

CITY OF KEARNEY
TRANSPORTATION PLAN UPDATE – PHASE II
KEARNEY, NEBRASKA

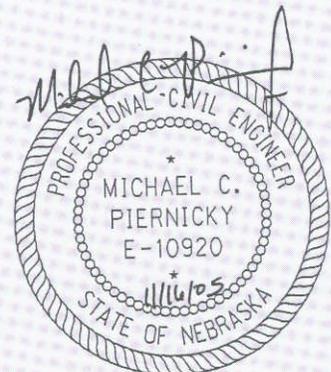
Report

Prepared for:
City of Kearney

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OA Project No. 2003-0493



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1.0 INTRODUCTION

This report documents the results of a comprehensive traffic study conducted for Phase II of the City of Kearney Transportation Plan Update. The Phase II study was conducted to evaluate more detailed traffic characteristics throughout the City of Kearney. Large-scale data collection efforts and analyses were performed to define current peak period operations on the major corridors in the City.

Specifically, there were two primary objectives to this study. One objective was to evaluate existing posted speed limits throughout the City and recommend modifications to existing posted speed limits based upon statistical support, field review, and other analysis criteria. The other objective was to analyze traffic signal synchronization along major thoroughfares including 2nd Avenue (Highway 10), 25th Street (Highway 30), and 39th Street. Based on these analyses, updated traffic signal timing plans were developed for the three corridors. These timing plans were developed for the AM, Noon, and PM peak periods of traffic flow. A map of the City of Kearney, which highlights the major street corridors, is illustrated in Figure 1.

2.0 DATA COLLECTION

A detailed data collection effort was conducted for this project. The following sections summarize the various data collection tasks.

2.1 Historical Crash Data

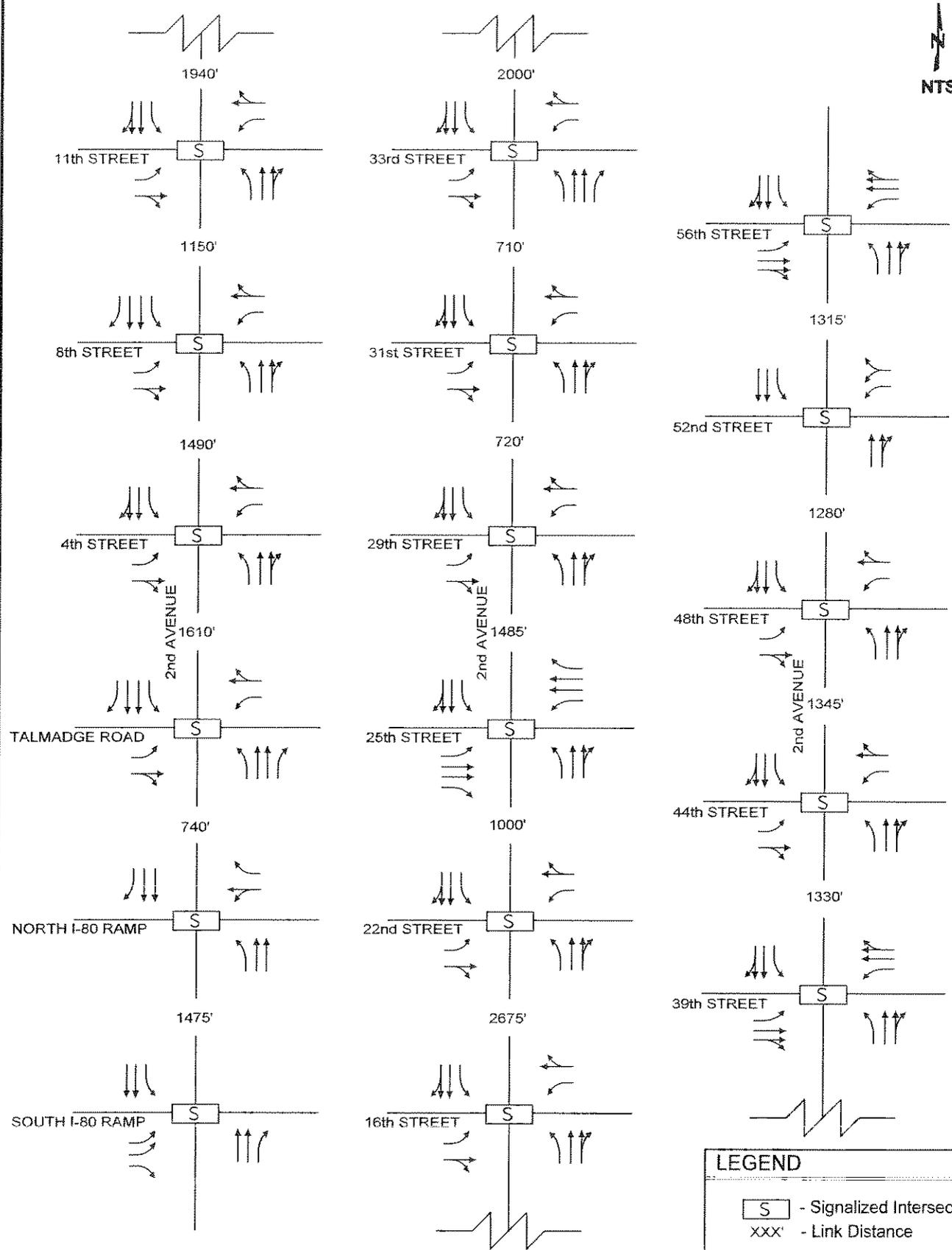
Historical crash data was obtained from the Nebraska Department of Roads (NDOR), the City of Kearney, and surrounding law-enforcement agencies. This information was used to evaluate high crash patterns, to help select spot speed study locations, and potential geometric improvements.

2.2 Spot Speed Studies

Speed study locations were determined by weighing a number of criteria including: speed limit signage inconsistencies, field observations, crash records, and recent roadway modifications. Based upon recommended data collection locations by OA, City staff selected 50 locations to be studied. Spot speed studies were conducted at each of these locations under normal free-flow conditions.

2.3 Intersection and Roadway Geometrics

Intersection geometrics were noted on field sketches of every intersection studied. The existing lane configurations and traffic control are illustrated in Figures 2, 3, and 4. Other information collected that is not shown in the figures includes: length of storage bays (exclusive turn-lanes) and documentation of traffic signal heads.



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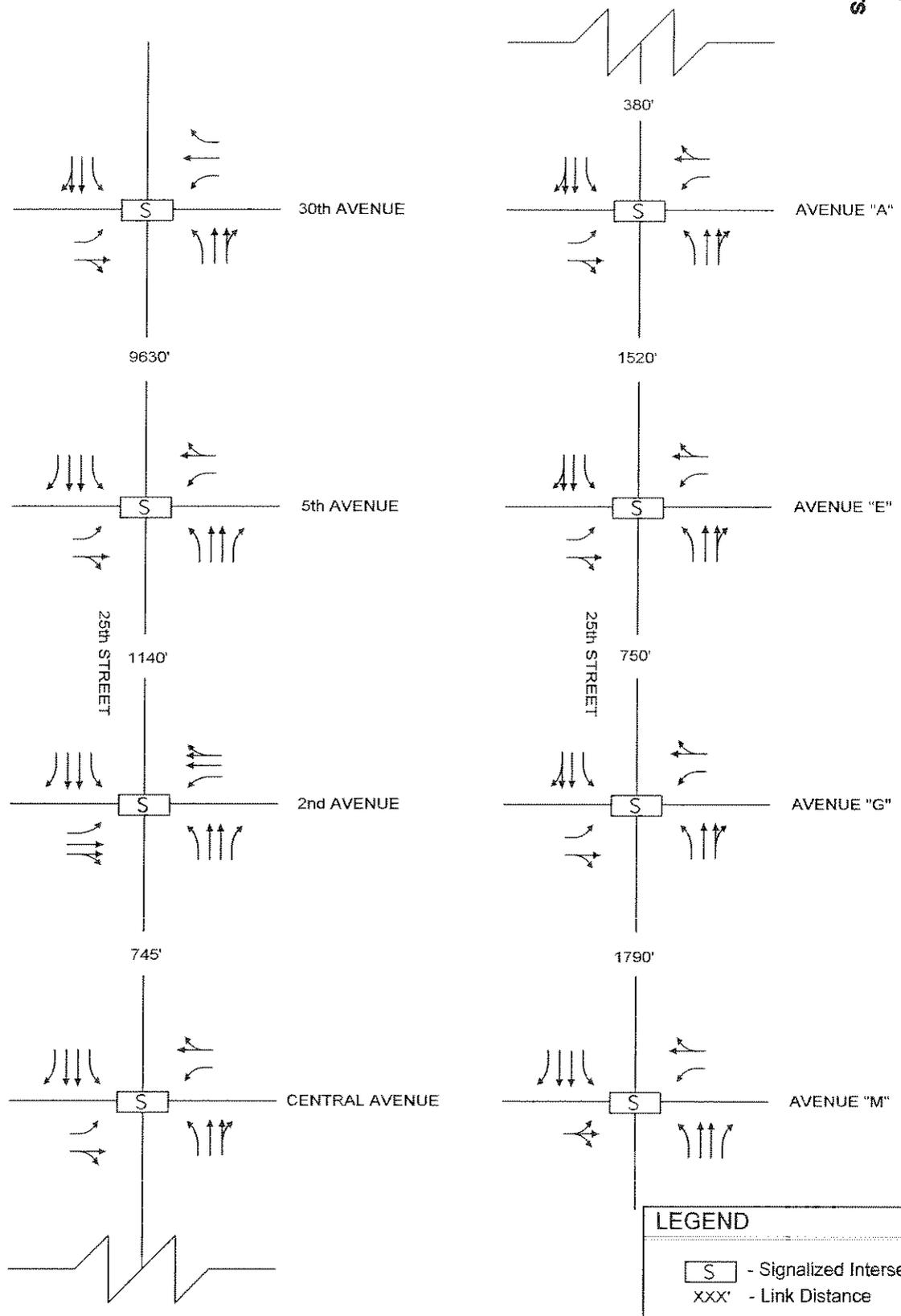
S - Signalized Intersection
xxx' - Link Distance

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**2nd Avenue Existing
Lane Configurations and Traffic Control**

**FIGURE
2**



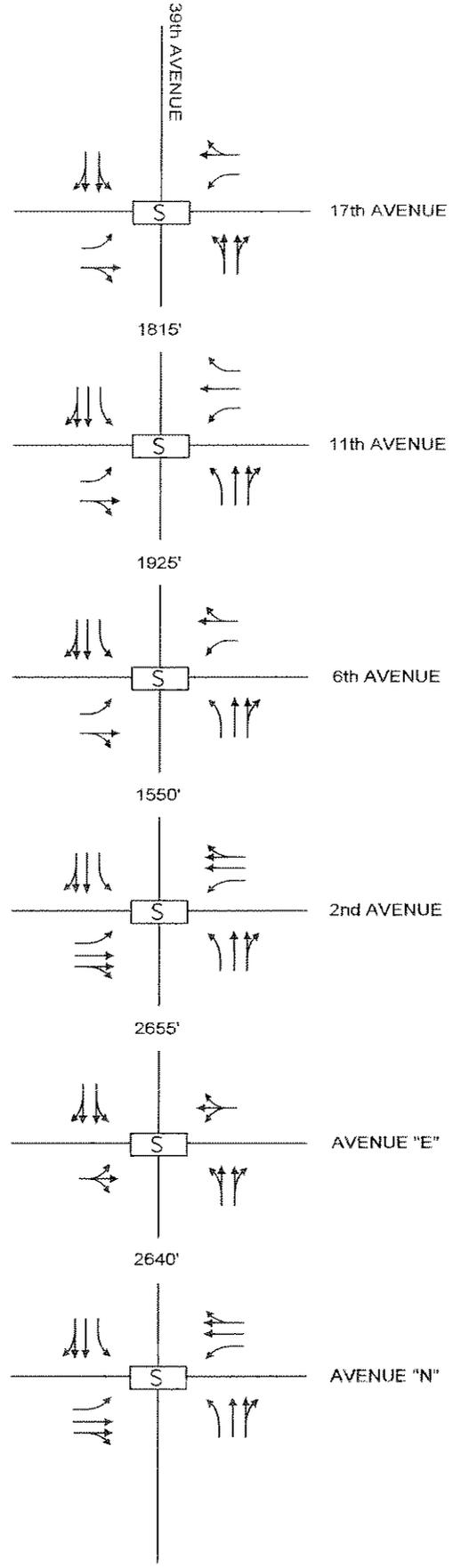
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S	- Signalized Intersection
xxx'	- Link Distance

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**25th Street Existing
Lane Configurations and Traffic Control**

**FIGURE
3**



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S - Signalized Intersection

xxx' - Link Distance

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39th Street Existing
Lane Configurations and Traffic Control

FIGURE
4

2.4 Peak Period Traffic Counts

OA staff conducted in excess of 60 peak period traffic counts at signalized intersections along the three study corridors. A total of 28 intersections were evaluated for traffic signal timing modifications. Traffic counts were conducted during the hours of 7:00 – 9:00 AM, 11:00 AM – 2:00 PM, and 3:00 – 6:00 PM. Traffic count data was also supplied by City of Kearney and the NDOR for recent count locations. Appendix A contains figures showing the peak hour (AM, NOON, and PM) turning movement volumes for all three corridors.

2.5 Traffic Signal Timing and Phasing Information

Existing traffic signal timing plans were obtained from NDOR and the City of Kearney. This information was used to conduct existing conditions analyses and develop simulations of “before” conditions so that the updated timing plans could be compared. These provided insight to existing cycle lengths and phasing characteristics.

2.6 Travel Time Studies

OA staff conducted travel time studies of all three corridors for both directions of travel during the three-peak periods. This task involved driving the corridors consistent with adjacent vehicles in the traffic stream and documenting time data at signalized intersections and other selected key locations. This data will be useful in evaluating the new timing plans after a stabilization period.

2.7 Other Characteristics

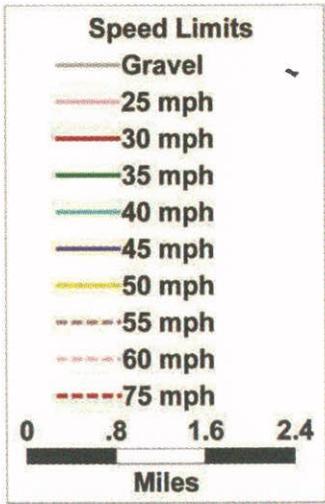
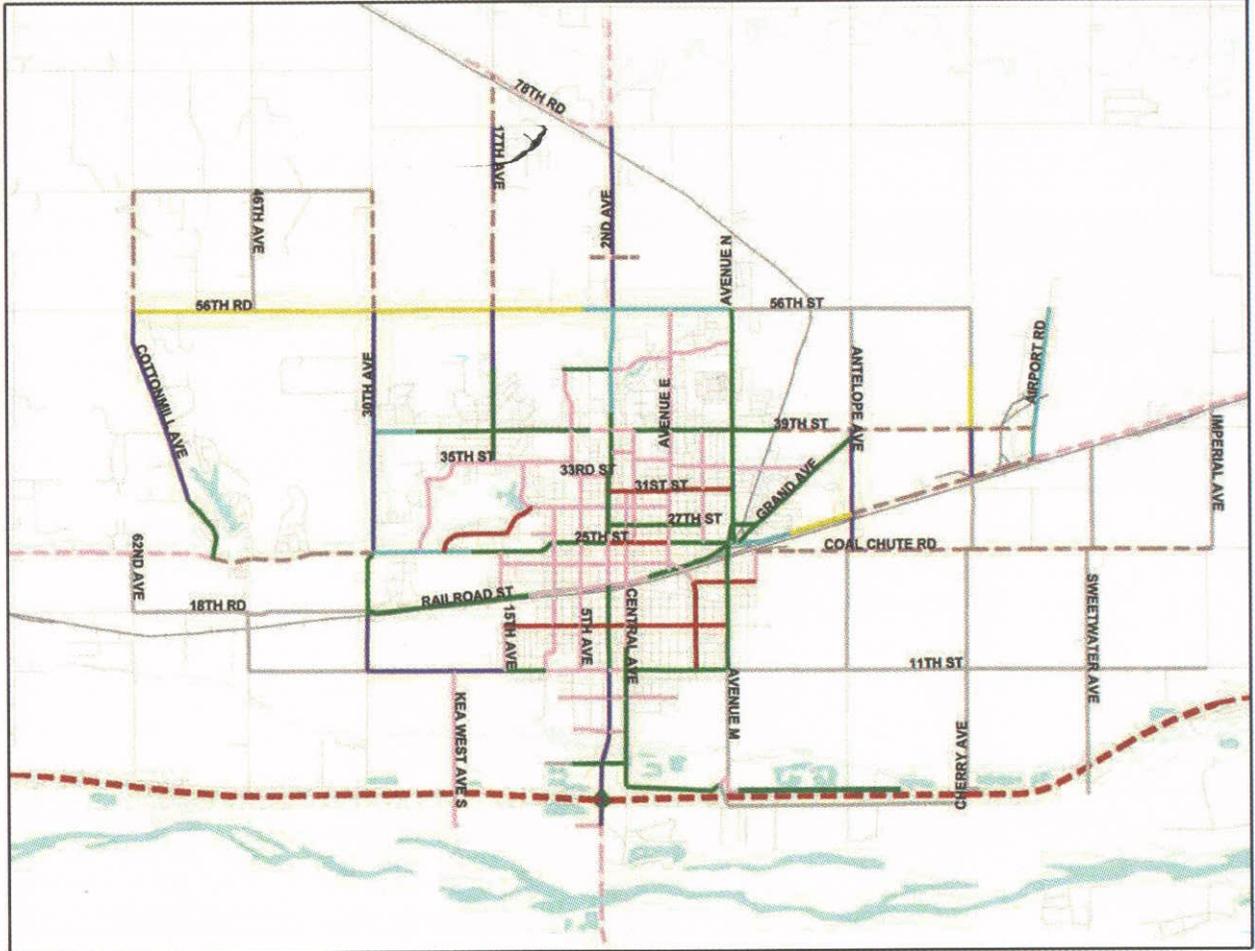
Other data collection information included Average Daily Traffic (ADT) volumes, documentation of saturated movements, queue lengths, and a photographic inventory.

3.0 SPOT SPEED STUDY

This section outlines the citywide speed limit evaluation. Appendix B contains statistical spot speed information and raw data used during analysis. The existing speed zones are illustrated in Figure 5. The speed study documentation contained in this report is intended to replace the Speed Limit Evaluation Technical Memorandum (January 2005). Since that time, some existing speed limits and roadway sections have changed in addition to other variables.

3.1 Speed Limit Analysis

Raw field data was downloaded into a spreadsheet file yielding statistical outputs. The 85th percentile speed, pace, median speed, mean speed, mode speed, and standard deviation are included in copies of the spreadsheet files included in Appendix B.



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Existing Speed Limits

FIGURE
5

Appendix B also contains a table listing functional classification, posted, 85th percentile, and mean speed, pace, and percent compliance by data collection location. Analysis identified that traffic generally travels within 4 mph of the posted speed limit at the majority of the locations. Locations where the speeds differed by 5 mph or more were evaluated in more detail. This "second look" involved the functional classification of the roadway, its characteristics (width, surface, grade, alignment, sight distance, parking), and surrounding land use (schools, parks, etc.). These locations were reviewed in plan and in the field during normal operations. Other recommendations were based upon field observations and traffic engineering criteria.

3.2 Speed Limit Recommendations

Based upon the analysis, recommendations regarding changes to six speed limit zones were identified. The recommended speed limit modifications are outlined in more detail below.

2nd Avenue

This street serves as a principal arterial. Currently, there is a 25 mph speed zone (22nd Street to 26th Street) where motorists are generally exceeding the posted speed limit. A 30 mph zone is recommended to replace the 25 mph zone.

25th Street

Also a principal arterial, motorists are generally exceeding the posted speed by over 5 mph between Avenue A and Avenue D. A 35 mph zone is recommended to replace the 30 mph zone from 2nd Avenue to Avenue D. This will allow better progression of through traffic and allow motorists to maintain a consistent speed.

30th Avenue

This roadway serves as Kearney's continuous north/south connector on the west side of the City. This facility has undergone recent improvements and data supports increasing the existing speed limit of 45 mph to 50 mph between 39th Street and 56th Street. The improvements on 30th Avenue include the north leg of the intersection with 24th Street. Due to the traffic signal and roadway alignment, it is recommended that the speed limit on 30th Avenue be set at 35 mph from 24th Street to approximately 800' north of 24th Street.

17th Avenue

Based on data collected and the low number of drives accessing 17th Avenue from 39th Street to 48th Street, an increase from 35 mph to 40 mph through this section is recommended.

Avenue N

Data was collected at three different locations along Avenue N. In all cases, there is support to raise the speed limit from 35 mph to 40 mph. This recommendation applies to the section of Avenue N from 27th Street to the north city limit.

39th Street

Many motorists were documented traveling in excess of the posted 35 mph zone between Avenue N and the RR crossing. Lower speeds are encouraged due to the stop sign at the RR crossing. However, pending the removal of the stop sign at that location, data and field conditions would support increasing the speed limit to 40 mph.

11th Street

This street is on a mile-grid and serves as a connection to rural areas. Traffic inbound to Kearney may travel at 50 mph on the gravel portion west of 30th Avenue. East of 30th Avenue, 11th Street is a paved road with minimal access (adjacent land use is agricultural). It is recommended that a 50 mph zone be established on 11th Street from 30th Avenue to Kea West Road. It is recommended that the 45 mph zone be kept between Kea West Road and 15th Avenue. Also, pending the completion of the 4-lane section just west of 2nd Avenue, a speed limit of 35 mph is recommended from Central Avenue to 9th Avenue.

Avenue E

The northern most section of Avenue E (48th Street to 56th Street) is not yet fully developed. Current data supports increasing the speed limit to 30 mph. In the future, this section should be monitored to identify at what point the speed limit should be returned to 25 mph.

48th Street

48th Street does not currently have a posted speed from 2nd Avenue to 6th Avenue. Based upon collected data, surrounding land use, roadway characteristics and the future connection to 30th Avenue, it is recommended that this segment be posted at 35 mph.

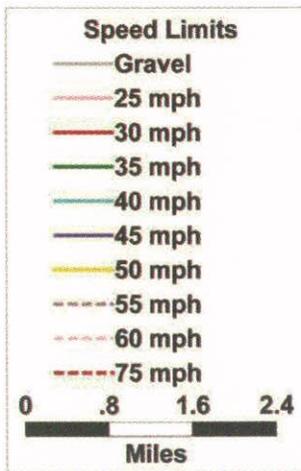
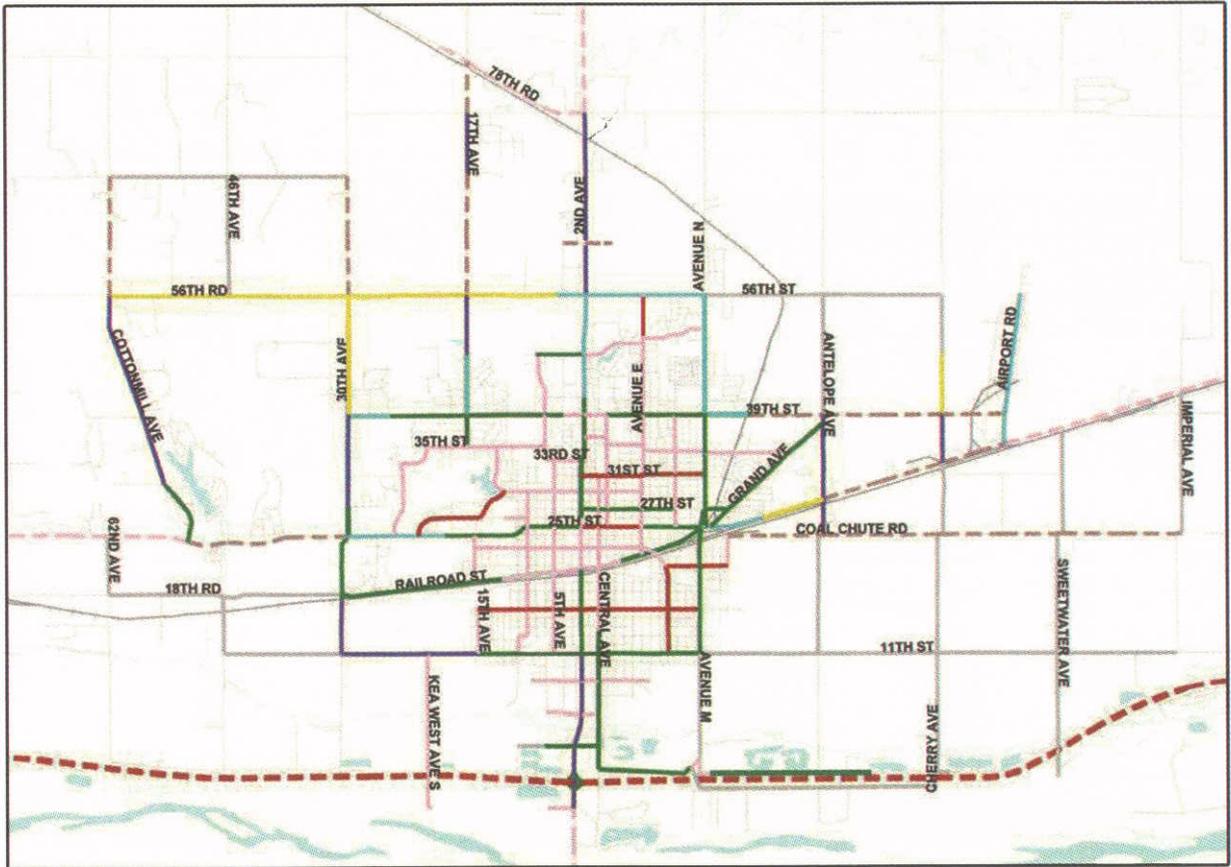
Railroad Street

A portion of Railroad Street near the edge of town currently serves higher speed traffic. A posted speed increase is recommended from 35 mph to 45 mph west of the bike path crossing to 30th Avenue.

Archway Parkway

An increase to 40 mph is recommended from Central Avenue to Avenue M, and from Avenue M to the Archway. Data was not collected on the segment between Avenue M and the Archway, however, field observations noted higher speeds on this long stretch of roadway with few access points. The 25 mph zone in the vicinity of Avenue M should be maintained due to tight curves and to provide adequate sight distances.

The recommended speed limit changes are assumed in the new traffic signal timing plans and are shown in Figure 6.



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4.0 EXISTING CONDITIONS SIGNAL TIMING

Many variables were calculated to accurately reflect the existing traffic conditions. These parameters were used to make comparisons to the potential traffic signal plans so that improvements could be measured and alternate plans evaluated.

4.1 Travel Time Analysis

The travel time data points were entered into a spreadsheet to be analyzed and summarized graphically. As expected, the most significant delays were encountered where the major arterials intersected. Boundaries for the travel time runs are as follows: 2nd Avenue – 58th Street to EB Ramp, 25th Street – pedestrian signal at 15th Avenue to Q Avenue, and 39th Street – 22nd Avenue to RR tracks. Table 1 summarizes the average travel times documented in the field. Appendix C provides more detailed figures of the travel time runs showing specific data points (distance vs. time) for each direction of travel on each thoroughfare during each peak period.

