



040247

To: John Burg, Acting Director of Public Works
From: Justine Gembala, PE, Civil Engineer *JG*
Date: June 7, 2004
Subject: Maple Street Speed Study between Vance Street and Addison Street

Trustee Florey received an e-mail from Ms. Julie Regimand, 412 E. Maple Street, requesting lowering the speed limit on Maple Street from 30 MPH to 25 MPH. Attached for your review are the results of the speed study on Maple Street between Vance Street and Addison Street. This speed study was conducted using the Illinois Department of Transportation "Policy on Establishing and Posting Speed Limits on the State Highway System".

Both spot and 48-hour speed surveys were conducted on Maple Street between the above limits. Maple Street was divided into three sample zones as follows: Vance to Main, Main to Grace and Grace to Addison. The purpose of the zones was to determine if sections of Maple Street operate differently due to amenities. For example, there are four churches (two of which have schools), a library, two commuter parking lots, a museum, and residences between Vance and Main. The remaining limits consist of residences with one church and one business between Main and Grace and two parks, one church, and one business between Grace and Addison. The adjusted prevailing speed on Maple Street based on the spot speed surveys is 31.02 MPH, except between Elizabeth and Main where the adjusted prevailing speed decreases to 28.00 MPH. The traffic analyzer 48-hour speed surveys revealed that most motorists are traveling at a speed between 30 and 34 MPH or lower. The average daily traffic volume on Maple Street is 6,400 vehicles per day.

Accident reports were run from January 2002 through December 2003 and are plotted on the attached map. It appears that Maple between Vance and Addison does not have an accident problem.

Based on the results of the speed study, it is recommended the speed limit on Maple between Vance and Addison remain posted at 30 MPH.

This item will be on the June 14, 2004 Transportation and Safety Committee agenda. The meeting is held at the Village Hall in the Community Room at 7:30 PM. This is a public meeting and public participation is encouraged.

JG/jj

cc: Rick Soderstrom, Trustee, District 6
Joan DeStephano, Trustee, District 1
Steven Sebby, Trustee, District 4
Kenneth Florey, Trustee, District 5
David Dratnol, Village Engineer
Transportation and Safety Committee
Ms. Julie Regimand, 412 E. Maple Street

**ESTABLISHMENT OF SPEED ZONE
DISTRICT _____**

ROUTE: MAPLE ST FROM: MAIN ST

TO: VANCE ST. LENGTH: 3637

CITY: LOMBARD COUNTY: _____

I SPOT SPEED STUDIES (Attached)

CHECK NO.	85TH %	UPPER LIMIT 10 MPH PACE
	34	36

V ACCESS CONFLICTS

RESIDENTIAL DRIVES:	<u>58</u> x 1 = <u>58</u>
SMALL BUSINESS DRIVES:	<u>7</u> x 5 = <u>35</u>
LARGE BUSINESS DRIVES:	<u>1</u> x 10 = <u>10</u>
ACCESS CONFLICT NO. TOTAL:	
<u>103</u> (DCN)	= <u>149</u>
<u>3637</u> MILES	CONFLICT NO./MILE

