Legistar: 130283

To:	Chairperson and Transportation and Safety Committee
From:	Frank Kalisik, Civil Engineer II
Through:	Carl S. Goldsmith, Director of Public Works
Date:	August 7, 2013
Subject:	Intersection of 17th and LaLonde; Stop Sign Request

130283; Request to Modify Intersection Control to a 4-Way Stop Sign

During the June 10, 2013 Transportation and Safety Committee Meeting, the subject was discussed and tabled, requesting staff to bring a study for the committee to review. The following data were generated from traffic analyzers that were deployed from June 3, 2013 through June 5, 2013, located on 17th Street between 16th Place and LaLonde Avenue.

Posted Speed Limit: 25 mph
85th Percentile: 33 mph Eastbound; 34 mph Westbound
Traffic Volume: 500-600 ADT (Average Daily Traffic)
Traffic Frequency/Time: Bi-Modal Distribution; Typical AM/PM Rush Hour Pattern

Additional Data from Lombard Police Department Records;
Accident History: No accidents have been reported for the past 5 years at this intersection.

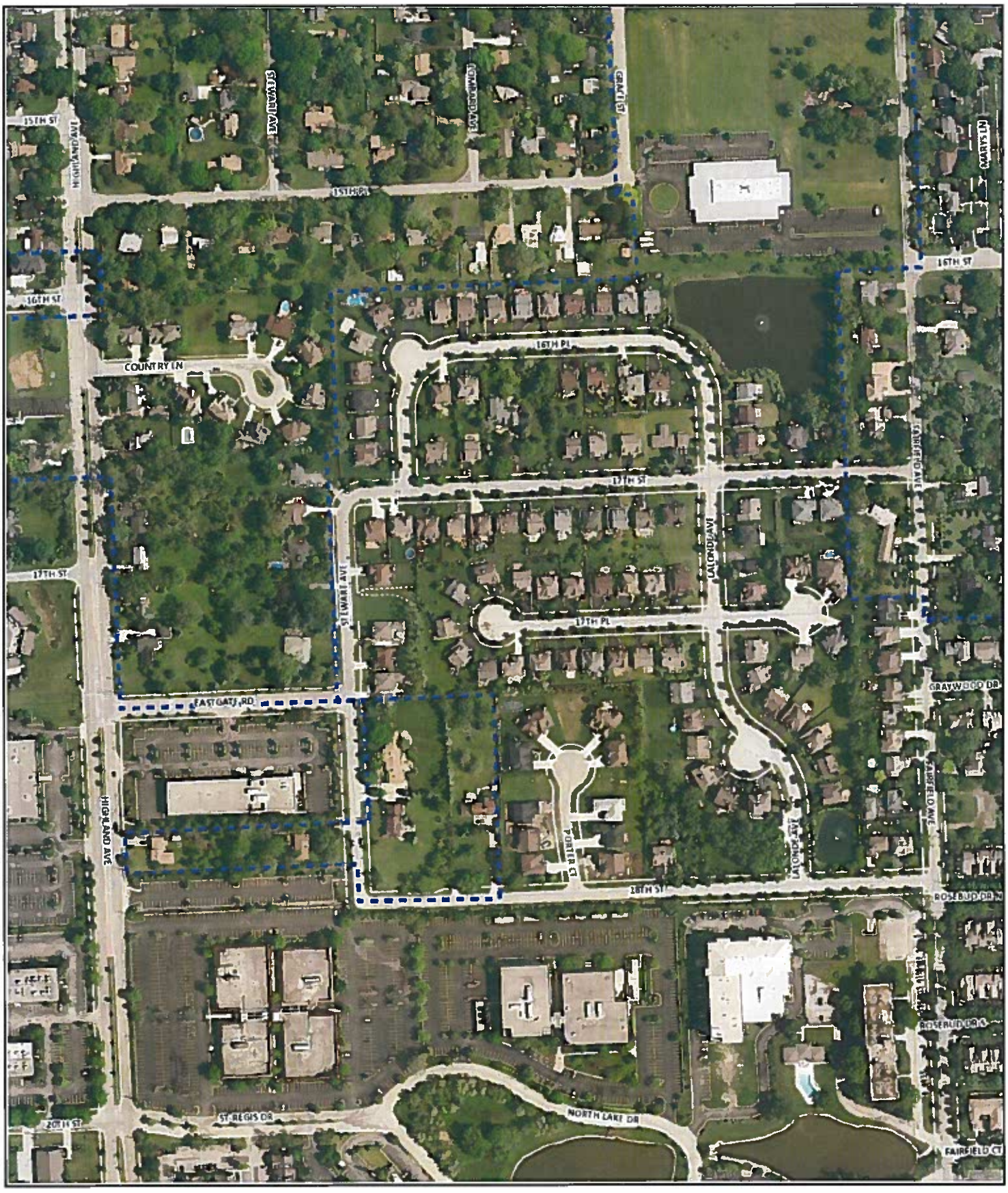
Traffic control for this intersection was modified approximately 13 years ago with the installation of stop signs on LaLonde Avenue. Traffic data differences between this and the 2000 traffic analysis report for 17th Street are negligible. Summary reports and history are attached. (Data for North and Southbound traffic on LaLonde Avenue were also collected on June 3, 2013 - June 5, 2013 with traffic volume ADT's of 22 and 137, respectively. However, the Northbound data demonstrated questionable anomalies and appeared suspect due to equipment malfunction; therefore, not presented here.)