Table 1. Average Travel Times

	Travel Time (min)		
	AM	NOON	PM
2nd Avenue (NB)	10.1	11.9	12.3
2nd Avenue (SB)	9.6	9.5	11.6
25th Street (EB)	4.5	5.1	4.7
25th Street (WB)	4.7	5.1	5.0
39th Street (EB)	6.9	6.2	6.0
39th Street (WB)	6.9	6.0	6.7

Documenting the travel times allowed for calculations of average speeds as the data collection vehicle passed through the corridors. This average speed data has as much wider range of consistency between runs and can be attributed to stops, slowing between intersections, turning vehicles, heavy vehicles, and start-up time.

4.2 Capacity Analysis

Using the information obtained during the data collection tasks, an existing street network was analyzed to reflect the current operating conditions. The primary analysis software used was Synchro, version 6.0. Inputs include:

- Intersection spacing
- Speed limits
- Peak hour turning movement volumes
- Vehicle classification
- Lane geometrics
- Storage lengths
- Traffic signal timing plans

Once these items (and other data) have been entered, the software provides many different report types. One of the results of the Synchro analyses is letter assigned Level Of Service (LOS) designations. For simplicity, the amount of control delay is equated to a grade or LOS based on thresholds of driver acceptance. The amount of delay is assigned a letter grade A through F, LOS A representing little or no delay and LOS F representing very high delay.

Existing conditions capacity analysis results are consistent with field review operations. Through movements generally operate better than turning movements, and the larger delays are noted near major trip generators and in areas of close signal spacing. Appendix D contains figures summarizing the existing conditions capacity analysis results.

4.3 Measures Of Effectiveness

Another group of parameters produced by Synchro are Measures of Effectiveness (MOEs). In addition to delay calculations, MOEs include the number of stops, fuel consumption, and computed travel times. These results can be reported as totals or on a per-vehicle basis. Tables 2, 3, and 4 show the MOEs on a network and corridor basis for the Existing Conditions.

Table 2. AM Existing Conditions MOEs

		Delay (s/v)	Total Delay (hr)	Stops / Veh	# Stops	Speed (mph)	Travel Time (hr)	Fuel (gal)
Network	Existing	12	141	0.50	20935	24	456	677
2nd Avenue	Existing	9	51	0.45	8899	27	194	309
25th Street	Existing	9	20	0.43	3472	28	96	140
39th Street	Existing	19	33	0.68	4150	22	101	141

Table 3. NOON Existing Conditions MOEs

		Delay (s/v)	Total Delay (hr)	Stops / Veh	# Stops	Speed (mph)	Travel Time (hr)	Fuel (gal)
Network	Existing	13	182	0.52	25685	23	558	813
2nd Avenue	Existing	12	82	0.50	12496	25	266	410
25th Street	Existing	11	30	0.45	4677	27	126	183
39th Street	Existing	15	22	0.58	3103	24	82	115

Table 4. PM Existing Conditions MOEs

		Delay (s/v)	Total Delay (hr)	Stops / Veh	# Stops	Speed (mph)	Travel Time (hr)	Fuel (gal)
Network	Existing	13	209	0.52	28849	23	627	917
2nd Avenue	Existing	12	96	0.49	14012	25	302	467
25th Street	Existing	11	32	0.47	5133	26	132	192
39th Street	Existing	16	28	0.56	3598	24	99	137

5.0 UPDATED TRAFFIC SIGNAL TIMING

The approach to developing improved (better progression) traffic signal timing plans is outlined below. This task involved key analyses tasks to arrive at a recommended plan that provides improved network performance.

5.1 Control Section Development

Control sections are comprised of groups of intersections with homogenous traffic conditions for signal coordination purposes. Typical control section break points may be found where there is a large distance between signals, speed limit changes, and near major trip generators that have significant impact on traffic volumes, to list a few. A multi-step approach was used to determine control sections. First, the signals were reviewed for existing control sections. The existing control sections are:

2nd Avenue

- I-80 EB Ramp to 16th Street
- 29th Street to 33rd Street
- 39th Street to 56th Street

25th Street

- Central Avenue to Avenue M

39th Street

- 17th Avenue to 6th Avenue

Next, coupling indexes and coordinability factors were calculated to aid in the control section development process. The coupling index is directly related to volume and travel speed on the link, and inversely related to the length of the link as noted below:

$$CI = \left(\frac{(Volume)(Speed)}{Length} \right)$$

Coupling indexes were calculated using ADT, AM peak hour, NOON peak hour, and PM peak hour volumes. Generally, higher coupling index values will be grouped together. However, a lower coupling index does not necessarily indicate that an intersection should be excluded from a control section.

The coordinability factor is a measure of the desirability of coordinating intersections on a scale from 0 to 100. Selected Synchro reports provide coordinability factors. The factors are primarily meant to call attention to the different criteria that make coordination desirable or undesirable.

Appendix E contains tables showing coupling index and coordinability factor calculations. These calculations were used as a springboard to select control sections and to begin analyzing different traffic signal timing plans. Many groupings of control sections were evaluated including using the existing control sections, one control section encompassing each of the thoroughfares, and allowing the major intersections to run uncoordinated, to name a few.

Another factor in selecting control sections (and signal timing splits) is the cycle length. Intersections within the same control section must have the same cycle length. Otherwise it will be impossible to set consistent offsets that allow traffic to progress through a control section (or corridor).

Based on this analysis, and review of traffic patterns, five control sections were selected. However, they have been modified from the existing sections. The recommended control sections are as follows:

2nd Avenue

- I-80 EB Ramp to 16th Street
- 22nd Street to 33rd Street
- 39th Street to 56th Street

25th Street

- 5th Avenue to Avenue M

39th Street

- 17th Avenue to 2nd Avenue

5.2 Updated Signal Timing Plans

Building on the analysis and selection of control sections, updated timing plans were developed based on the following cycle lengths:

- AM peak period (7:00 – 9:00 am) – 70 seconds
- NOON peak period (11:00 am – 1:00 pm) – 75 seconds
- PM peak period (4:00 – 6:00 pm) – 75 seconds

One of the first modifications that were made involved the amount of “Walk” and “Don’t Walk” time allotted to pedestrians. Longer than necessary “Walk” times hinder the possibility of providing green time to the traffic in the opposing directions. The necessary flashing “Don’t Walk” times were calculated using existing lane widths and an accepted rate of 4 ft/sec for pedestrians. “Don’t Walk” times were reduced (where applicable) to match the calculated values. In addition to “Don’t Walk” reductions, “Walk” times were also evaluated. Pedestrian volumes were documented during the peak period turning movement counts. Data shows that pedestrian activity is minimal along 2nd Avenue and 25th Avenue. The heaviest pedestrian activity is near Kearney High School at 39th Street & 6th Avenue. Pedestrian “Walk” times were set to 5 – 7 seconds depending on activity.

To satisfy the major goal of this project, “move traffic on the study corridors,” green times were evaluated on the side streets. Intersection-by-intersection, for each peak period, side street green times were reduced to allow more of the cycle to be allotted to the thoroughfares. This reduction in side street green time did not extend beyond what is necessary to provide acceptable operations for these approaches. Side street green times were not the only phases reduced. Protected left-turn green times were also analyzed. Throughout the City, protected left-turn green times exist that exceed what is necessary to accommodate the given volume. This causes through vehicles to spend extra time on the mainline approaches. Giving this additional green time to the mainline traffic will again increase the possibility of progression through more intersections.

After green times were re-allotted, the street network was divided up into control sections to evaluate progression and bandwidth. Once control sections were broken up, intersection offsets were evaluated and optimized. The offset refers to the amount of time that passes from a reference time before each intersection begins the same phase of a cycle. This value is primarily dependent on travel time between intersections and phasing. Synchro allows the operator to “slide” intersection offsets to obtain an optimal offset for each intersection.

Once control sections, cycle lengths, allotted green times, and offsets were determined, the network was simulated and reviewed for deficiencies. After necessary adjustments were made, final traffic signal timing plans were selected. The updated AM, NOON, and PM peak period timing plans are reported in Synchro format in Appendices F, G, and H, respectively. Time-space diagrams for the Updated Timings may be found in Appendix I.

5.3 Capacity Analysis

Capacity analysis based on the Updated timing plans is summarized in Appendix J. The figures in Appendix J show a letter assigned LOS for each movement. Some movements are expected to operate at a lower LOS than existing conditions. The increased side street delay is due to a wider green band on the mainline which is necessary to attain better operations and progression where traffic volumes are heaviest.

5.4 Measures Of Effectiveness

MOEs were again reported via Synchro analysis. Comparing the Updated Timings MOEs to the Existing Conditions MOEs illustrates the improvements of the updated timing plans. These improvements include delay reductions, fewer stops, increased travel speed, decreased overall travel time, and reduced fuel consumption. Tables 5, 6, and 7 show a comparison of the MOEs for the Existing Conditions and Updated Timings.

Table 5. AM Updated Timings MOEs

		Delay (s/v)	Total Delay (hr)	Stops / Veh	# Stops	Speed (mph)	Travel Time (hr)	Fuel (gal)
Network	Existing	12	141	0.50	20935	24	456	677
	Updated Timings	9	108	0.43	17870	26	417	630
2nd Avenue	Existing	9	51	0.45	8899	27	194	309
	Updated Timings	6	32	0.34	6753	30	171	277
25th Street	Existing	9	20	0.43	3472	28	96	140
	Updated Timing	7	17	0.40	3263	30	90	138
39th Street	Existing	19	33	0.68	4150	22	101	141
	Updated Timings	13	22	0.55	3396	25	90	128

Table 6. NOON Updated Timings MOEs

		Delay (s/v)	Total Delay (hr)	Stops / Veh	# Stops	Speed (mph)	Travel Time (hr)	Fuel (gal)
Network	Existing	13	182	0.52	25685	23	558	813
	Updated Timings	11	146	0.43	21588	25	513	755
2nd Avenue	Existing	12	82	0.50	12496	25	266	410
	Updated Timings	7	51	0.36	8874	29	230	356
25th Street	Existing	11	30	0.45	4677	27	126	183
	Updated Timings	9	25	0.43	4483	29	118	179
39th Street	Existing	15	22	0.58	3103	24	82	115
	Updated Timings	12	18	0.51	2696	25	78	109

Table 7. PM Updated Timings MOEs

		Delay (s/v)	Total Delay (hr)	Stops / Veh	# Stops	Speed (mph)	Travel Time (hr)	Fuel (gal)
Network	Existing	13	209	0.52	28849	23	627	917
	Updated Timings	11	173	0.45	25224	25	582	860
2nd Avenue	Existing	12	96	0.49	14012	25	302	467
	Updated Timings	8	65	0.37	10633	28	265	414
25th Street	Existing	11	32	0.47	5133	26	132	192
	Updated Timings	9	28	0.45	4945	28	124	190
39th Street	Existing	16	28	0.56	3598	24	99	137
	Updated Timings	13	24	0.54	3463	25	95	133

6.0 ALTERNATIVE NETWORK CONDITIONS

During the course of this project, many network deficiencies were noted. Data collection, field reviews, analysis, and discussions with City staff brought forth these concerns. Identified improvements include adding turn-lanes and modifying existing protected/permitted left-turn phasing. As these improvements were discussed, OA and City staff decided to further investigate the possible benefits of making network modifications and a corresponding traffic signal timing plan. The investigation is described below. The result of the analysis included timing plans and new MOEs for the Alternative Network. Only one Alternative Network timing plan is reported although many scenarios were analyzed. City staff, analysis, and anticipated public concerns helped to refine the reported Alternative Network scenario.

6.1 Turn-lane Additions & Modifications

Additional lanes add capacity to an intersection. Auxiliary turn-lanes remove turning vehicles from the mainline traffic. This is beneficial to traffic progression because the slower moving vehicles making turns no longer hinder the through traffic.

Exclusive right-turn lanes allow more motorists the opportunity to make a right-turn on the "red". This is not possible when the lead vehicle in a shared through/right-turn lane desires to go straight. Another benefit of additional turn lanes is shorter queues. Long vehicle queues can cause blocking of near-by intersections and driveways. They also lead to inefficient operations due to headway growth.

It is standard practice to not implement shared through/left-turn lanes at signalized intersections especially on a major street. These types of lanes increase the overall delay experienced and present safety concerns by increasing the potential of crashes.

In addition to new auxiliary lane implementation, a number of existing left-turn storage bays were identified that are near or exceeding capacity during peak periods. Left-turn bay storage length calculations were conducted in accordance with NDOR methodology for all left-turn lanes using existing volumes. Left-turn bay storage extensions are included in the "recommendations" section that follows.

6.2 Left-turn Phasing Modifications

Protected left-turn green times were reduced to form the new timing plans. However, many of the existing protected left phases are not warranted. Protected left phases reduce green time for the thru movement. While they are perceived as a great benefit to left-turning vehicles, permitted phasing can often provide equal or better operations.

As a guideline, a cross product can be calculated to assist in the determination of left-turn phasing needs. Peak hour volumes are used for this calculation. The cross product involves multiplying the left-turn volume by the opposing through volume. For example, if the northbound left-turn volume is 25 vehicles per hour, and the southbound through volume is 500 vehicles per hour, the northbound left-turn cross product would be:

$$CP = (25)(500) = 12,500$$

All left-turn cross products were calculated at each intersection during all peak hours. The cross products can be found in Appendix K.

Often in major urban areas, protected left phasing is considered as the cross product value approaches 100,000. This statistic is merely a starting point and can be adjusted as desired. During analysis, a cross product cut off of approximately 60,000 was selected. In meetings with City staff, protected left-turn phase removals were discussed by location. Based on this discussion, some protected left-turn phases were retained that may have otherwise been removed.

6.3 Recommendations

The following list contains recommended turn-lane additions, left-turn bay extensions, and left-turn phasing modifications based on existing volumes, street classification, field observation, cross product calculations, and meeting discussions.

2nd Avenue & 56th Street

- Add northbound right-turn lane
- Add eastbound right-turn lane
- Add westbound right-turn lane

2nd Avenue & 52nd Street

- Add northbound right-turn lane
- Extend westbound left-turn bay

2nd Avenue & 48th Street

- Add northbound right-turn lane
- Add southbound right-turn lane
- Extend eastbound left-turn bay
- Extend westbound left-turn bay
- Remove eastbound protected left-turn phase
- Remove westbound protected left-turn phase

2nd Avenue & 44th Street

- Add northbound right-turn lane
- Extend eastbound left-turn bay
- Extend westbound left-turn bay

2nd Avenue & 39th Street

- Add northbound right-turn lane
- Add southbound right-turn lane
- Add eastbound right-turn lane
- Add westbound right-turn lane
- Extend northbound left-turn bay
- Extend southbound left-turn bay
- Extend eastbound left-turn bay
- Extend westbound left-turn bay

2nd Avenue & 33rd Street

- Remove southbound protected left-turn phase

2nd Avenue & 31st Street

- Add northbound right-turn lane
- Extend southbound left-turn bay
- Extend eastbound left-turn bay
- Extend westbound left-turn bay
- Remove northbound protected left-turn phase

2nd Avenue & 29th Street

- Add southbound right-turn lane
- Extend eastbound left-turn bay
- Remove southbound protected left-turn phase

2nd Avenue & 25th Street

- Add northbound right-turn lane
- Add southbound right-turn lane
- Extend eastbound left-turn bay
- Extend westbound left-turn bay

2nd Avenue & 22nd Street

- Add westbound right-turn lane
- Extend northbound left-turn bay
- Extend eastbound left-turn bay
- Extend westbound left-turn bay

2nd Avenue & 16th Street

- Add southbound right-turn lane
- Extend eastbound left-turn bay
- Extend westbound left-turn bay
- Remove northbound protected left-turn phase
- Remove eastbound protected left-turn phase
- Remove westbound protected left-turn phase

2nd Avenue & 11th Street

- Extend northbound left-turn bay
- Extend southbound left-turn bay
- Extend eastbound left-turn bay
- Extend westbound left-turn bay

2nd Avenue & 8th Street

- Add northbound right-turn lane
- Extend eastbound left-turn bay
- Extend westbound left-turn bay
- Remove northbound protected left-turn phase
- Remove southbound protected left-turn phase

2nd Avenue & 4th Street

- Add northbound right-turn lane
- Remove northbound protected left-turn phase

2nd Avenue & Talmadge Road

- Remove northbound protected left-turn phase
- Remove southbound protected left-turn phase
- Remove eastbound protected left-turn phase
- Remove westbound protected left-turn phase

2nd Avenue & I-80 WB Ramp

- Remove northbound protected left-turn phase

25th Street & Central Avenue

- Extend westbound left-turn bay

25th Street & Avenue A

- Extend northbound left-turn bay
- Remove eastbound protected left-turn phase
- Remove westbound protected left-turn phase

25th Street & Avenue E

- Add northbound right-turn lane
- Add eastbound right-turn lane
- Add westbound right-turn lane
- Extend northbound left-turn bay
- Extend southbound left-turn bay
- Extend eastbound left-turn bay

25th Street & Avenue M

- Extend eastbound left-turn bay
- Extend westbound left-turn bay
- Remove southbound protected left-turn phase

39th Street & 17th Avenue

- Add westbound right-turn lane
- Add eastbound left-turn lane
- Add westbound left-turn lane
- Extend northbound left-turn bay
- Extend southbound left-turn bay
- Remove northbound protected left-turn phase
- Remove southbound protected left-turn phase

39th Street & 11th Avenue

- Remove eastbound protected left-turn phase

39th Street & 6th Avenue

- Add eastbound right-turn lane
- Add westbound right-turn lane
- Extend northbound left-turn bay
- Extend southbound left-turn bay
- Remove northbound protected left-turn phase
- Remove southbound protected left-turn phase
- Remove eastbound protected left-turn phase

39th Street & Avenue E

- Add eastbound right-turn lane
- Add northbound left-turn lane
- Add southbound left-turn lane
- Add eastbound left-turn lane
- Add westbound left-turn lane

39th Street & Avenue N

- Add northbound right-turn lane
- Add southbound right-turn lane
- Add eastbound right-turn lane
- Add westbound right-turn lane
- Extend northbound left-turn bay
- Extend eastbound left-turn bay

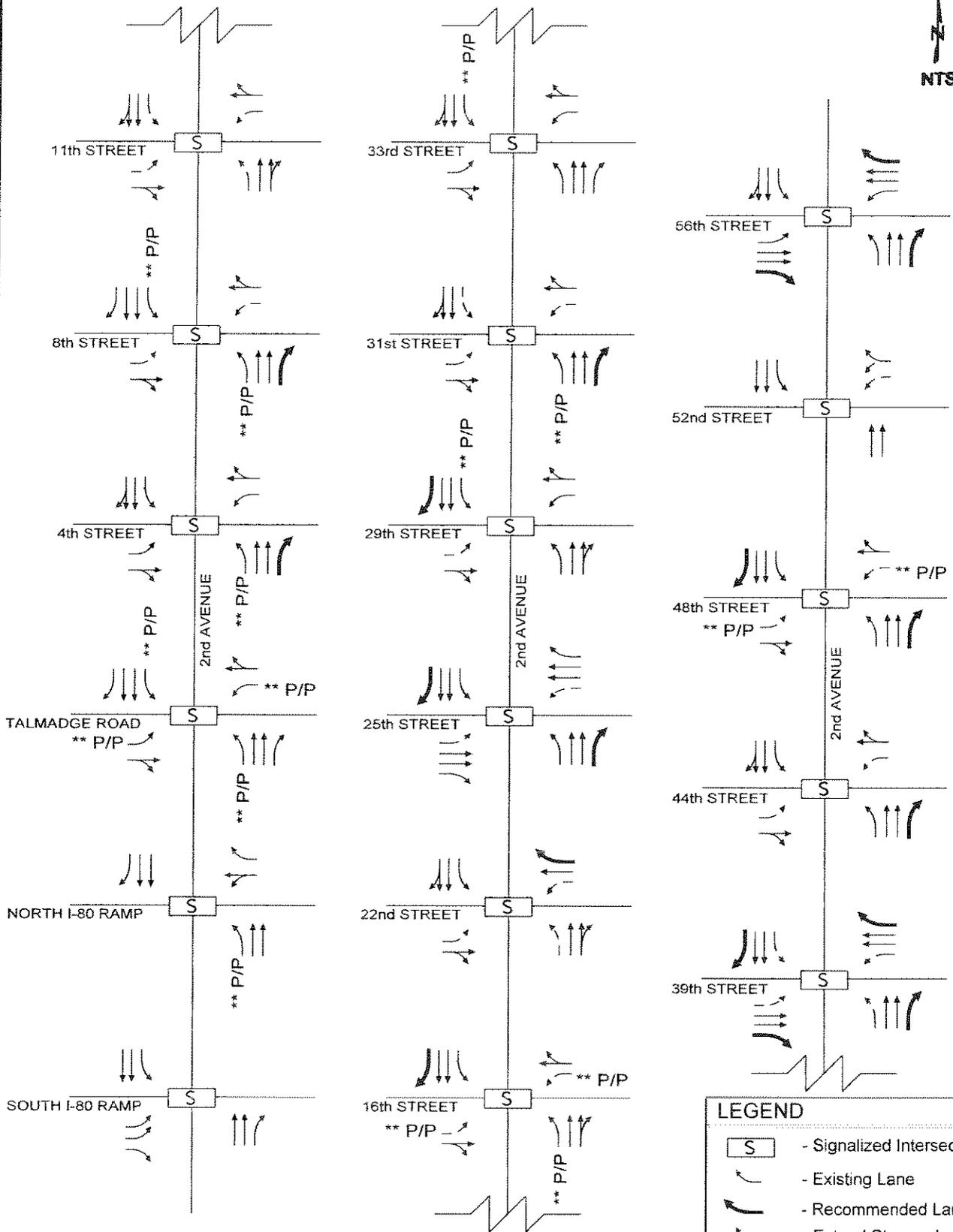
The recommended improvements for the Alternative Network are illustrated in Figures 7, 8, and 9.

6.4 Traffic Signal Timing

Once recommendations for an Alternative Network had been implemented into Synchro, a traffic signal timing plan was developed for each of the peak periods. This task involved selecting a cycle length and re-optimizing the network offsets. It should be noted that the timing plan and MOEs for this step assume that all recommended improvements are implemented. Analysis results will vary, as improvements would likely be made slowly over time. The Alternative Network timing plans are reported in the same format as the Updated Timings plans. Appendices L, M, and N contain these traffic signal timing plans. Time-space diagrams for the Alternative Network may be found in Appendix O.

6.5 Capacity Analysis

Capacity analysis based on the Alternative Network timing plans is summarized in Appendix P. The figures in Appendix P show a letter assigned LOS for each movement. Improved operations based upon assigned LOS letters can be noted throughout the network.



LEGEND

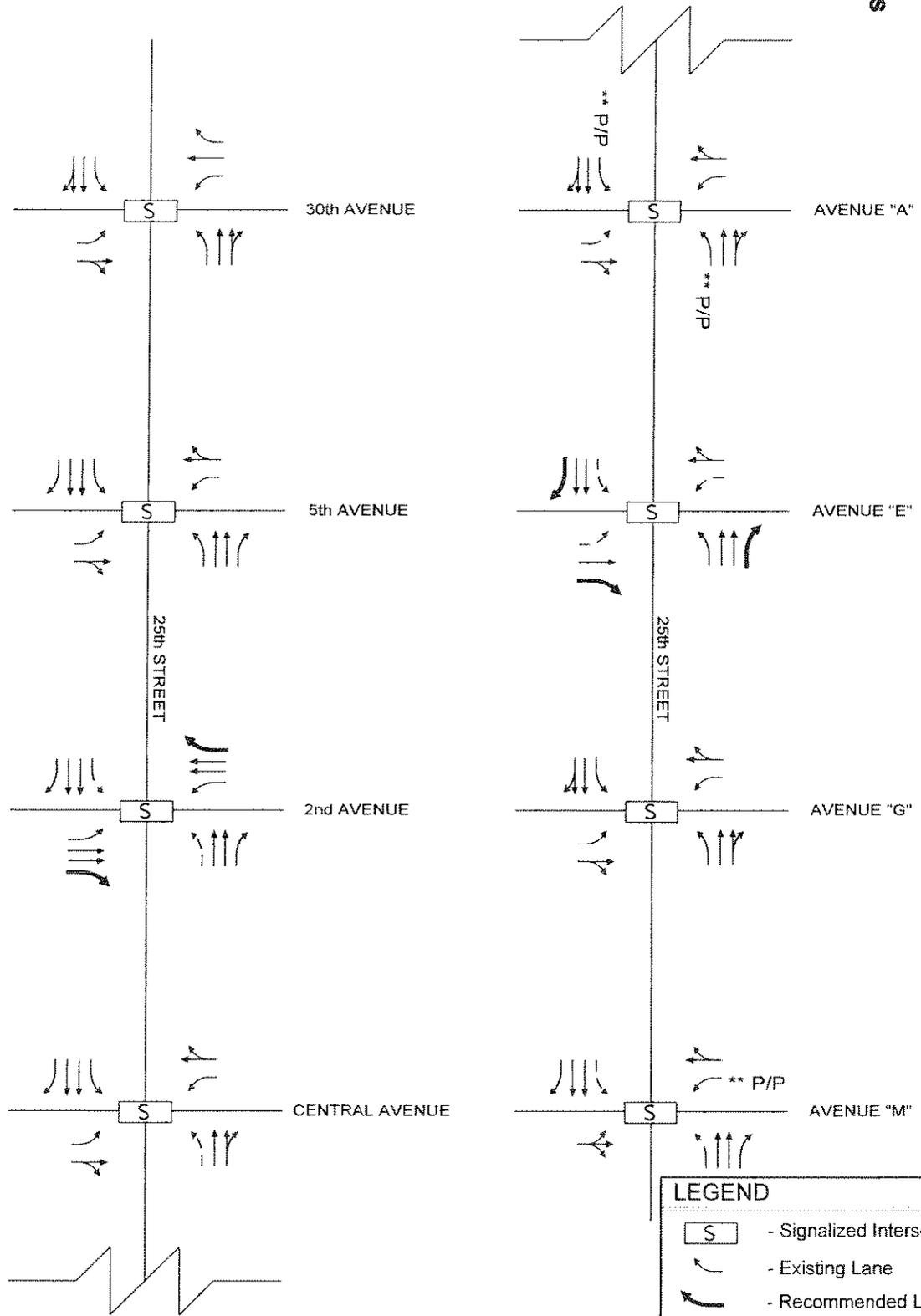
- S - Signalized Intersection
- Existing Lane
- Recommended Lane
- Extend Storage Length
- ** P/P** - Remove Protected Phase

I:\PROJECTS\20020493\TRAFFIC\06\ALT1\FIGURE5.DGN
 05/01/2005
 10:12:15 AM



**2nd Avenue Alternative Network
Lane Configurations and Traffic Control**

**FIGURE
7**



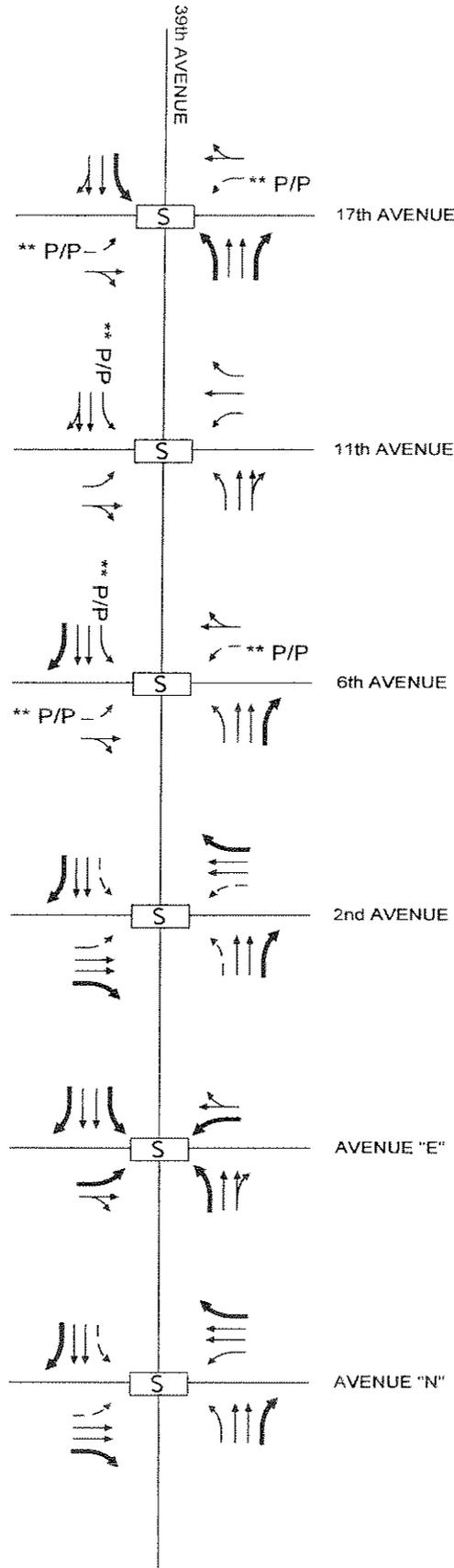
LEGEND	
	- Signalized Intersection
	- Existing Lane
	- Recommended Lane
	- Extend Storage Length
	- Remove Protected Phase

F:\PROJECTS\2003084\31\TRAFFIC\ODONV\FIGURES.DGN
 09/01/2005
 10:12:20 AM



25th Street Alternative Network
Lane Configurations and Traffic Control

FIGURE
8



LEGEND	
	- Signalized Intersection
	- Existing Lane
	- Recommended Lane
	- Extend Storage Length
** P/P	- Remove Protected Phase

F:\PROJECTS\2003\04\93\TRAFFIC\DRAWING\FIGURES.DGN
 09/01/2005
 10:12:26 AM



OLSSON ASSOCIATES
ENGINEERS • PLANNERS • SCIENTISTS • SURVEYORS

39th Street Alternative Network Lane Configurations and Traffic Control

FIGURE
9

6.6 Measures Of Effectiveness

Again, MOEs were reported via Synchro. And again, improvements are noted in delay, stops, speed, travel time, and fuel consumption. Tables 8, 9, and 10 show a comparison of the MOEs for the Existing Conditions, Updated Timings, and Alternative Network.