II TEST RUNS

RUN NO.	AVERAGE SPEED MPH NB or WB SB or EB
1	
2	
3	
4	
5	

VI MISCL. FACTORS

PEDESTRIAN VOLUME: _____

CRASH RATE RATIO:
STATEWIDE AVG. = _____

ROUTE _____

PARKING PERMITTED: YES NO

III PREVAILING SPEED

85TH % AVG.: 34 MPH

UPPER LIMIT OF
10 MPH PACE: 36 MPH

TEST RUN AVG.: N/A MPH

PREVAILING SPD: 35 MPH

VII PREVAILING SPEED ADJUSTMENT

Parking Adjustment

DRIVEWAY ADJUSTMENT: 10 ^{5%} %

PEDESTRIAN ADJUSTMENT: 5 %

CRASH ADJUSTMENT: 0 %

TOTAL (Max. 20%): 20 %

35 MPH x 20 % = 28.00
(Prevailing Spd) (Adjust.) (Max. 9 MPH)

ADJUSTED PREVAILING SPEED: 28.00

IV EXISTING SPEED LIMIT

ZONE BEING STUDIED: _____ MPH

VIOLATION RATE: _____ %

ADJACENT ZONE N or W: _____ MPH

LENGTH: _____ MILES

ADJACENT ZONE S or E: _____ MPH

LENGTH: _____ MILES

VIII REVISED SPEED LIMIT

RECOMMENDED SPEED LIMIT: 30 MPH

ANTICIPATED VIOLATION RATE: 64 %

RECOMMENDED BY: _____

DATE: _____

APPROVED BY: _____

DATE: _____

SPOT SPEED STUDY

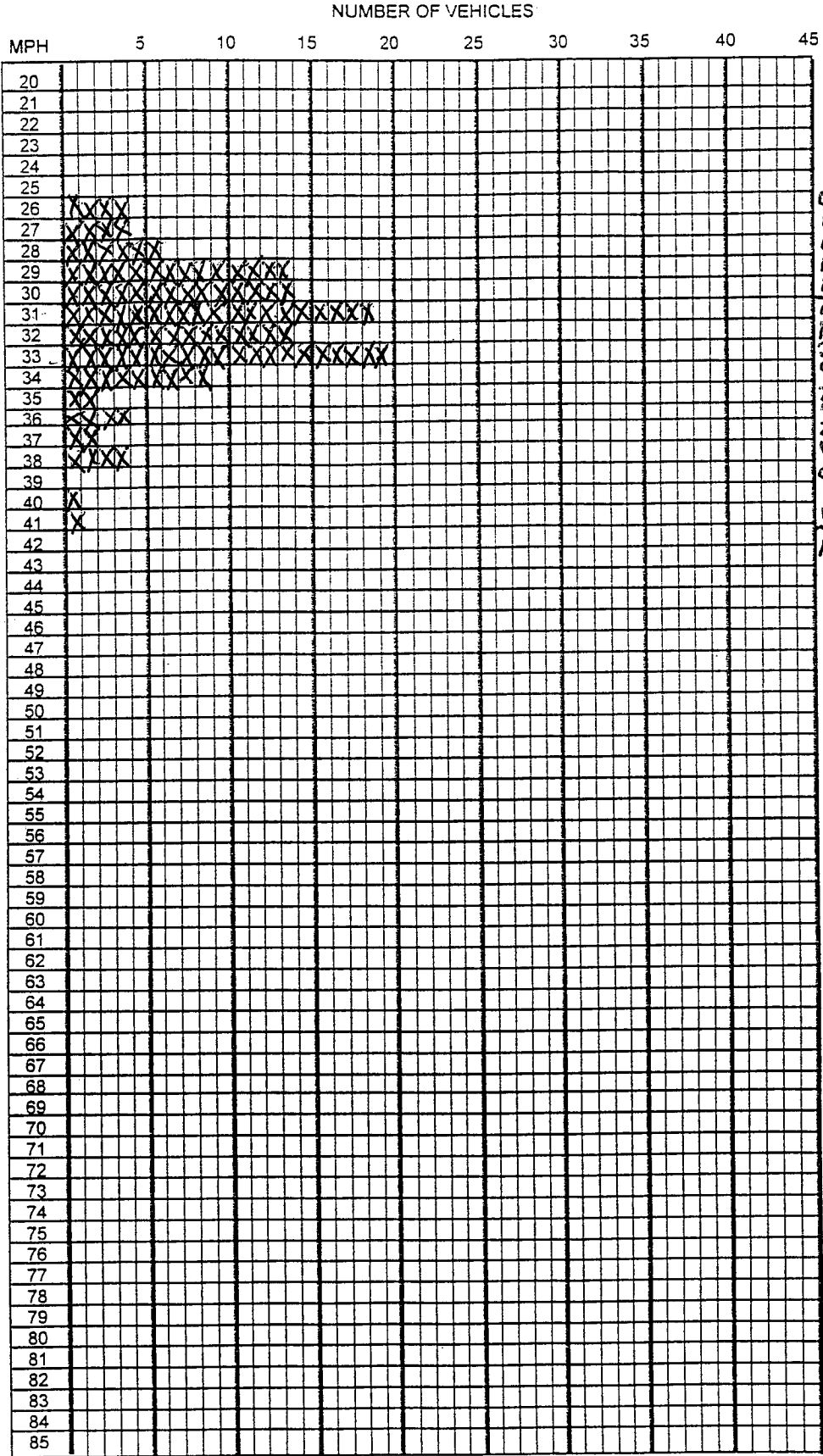
DATE: 2-12-08 DAY:

ROUTE:

CITY/LOCATION: MAPLE - N. OF LINDALE

DIST:

CHECK NO.	RECORDER	HOURS FM: 9:25 AM TO: 10:25 AM	WEATHER PARTLY CLOUDY 34°	SURFACE WET DAMP DRY	FT. MI. E OF N S OF MAIN	METER ON E W N S SIDE	TRAFFIC CHECKED: EB WB NB SB	85TH PERCENTILE 34	UPPER LIMIT 10 MPH PAGE 36	POSTED LIMIT MPH 30	VIOLATION RATE 64%
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118
 100-102-104-106-108-110-112-114-116-118
 76

ABOVE 85 MPH, LIST INDIVIDUALLY:

**ESTABLISHMENT OF SPEED ZONE
DISTRICT _____**

ROUTE: MAPLE ST FROM: MAIN ST.

TO: VANCE ST. - EDSON LENGTH: 3637 FT

CITY: LOMBARD COUNTY: _____

I SPOT SPEED STUDIES (Attached)

CHECK NO.	85TH %	UPPER LIMIT 10 MPH PACE
	36	37

V ACCESS CONFLICTS

RESIDENTIAL DRIVES:	<u>58</u> x 1 = <u>58</u>
SMALL BUSINESS DRIVES:	<u>7</u> x 5 = <u>35</u>
LARGE BUSINESS DRIVES:	<u>1</u> x 10 = <u>10</u>
ACCESS CONFLICT NO. TOTAL:	
<u>103</u> (DCN)	= 103 <u>149</u>
<u>3637</u> MILES	CONFLICT NO./MILE

II TEST RUNS

RUN NO.	AVERAGE SPEED MPH NB or WB SB or EB
1	
2	
3	
4	
5	

VI MISCL. FACTORS

PEDESTRIAN VOLUME:	<u>N/A</u>
CRASH RATE RATIO:	
STATEWIDE AVG. =	<u>N/A</u>
ROUTE	
PARKING PERMITTED:	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