Based upon the traffic volumes, intersection configuration, and accident history, the data does not warrant a modification of the existing traffic control devices in accordance with Section 2 of the MUTCD guidelines. Staff does not recommend the committee move forward on recommending a modification of the traffic code to the Village Board of Trustees for the intersection of 17th Street at LaLonde Avenue.

CC: Reid Fotyniewicz; District 3

Intersection of 17th Street and LaLonde Avenue

300 ft



Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lombard
Street: WB 17th St bet16th & Lalonde

A study of vehicle traffic was conducted with HI-STAR unit number 7B1740. The study was done in the lane on WB 17th St bet16th & Lalonde in Lombard, Il in DuPage county. The study began on 06/03/2013 at 09:30 AM and concluded on 06/05/2013 at 09:30 AM, lasting a total of 48 hours. Data was recorded in 60 minute time periods. The total recorded volume of traffic showed 1,225 vehicles passed through the location with a peak volume of 65 on 06/03/2013 at 05:30 PM and a minimum volume of 0 on 06/04/2013 at 01:30 AM. The AADT Count for this study was 613.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 >
8	30	81	278	414	247	87	24	12	8	4	2	0	0	0

At least half of the vehicles were traveling in the 25 - 29 mph range or a lower speed. The average speed for all classified vehicles was 28 mph with 66.7 percent exceeding the posted speed of 25 mph. The HI-STAR found 0.50 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 25 mph and the 85th percentile was 34.14 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin.

Chart 2

0 to 21	22 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 139	140 >
1126	61	4	4	0	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 1,126 which represents 94.20 percent of the total classified vehicles. The number of Small Trucks in the study was 61 which represents 5.10 percent of the total classified vehicles. The number of Trucks/Buses in the study was 4 which represents 0.30 percent of the total classified vehicles. The number of Tractor Trailers in the study was 4 which represents 0.30 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 06/03/2013 at 05:30 PM the average headway between the vehicles was 54.55 seconds. The slowest traffic period was on 06/04/2013 at 01:30 AM. During this slowest period, the average headway was 3600.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 56 and 123 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 0.00 percent of the time.

Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lombard
Street: EB 17th St bet16th & Lalonde

A study of vehicle traffic was conducted with HI-STAR unit number 7B1741. The study was done in the lane on EB 17th St bet16th & Lalonde in Lombard, Il in DuPage county. The study began on 06/03/2013 at 09:30 AM and concluded on 06/05/2013 at 09:30 AM, lasting a total of 48 hours. Data was recorded in 60 minute time periods. The total recorded volume of traffic showed 979 vehicles passed through the location with a peak volume of 75 on 06/04/2013 at 04:30 PM and a minimum volume of 0 on 06/04/2013 at 01:30 AM. The AADT Count for this study was 490.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 >
15	39	77	228	307	167	52	14	7	7	4	1	0	0	1

At least half of the vehicles were traveling in the 25 - 29 mph range or a lower speed. The average speed for all classified vehicles was 27 mph with 60.9 percent exceeding the posted speed of 25 mph. The HI-STAR found 0.65 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 25 mph and the 85th percentile was 33.45 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin.

Chart 2

0 to 21	22 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 139	140 >
865	35	5	8	1	4	1	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 865 which represents 94.10 percent of the total classified vehicles. The number of Small Trucks in the study was 35 which represents 3.80 percent of the total classified vehicles. The number of Trucks/Buses in the study was 5 which represents 0.50 percent of the total classified vehicles. The number of Tractor Trailers in the study was 14 which represents 1.50 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 06/04/2013 at 04:30 PM the average headway between the vehicles was 47.37 seconds. The slowest traffic period was on 06/04/2013 at 01:30 AM. During this slowest period, the average headway was 3600.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 56 and 123 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 0.00 percent of the time.

Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lombard
Street: SB Lalonde bet 17th Pl & 17th St

A study of vehicle traffic was conducted with HI-STAR unit number 7B1743. The study was done in the lane on SB Lalonde bet 17th Pl & 17th St in Lombard, Il in DuPage county. The study began on 05/15/2013 at 10:00 AM and concluded on 05/17/2013 at 10:00 AM, lasting a total of 48 hours. Data was recorded in 60 minute time periods. The total recorded volume of traffic showed 273 vehicles passed through the location with a peak volume of 17 on 05/15/2013 at 05:00 PM and a minimum volume of 0 on 05/16/2013 at 12:00 AM. The AADT Count for this study was 137.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 >
8	5	31	102	76	23	7	4	1	2	1	0	0	0	0

At least half of the vehicles were traveling in the 20 - 24 mph range or a lower speed. The average speed for all classified vehicles was 25 mph with 43.8 percent exceeding the posted speed of 25 mph. The HI-STAR found 0.38 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 20 mph and the 85th percentile was 29.93 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin.

Chart 2

0 to 21	22 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 139	140 >
235	21	3	0	0	1	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 235 which represents 90.40 percent of the total classified vehicles. The number of Small Trucks in the study was 21 which represents 8.10 percent of the total classified vehicles. The number of Trucks/Buses in the study was 3 which represents 1.20 percent of the total classified vehicles. The number of Tractor Trailers in the study was 1 which represents 0.40 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 05/15/2013 at 05:00 PM the average headway between the vehicles was 200.0 seconds. The slowest traffic period was on 05/16/2013 at 12:00 AM. During this slowest period, the average headway was 3600.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 58 and 130 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 0.00 percent of the time.

000346

To: Stan Rickard, Public Works Director

From: John Johnson, Technical Services Supervisor

Date: May 30, 2000

Subject: 2-Way Stop on LaLonde at 17th St.

Attached for your review are traffic counts on 17th St. at LaLonde. This area in under new home construction and is approximately 95% completed. During construction the developer requested that LaLonde stop at 17th St.. The Village has not accepted this development as of this date. It appears that 17th St. is becoming a cut-through street. LaLonde and 17th St. is the only 4-legged intersection within this development. There are some sight restrictions along LaLonde and due to the higher speeds on 17th St., the needed safe stopping distance on LaLonde decreased. I would recommend posting north and southbound LaLonde at 17th St. with stop signs as part of the development and back charging the developer for materials and labor.

cc: Richard Tross, Trustee - District 2
David Schaffer, Trustee - District 3
Transportation and Safety Committee

NU-METRICS Traffic Analyzer Study
Computer Generated Summary Report
Route: W.B.17thSt bet Stewart&Lalonde
Location: W.B.17thSt bet Stewart&Lalonde