Table 8. AM Alternative Network MOEs

		Delay (s/v)	Total Delay (hr)	Stops / Veh	# Stops	Speed (mph)	Travel Time (hr)	Fuel (gal)
Network	Existing	12	141	0.50	20935	24	456	677
	Updated Timings	9	108	0.43	17870	26	417	630
	Alternative Network	8	96	0.41	16920	27	405	614
2nd Avenue	Existing	9	51	0.45	8899	27	194	309
	Updated Timings	6	32	0.34	6753	30	171	277
	Alternative Network	5	26	0.33	6513	31	165	270
25th Street	Existing	9	20	0.43	3472	28	96	140
	Updated Timings	7	17	0.40	3263	30	90	138
	Alternative Network	6	14	0.35	2806	30	88	132
39th Street	Existing	19	33	0.68	4150	22	101	141
	Updated Timings	13	22	0.55	3396	25	90	128
	Alternative Network	11	18	0.51	3116	26	86	123

Table 9. NOON Alternative Network MOEs

		Delay (s/v)	Total Delay (hr)	Stops / Veh	# Stops	Speed (mph)	Travel Time (hr)	Fuel (gal)
Network	Existing	13	182	0.52	25685	23	558	813
	Updated Timings	11	146	0.43	21588	25	513	755
	Alternative Network	10	133	0.40	19695	26	500	730
2nd Avenue	Existing	12	82	0.50	12496	25	266	410
	Updated Timings	7	51	0.36	8874	29	230	356
	Alternative Network	6	43	0.31	7632	30	222	340
25th Street	Existing	11	30	0.45	4677	27	126	183
	Updated Timings	9	25	0.43	4483	29	118	179
	Alternative Network	8	22	0.39	4031	29	115	173
39th Street	Existing	15	22	0.58	3103	24	82	115
	Updated Timings	12	18	0.51	2696	25	78	109
	Alternative Network	11	16	0.48	2538	26	76	107

Table 10. PM Alternative Network MOEs

		Delay (s/v)	Total Delay (hr)	Stops / Veh	# Stops	Speed (mph)	Travel Time (hr)	Fuel (gal)
Network	Existing	13	209	0.52	28849	23	627	917
	Updated Timings	11	173	0.45	25224	25	582	860
	Alternative Network	10	151	0.41	23054	26	559	825
2nd Avenue	Existing	12	96	0.49	14012	25	302	467
	Updated Timings	8	65	0.37	10633	28	265	414
	Alternative Network	6	49	0.33	9357	30	250	390
25th Street	Existing	11	32	0.47	5133	26	132	192
	Updated Timings	9	28	0.45	4945	28	124	190
	Alternative Network	8	25	0.41	4558	29	122	185
39th Street	Existing	16	28	0.56	3598	24	99	137
	Updated Timings	13	24	0.54	3463	25	95	133
	Alternative Network	11	20	0.46	2958	26	90	127

7.0 COST SAVINGS

Based on MOE’s from this project, and automobile operation costs published by the Federal Highway Administration, calculations were conducted to estimate the benefits of retiming the traffic signals and implementing the recommended network. Table 11 shows the estimated cost savings over existing conditions for the two analyzed scenarios: Updated Timings, and Alternative Network. These cost savings were calculated using the AM, NOON, and PM peak periods (two hours each), and assume that the value of delay reduction is \$14/hour. Savings do not include non-peak hours or weekends.

Table 11. Peak Period Estimated Cost Savings

	Savings Over Existing (\$)		
	Daily	Weekly	Yearly
Updated Timings	2,940	14,700	764,400
Alternative Network	4,256	21,280	1,106,560

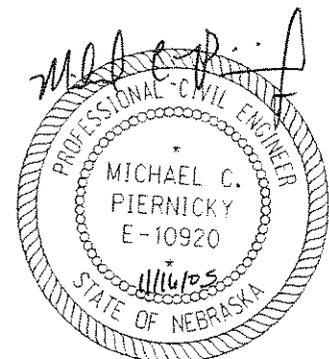
8.0 CONCLUSION

Three major deliverables with benefits to the City of Kearney were provided at the conclusion of this study and report. The completed speed limit study has confirmed existing speed limits as appropriate in most areas and provided specific recommended speed limit changes.

Updated peak period traffic signal timing plans have been developed for the major corridors within the City. These plans can be implemented and field-adjusted to better serve the increasing traffic flows. These timing plans are expected to have a number of benefits:

- Reduced driver delay
- Fewer vehicle stops
- Faster travel speed
- Lower travel times
- Lower fuel consumption
- Financial savings
- Enhanced air quality
- Reduced vehicle wear

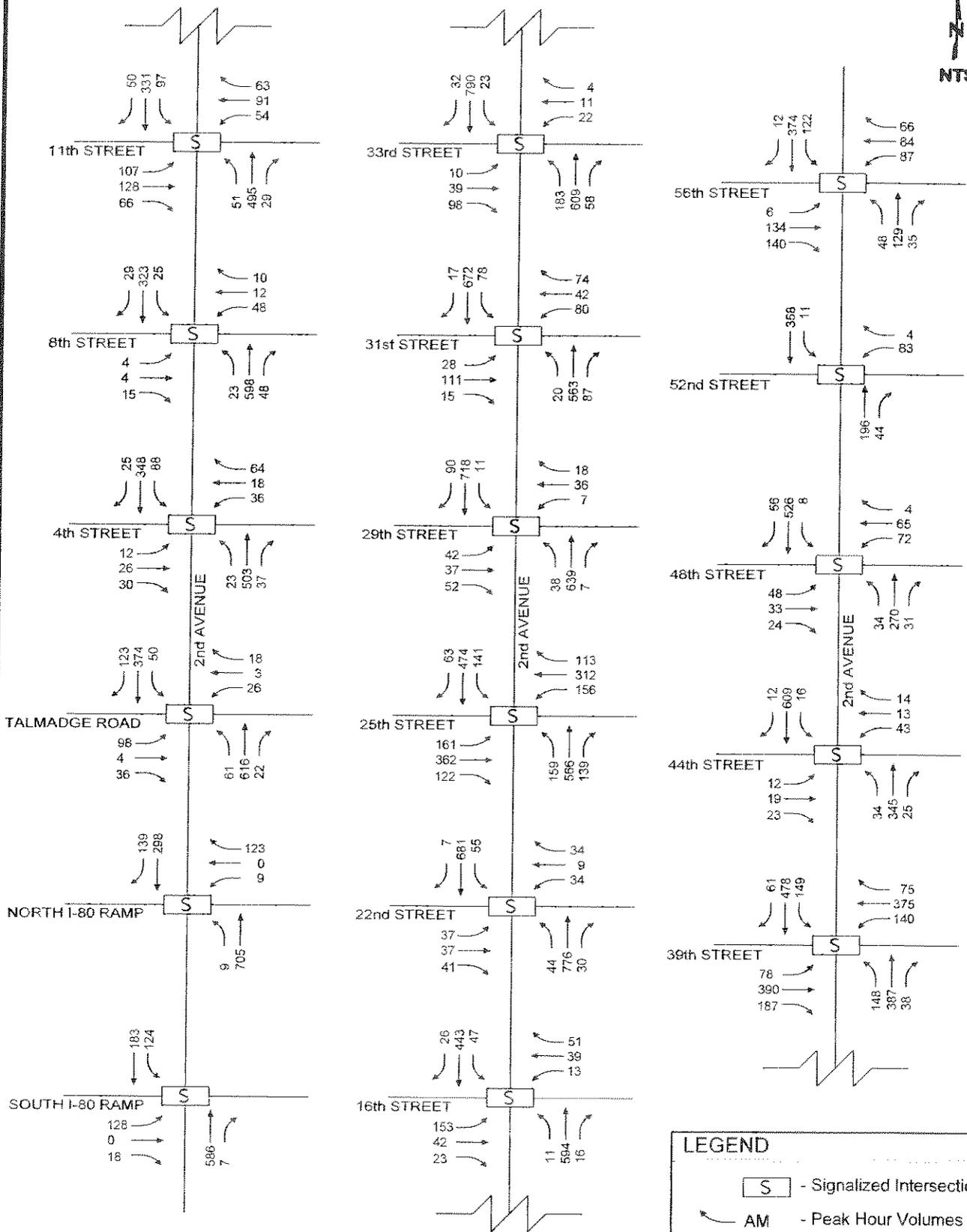
The Alternative Network evaluation provides the City with specific potential improvement projects that can be programmed to improve both individual intersection operations and overall corridor performance. Continued implementation of intersection improvements should be evaluated as volumes increase and timing/phasing updates are required. In addition, traffic signal interconnect should continue to be planned to provide communications between the specific traffic signal controllers at intersections. As new roadway and street projects are implemented, conduits and interconnect should be installed to help coordinate signal timing.



APPENDIX A

EXISTING TRAFFIC VOLUMES

- Figure A-1 2nd Avenue Existing AM Peak Hour Volumes
- Figure A-2 25th Street Existing AM Peak Hour Volumes
- Figure A-3 39th Street Existing AM Peak Hour Volumes
- Figure A-4 2nd Avenue Existing NOON Peak Hour Volumes
- Figure A-5 25th Street Existing NOON Peak Hour Volumes
- Figure A-6 39th Street Existing NOON Peak Hour Volumes
- Figure A-7 2nd Avenue Existing PM Peak Hour Volumes
- Figure A-8 25th Street Existing PM Peak Hour Volumes
- Figure A-9 39th Street Existing PM Peak Hour Volumes



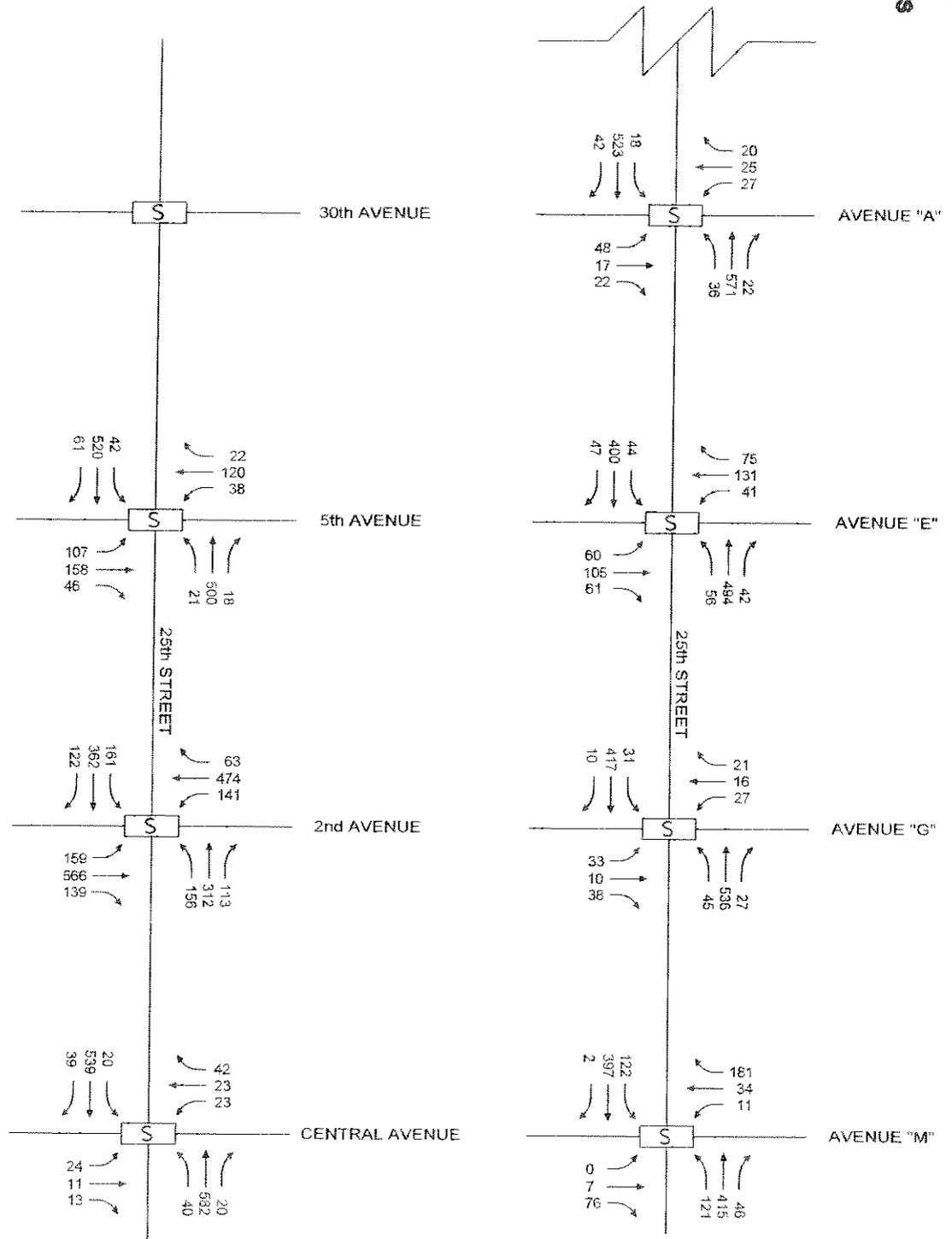
LEGEND

- S - Signalized Intersection
- AM - Peak Hour Volumes
- AM Peak = 7:15-8:15

2nd Avenue Existing AM
Peak Hour Volumes

FIGURE
A-1

F:\PROJECTS\20030419\THREE TECHNICAL EQUIPMENTS.DWG
 05/12/2005
 11:05:23 AM



LEGEND

- Signalized Intersection

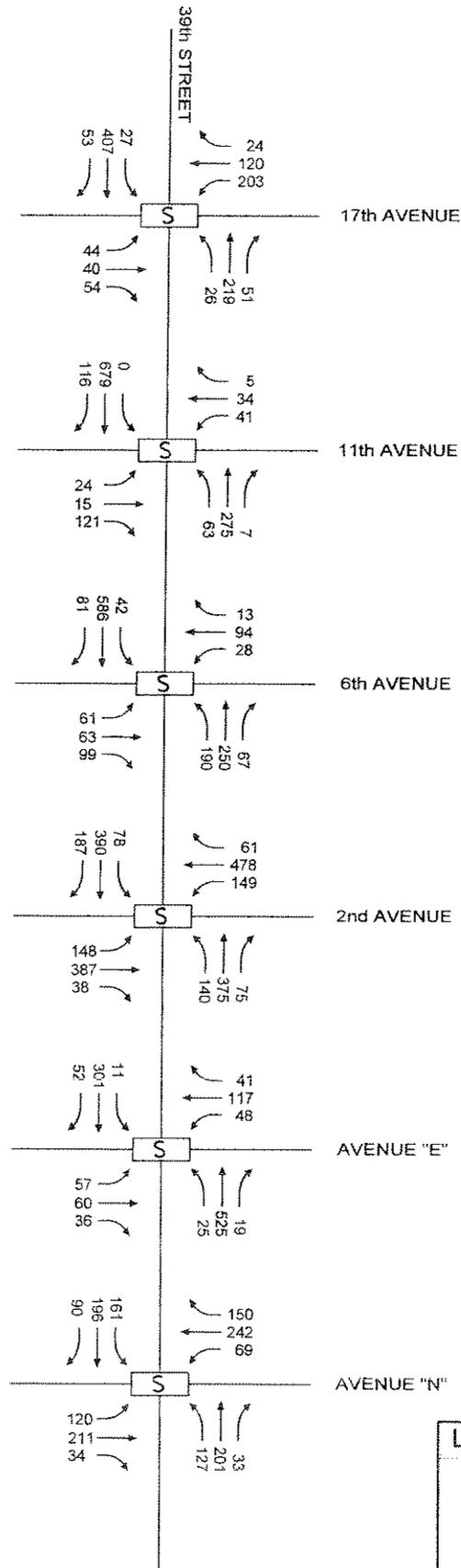
AM - Peak Hour Volumes
AM Peak = 7:15-8:15

PROJECT: 2007040403 TRAFFIC DESIGN ENGINEERING
 05/12/2005
 08:08:11



25th Street Existing AM Peak Hour Volumes

FIGURE A-2



LEGEND

- Signalized Intersection

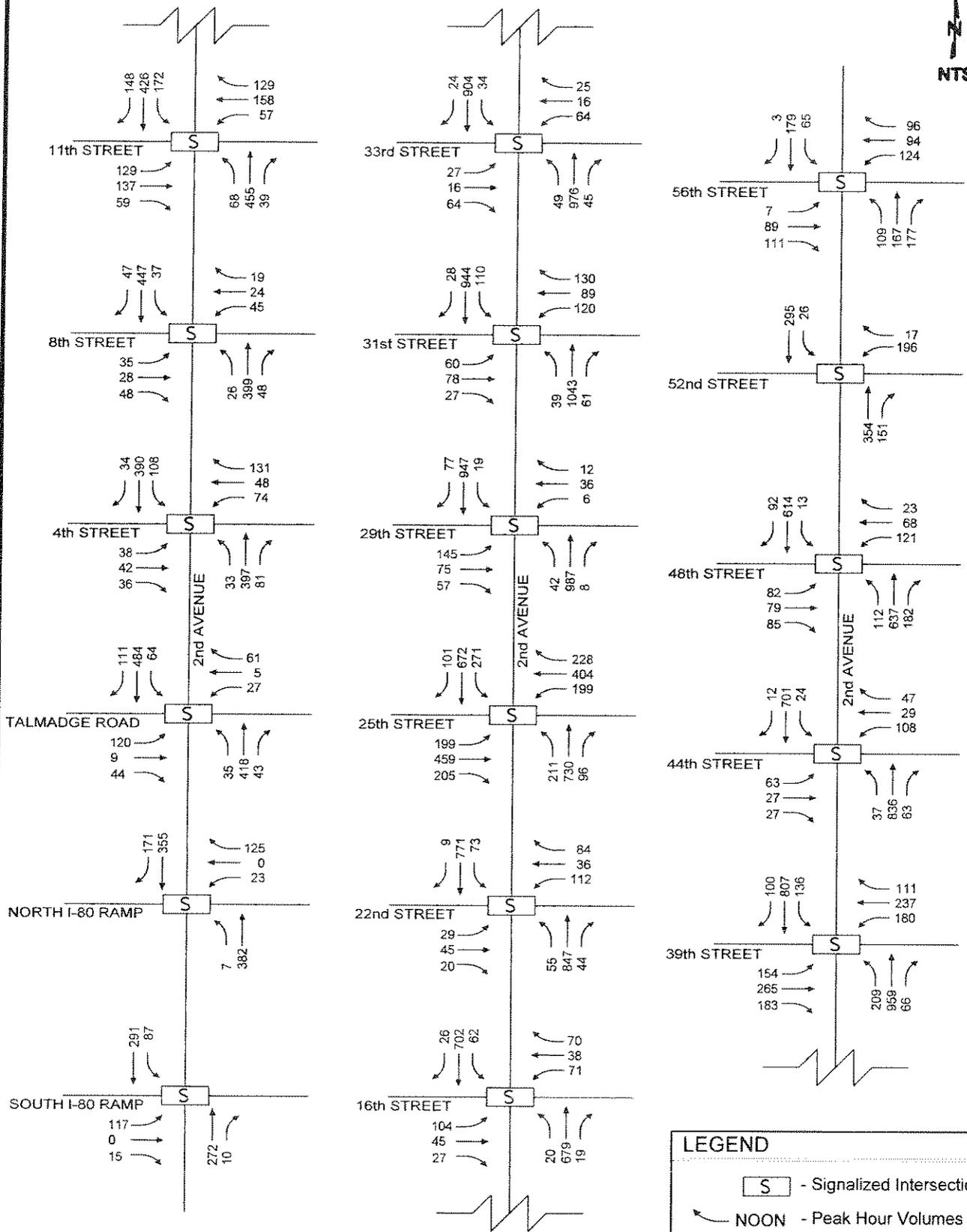
AM - Peak Hour Volumes
AM Peak = 7:15-8:15

39th Street Existing AM
Peak Hour Volumes

FIGURE
A-3

F:\PROJECTS\20030415\TRAFFIC\ADDN\FIGURES.DGN
 05/12/2005
 11:08:41 AM





LEGEND

S - Signalized Intersection

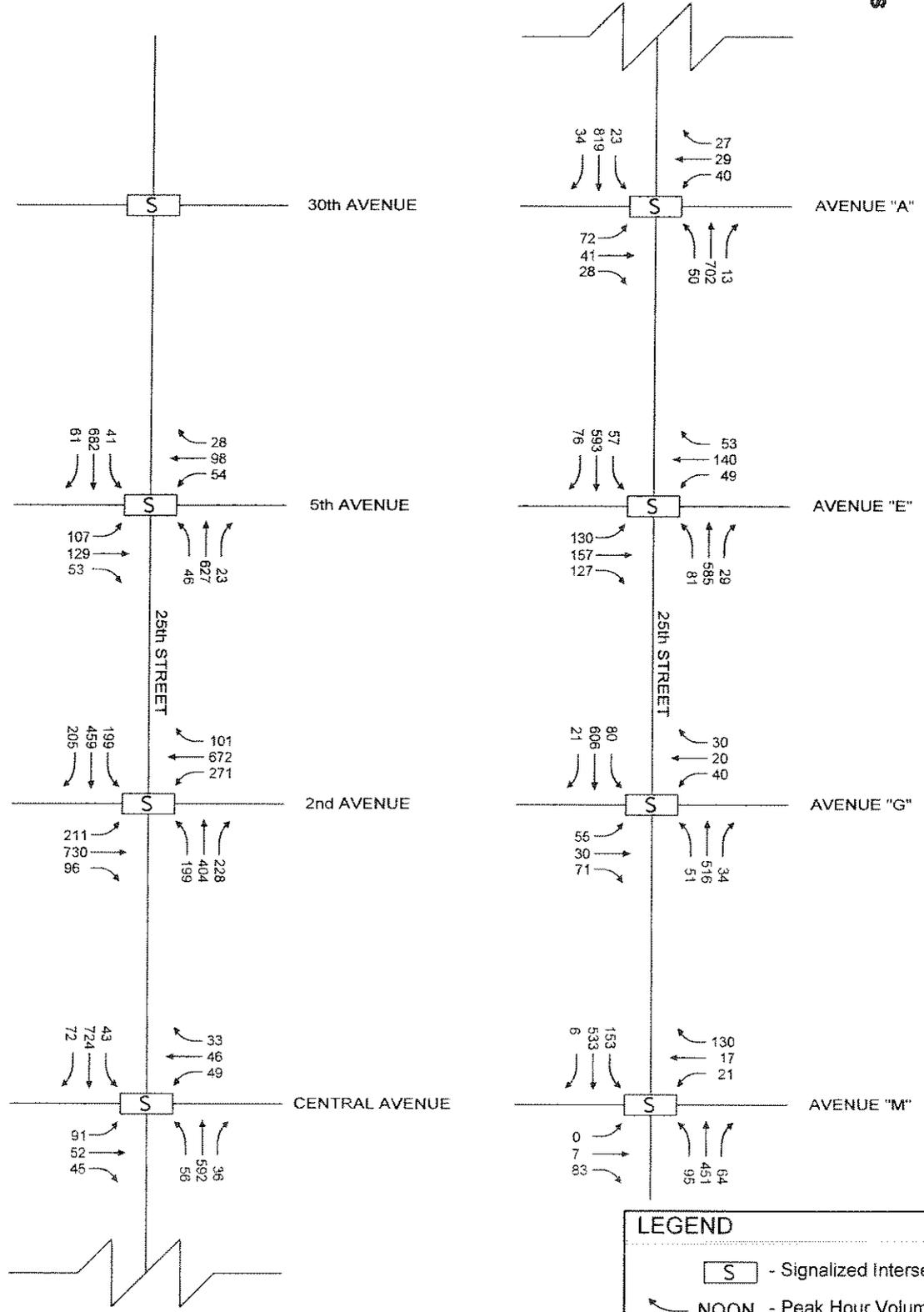
↔ NOON - Peak Hour Volumes
Noon Peak = 7:15-8:15