III PREVAILING SPEED

85TH % AVG.:	<u>36</u> MPH
UPPER LIMIT OF 10 MPH PACE:	<u>37</u> MPH
TEST RUN AVG.:	<u>N/A</u> MPH
PREVAILING SPD:	<u>36.5</u> MPH

VII PREVAILING SPEED ADJUSTMENT

<i>Parking Adjustment</i>	<u>5</u> %
DRIVEWAY ADJUSTMENT:	<u>10</u> %
PEDESTRIAN ADJUSTMENT:	<u>0</u> %
CRASH ADJUSTMENT:	<u>0</u> %
TOTAL (Max. 20%):	<u>15</u> %
<u>36.5</u> MPH x <u>15</u> % = <u>31.02</u>	(Max. 9 MPH)
(Prevailing Spd) (Adjust.)	
ADJUSTED PREVAILING SPEED:	<u>31.02</u>

IV EXISTING SPEED LIMIT

ZONE BEING STUDIED:	<u>30</u> MPH
VIOLATION RATE:	<u>77</u> %
ADJACENT ZONE N or W:	_____ MPH
LENGTH:	_____ MILES
ADJACENT ZONE S or E:	_____ MPH
LENGTH:	_____ MILES

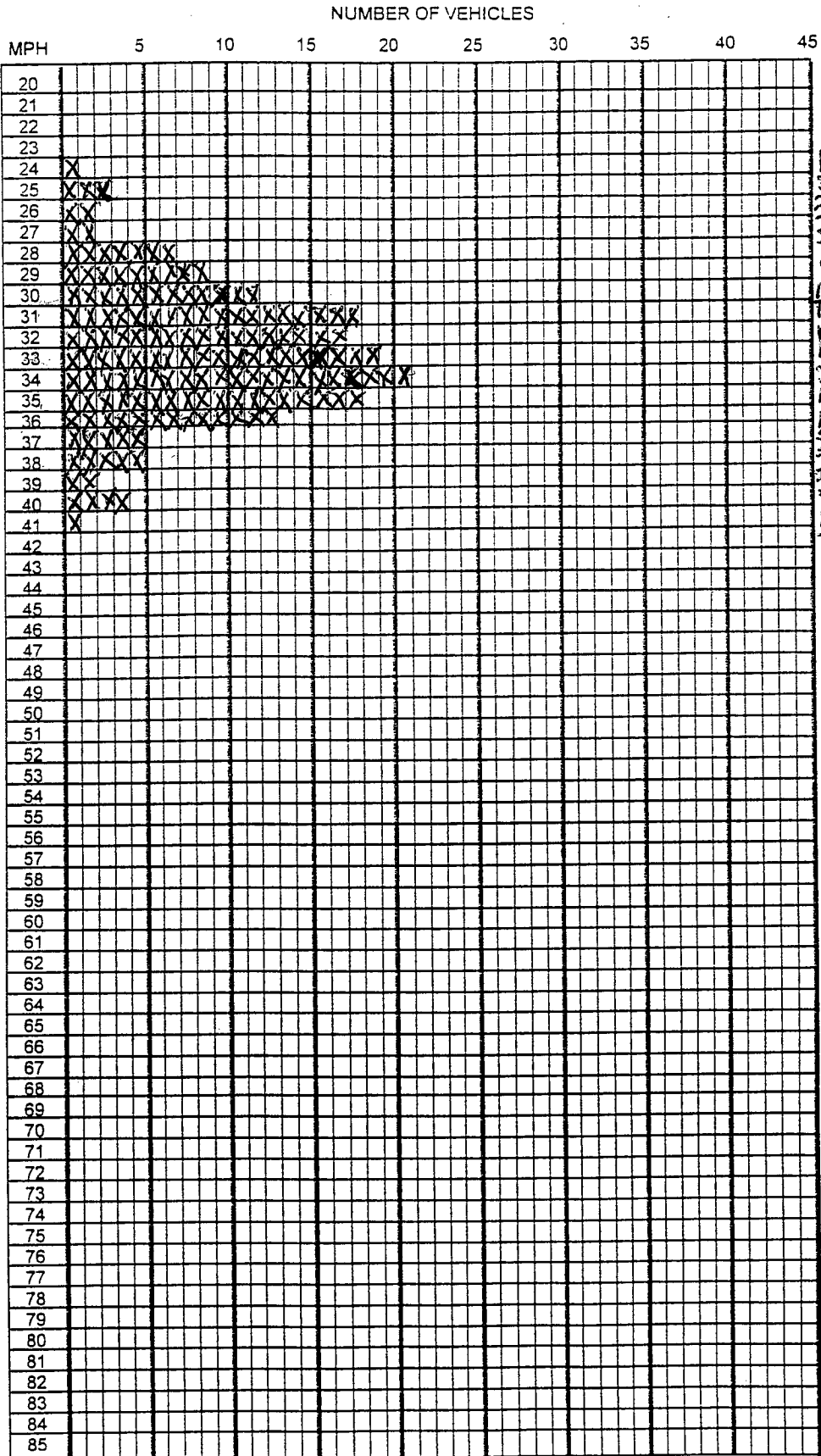
VIII REVISED SPEED LIMIT

RECOMMENDED SPEED LIMIT:	<u>30</u> MPH
ANTICIPATED VIOLATION RATE:	<u>77</u> %
RECOMMENDED BY:	_____
DATE:	_____
APPROVED BY:	_____
DATE:	_____

