Points</u>
0	0
1	5
2	15
Ea. Add'l	20

OTHER FACTORS

POINTS

Complex Intersection Design	+5
Complex Signal Design	+5
Divided Highway Without Safe Refuge	+5
Vehicle Turning Movements	+5
(Turning movements exceed 200 VPH across crosswalk being used by school children)	
Vehicle Parking To Intersection On Major Through Street	+5
Forty Percent Of Students Crossing In Grades K-3	+5
Safer Crossing One Block Out Of Way	-10
Safer Crossing Two Blocks Out Of Way	-5

E. School Crossing Protection Options. The following options may be utilized to afford school crossing protection for elementary school students, with due regard to the numerical rating of school crossing hazards:

1. **Marked School Crossings.** When the hazard rating is greater than twenty (20) points at a crossing used by at least twenty-five (25) elementary school children during any peak crossing time, the Traffic Engineer is authorized to mark such crossings with appropriate warning signs and special crosswalk markings.

2. **Flashing Beacons.** When all of the following conditions are met, flashing beacons may be installed, at the discretion of the Common Council.

- a. Posted speed limit is thirty-five (35) MPH or greater;
- b. The hazard rating is greater than forty (40) points; and,
- c. The street crossed is a U.S. or State Trunk Highway crossed by at least thirty (30) elementary school students.

3. **Assignment of a City School Crossing Guard.** When the hazard rating is greater than forty (40) points at a crossing used by at least thirty (30) elementary school children during any peak crossing time, the Common Council may, at its discretion, assign a school crossing guard to the school crossing.

4. **Discontinuance Of City School Crossing Guard.** Where the hazard rating falls below twenty-five (25) points or if the number of elementary school children crossing during any peak crossing time is less than fifteen (15) students, the Common Council, in its discretion, may discontinue a City school crossing guard at the crossing.

Adopted this 4th day of February, 1991.

ATTEST: *Gail F. Procarione* City Clerk
Gail F. Procarione

APPROVED: *Patrick E. Moran* Mayor Date: 2/5/91
Patrick E. Moran

Drafted By:

JAMES W. CONWAY,
City Attorney