F:\PROJECTS\2002\0493\TRAFFIC\ADDMV\FIGURES.DGN
 05/12/2005
 11:06:54 AM



**2nd Avenue Existing NOON
Peak Hour Volumes**

**FIGURE
A-4**



LEGEND

S - Signalized Intersection

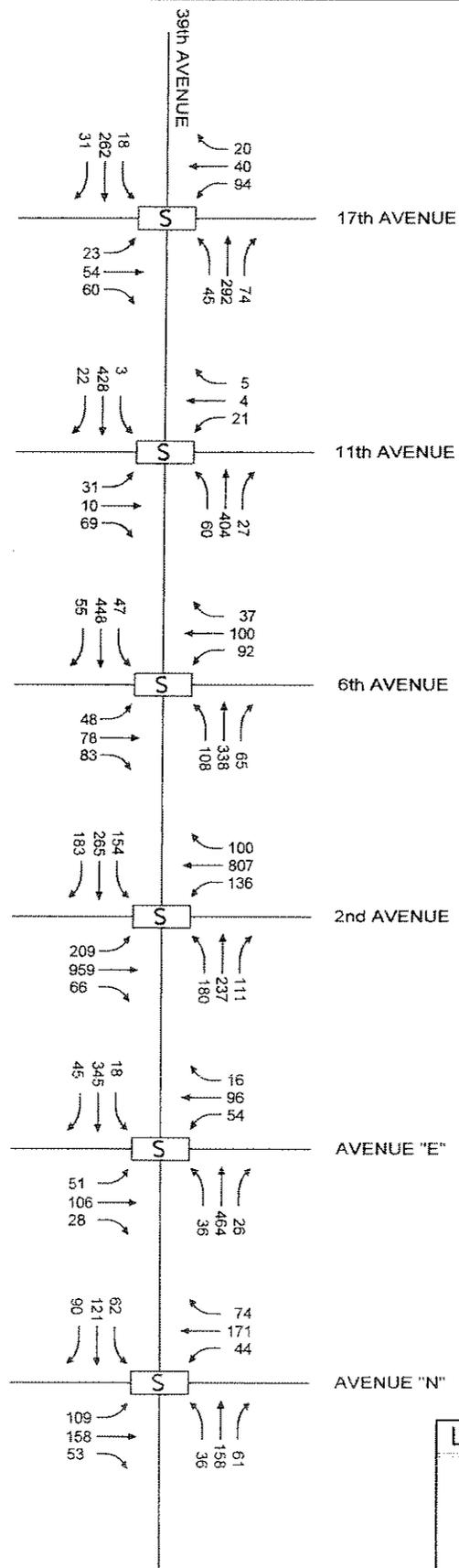
NOON - Peak Hour Volumes
Noon Peak = 7:15-8:15

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 05/12/2005 11:08:11 AM



**25th Street Existing NOON
Peak Hour Volumes**

**FIGURE
A-5**



LEGEND

- Signalized Intersection

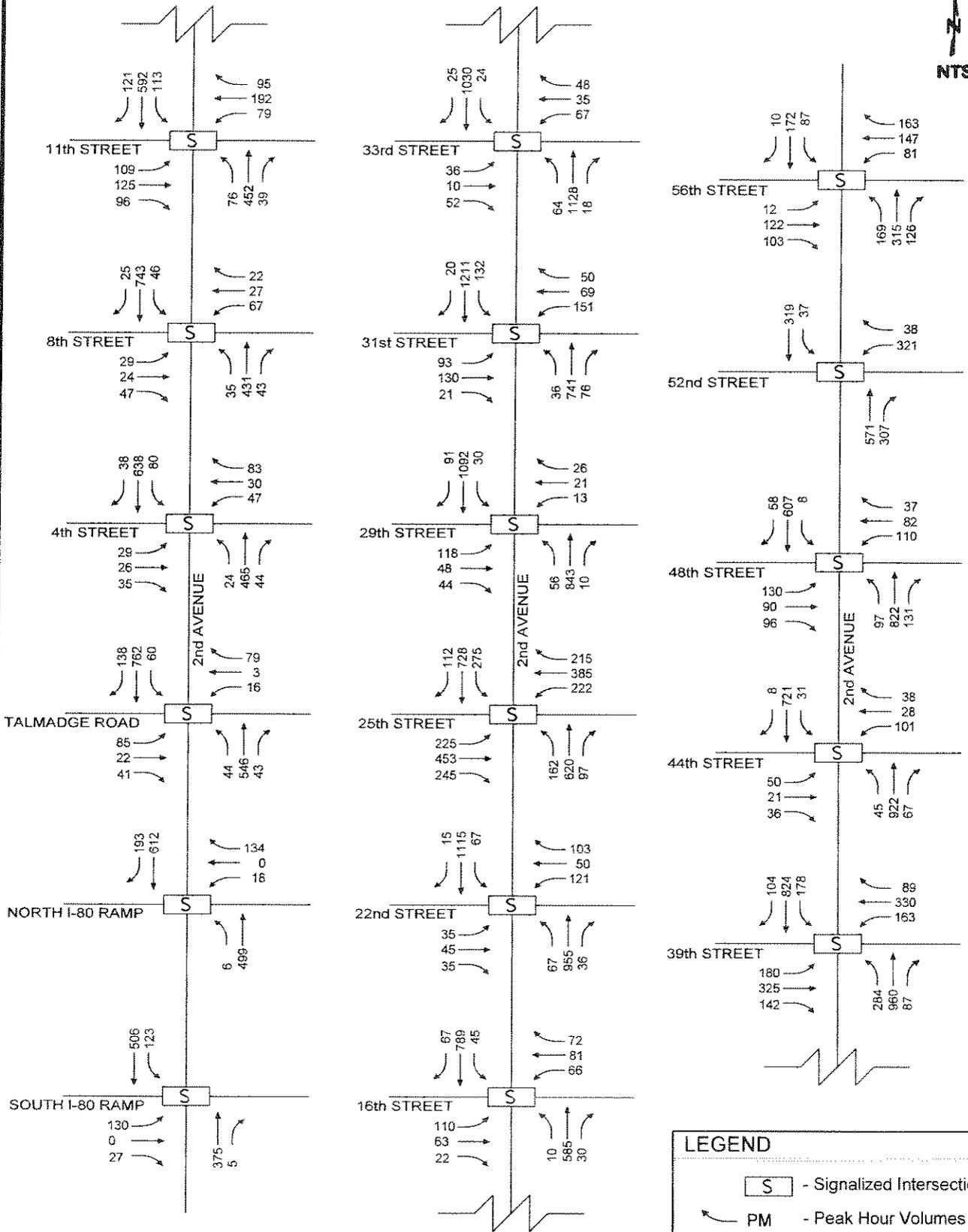
NOON - Peak Hour Volumes
Noon Peak = 7:15-8:15

F:\PROJECTS\2008\00493\TRAFFIC\ODGM\FIGURES.DGN
 05/12/2005
 05:08:11 AM



39th Street Existing NOON
Peak Hour Volumes

FIGURE
A-6



LEGEND

S - Signalized Intersection

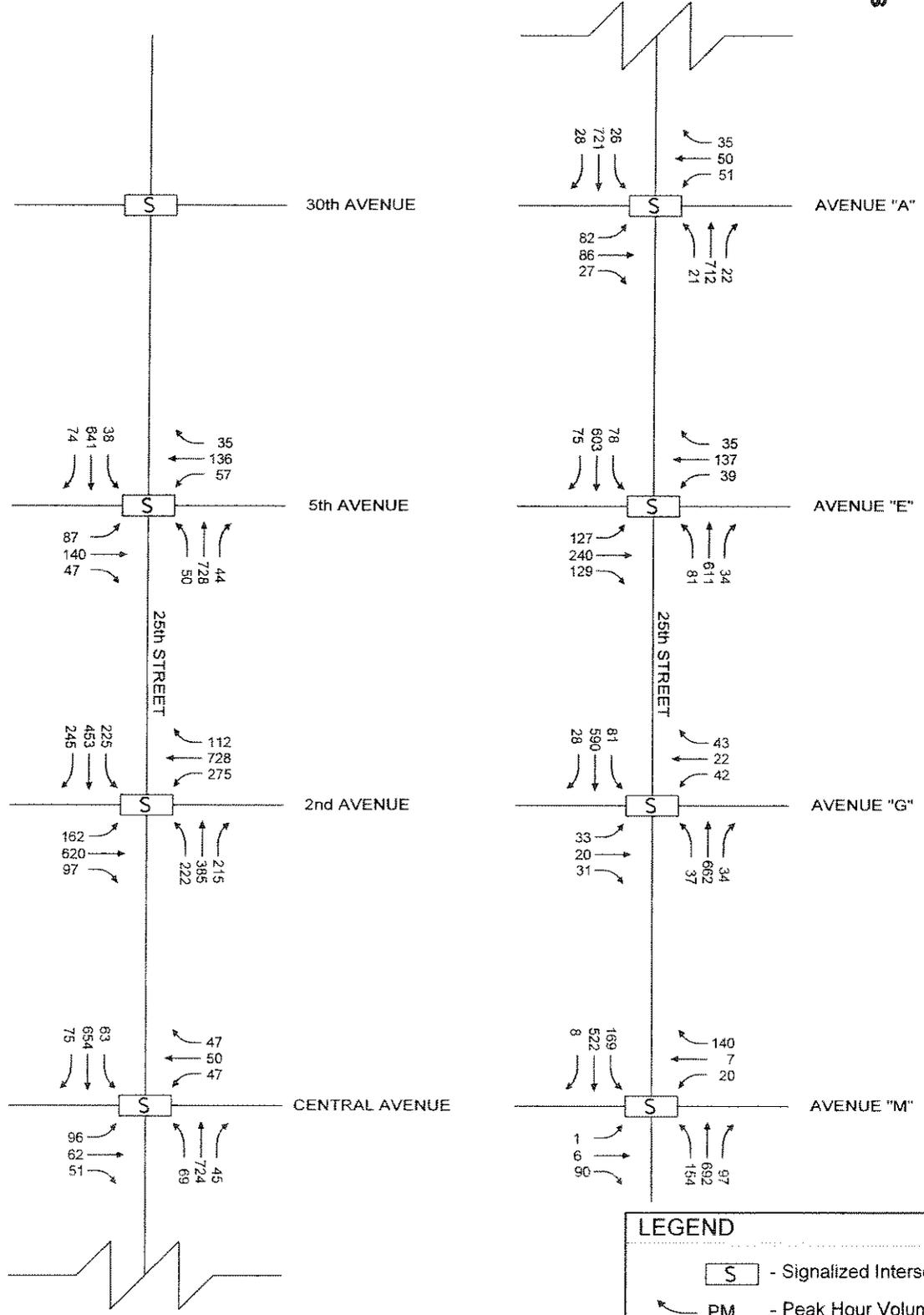
PM - Peak Hour Volumes
PM Peak = 7:15-8:15

F:\PROJECTS\2000\0493\TRMNT\FIG\SIGN\FIGURES.DGN
 05/12/2005
 11:07:13 AM



2nd Avenue Existing PM
Peak Hour Volumes

FIGURE
A-7



LEGEND

- Signalized Intersection

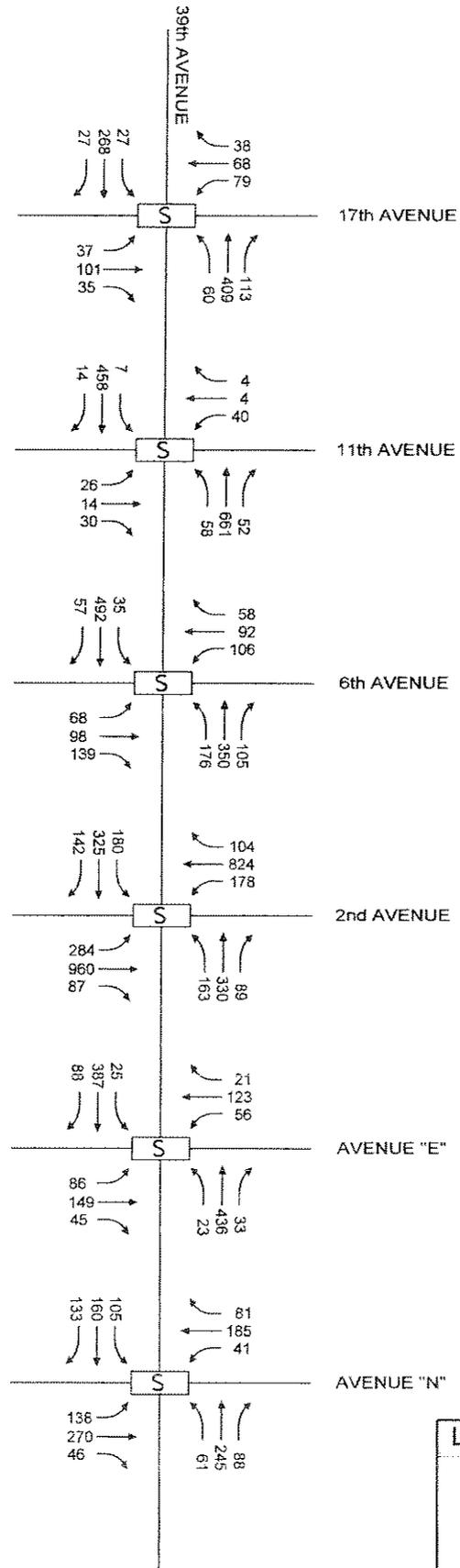
- Peak Hour Volumes
PM Peak = 7:15-8:15

F:\PROJECTS\200304103 TRAFFIC\DRAWING\FIGURES.DGN
 05/12/2005
 11:08:27 AM



25th Street Existing PM
Peak Hour Volumes

FIGURE
A-8



LEGEND

- Signalized Intersection

- Peak Hour Volumes
PM Peak = 7:15-8:15

F:\PROJECTS\2000\00492\TRAFFIC\DRAWING\FIGURES.DGN
 05/12/2005
 11:09:11 AM



**39th Street Existing PM
Peak Hour Volumes**

**FIGURE
A-9**

APPENDIX B

SPOT SPEED STUDY

Analysis Table
Raw Data

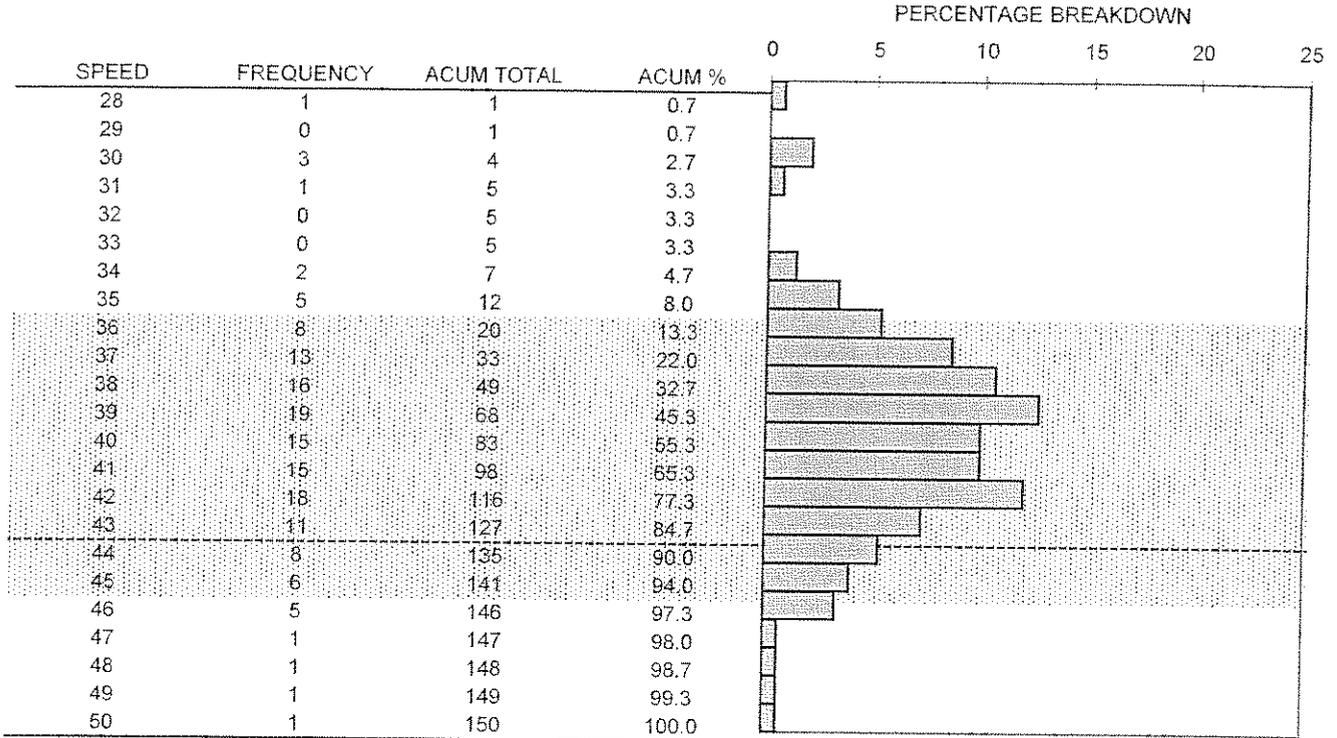
Classification	Data Collection Location		Posted (mph)	85th %tile (mph)	Mean (mph)	Pace (mph)	Exceeding Speed Limit			Recommended
							1 + mph	6 + mph	11+ mph	
Principal Arterial	2nd Ave	48th to 56th	40	43.1	40.0	36 - 45	44.7%	6.0%	0.0%	30
		36th to 39th	35	37.4	33.9	30 - 39	32.7%	2.7%	0.0%	
		29th to 31st	35	35.5	32.9	29 - 38	18.7%	3.3%	0.0%	
		22nd to 26th	25	33.1	29.8	26 - 35	92.7%	38.0%	5.3%	
		16th to RR	35	37.6	34.9	31 - 40	38.7%	4.7%	0.0%	
	Talmadge to 4th	45	46.3	43.3	39 - 48	24.7%	3.3%	0.7%		
	Hwy 30 (24th / 25th)	30th to CC	40	44.7	40.9	36 - 45	55.0%	13.0%	0.0%	35
		17th to 8th	35	39.5	36.6	32 - 41	57.3%	11.3%	1.3%	
		5th to 2nd	35	36.4	34.0	30 - 39	26.0%	2.0%	0.0%	
		A to D	30	35.4	32.8	28 - 37	74.7%	2.7%	0.0%	
D to I		35	38.9	35.2	31 - 40	48.7%	6.7%	0.0%		
East of N	40	44.1	40.8	36 - 45	55.3%	10.7%	2.3%			
Minor Arterial	30th Ave	39th to 56th	45	53.0	48.5	43 - 52	76.2%	32.7%	8.9%	50
		24th to 39th	45	47.5	43.6	40 - 49	32.4%	6.9%	0.0%	35*
		18th to 24th	35	41.3	37.8	34 - 43	70.0%	21.0%	3.0%	
	17th Ave	39th to 48th	35	39.8	36.5	33 - 42	51.0%	14.0%	2.0%	40
	Ave N	North of 56th	35	40.0	36.2	33 - 42	57.4%	14.9%	3.0%	40
		39th to 48th	35	39.4	36.7	31 - 40	59.0%	11.4%	1.0%	40
		27th to 31st	35	38.8	35.2	31 - 40	44.7%	8.0%	0.0%	40
	Ave M	16th to 20th	35	37.0	34.9	31 - 40	38.0%	0.0%	0.0%	
	Antelope	North of Hwy 30	45	49.2	44.2	39 - 48	33.0%	11.0%	1.0%	
	56th St	2nd to E	40	42.5	39.3	34 - 43	37.6%	4.0%	0.0%	
	39th St	30th to 17th	35	39.3	36.5	32 - 41	60.0%	13.0%	1.0%	40*
		17th to 6th	35	40.8	37.8	33 - 42	73.0%	18.0%	1.0%	
		A to E	35	38.8	35.9	31 - 40	64.0%	7.0%	1.0%	
		N to RR	35	41.7	38.4	33 - 42	76.0%	27.0%	4.0%	
	11th St	East of 30th	45	51.3	47.2	42 - 51	62.0%	22.0%	2.0%	50
		West of 15th	45	43.5	40.2	35 - 44	10.0%	2.0%	1.0%	
		5th to 2nd	25	30.6	27.4	23 - 32	67.0%	18.0%	3.0%	35*
Central to H		35	35.9	33.4	28 - 37	22.0%	2.0%	0.0%		
Collector	5th Ave	22nd to 25th	25	28.0	25.3	20 - 29	45.0%	6.0%	2.0%	
		16th to RR	25	31.0	28.5	25 - 34	85.0%	19.0%	3.0%	
	Central	22nd to 25th	25	19.6	17.5	12 - 21	4.0%	0.0%	0.0%	
		8th to 11th	35	35.8	32.8	29 - 38	18.0%	1.0%	0.0%	
	Ave E	31st to 34th	25	29.6	27.2	23 - 32	72.0%	12.0%	0.0%	
		39th to 48th	25	30.4	27.8	23 - 32	78.0%	17.0%	0.0%	
		48th to 56th	25	36.3	32.5	27 - 36	95.0%	66.0%	22.0%	30
	Ave H	16th to 20th	30	31.9	29.6	25 - 34	34.0%	6.0%	0.0%	
	Ave I	31st to 34th	25	29.9	27.1	22 - 31	64.0%	14.0%	3.0%	
	Grand Ave	27th to 34th	35	37.3	34.8	30 - 39	41.0%	5.0%	1.0%	
	48th St	East of 6th	-	37.5	33.6	29 - 38	33.0%	5.0%	0.0%	35
	34th St	I to N	25	29.1	26.2	22 - 31	61.2%	7.1%	1.2%	
	31st St	A to E	30	30.9	28.3	24 - 33	23.0%	2.0%	0.0%	
	29th St	5th to 2nd	25	30.0	27.1	22 - 31	74.0%	15.0%	1.0%	
	University Dr	19th to 16th	30	35.0	31.8	27 - 36	66.7%	15.0%	0.0%	
	RR St	30th to 17th	35	42.8	38.8	33 - 42	78.0%	35.0%	7.0%	45
		2nd to Central	25	29.0	26.3	21 - 30	58.0%	11.0%	2.0%	
16th St	5th to 2nd	30	30.2	27.6	23 - 32	16.0%	0.0%	0.0%		
	Central to H	30	30.0	27.5	23 - 32	15.0%	0.0%	0.0%		
Archway	Central to M	35	44.7	39.3	36 - 45	72.5%	43.1%	12.7%	40	

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-12-04

COUNTY: Buffalo
 SPEED LIMIT: 40 mph
 DIRECTION: NB/SB

LOCATION: 2nd Avenue 48th St. - 56th St.
 TIME START: 9:30 AM
 TIME END: 10:00 AM



AVERAGE SPEED = 40.
 50th PERCENTILE = 39.5
 85th PERCENTILE = 43.1
 90th PERCENTILE = 44.
 95th PERCENTILE = 45.3

PACE = 36 - 45
 VEHICLES IN PACE = 129
 % IN PACE = 86.
 % BELOW PACE = 8.
 % ABOVE PACE = 6.

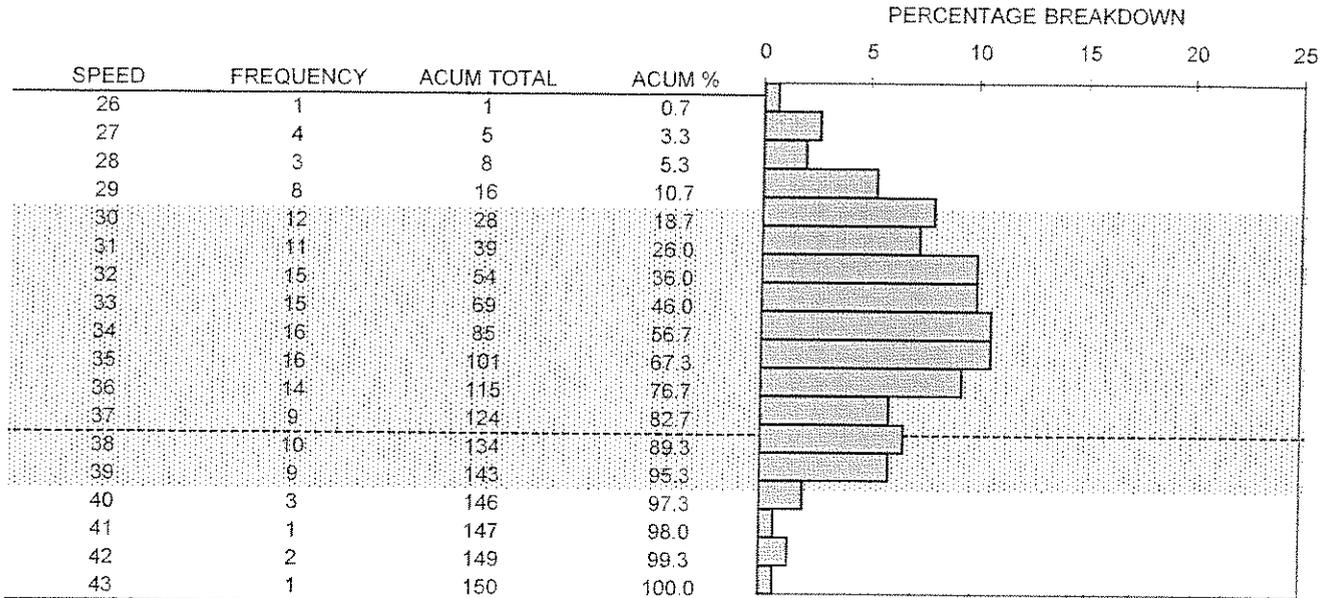
SAMPLE VARIANCE = 13.3422819
 STANDARD DEVIATION = 3.6527088
 RANGE 1*S = 76.66666
 RANGE 2*S = 94.66666
 RANGE 3*S = 99.33334

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-12-04

COUNTY: Buffalo
 SPEED LIMIT: 35 mph
 DIRECTION: NB/SB

LOCATION: 2nd Avenue 36th St. - 39th St.
 TIME START: 6:15 PM
 TIME END: 6:45 PM



AVERAGE SPEED = 33.9
 50th PERCENTILE = 33.4
 85th PERCENTILE = 37.4
 90th PERCENTILE = 38.1
 95th PERCENTILE = 38.9

PACE = 30 - 39
 VEHICLES IN PACE = 127
 % IN PACE = 84.7
 % BELOW PACE = 10.7
 % ABOVE PACE = 4.7

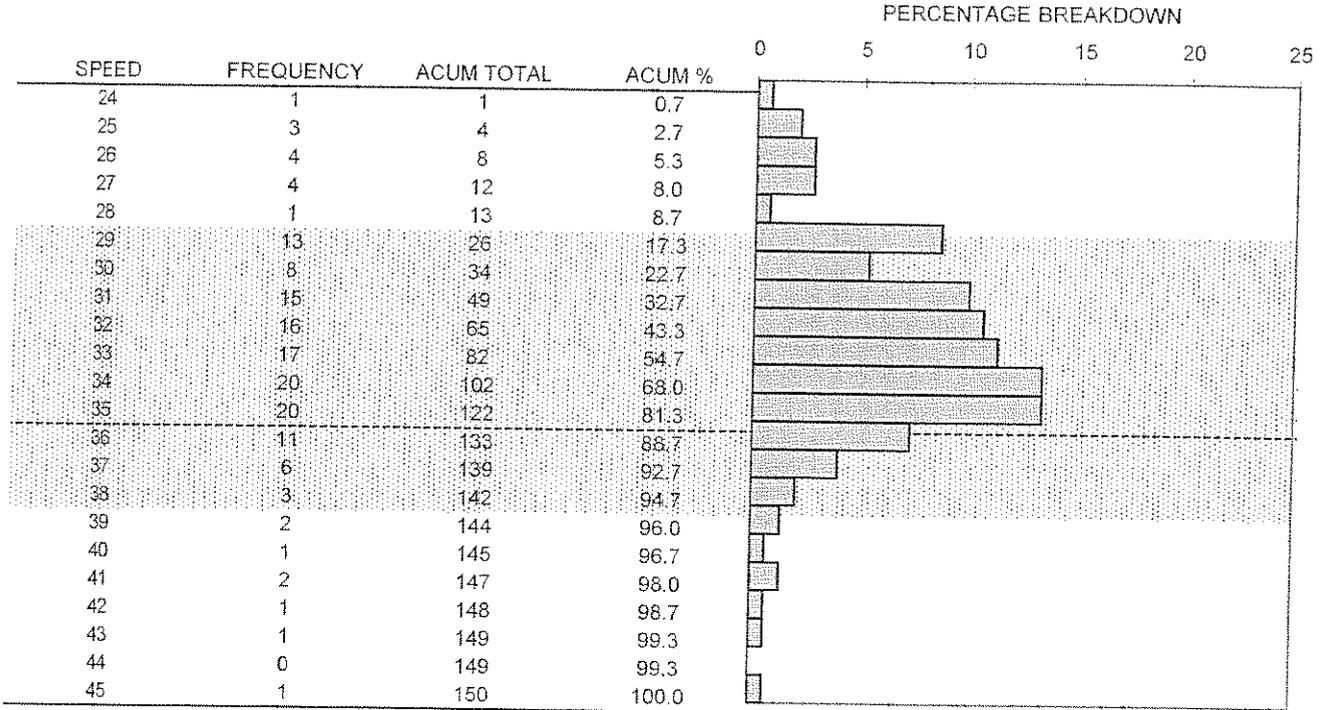
SAMPLE VARIANCE = 12.3268009
 STANDARD DEVIATION = 3.5109544
 RANGE 1*S = 72.
 RANGE 2*S = 96.66666
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-12-04