SPOT SPEED STUDY

DIST: _____ CITY/LOCATION: MAPLE E. OF Edson ROUTE: _____ DATE: 2-18-04 DAY: _____

CHECK NO.	RECORDER	HOURS FM: <u>1:45</u> PM TO: <u>1:45</u> PM	WEATHER	SURFACE WET DAMP DRY	FT. MI. E W N S OF SIDE	METER ON E W N S SIDE	TRAFFIC CHECKED: EB WB NB SB	85TH PERCNTLE	UPPER LIMIT 10 MPH PACE	POSTED LIMIT MPH	VIOLATION RATE
					<u>3637</u> E W N S MAIN			<u>36</u>	<u>37</u>		<u>77%</u>



1
3
2
2
7
9
12
15
17
19
21
18
13
13
5
4
2
4
1
 123
 159

ABOVE 85 MPH, LIST INDIVIDUALLY: _____

**ESTABLISHMENT OF SPEED ZONE
DISTRICT _____**

ROUTE: MAPLE ST FROM: GRACE ST

TO: MAIN ST LENGTH: 2721 FT

CITY: _____ COUNTY: _____

I SPOT SPEED STUDIES (Attached)

CHECK NO.	85TH %	UPPER LIMIT 10 MPH PACE
	36	37

V ACCESS CONFLICTS

RESIDENTIAL DRIVES:	<u>26</u> x 1 = <u>26</u>
SMALL BUSINESS DRIVES:	<u>7</u> x 5 = <u>35</u>
LARGE BUSINESS DRIVES:	<u>1</u> x 10 = <u>10</u>
ACCESS CONFLICT NO. TOTAL:	
<u>71</u> (DCN)	= 137 <u>137</u>
<u>2721</u> MILES	CONFLICT NO./MILE

II TEST RUNS

RUN NO.	AVERAGE SPEED MPH NB or WB SB or EB
1	
2	
3	N/A
4	
5	

VI MISCL. FACTORS

PEDESTRIAN VOLUME:	<u>N/A</u>
CRASH RATE RATIO:	
STATEWIDE AVG. =	<u>N/A</u>
ROUTE	
PARKING PERMITTED:	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

III PREVAILING SPEED

85TH % AVG.:	<u>36</u>	MPH
UPPER LIMIT OF 10 MPH PACE:	<u>37</u>	MPH
TEST RUN AVG.:	<u>—</u>	MPH
PREVAILING SPD:	<u>36.50</u>	MPH

VII PREVAILING SPEED ADJUSTMENT

PARKING ADJUSTMENT:	<u>5</u>	%
DRIVEWAY ADJUSTMENT:	<u>10</u>	%
PEDESTRIAN ADJUSTMENT:	<u>0</u>	%
CRASH ADJUSTMENT:	<u>0</u>	%
TOTAL (Max. 20%):	<u>15</u>	%
<u>36.5</u> MPH x <u>15</u> % = <u>31.02</u>		
(Prevailing Spd)	(Adjust.)	(Max. 9 MPH)
ADJUSTED PREVAILING SPEED:	<u>31.02</u>	

IV EXISTING SPEED LIMIT

ZONE BEING STUDIED:	_____ MPH
VIOLATION RATE:	_____ %
ADJACENT ZONE N or W:	_____ MPH
LENGTH:	_____ MILES
ADJACENT ZONE S or E:	_____ MPH
LENGTH:	_____ MILES