A study of vehicle traffic was conducted with HI-STAR unit number 2262. The study was done in the lane on W.B.17thSt bet Stewart&Lalonde in Lombard, IL in DuPage county. The study began on 05/23/2000 at 10:00 AM and concluded on 05/25/2000 at 10:00 AM, lasting a total of 48 hours. Data was recorded in 60 minute time periods. The total recorded volume of traffic showed 1,230 vehicles passed through the location with a peak volume of 67 on 05/23/2000 at 03:00 PM and a minimum volume of 0 on 05/24/2000 at 02:00 AM.

SPEED
Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

< 23	23	25	28	30	33	35	38	40	43	45	48	50	53	> 53
214	161	248	169	194	91	80	26	19	3	6	3	5	0	9

Half of the vehicles were travelling at 25 Mph or a lower speed. The average speed for all classified vehicles was 28 Mph with 19.7 percent exceeding the posted speed of 30 Mph. The HI-STAR found 0.0 percent of the total vehicles were travelling in excess of 55 Mph. The mode speed for this traffic study was 25 Mph and the 85th percentile was 33.

CLASSIFICATION
Chart 2 lists the values of the eight Classification bins and the total traffic volume accumulated for each bin.

Chart 2

< 20	20	30	40	50	60	70	> 70
562	54	251	21	145	14	166	15

Most of the vehicles were Passenger Cars with a total count of 616. This represents 50.2 percent of the classified vehicles. The number of trucks in the study was 0 which represents 0.0 percent of the total classifed vehicles.

HEADWAY
During the peak time period, on 05/23/2000 at 03:00 PM the average headway between the vehicles was 52.94 seconds. The slowest traffic period was on 05/24/2000 at 02:00 AM. During this slowest period, the average headway was 3600.0 seconds.

WEATHER
The roadway surface temperature over the period of the study varied between 62 and 117 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.0 percent of the time.

NU-METRICS Traffic Analyzer Study
Computer Generated Summary Report
Route: E.B.17thSt bet Stewart&Lalonde
Location: E.B.17thSt bet Stewart&Lalonde

A study of vehicle traffic was conducted with HI-STAR unit number 9136. The study was done in the lane on E.B.17thSt bet Stewart&Lalonde in Lombard, IL in DuPage county. The study began on 05/23/2000 at 10:00 AM and concluded on 05/25/2000 at 10:00 AM, lasting a total of 48 hours. Data was recorded in 60 minute time periods. The total recorded volume of traffic showed 866 vehicles passed through the location with a peak volume of 56 on 05/24/2000 at 07:00 AM and a minimum volume of 0 on 05/24/2000 at 03:00 AM.

SPEED
Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

< 23	23	25	28	30	33	35	38	40	43	45	48	50	53	> 53
227	39	93	150	73	78	21	9	2	0	1	0	2	0	1

Half of the vehicles were traveling at 25 Mph or a lower speed. The average speed for all classified vehicles was 27 Mph with 16.3 percent exceeding the posted speed of 30 Mph. The HI-STAR found 0.0 percent of the total vehicles were traveling in excess of 55 Mph. The mode speed for this traffic study was 22 Mph and the 85th percentile was 33.

CLASSIFICATION
Chart 2 lists the values of the eight Classification bins and the total traffic volume accumulated for each bin.

Chart 2

< 20	20	30	40	50	60	70	> 70
318	8	129	5	125	1	108	2

Most of the vehicles were Passenger Cars with a total count of 326. This represents 46.8 percent of the classified vehicles. The number of trucks in the study was 0 which represents 0.0 percent of the total classifed vehicles.

HEADWAY
During the peak time period, on 05/24/2000 at 07:00 AM the average headway between the vehicles was 63.16 seconds. The slowest traffic period was on 05/24/2000 at 03:00 AM. During this slowest period, the average headway was 3600.0 seconds.

WEATHER
The roadway surface temperature over the period of the study varied between 66 and 113 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.0 percent of the time.