COUNTY: Buffalo
 SPEED LIMIT: 35 mph
 DIRECTION: NB/SB

LOCATION: 2nd Avenue 29th St. - 31st St.
 TIME START: 7:00 PM
 TIME END: 8:00 PM



AVERAGE SPEED = 32.9
 50th PERCENTILE = 32.6
 85th PERCENTILE = 35.5
 90th PERCENTILE = 36.3
 95th PERCENTILE = 38.3

PACE = 29 - 38
 VEHICLES IN PACE = 129
 % IN PACE = 86.
 % BELOW PACE = 8.7
 % ABOVE PACE = 5.3

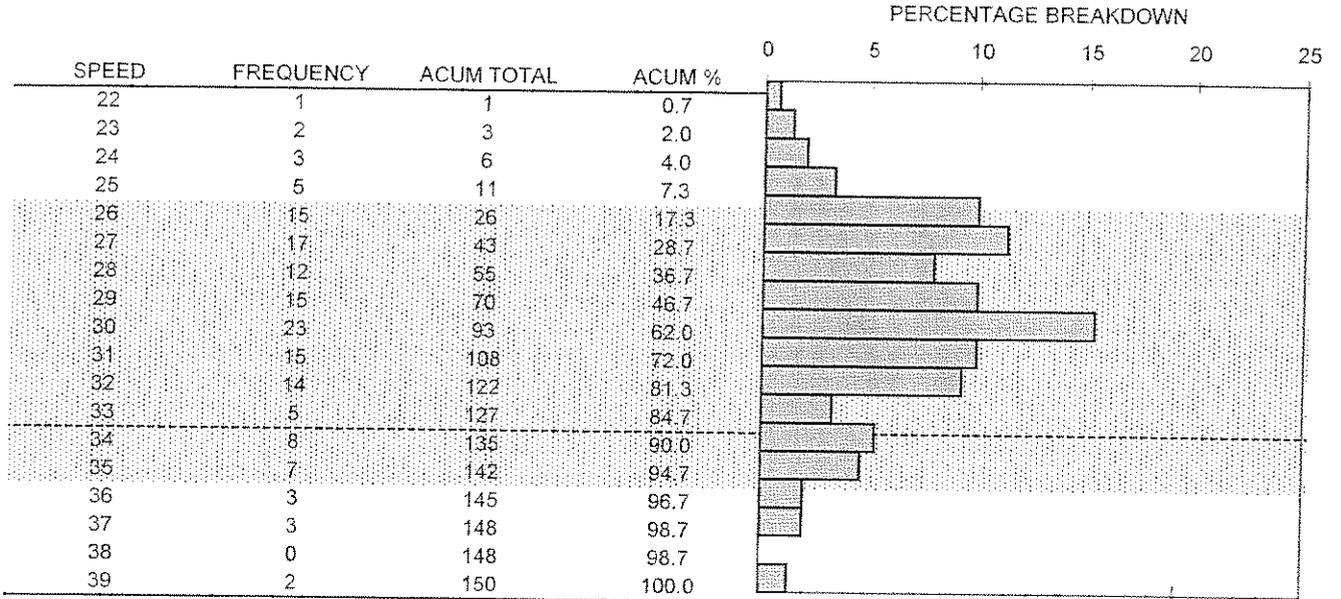
SAMPLE VARIANCE = 12.9979418
 STANDARD DEVIATION = 3.6052658
 RANGE 1*S = 80.
 RANGE 2*S = 94.
 RANGE 3*S = 99.33334

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-13-04

COUNTY: Buffalo
 SPEED LIMIT: 25 mph
 DIRECTION: NB/SB

LOCATION: 2nd Avenue 22nd St. - 25th St.
 TIME START: 6:45 PM
 TIME END: 7:30 PM



AVERAGE SPEED = 29.8
 50th PERCENTILE = 29.2
 85th PERCENTILE = 33.1
 90th PERCENTILE = 34.
 95th PERCENTILE = 35.2

PACE = 26 - 35
 VEHICLES IN PACE = 131
 % IN PACE = 87.3
 % BELOW PACE = 7.3
 % ABOVE PACE = 5.3

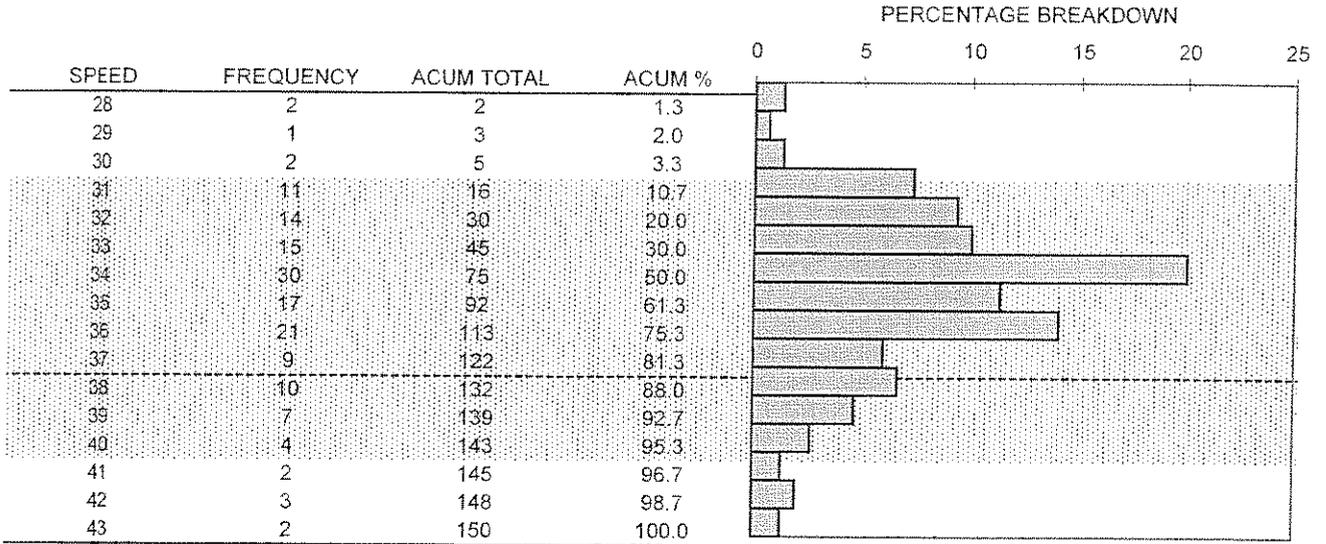
SAMPLE VARIANCE = 11.2734228
 STANDARD DEVIATION = 3.3575918
 RANGE 1*S = 77.33333
 RANGE 2*S = 96.
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-12-04

COUNTY: Buffalo
 SPEED LIMIT: 35 mph
 DIRECTION: NB/SB

LOCATION: 2nd Avenue - 16th St. - Railroad St.
 TIME START: 5:30 PM
 TIME END: 6:00 PM



AVERAGE SPEED = 34.9
 50th PERCENTILE = 34.
 85th PERCENTILE = 37.6
 90th PERCENTILE = 38.4
 95th PERCENTILE = 39.9

PACE = 31 - 40
 VEHICLES IN PACE = 138
 % IN PACE = 92.
 % BELOW PACE = 3.3
 % ABOVE PACE = 4.7

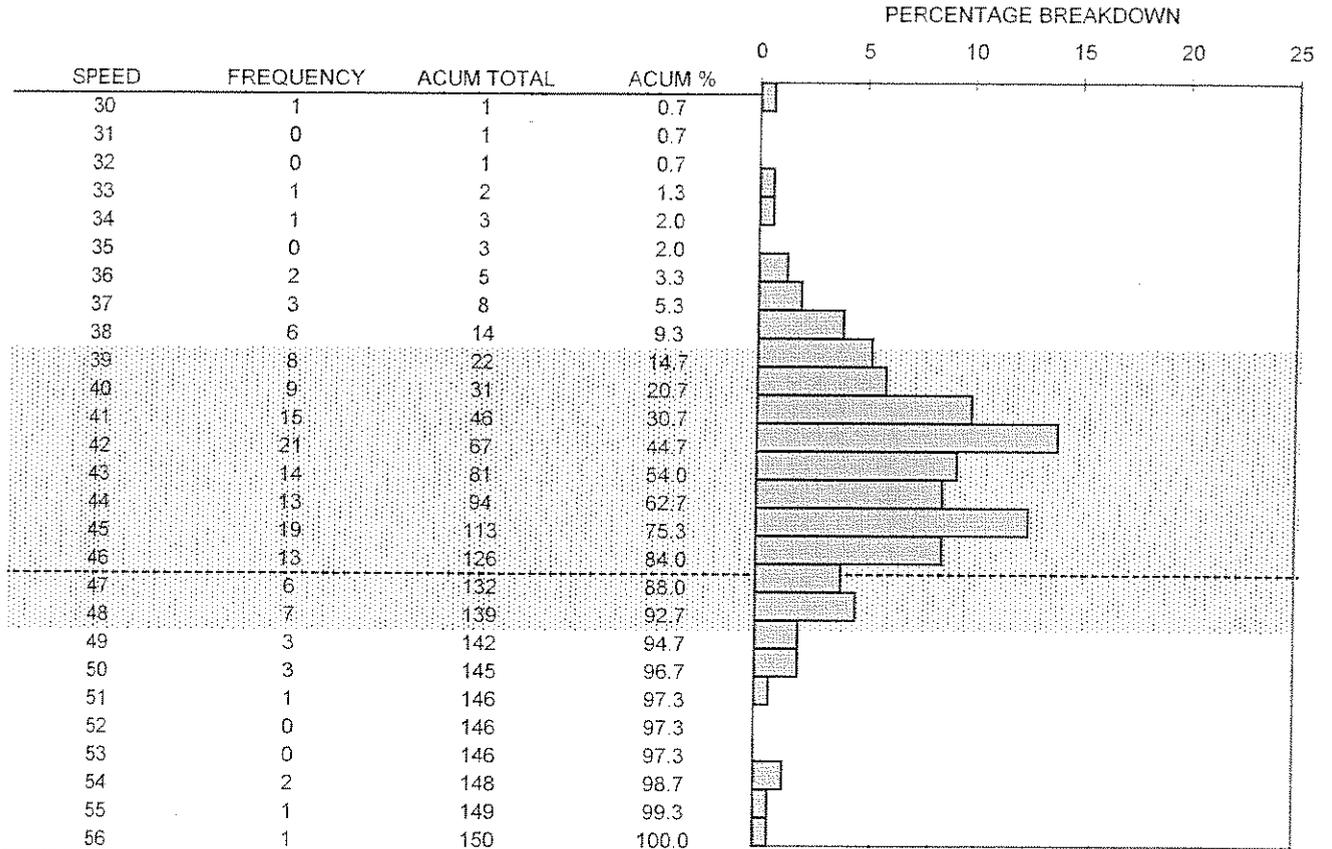
SAMPLE VARIANCE = 8.5995526
 STANDARD DEVIATION = 2.9324994
 RANGE 1*S = 70.66666
 RANGE 2*S = 94.
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-21-04

COUNTY: Buffalo
 SPEED LIMIT: 45 mph
 DIRECTION: NB/SB

LOCATION: 2nd Avenue Talmadge Rd. - 4th St.
 TIME START: 9:30 AM
 TIME END: 10:45 AM



AVERAGE SPEED = 43.3
 50th PERCENTILE = 42.6
 85th PERCENTILE = 46.3
 90th PERCENTILE = 47.4
 95th PERCENTILE = 49.2

PACE = 39 - 48
 VEHICLES IN PACE = 124
 % IN PACE = 83.2
 % BELOW PACE = 9.4
 % ABOVE PACE = 7.4

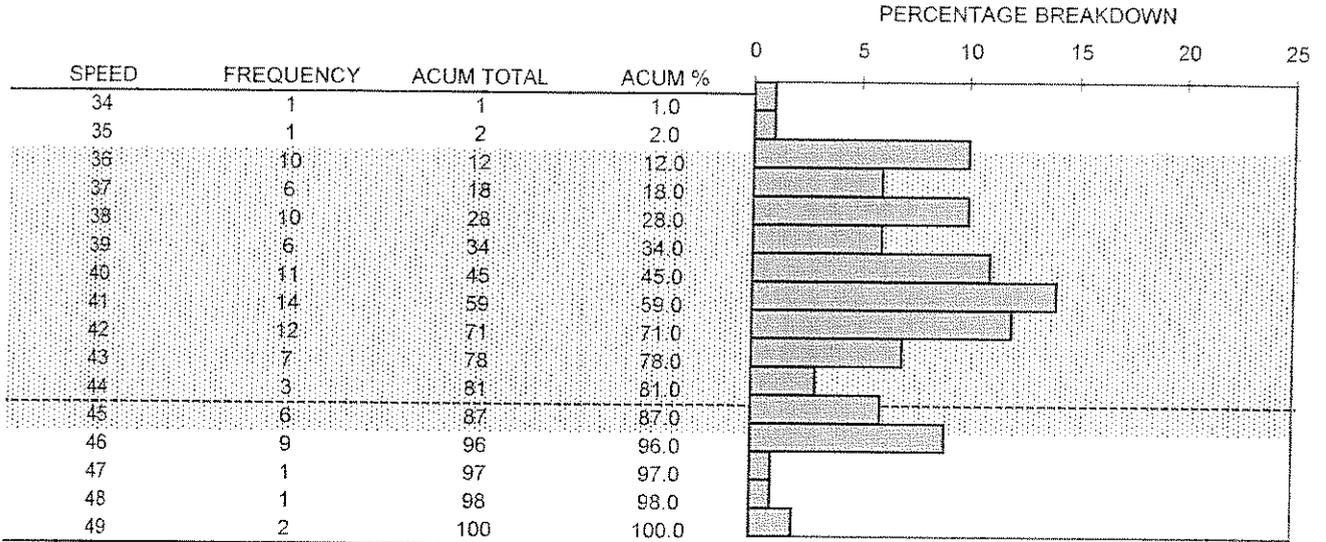
SAMPLE VARIANCE = 15.7891348
 STANDARD DEVIATION = 3.9735544
 RANGE 1*S = 78.52349
 RANGE 2*S = 95.30202
 RANGE 3*S = 98.65771

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-13-04

COUNTY: Buffalo
 SPEED LIMIT: 40 mph
 DIRECTION: EB/WB

LOCATION: 24th Street 30th Ave. - Country Club Ln.
 TIME START: 9:30 AM
 TIME END: 10:15 AM



AVERAGE SPEED = 40.9
 50th PERCENTILE = 40.4
 85th PERCENTILE = 44.7
 90th PERCENTILE = 45.3
 95th PERCENTILE = 45.9

PACE = 36 - 45
 VEHICLES IN PACE = 85
 % IN PACE = 85.
 % BELOW PACE = 2.
 % ABOVE PACE = 13.

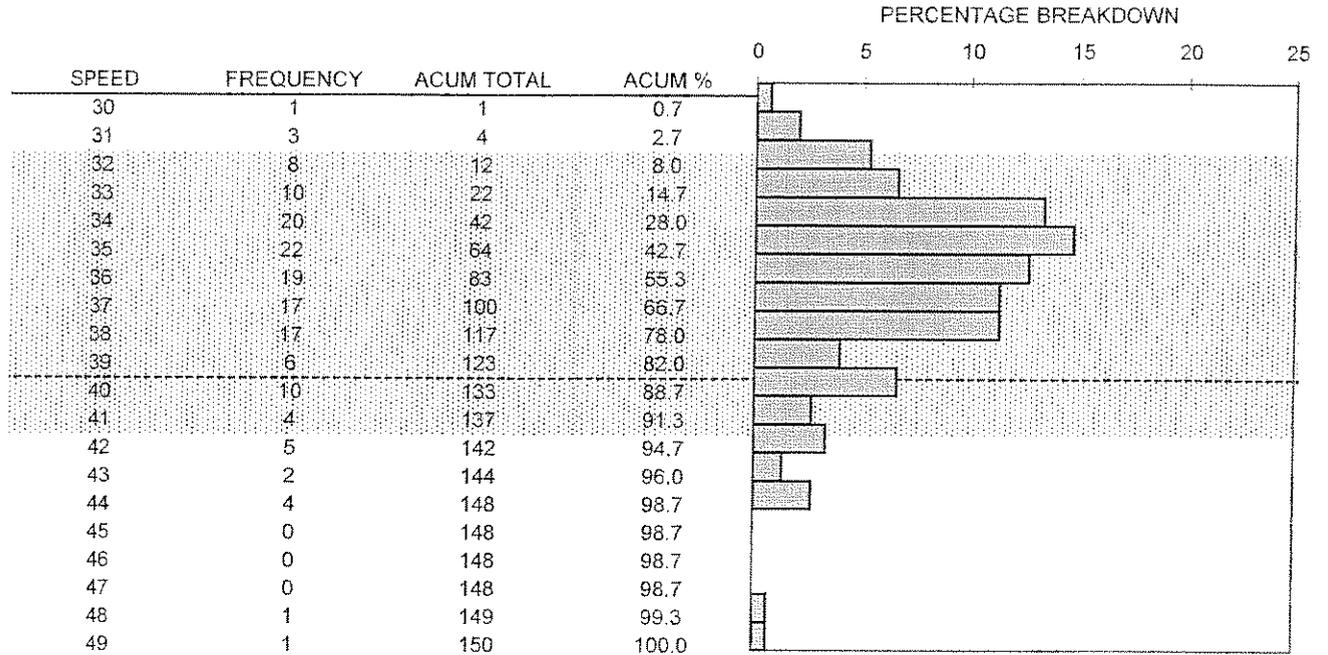
SAMPLE VARIANCE = 11.6819192
 STANDARD DEVIATION = 3.4178823
 RANGE 1*S = 63.
 RANGE 2*S = 97.
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-12-04

COUNTY: Buffalo
 SPEED LIMIT: 35 mph
 DIRECTION: EB/WB

LOCATION: 24th Street 17th Ave. - 8th Ave.
 TIME START: 4:00 PM
 TIME END: 4:30 PM



AVERAGE SPEED = 36.6
 50th PERCENTILE = 35.6
 85th PERCENTILE = 39.5
 90th PERCENTILE = 40.5
 95th PERCENTILE = 42.3

PACE = 32 - 41
 VEHICLES IN PACE = 133
 % IN PACE = 88.7
 % BELOW PACE = 2.7
 % ABOVE PACE = 8.7

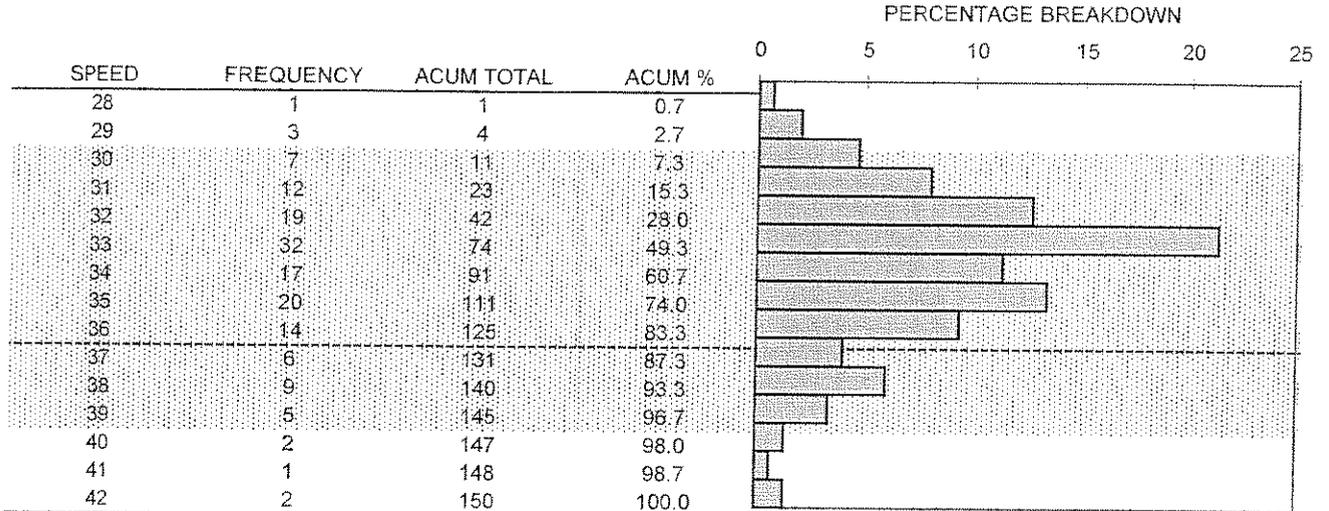
SAMPLE VARIANCE = 10.9317673
 STANDARD DEVIATION = 3.3063223
 RANGE 1*S = 74.
 RANGE 2*S = 96.
 RANGE 3*S = 98.66667

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-12-04

COUNTY: Buffalo
 SPEED LIMIT: 35 mph
 DIRECTION: EB/WB

LOCATION: 25th Street 5th Ave. - 2nd Ave.
 TIME START: 3:00 PM
 TIME END: 3:45 PM



AVERAGE SPEED = 34.
 50th PERCENTILE = 33.1
 85th PERCENTILE = 36.4
 90th PERCENTILE = 37.4
 95th PERCENTILE = 38.5

PACE = 30 - 39
 VEHICLES IN PACE = 141
 % IN PACE = 94.
 % BELOW PACE = 2.7
 % ABOVE PACE = 3.3

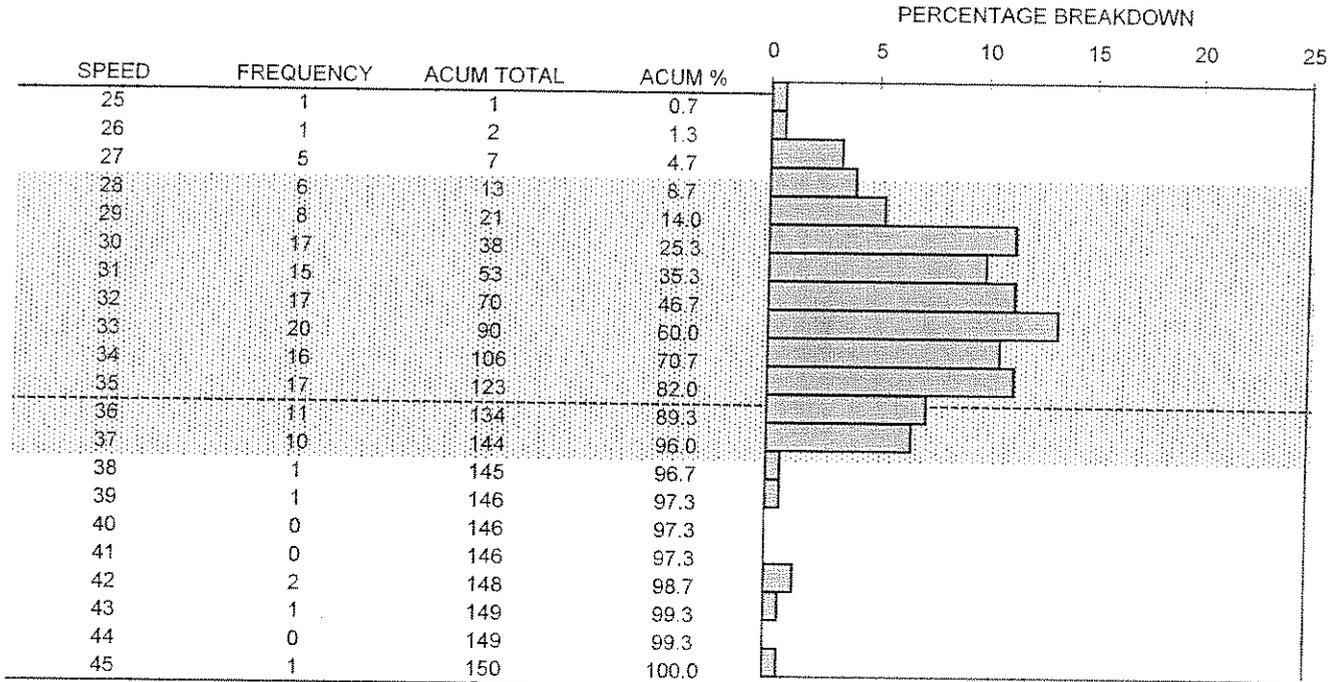
SAMPLE VARIANCE = 7.2931096
 STANDARD DEVIATION = 2.7005758
 RANGE 1*S = 76.
 RANGE 2*S = 96.
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-12-04

COUNTY: Buffalo
 SPEED LIMIT: 30 mph
 DIRECTION: EB/WB

LOCATION: 25th Street Ave. A - Ave. E
 TIME START: 12:15 PM
 TIME END: 1:45 PM



AVERAGE SPEED = 32.8
 50th PERCENTILE = 32.2
 85th PERCENTILE = 35.4
 90th PERCENTILE = 36.1
 95th PERCENTILE = 36.9

PACE = 28 - 37
 VEHICLES IN PACE = 136
 % IN PACE = 91.3
 % BELOW PACE = 4.7
 % ABOVE PACE = 4.