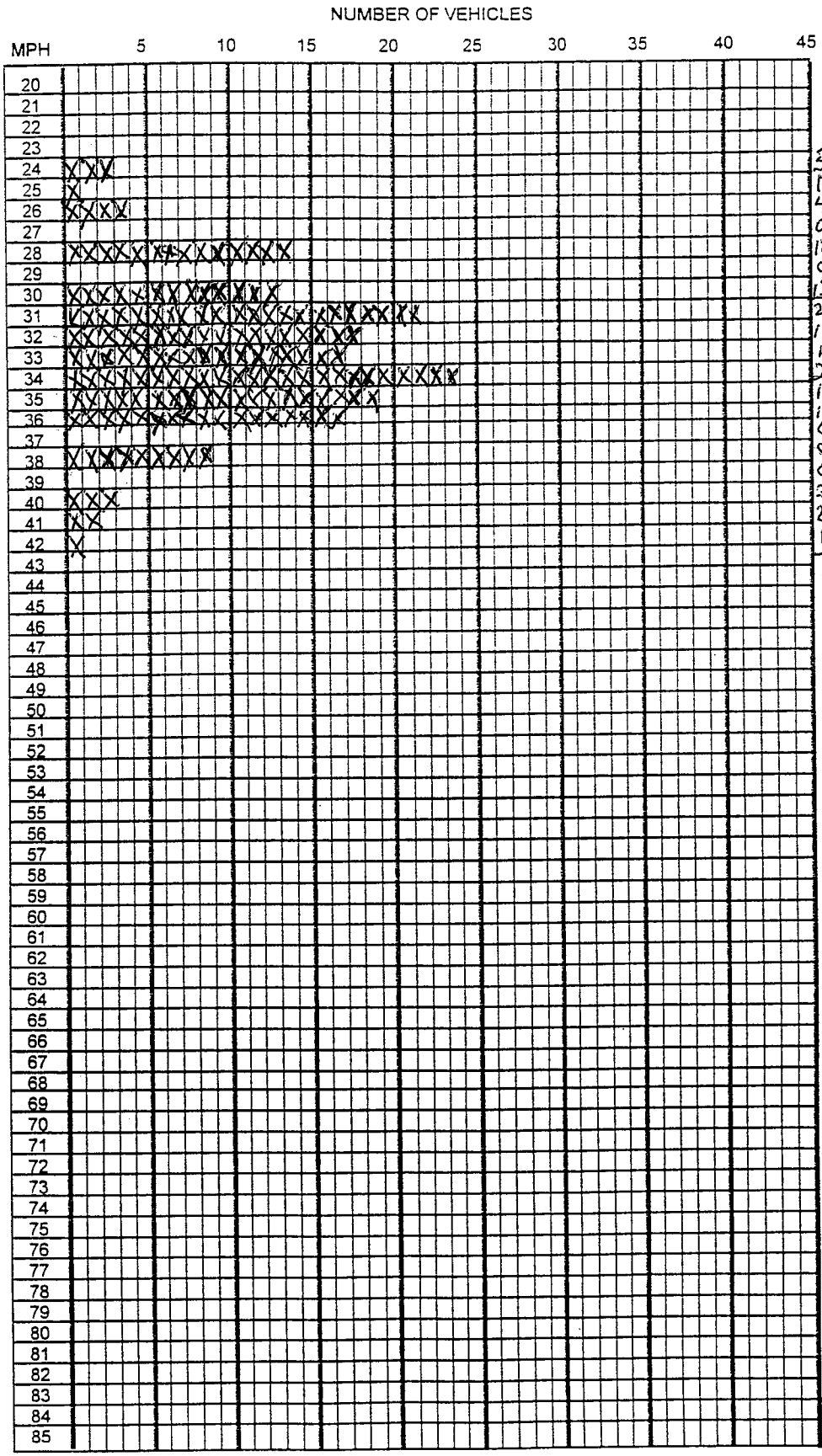
VIII REVISED SPEED LIMIT

RECOMMENDED SPEED LIMIT:	<u>30</u>	MPH
ANTICIPATED VIOLATION RATE:	<u>79</u>	%
RECOMMENDED BY:	_____	
DATE:	_____	
APPROVED BY:	_____	
DATE:	_____	

SPOT SPEED STUDY

DIST: CITY/LOCATION: Lombard Maple ROUTE: Charlotte - Martha DATE: 2-25-04 DAY:

CHECK NO.	RECORDER	HOURS FM: <u>1:30</u> <u>P</u> M TO: <u>2:30</u> <u>P</u> M	WEATHER <u>Sunny</u>	SURFACE WET DAMP <u>DRY</u>	FT. MI. E W N S OF SIDE	METER ON E W N S SIDE	TRAFFIC CHECKED: <u>(EB)</u> <u>(WB)</u> NB SB	85TH PERCENTILE <u>36</u>	UPPER LIMIT 10 MPH PACE <u>37</u>	POSTED LIMIT MPH <u>30</u>	VIOLATION RATE <u>79%</u>
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3
 1
 4
 0
 14
 0
 3
 22
 18
 17
 24
 19
 17
 0
 9
 0
 3
 2
 1
 167

ABOVE 85 MPH, LIST INDIVIDUALLY: _____

**ESTABLISHMENT OF SPEED ZONE
DISTRICT _____**

ROUTE: MAPLE FROM: GRACE ST

TO: Addison ST LENGTH: 5405 FT

CITY: LOMBARD COUNTY: _____

I SPOT SPEED STUDIES (Attached)

CHECK NO.	85TH %	UPPER LIMIT 10 MPH PACE
	36	37

V ACCESS CONFLICTS

RESIDENTIAL DRIVES: $\frac{80}{5405} \times 1 = \frac{80}{5405}$

SMALL BUSINESS DRIVES: $\frac{13}{5405} \times 5 = \frac{65}{5405}$

LARGE BUSINESS DRIVES: $\frac{1}{5405} \times 10 = \frac{10}{5405}$

ACCESS CONFLICT NO. TOTAL:

$\frac{155}{5405}$ (DCN) = $\frac{155}{5405}$ CONFLICT NO./MILE

II TEST RUNS

RUN NO.	AVERAGE SPEED MPH NB or WB SB or EB
1	N/A
2	
3	
4	
5	

VI MISCL. FACTORS

PEDESTRIAN VOLUME: N/A

CRASH RATE RATIO:
STATEWIDE AVG. = N/A
ROUTE

PARKING PERMITTED: YES NO

III PREVAILING SPEED

85TH % AVG.: 36 MPH

UPPER LIMIT OF
10 MPH PACE: 37 MPH

TEST RUN AVG.: — MPH

PREVAILING SPD: 36.5 MPH

VII PREVAILING SPEED ADJUSTMENT

PARKING ADJUSTMENT 5

DRIVEWAY ADJUSTMENT: 10 %

PEDESTRIAN ADJUSTMENT: 0

CRASH ADJUSTMENT: 0

TOTAL (Max. 20%): 15 %

$\frac{36.5}{(Prevailing\ Spd)} \times \frac{15}{(Adjust.)} \% = \frac{31.02}{(Max.\ 9\ MPH)}$

ADJUSTED PREVAILING SPEED: 31.02

IV EXISTING SPEED LIMIT

ZONE BEING STUDIED: 30 MPH

VIOLATION RATE: 69 %

ADJACENT ZONE N or W: _____ MPH
LENGTH: _____ MILES

ADJACENT ZONE S or E: _____ MPH
LENGTH: _____ MILES

VIII REVISED SPEED LIMIT

RECOMMENDED SPEED LIMIT: 30 MPH

ANTICIPATED VIOLATION RATE: 69 %

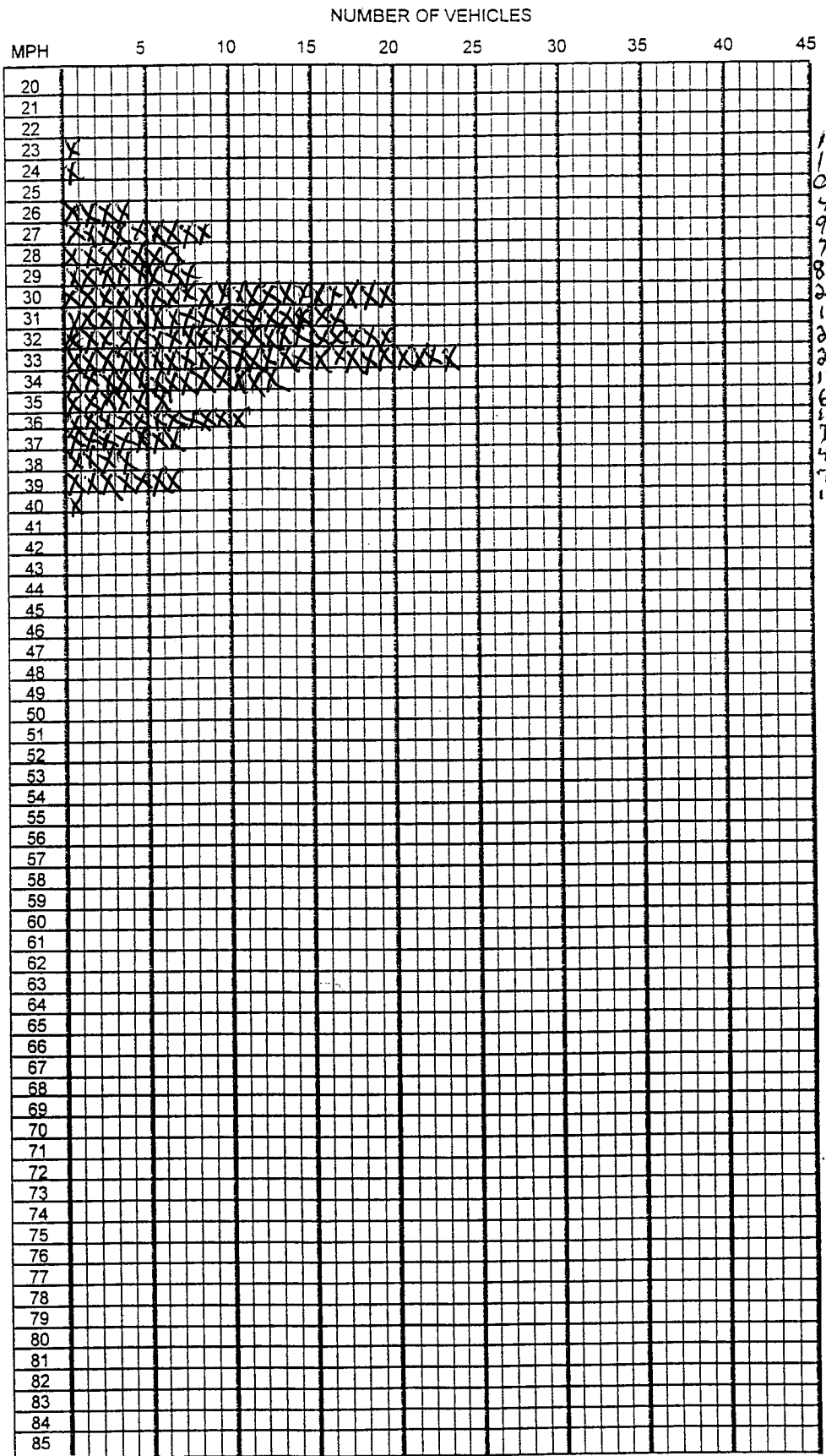
RECOMMENDED BY: _____
DATE: _____

APPROVED BY: _____
DATE: _____

36.50
SPOT SPEED STUDY

DIST: CITY/LOCATION: Lombard / Edgebrook ROUTE: MA 94 E 57 DATE: 2-17-04 DAY:

CHECK NO. RECORDER	HOURS FM: <u>9:05 AM</u> TO: <u>10:05 AM</u>	WEATHER <u>32°</u> <u>CLEAR</u>	SURFACE WET DAMP <u>DRY</u>	540 FT. MI. @ W N S OF <u>GRACE</u>	METER ON E W N S SIDE	TRAFFIC CHECKED: <u>EB</u> <u>WB</u> NB SB	85TH PERCNTLE <u>36</u>	UPPER LIMIT 10 MPH PACE <u>37</u>	POSTED LIMIT MPH <u>30</u>	VIOLATION RATE <u>69%</u>
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110
 10
 4
 4
 9
 7
 7
 8
 8
 28
 28
 17
 20
 20
 4
 2
 3
 3
 4
 1
 1
 4
 4
 4
 110
 160 TOTAL
 24 85th

ABOVE 85 MPH, LIST INDIVIDUALLY: _____

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lombard
Street: E.B.Maple near Brewster**

A study of vehicle traffic was conducted with HI-STAR unit number 2964. The study was done in the lane on E.B.Maple near Brewster in Lombard, Il in DuPage county. The study began on 02/17/2004 at 02:00 PM and concluded on 02/19/2004 at 02:00 PM, lasting a total of 48 hours. Data was recorded in 60 minute time periods. The total recorded volume of traffic showed 4,804 vehicles passed through the location with a peak volume of 270 on 02/19/2004 at 07:00 AM and a minimum volume of 2 on 02/18/2004 at 02:00 AM. The AADT Count for this study was 2,402.

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 >
0	50	74	292	1174	1996	829	216	83	24	22	13	11	10	6

At least half of the vehicles were traveling in the 30 - 34 mph range or a lower speed. The average speed for all classified vehicles was 30 mph with 25.2 percent exceeding the posted speed of 30 mph. The HI-STAR found 25.2 percent of the total vehicles were traveling in excess of 30 mph. The mode speed for this traffic study was 30 mph and the 85th percentile was 33.48 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 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
4704	68	23	4	1	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 4,772 which represents 99.40 percent of the total classified vehicles. The number of Small Trucks in the study was 23 which represents 0.50 percent of the total classified vehicles. The number of Trucks/Busses in the study was 4 which represents 0.10 percent of the total classified vehicles. The number of Tractor Trailers in the study was 1 which represents 0.00 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 02/19/2004 at 07:00 AM the average headway between the vehicles was 13.28 seconds. The slowest traffic period was on 02/18/2004 at 02:00 AM. During this slowest period, the average headway was 1200.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 17 and 50 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lombard
Street: W.B.Maple near Brewster**

A study of vehicle traffic was conducted with HI-STAR unit number 883. The study was done in the lane on W.B.Maple near Brewster in Lombard, Il in DuPage county. The study began on 02/17/2004 at 02:00 PM and concluded on 02/19/2004 at 02:00 PM, lasting a total of 48 hours. Data was recorded in 60 minute time periods. The total recorded volume of traffic showed 4,854 vehicles passed through the location with a peak volume of 321 on 02/18/2004 at 05:00 PM and a minimum volume of 1 on 02/19/2004 at 03:00 AM. The AADT Count for this study was 2,427.

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 to >
0	33	40	139	875	2201	1182	284	55	16	13	5	3	2	0

At least half of the vehicles were traveling in the 30 - 34 mph range or a lower speed. The average speed for all classified vehicles was 31 mph with 32.1 percent exceeding the posted speed of 30 mph. The HI-STAR found 32.1 percent of the total vehicles were traveling in excess of 30 mph. The mode speed for this traffic study was 30 mph and the 85th percentile was 34.02 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 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to >
4658	142	35	9	4	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 4,800 which represents 99.00 percent of the total classified vehicles. The number of Small Trucks in the study was 35 which represents 0.70 percent of the total classified vehicles. The number of Trucks/Busses in the study was 9 which represents 0.20 percent of the total classified vehicles. The number of Tractor Trailers in the study was 4 which represents 0.10 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 02/18/2004 at 05:00 PM the average headway between the vehicles was 11.18 seconds. The slowest traffic period was on 02/19/2004 at 03:00 AM. During this slowest period, the average headway was 1800.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 19 and 52 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lombard
Street: E.B.Maple near Martha**

A study of vehicle traffic was conducted with HI-STAR unit number 811. The study was done in the lane on E.B.Maple near Martha in Lombard, IL in DuPage county. The study began on 02/17/2004 at 02:00 PM and concluded on 02/19/2004 at 02:00 PM, lasting a total of 48 hours. Data was recorded in 60 minute time periods. The total recorded volume of traffic showed 7,845 vehicles passed through the location with a peak volume of 398 on 02/17/2004 at 05:00 PM and a minimum volume of 4 on 02/18/2004 at 02:00 AM. The AADT Count for this study was 3,923.