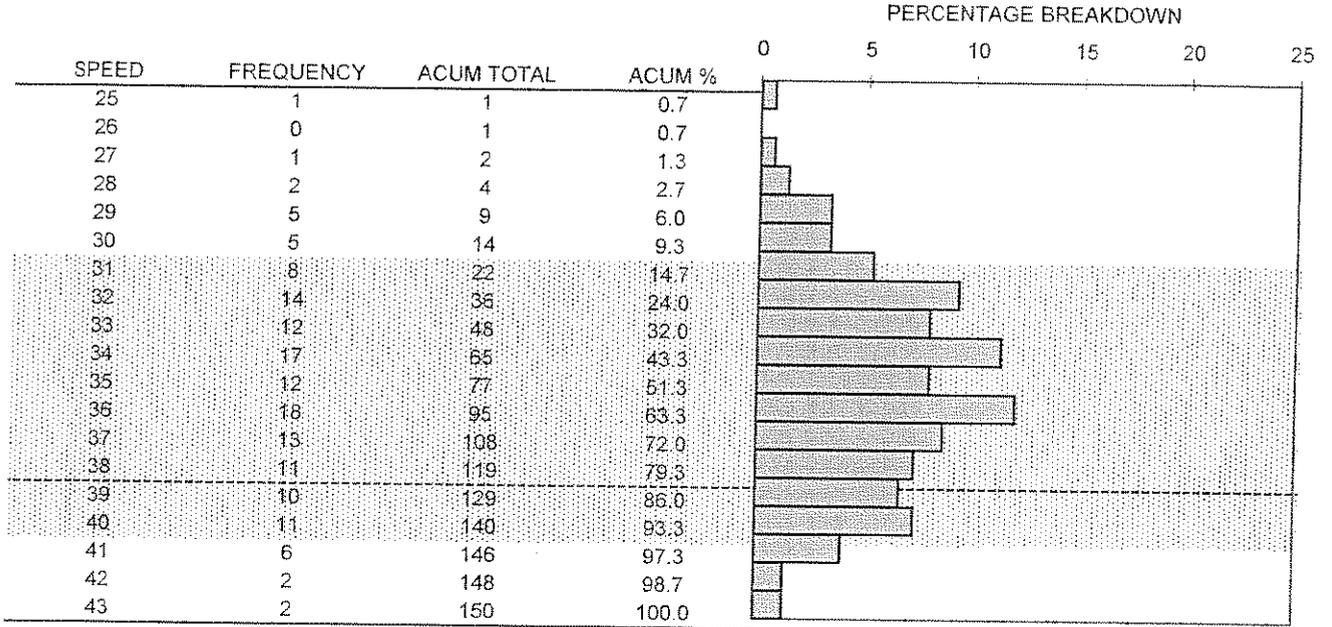
SAMPLE VARIANCE = 10.8415563
 STANDARD DEVIATION = 3.2926519
 RANGE 1*S = 80.53691
 RANGE 2*S = 96.64429
 RANGE 3*S = 98.65771

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-12-04

COUNTY: Buffalo
 SPEED LIMIT: 35 mph
 DIRECTION: EB/WB

LOCATION: 25th Street Ave. E - Ave. I
 TIME START: 2:00 PM
 TIME END: 2:45 PM



AVERAGE SPEED = 35.2
 50th PERCENTILE = 34.8
 85th PERCENTILE = 38.9
 90th PERCENTILE = 39.5
 95th PERCENTILE = 40.4

PACE = 31 - 40
 VEHICLES IN PACE = 126
 % IN PACE = 84.
 % BELOW PACE = 9.3
 % ABOVE PACE = 6.7

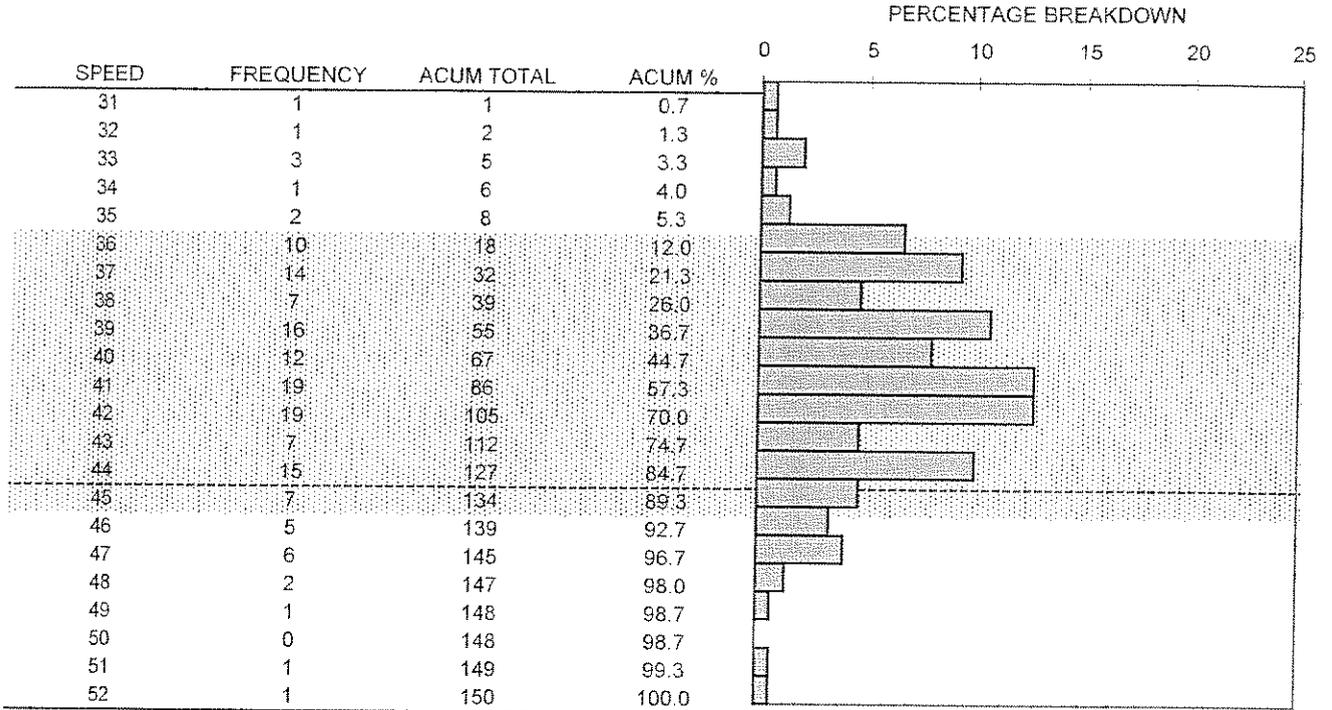
SAMPLE VARIANCE = 12.9084564
 STANDARD DEVIATION = 3.592834
 RANGE 1*S = 64.66666
 RANGE 2*S = 97.33334
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-21-04

COUNTY: Buffalo
 SPEED LIMIT: 40 mph
 DIRECTION: EB/WB

LOCATION: 25th Street East of Ave. N
 TIME START: 1:45 PM
 TIME END: 2:45 PM



AVERAGE SPEED = 40.8
 50th PERCENTILE = 40.4
 85th PERCENTILE = 44.1
 90th PERCENTILE = 45.2
 95th PERCENTILE = 46.6

PACE = 36 - 45
 VEHICLES IN PACE = 126
 % IN PACE = 84.
 % BELOW PACE = 5.3
 % ABOVE PACE = 10.7

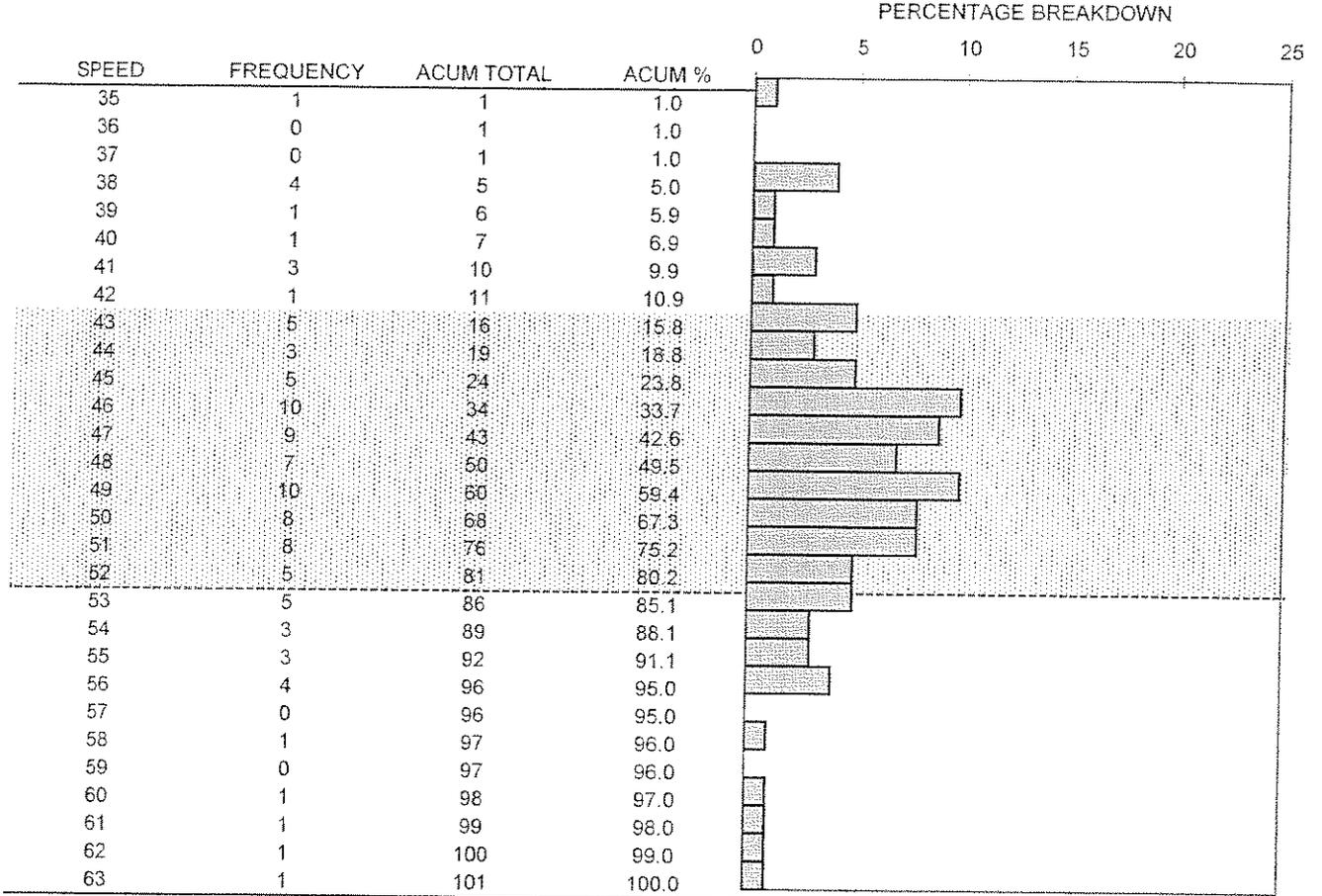
SAMPLE VARIANCE = 14.2380761
 STANDARD DEVIATION = 3.7733375
 RANGE 1*S = 72.66667
 RANGE 2*S = 96.66666
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-19-04

COUNTY: Buffalo
 SPEED LIMIT: 45 mph
 DIRECTION: NB/SB

LOCATION: 30th Avenue 39th St. - 56th St.
 TIME START: 2:05 PM
 TIME END: 3:30 PM



AVERAGE SPEED = 48.5
 50th PERCENTILE = 48.1
 85th PERCENTILE = 53.
 90th PERCENTILE = 54.6
 95th PERCENTILE = 56.

PACE = 43 - 52
 VEHICLES IN PACE = 70
 % IN PACE = 69.3
 % BELOW PACE = 10.9
 % ABOVE PACE = 19.8

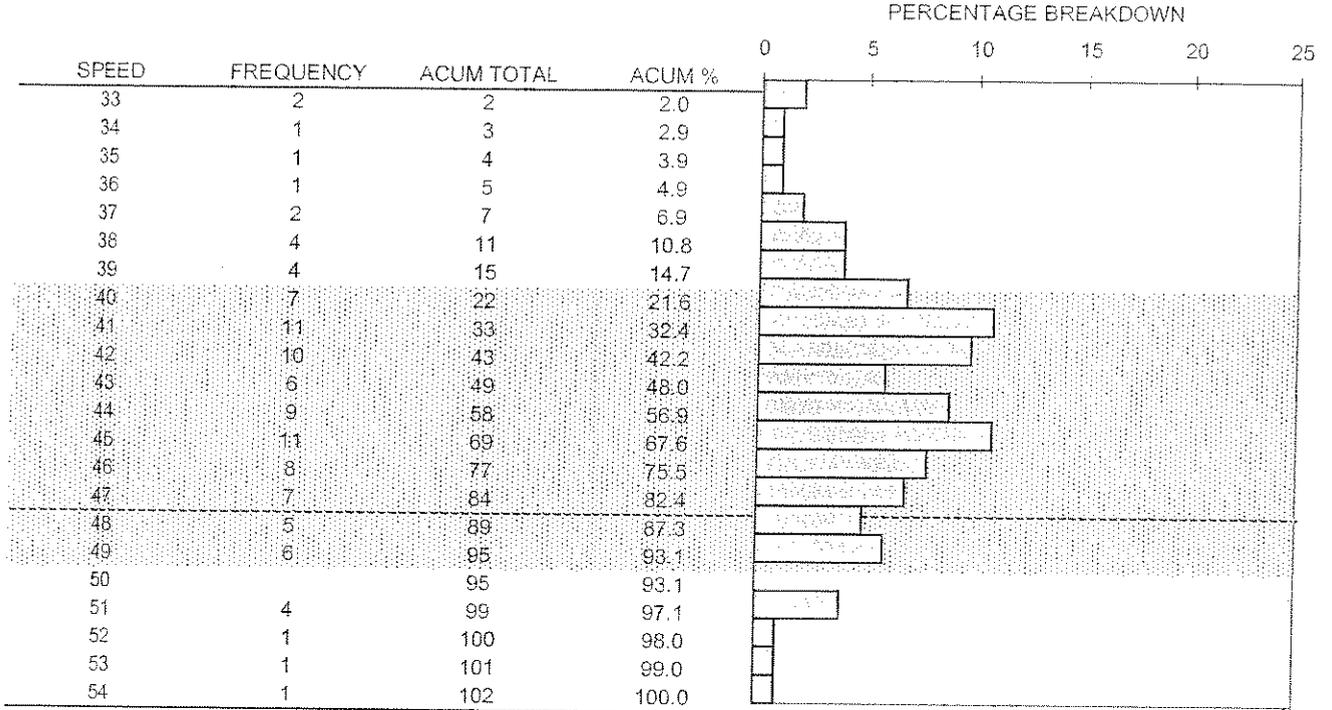
SAMPLE VARIANCE = 28.012272
 STANDARD DEVIATION = 5.2926626
 RANGE 1*S = 74.25743
 RANGE 2*S = 95.04951
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: SAK
 DATE: 12-23-04

COUNTY: Buffalo
 SPEED LIMIT: 45
 DIRECTION: NB/SB

LOCATION: 30th Ave 24th - 39th
 TIME START: 9:30 AM
 TIME END: 10:15 AM



AVERAGE SPEED = 43.6
 50th PERCENTILE = 43.2
 85th PERCENTILE = 47.5
 90th PERCENTILE = 48.5
 95th PERCENTILE = 50.5

PACE = 40 - 49
 VEHICLES IN PACE = 80
 % IN PACE = 78.4
 % BELOW PACE = 14.7
 % ABOVE PACE = 6.9

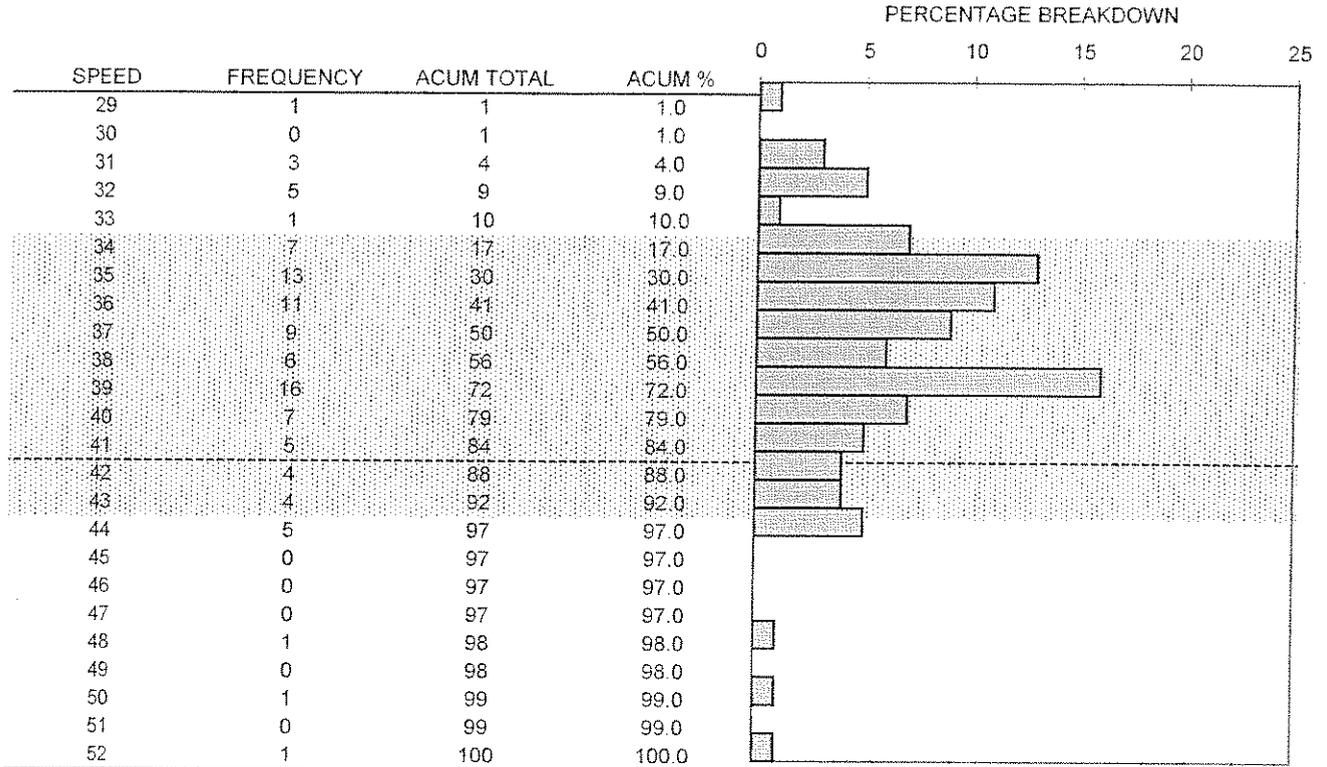
SAMPLE VARIANCE = 18.2823724
 STANDARD DEVIATION = 4.2757891
 RANGE 1*S = 71.56863
 RANGE 2*S = 95.09804
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-14-04

COUNTY: Buffalo
 SPEED LIMIT: 35 mph
 DIRECTION: NB/SB

LOCATION: 30th Avenue 18th Rd. - 24th St.
 TIME START: 3:00 PM
 TIME END: 3:45 PM



AVERAGE SPEED = 37.8
 50th PERCENTILE = 37.
 85th PERCENTILE = 41.3
 90th PERCENTILE = 42.5
 95th PERCENTILE = 43.6

PACE = 34 - 43
 VEHICLES IN PACE = 82
 % IN PACE = 82.
 % BELOW PACE = 10.
 % ABOVE PACE = 8.

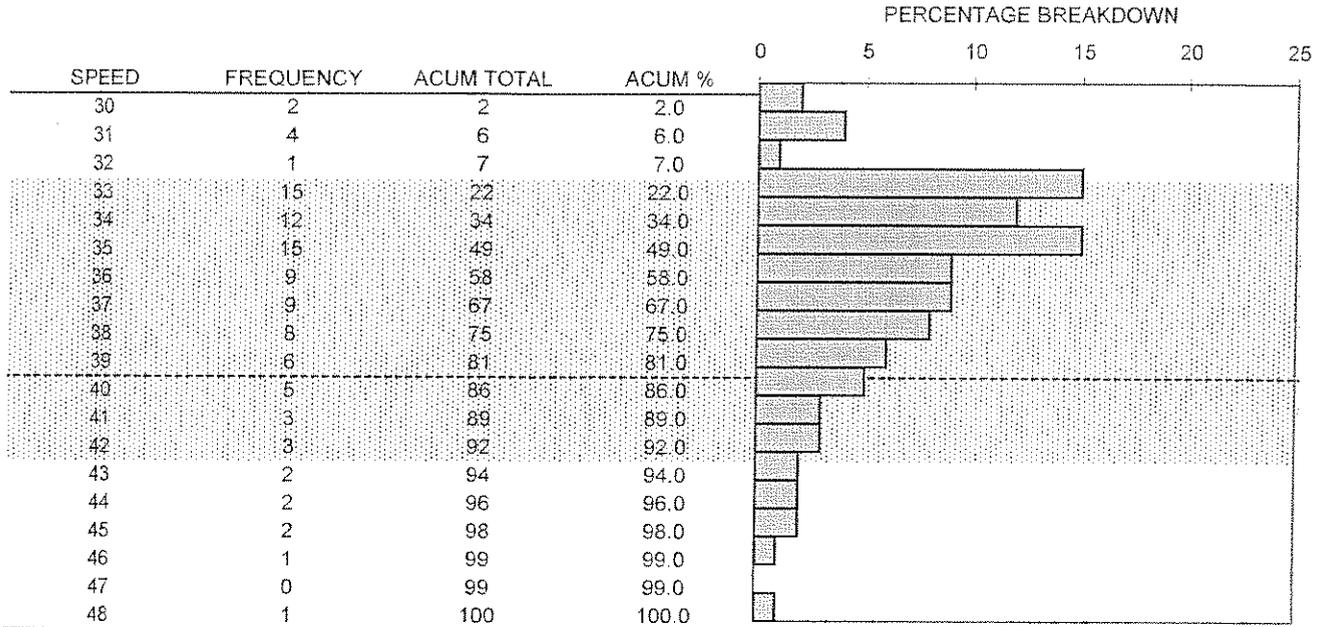
SAMPLE VARIANCE = 16.0145455
 STANDARD DEVIATION = 4.0018178
 RANGE 1*S = 74.
 RANGE 2*S = 96.
 RANGE 3*S = 98.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-19-04

COUNTY: Buffalo
 SPEED LIMIT: 35 mph
 DIRECTION: NB/SB

LOCATION: 17th Avenue 39th St. - 56th St.
 TIME START: 1:15 PM
 TIME END: 2:00 PM



AVERAGE SPEED = 36.5
 50th PERCENTILE = 35.1
 85th PERCENTILE = 39.8
 90th PERCENTILE = 41.3
 95th PERCENTILE = 43.5

PACE = 33 - 42
 VEHICLES IN PACE = 85
 % IN PACE = 85.
 % BELOW PACE = 7.
 % ABOVE PACE = 8.

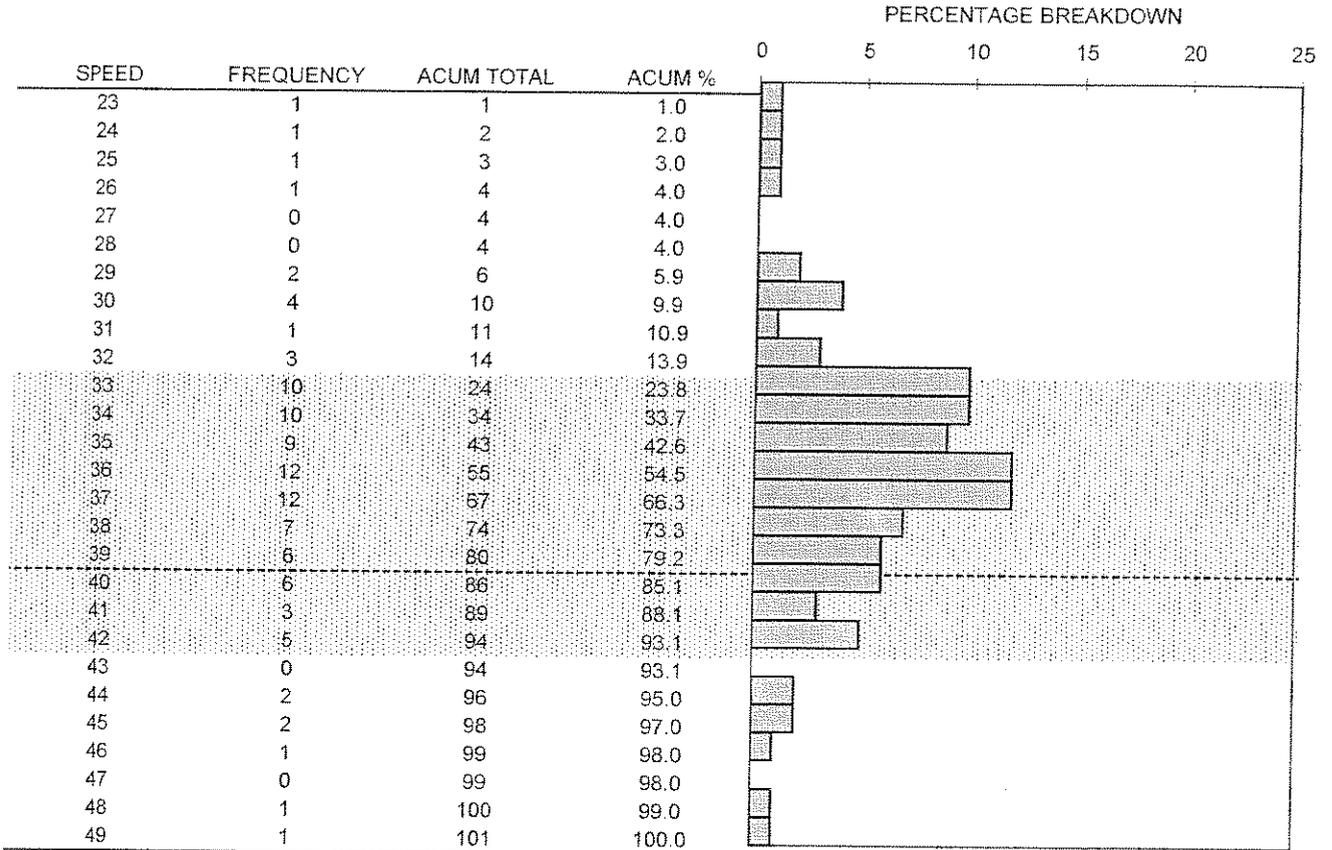
SAMPLE VARIANCE = 13.6852525
 STANDARD DEVIATION = 3.6993584
 RANGE 1*S = 79.
 RANGE 2*S = 94.
 RANGE 3*S = 99.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-14-04

COUNTY: Buffalo
 SPEED LIMIT: 35 mph
 DIRECTION: NB/SB

LOCATION: Avenue N North of 56th St.
 TIME START: 8:00 AM
 TIME END: 9:15 AM



AVERAGE SPEED = 36.2
 50th PERCENTILE = 35.6
 85th PERCENTILE = 40.
 90th PERCENTILE = 41.4
 95th PERCENTILE = 44.

PACE = 33 - 42
 VEHICLES IN PACE = 80
 % IN PACE = 79.2
 % BELOW PACE = 13.9
 % ABOVE PACE = 6.9

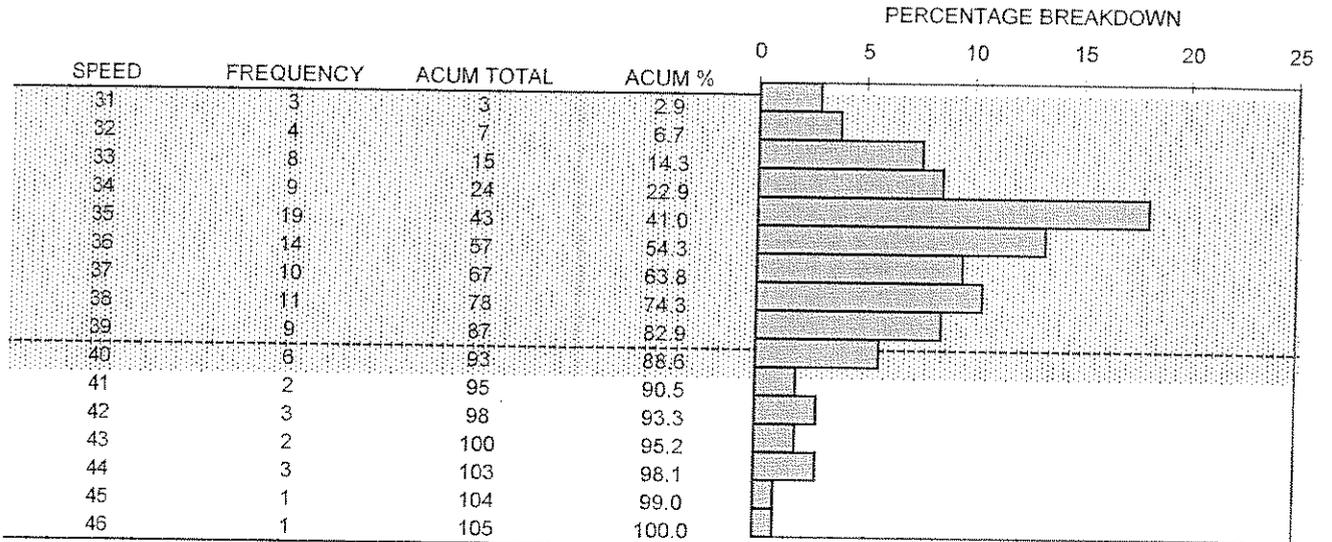
SAMPLE VARIANCE = 21.3120792
 STANDARD DEVIATION = 4.6165008
 RANGE 1*S = 74.25743
 RANGE 2*S = 93.06931
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-13-04

COUNTY: Buffalo
 SPEED LIMIT: 35 mph
 DIRECTION: NB/SB

LOCATION: Avenue N 39th St. - 48th St.
 TIME START: 2:30 PM
 TIME END: 3:15 PM



AVERAGE SPEED = 36.7
 50th PERCENTILE = 35.7
 85th PERCENTILE = 39.4
 90th PERCENTILE = 40.8
 95th PERCENTILE = 42.9

PACE = 31 - 40
 VEHICLES IN PACE = 93
 % IN PACE = 88.6
 % BELOW PACE = .
 % ABOVE PACE = 11.4

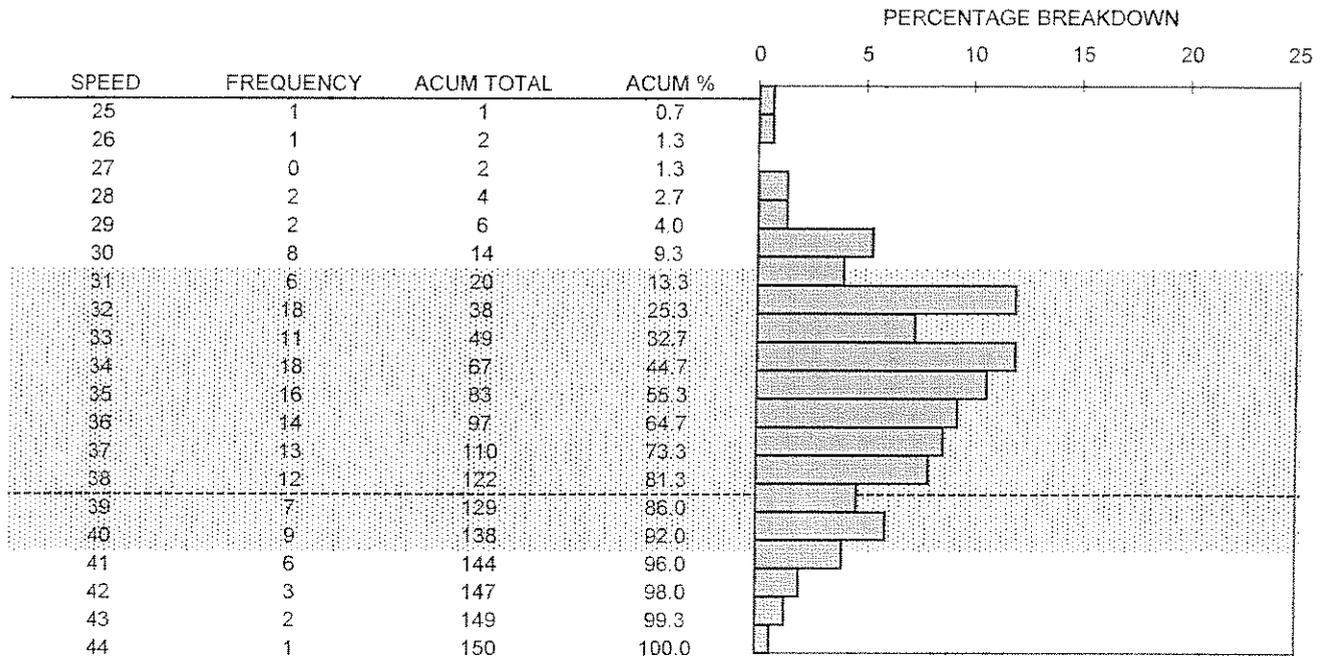
SAMPLE VARIANCE = 10.2979853
 STANDARD DEVIATION = 3.2090474
 RANGE 1*S = 68.57143
 RANGE 2*S = 95.2381
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-13-04

COUNTY: Buffalo
 SPEED LIMIT: 35 mph
 DIRECTION: NB/SB

LOCATION: Avenue N 27th St. - 31st St.
 TIME START: 11:15 AM
 TIME END: 11:45 AM



AVERAGE SPEED = 35.2
 50th PERCENTILE = 34.5
 85th PERCENTILE = 38.8
 90th PERCENTILE = 39.7
 95th PERCENTILE = 40.8

PACE = 31 - 40
 VEHICLES IN PACE = 124
 % IN PACE = 82.7
 % BELOW PACE = 9.3
 % ABOVE PACE = 8.

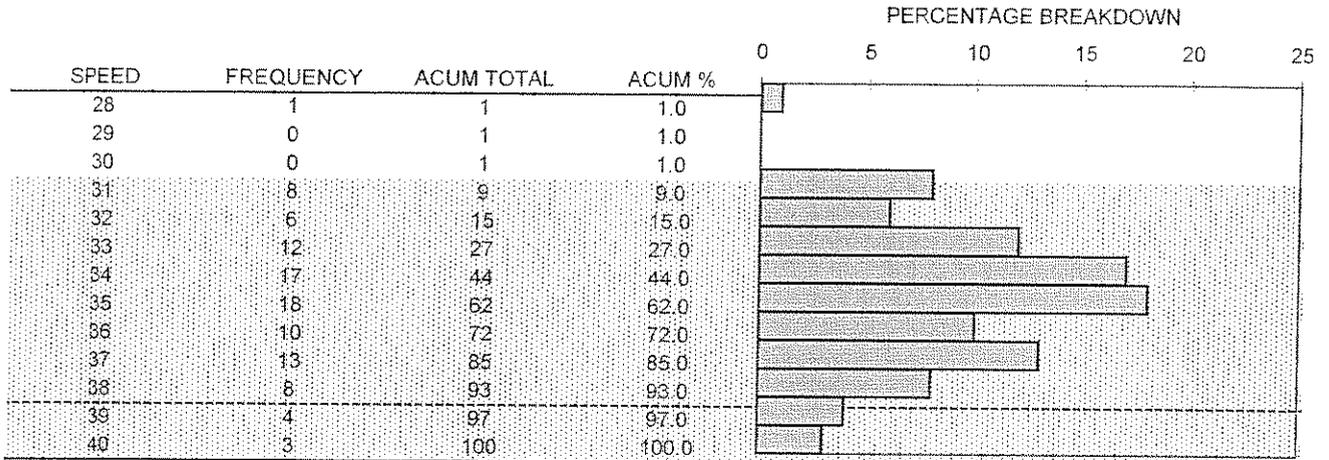
SAMPLE VARIANCE = 13.0790157
 STANDARD DEVIATION = 3.6164922
 RANGE 1*S = 68.
 RANGE 2*S = 96.66666
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-14-04

COUNTY: Buffalo
 SPEED LIMIT: 35 mph
 DIRECTION: NB/SB

LOCATION: Avenue M 16th St. - 20th St.
 TIME START: 10:30 AM
 TIME END: 11:45 AM



AVERAGE SPEED = 34.9
 50th PERCENTILE = 34.3
 85th PERCENTILE = 37.
 90th PERCENTILE = 37.6
 95th PERCENTILE = 38.5

PACE = 31 - 40
 VEHICLES IN PACE = 99
 % IN PACE = 99.
 % BELOW PACE = 1.
 % ABOVE PACE = .

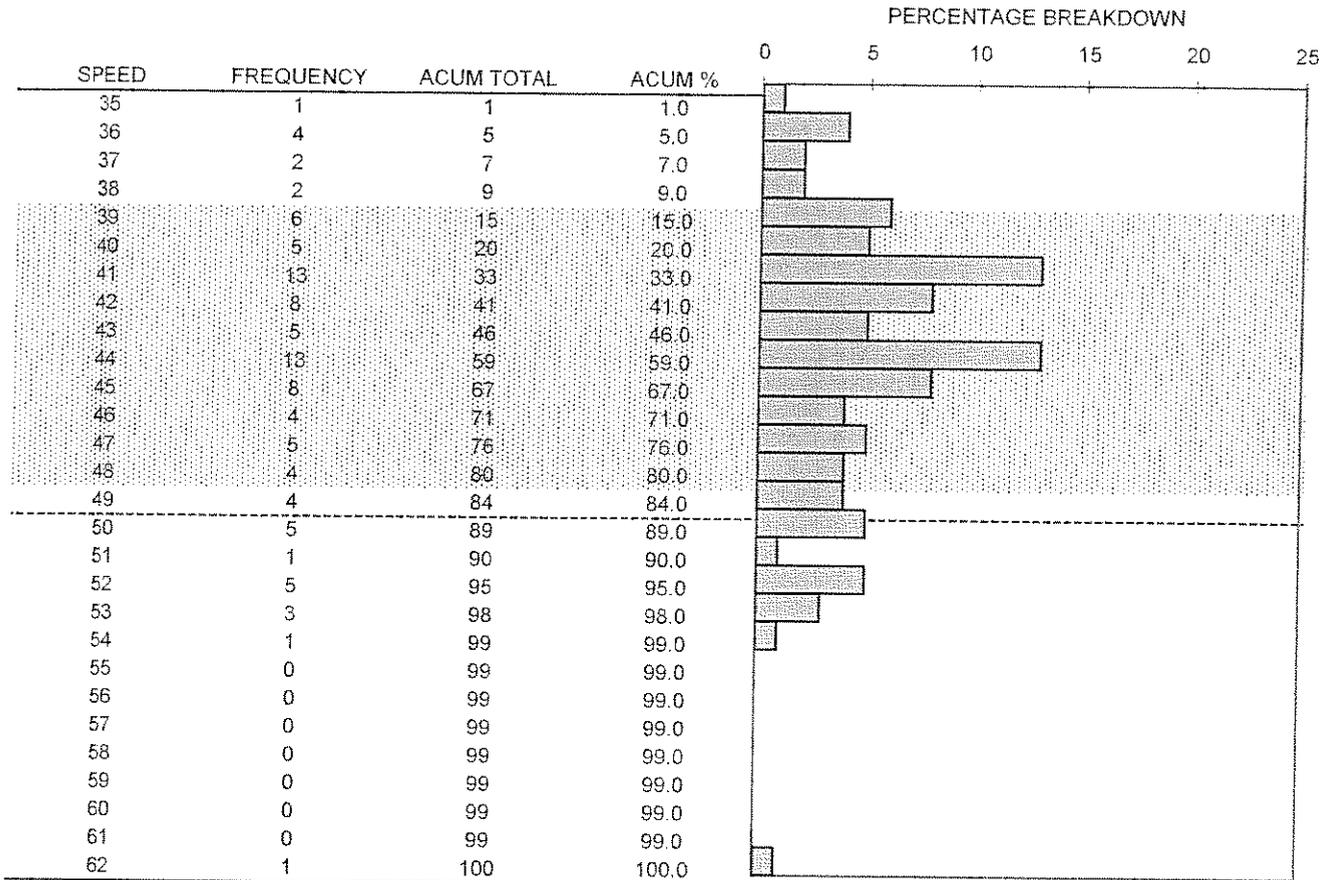
SAMPLE VARIANCE = 5.7425253
 STANDARD DEVIATION = 2.3963567
 RANGE 1*S = 70.
 RANGE 2*S = 96.
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
SPEED STUDY
CITY OF KEARNEY
OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
OBSERVER: Ben Messersmith
DATE: 7-20-04

COUNTY: Buffalo
SPEED LIMIT: 45 mph
DIRECTION: NB/SB

LOCATION: Antelope Avenue North of HWY-30
TIME START: 1:15 PM
TIME END: 2:30 PM



AVERAGE SPEED = 44.2
50th PERCENTILE = 43.3
85th PERCENTILE = 49.2
90th PERCENTILE = 51.
95th PERCENTILE = 52.

PACE = 39 - 48
VEHICLES IN PACE = 71
% IN PACE = 71.
% BELOW PACE = 9.
% ABOVE PACE = 20.

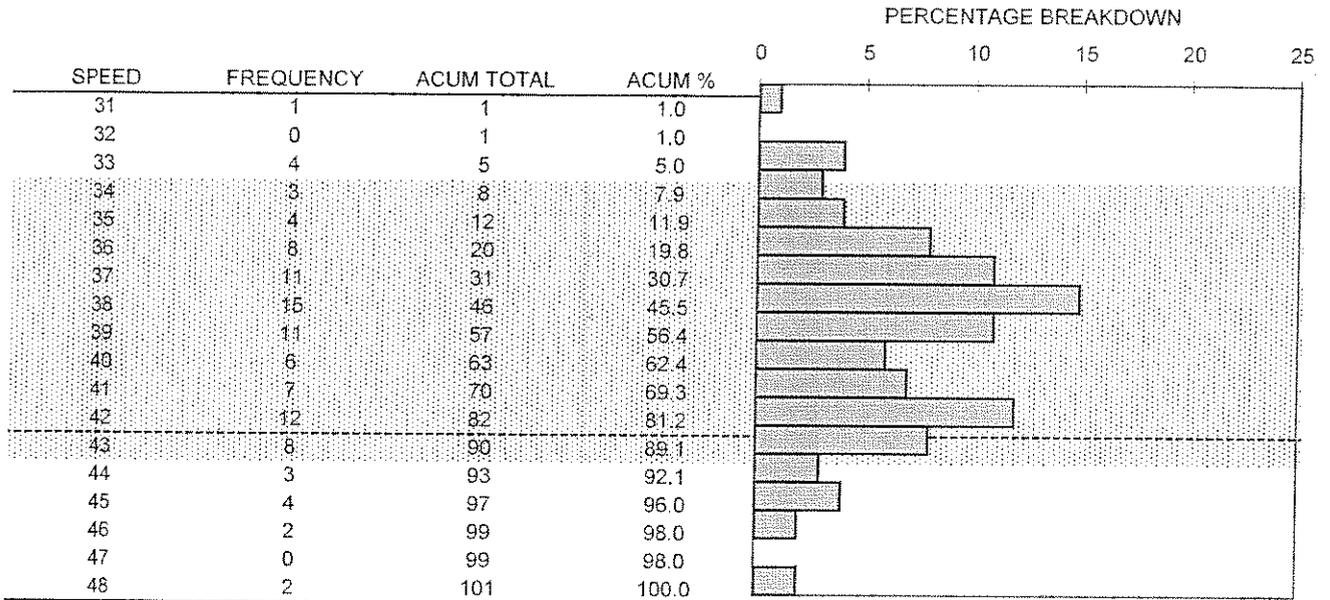
SAMPLE VARIANCE = 23.587477
STANDARD DEVIATION = 4.8566938
RANGE 1*S = 75.
RANGE 2*S = 98.
RANGE 3*S = 99.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-14-04

COUNTY: Buffalo
 SPEED LIMIT: 40 mph
 DIRECTION: EB/WB

LOCATION: 56th Street 2nd Ave. - Ave. E
 TIME START: 9:30 AM
 TIME END: 10:00 AM



AVERAGE SPEED = 39.3
 50th PERCENTILE = 38.4
 85th PERCENTILE = 42.5
 90th PERCENTILE = 43.3
 95th PERCENTILE = 44.7

PACE = 34 - 43
 VEHICLES IN PACE = 85
 % IN PACE = 84.2
 % BELOW PACE = 5.
 % ABOVE PACE = 10.9

SAMPLE VARIANCE = 12.1487129
 STANDARD DEVIATION = 3.4855004
 RANGE 1*S = 69.30693
 RANGE 2*S = 97.0297
 RANGE 3*S = 100.

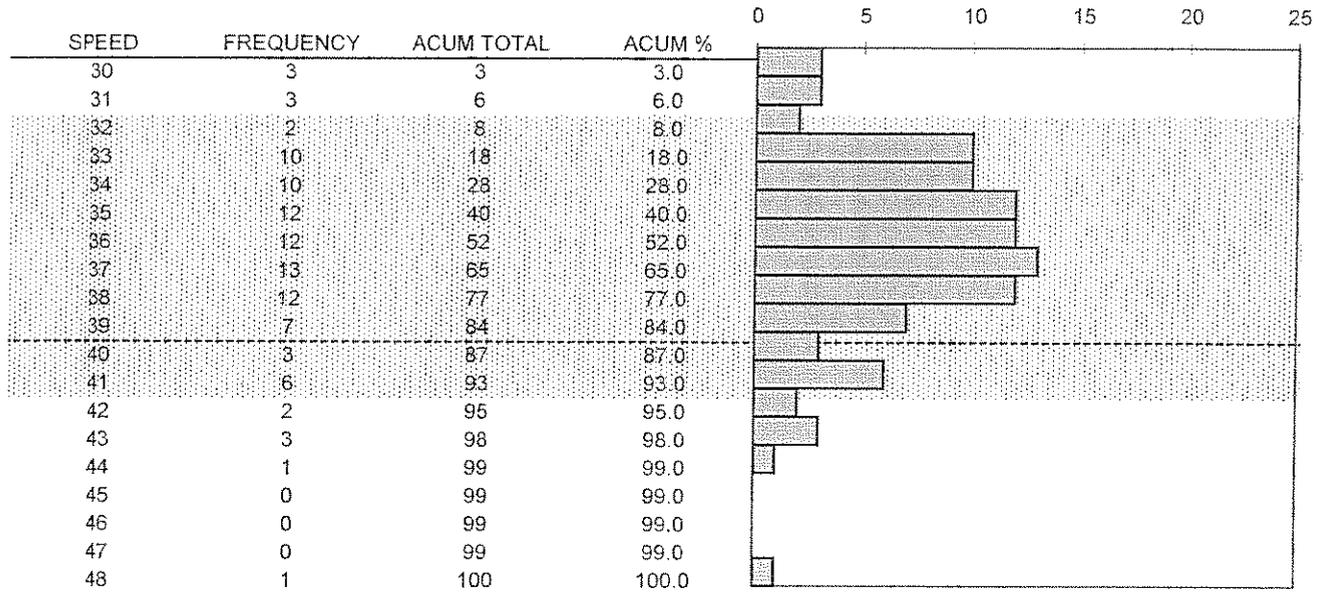
KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-12-04

COUNTY: Buffalo
 SPEED LIMIT: 35 mph
 DIRECTION: EB/WB

LOCATION: 39th Street 30th Ave. - 17th Ave.
 TIME START: 11:00 AM
 TIME END: 11:30 AM

PERCENTAGE BREAKDOWN



AVERAGE SPEED = 36.5
 50th PERCENTILE = 35.8
 85th PERCENTILE = 39.3
 90th PERCENTILE = 40.5
 95th PERCENTILE = 42.

PACE = 32 - 41
 VEHICLES IN PACE = 87
 % IN PACE = 87.
 % BELOW PACE = 6.
 % ABOVE PACE = 7.

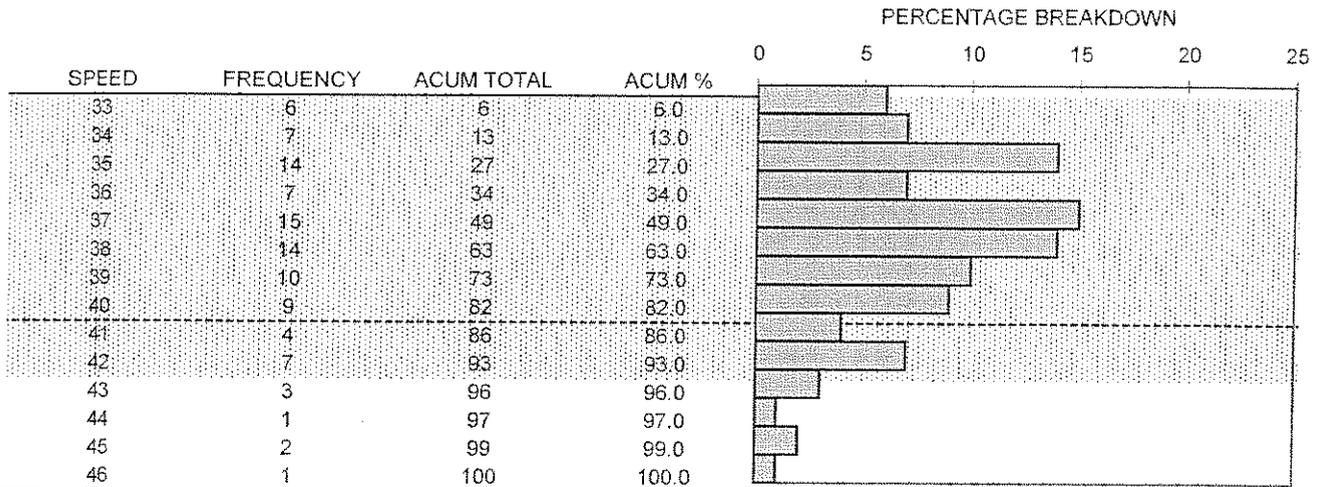
SAMPLE VARIANCE = 10.9191919
 STANDARD DEVIATION = 3.3044201
 RANGE 1*S = 76.
 RANGE 2*S = 98.
 RANGE 3*S = 99.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-12-04

COUNTY: Buffalo
 SPEED LIMIT: 35 mph
 DIRECTION: EB/WB

LOCATION: 39th Street 17th Ave. - 6th Ave.
 TIME START: 10:35 AM
 TIME END: 10:50 AM



AVERAGE SPEED = 37.8
 50th PERCENTILE = 37.1
 85th PERCENTILE = 40.8
 90th PERCENTILE = 41.6
 95th PERCENTILE = 42.7

PACE = 33 - 42
 VEHICLES IN PACE = 93
 % IN PACE = 93.
 % BELOW PACE = .
 % ABOVE PACE = 7.

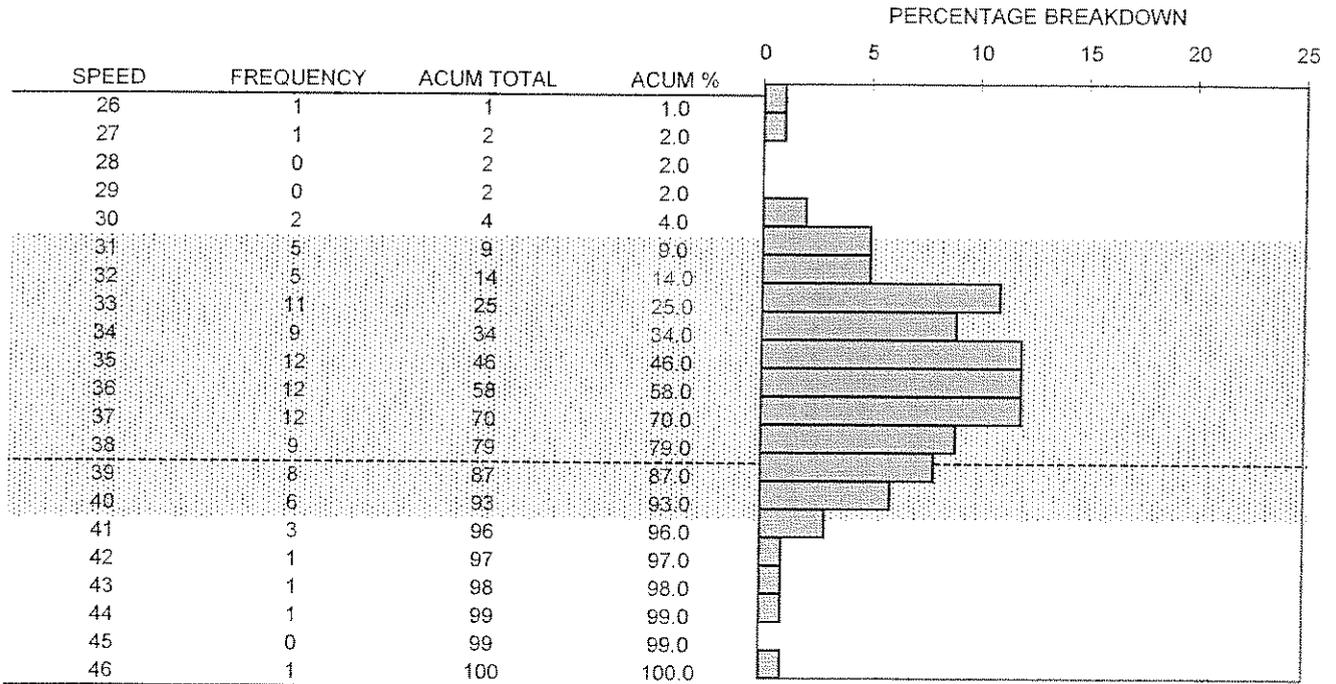
SAMPLE VARIANCE = 9.0379798
 STANDARD DEVIATION = 3.0063233
 RANGE 1*S = 69.
 RANGE 2*S = 96.
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-12-04

COUNTY: Buffalo
 SPEED LIMIT: 35 mph
 DIRECTION: EB/WB

LOCATION: 39th Street Ave. A - Ave. E
 TIME START: 10:05 AM
 TIME END: 10:30 AM



AVERAGE SPEED = 35.9
 50th PERCENTILE = 35.3
 85th PERCENTILE = 38.8
 90th PERCENTILE = 39.5
 95th PERCENTILE = 40.7

PACE = 31 - 40
 VEHICLES IN PACE = 89
 % IN PACE = 89.
 % BELOW PACE = 4.
 % ABOVE PACE = 7.