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 >
0	45	125	512	2966	3252	744	127	35	9	7	6	7	1	2

At least half of the vehicles were traveling in the 30 - 34 mph range or a lower speed. The average speed for all classified vehicles was 28 mph with 11.9 percent exceeding the posted speed of 30 mph. The HI-STAR found 11.9 percent of the total vehicles were traveling in excess of 30 mph. The mode speed for this traffic study was 30 mph and the 85th percentile was 30.13 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 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
7590	179	54	11	4	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 7,769 which represents 99.10 percent of the total classified vehicles. The number of Small Trucks in the study was 54 which represents 0.70 percent of the total classified vehicles. The number of Trucks/Busses in the study was 11 which represents 0.10 percent of the total classified vehicles. The number of Tractor Trailers in the study was 4 which represents 0.10 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 02/17/2004 at 05:00 PM the average headway between the vehicles was 9.02 seconds. The slowest traffic period was on 02/18/2004 at 02:00 AM. During this slowest period, the average headway was 720.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 19 and 58 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lombard
Street: W.B.Maple near Martha**

A study of vehicle traffic was conducted with HI-STAR unit number 8230. The study was done in the lane on W.B.Maple near Martha in Lombard, Il in DuPage county. The study began on 02/17/2004 at 02:00 PM and concluded on 02/19/2004 at 02:00 PM, lasting a total of 48 hours. Data was recorded in 60 minute time periods. The total recorded volume of traffic showed 7,043 vehicles passed through the location with a peak volume of 387 on 02/17/2004 at 05:00 PM and a minimum volume of 2 on 02/19/2004 at 02:00 AM. The AADT Count for this study was 3,522.

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 >
0	22	33	163	1040	3275	1942	432	78	25	12	10	4	4	3

At least half of the vehicles were traveling in the 30 - 34 mph range or a lower speed. The average speed for all classified vehicles was 31 mph with 35.6 percent exceeding the posted speed of 30 mph. The HI-STAR found 35.6 percent of the total vehicles were traveling in excess of 30 mph. The mode speed for this traffic study was 30 mph and the 85th percentile was 34.24 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 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
6639	314	76	10	4	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 6,953 which represents 98.70 percent of the total classified vehicles. The number of Small Trucks in the study was 76 which represents 1.10 percent of the total classified vehicles. The number of Trucks/Busses in the study was 10 which represents 0.10 percent of the total classified vehicles. The number of Tractor Trailers in the study was 4 which represents 0.10 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 02/17/2004 at 05:00 PM the average headway between the vehicles was 9.28 seconds. The slowest traffic period was on 02/19/2004 at 02:00 AM. During this slowest period, the average headway was 1200.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 19 and 58 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lombard
Street: E.B.Maple near Lodge**

A study of vehicle traffic was conducted with HI-STAR unit number 2963. The study was done in the lane on E.B.Maple near Lodge in Lombard, Il in DuPage county. The study began on 02/17/2004 at 02:00 PM and concluded on 02/19/2004 at 02:00 PM, lasting a total of 48 hours. Data was recorded in 60 minute time periods. The total recorded volume of traffic showed 7,251 vehicles passed through the location with a peak volume of 363 on 02/19/2004 at 07:00 AM and a minimum volume of 4 on 02/18/2004 at 02:00 AM. The AADT Count for this study was 3,626.

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 >
0	61	115	355	1505	3543	1361	215	43	20	10	5	7	0	4

At least half of the vehicles were traveling in the 30 - 34 mph range or a lower speed. The average speed for all classified vehicles was 30 mph with 22.9 percent exceeding the posted speed of 30 mph. The HI-STAR found 22.9 percent of the total vehicles were traveling in excess of 30 mph. The mode speed for this traffic study was 30 mph and the 85th percentile was 32.62 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 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
7029	159	46	7	3	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 7,188 which represents 99.20 percent of the total classified vehicles. The number of Small Trucks in the study was 46 which represents 0.60 percent of the total classified vehicles. The number of Trucks/Busses in the study was 7 which represents 0.10 percent of the total classified vehicles. The number of Tractor Trailers in the study was 3 which represents 0.00 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 02/19/2004 at 07:00 AM the average headway between the vehicles was 9.89 seconds. The slowest traffic period was on 02/18/2004 at 02:00 AM. During this slowest period, the average headway was 720.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 19 and 50 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lombard
Street: W.B.Maple near Lodge**

A study of vehicle traffic was conducted with HI-STAR unit number 6784. The study was done in the lane on W.B.Maple near Lodge in Lombard, Il in DuPage county. The study began on 02/17/2004 at 02:00 PM and concluded on 02/19/2004 at 02:00 PM, lasting a total of 48 hours. Data was recorded in 60 minute time periods. The total recorded volume of traffic showed 6,624 vehicles passed through the location with a peak volume of 371 on 02/17/2004 at 05:00 PM and a minimum volume of 4 on 02/18/2004 at 02:00 AM. The AADT Count for this study was 3,312.

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 >
0	38	107	314	1133	2890	1675	361	44	17	10	9	9	6	11

At least half of the vehicles were traveling in the 30 - 34 mph range or a lower speed. The average speed for all classified vehicles was 31 mph with 32.3 percent exceeding the posted speed of 30 mph. The HI-STAR found 32.3 percent of the total vehicles were traveling in excess of 30 mph. The mode speed for this traffic study was 30 mph and the 85th percentile was 33.93 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 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
6342	202	61	6	9	4	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 6,544 which represents 98.80 percent of the total classified vehicles. The number of Small Trucks in the study was 61 which represents 0.90 percent of the total classified vehicles. The number of Trucks/Busses in the study was 6 which represents 0.10 percent of the total classified vehicles. The number of Tractor Trailers in the study was 13 which represents 0.20 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 02/17/2004 at 05:00 PM the average headway between the vehicles was 9.68 seconds. The slowest traffic period was on 02/18/2004 at 02:00 AM. During this slowest period, the average headway was 720.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 21 and 50 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.