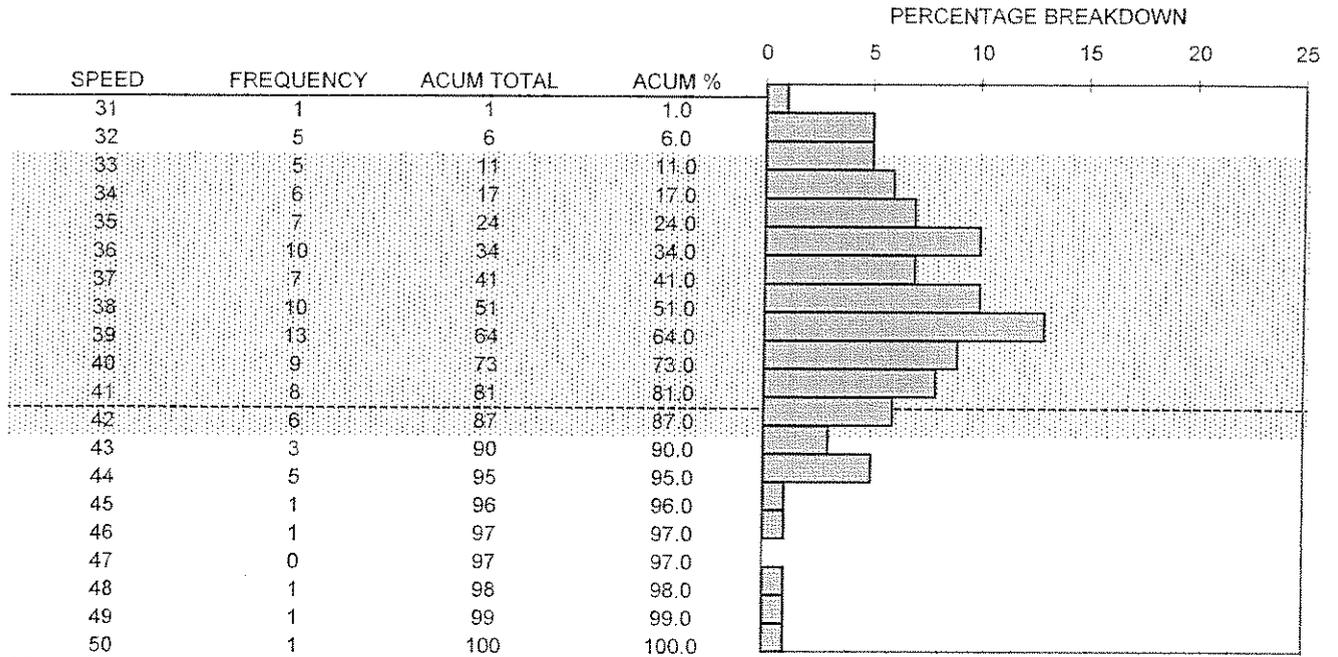
SAMPLE VARIANCE = 11.5429293
 STANDARD DEVIATION = 3.3974887
 RANGE 1*S = 78.
 RANGE 2*S = 95.
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-19-04

COUNTY: Buffalo
 SPEED LIMIT: 35 mph
 DIRECTION: EB/WB

LOCATION: 39th Street Ave. N - RR Tracks
 TIME START: 12:30 PM
 TIME END: 1:00 PM



AVERAGE SPEED = 38.4
 50th PERCENTILE = 37.9
 85th PERCENTILE = 41.7
 90th PERCENTILE = 43.
 95th PERCENTILE = 44.

PACE = 33 - 42
 VEHICLES IN PACE = 81
 % IN PACE = 81.
 % BELOW PACE = 6.
 % ABOVE PACE = 13.

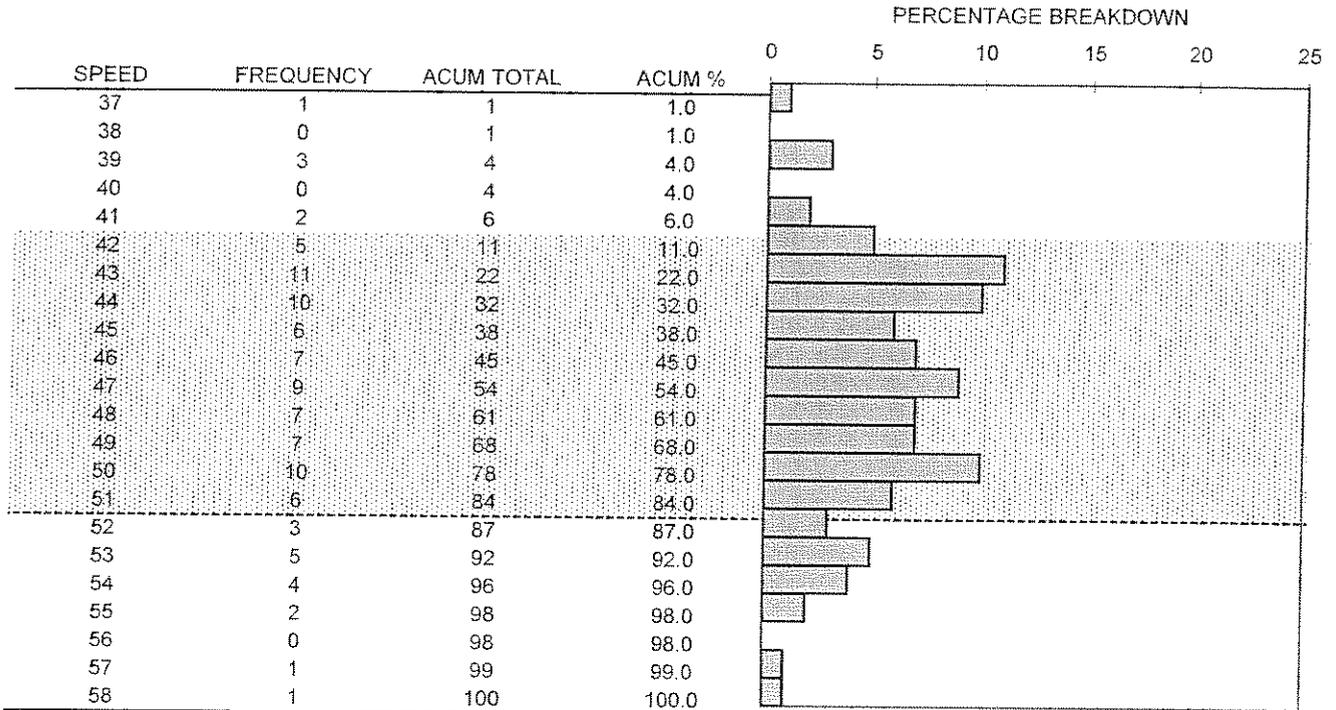
SAMPLE VARIANCE = 15.1066667
 STANDARD DEVIATION = 3.8867296
 RANGE 1*S = 76.
 RANGE 2*S = 97.
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-20-04

COUNTY: Buffalo
 SPEED LIMIT: 45 mph
 DIRECTION: EB/WB

LOCATION: 11th Street East of 30th Ave.
 TIME START: 3:15 PM
 TIME END: 4:00 PM



AVERAGE SPEED = 47.2
 50th PERCENTILE = 46.6
 85th PERCENTILE = 51.3
 90th PERCENTILE = 52.6
 95th PERCENTILE = 53.8

PACE = 42 - 51
 VEHICLES IN PACE = 78
 % IN PACE = 78.
 % BELOW PACE = 6.
 % ABOVE PACE = 16.

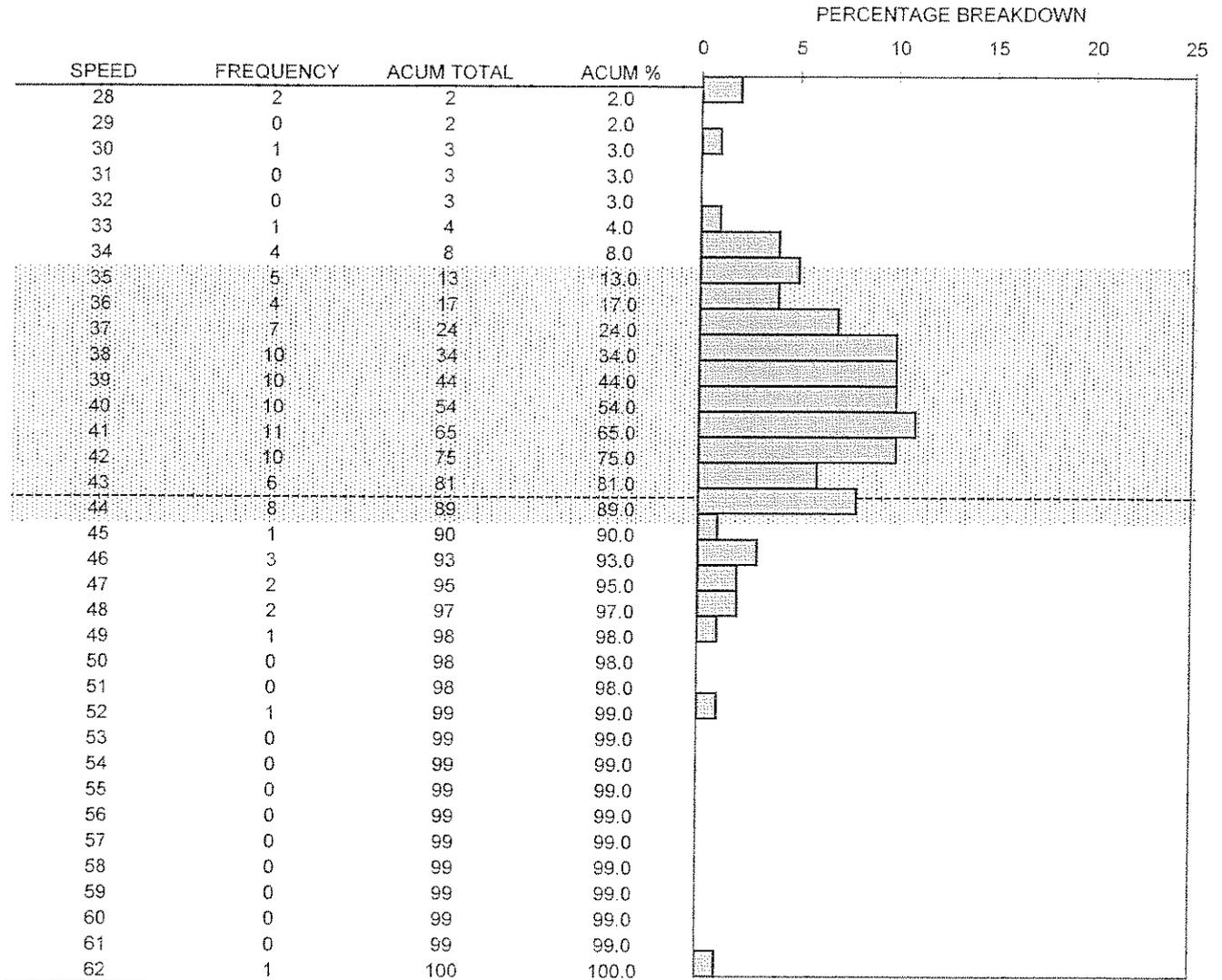
SAMPLE VARIANCE = 18.2079798
 STANDARD DEVIATION = 4.2670809
 RANGE 1*S = 73.
 RANGE 2*S = 97.
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
SPEED STUDY
CITY OF KEARNEY
OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
OBSERVER: Ben Messersmith
DATE: 7-19-04

COUNTY: Buffalo
SPEED LIMIT: 45 mph
DIRECTION: EB/WB

LOCATION: 11th Street West of 15th Ave.
TIME START: 11:00 AM
TIME END: 11:45 AM



AVERAGE SPEED = 40.2
50th PERCENTILE = 39.6
85th PERCENTILE = 43.5
90th PERCENTILE = 45.
95th PERCENTILE = 47.

PACE = 35 - 44
VEHICLES IN PACE = 81
% IN PACE = 81.
% BELOW PACE = 8.
% ABOVE PACE = 11.

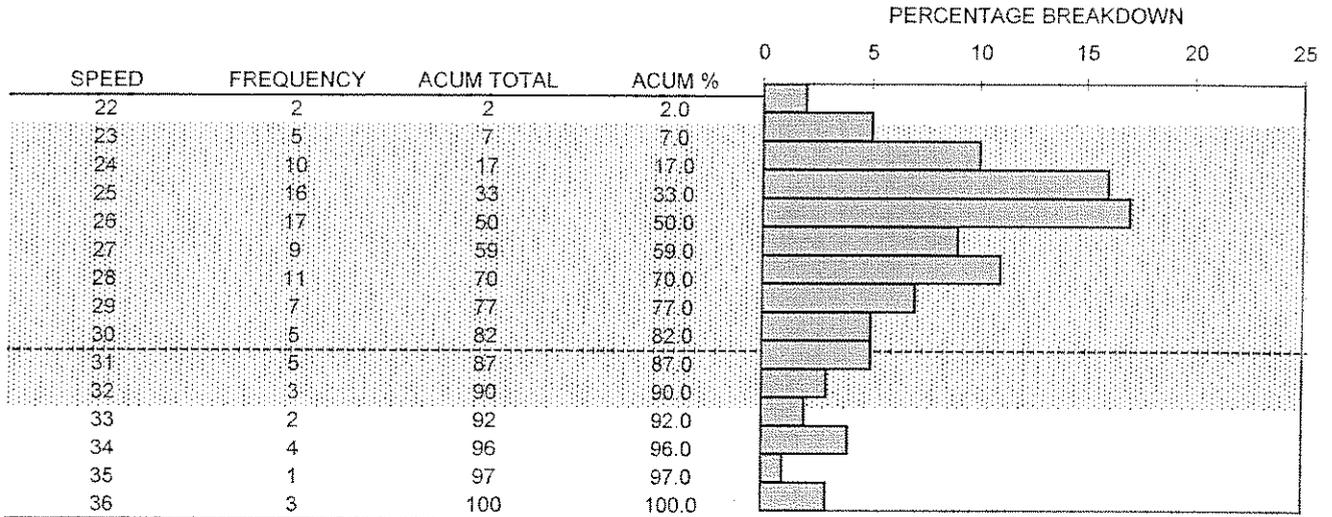
SAMPLE VARIANCE = 22.020202
STANDARD DEVIATION = 4.6925688
RANGE 1*S = 76.
RANGE 2*S = 95.
RANGE 3*S = 99.

KEARNEY COMP. PLAN (PHASE II)
SPEED STUDY
CITY OF KEARNEY
OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
OBSERVER: Ben Messersmith
DATE: 7-13-04

COUNTY: Buffalo
SPEED LIMIT: 25 mph
DIRECTION: EB/WB

LOCATION: 11th Street 5th Ave. - 2nd Ave.
TIME START: 8:15 AM
TIME END: 9:00 AM



AVERAGE SPEED = 27.4
50th PERCENTILE = 26.
85th PERCENTILE = 30.6
90th PERCENTILE = 32.
95th PERCENTILE = 33.8

PACE = 23 - 32
VEHICLES IN PACE = 88
% IN PACE = 88.
% BELOW PACE = 2.
% ABOVE PACE = 10.

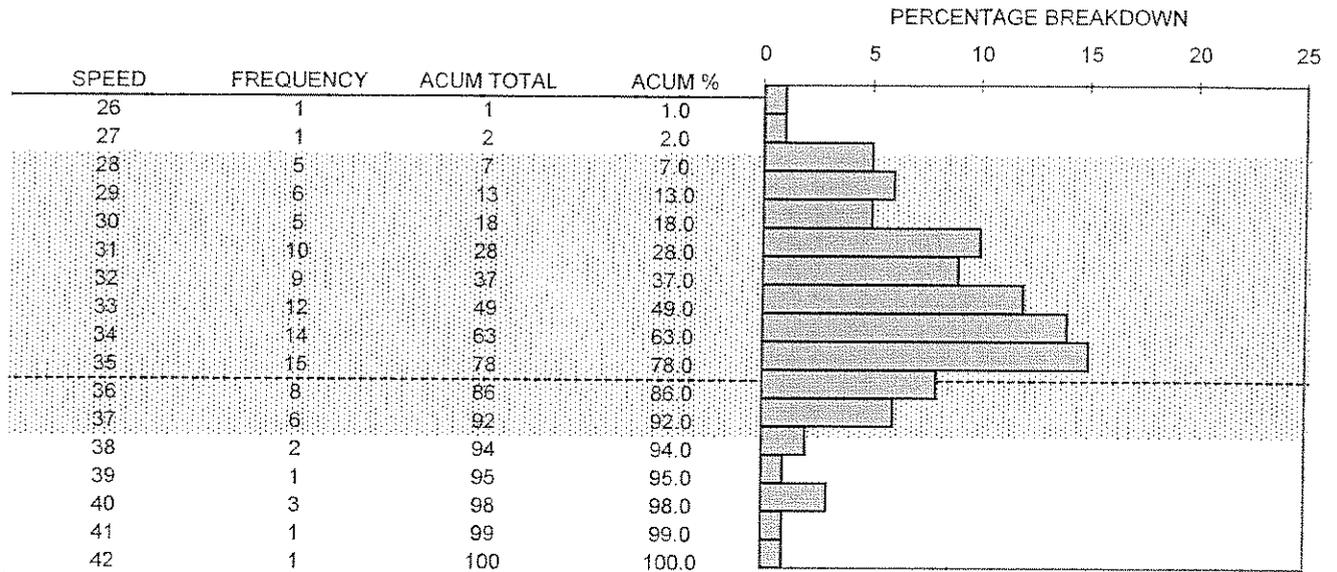
SAMPLE VARIANCE = 11.0928283
STANDARD DEVIATION = 3.3305898
RANGE 1*S = 75.
RANGE 2*S = 96.
RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-13-04

COUNTY: Buffalo
 SPEED LIMIT: 35 mph
 DIRECTION: EB/WB

LOCATION: 11th Street Central Ave. - Ave. H
 TIME START: 7:30 AM
 TIME END: 8:00 AM



AVERAGE SPEED = 33.4
 50th PERCENTILE = 33.1
 85th PERCENTILE = 35.9
 90th PERCENTILE = 36.7
 95th PERCENTILE = 39.

PACE = 28 - 37
 VEHICLES IN PACE = 90
 % IN PACE = 90.
 % BELOW PACE = 2.
 % ABOVE PACE = 8.

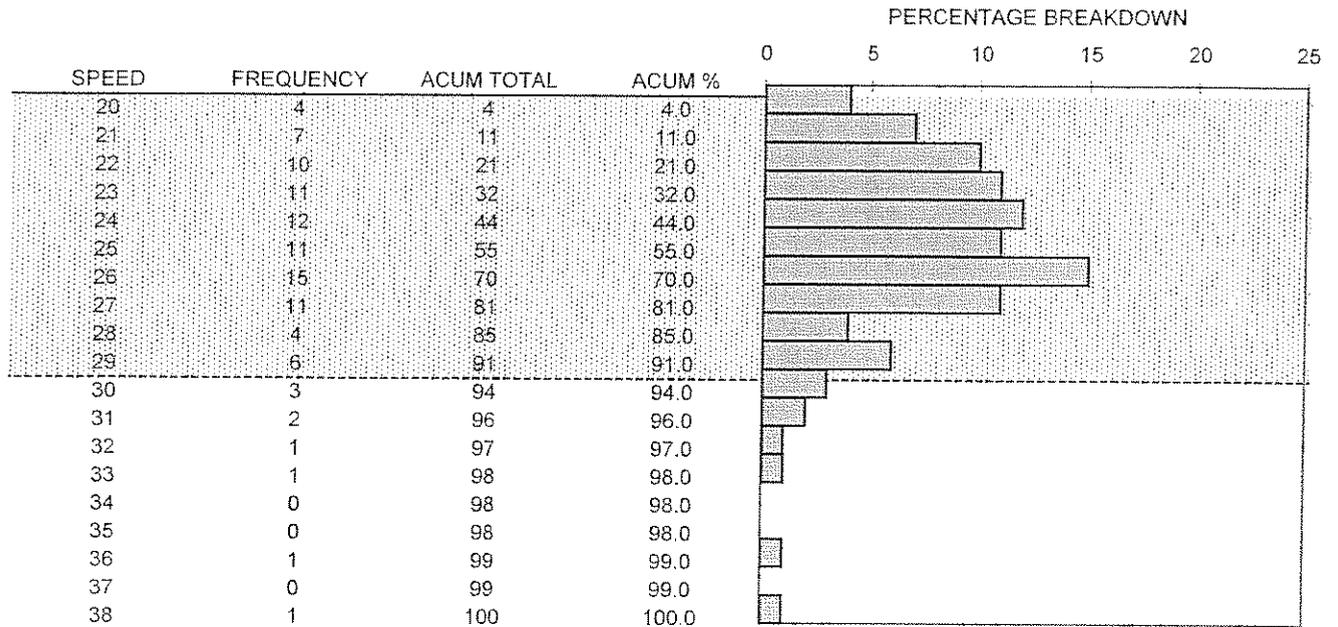
SAMPLE VARIANCE = 10.1414141
 STANDARD DEVIATION = 3.1845587
 RANGE 1*S = 73.
 RANGE 2*S = 94.
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-13-04

COUNTY: Buffalo
 SPEED LIMIT: 25 mph
 DIRECTION: NB/SB

LOCATION: 5th Avenue 22nd St. - 25th St.
 TIME START: 10:25 AM
 TIME END: 11:00 AM



AVERAGE SPEED = 25.3
 50th PERCENTILE = 24.5
 85th PERCENTILE = 28
 90th PERCENTILE = 28.8
 95th PERCENTILE = 30.5

PACE = 20 - 29
 VEHICLES IN PACE = 91
 % IN PACE = 91.
 % BELOW PACE = .
 % ABOVE PACE = 9.

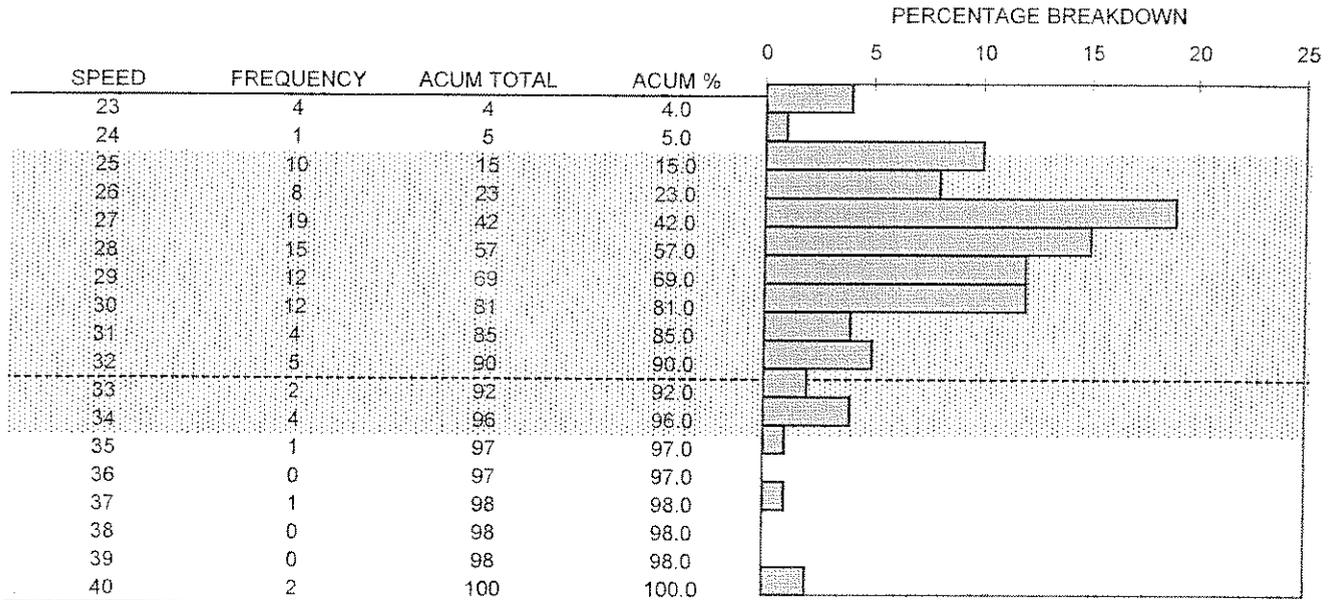
SAMPLE VARIANCE = 11.0273737
 STANDARD DEVIATION = 3.320749
 RANGE 1*S = 74.
 RANGE 2*S = 96.
 RANGE 3*S = 98.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-20-04

COUNTY: Buffalo
 SPEED LIMIT: 25 mph
 DIRECTION: NB/SB

LOCATION: 5th Avenue 16th St. - RR Tracks
 TIME START: 8:50 AM
 TIME END: 9:45 AM



AVERAGE SPEED = 28.5
 50th PERCENTILE = 27.5
 85th PERCENTILE = 31.
 90th PERCENTILE = 32.
 95th PERCENTILE = 33.8

PACE = 25 - 34
 VEHICLES IN PACE = 91
 % IN PACE = 91.
 % BELOW PACE = 5.
 % ABOVE PACE = 4.

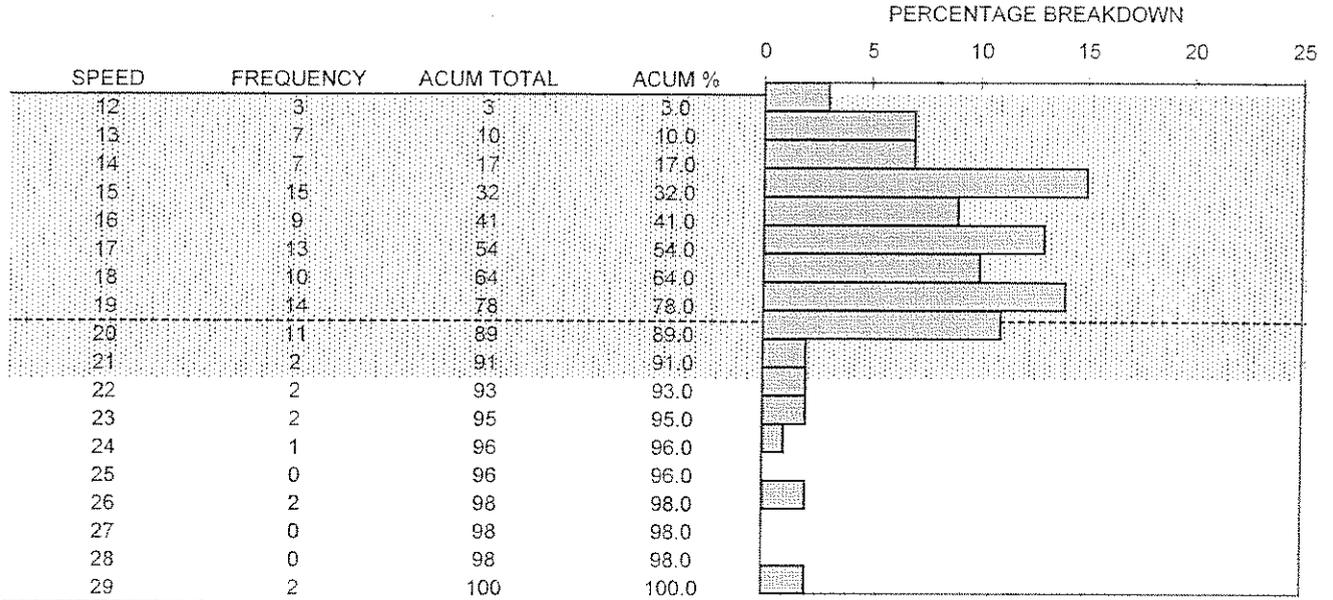
SAMPLE VARIANCE = 10.2718182
 STANDARD DEVIATION = 3.2049677
 RANGE 1*S = 80.
 RANGE 2*S = 96.
 RANGE 3*S = 98.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Shane King
 DATE: 8-31-04

COUNTY: Buffalo
 SPEED LIMIT: 25
 DIRECTION: NB/SB

LOCATION: Central Avenue 22nd St. - 25th St.
 TIME START: 1:30 PM
 TIME END: 2:15 PM



AVERAGE SPEED = 17.5
 50th PERCENTILE = 16.7
 85th PERCENTILE = 19.6
 90th PERCENTILE = 20.5
 95th PERCENTILE = 23.

PACE = 12 - 21
 VEHICLES IN PACE = 91
 % IN PACE = 91.
 % BELOW PACE = .
 % ABOVE PACE = 9.

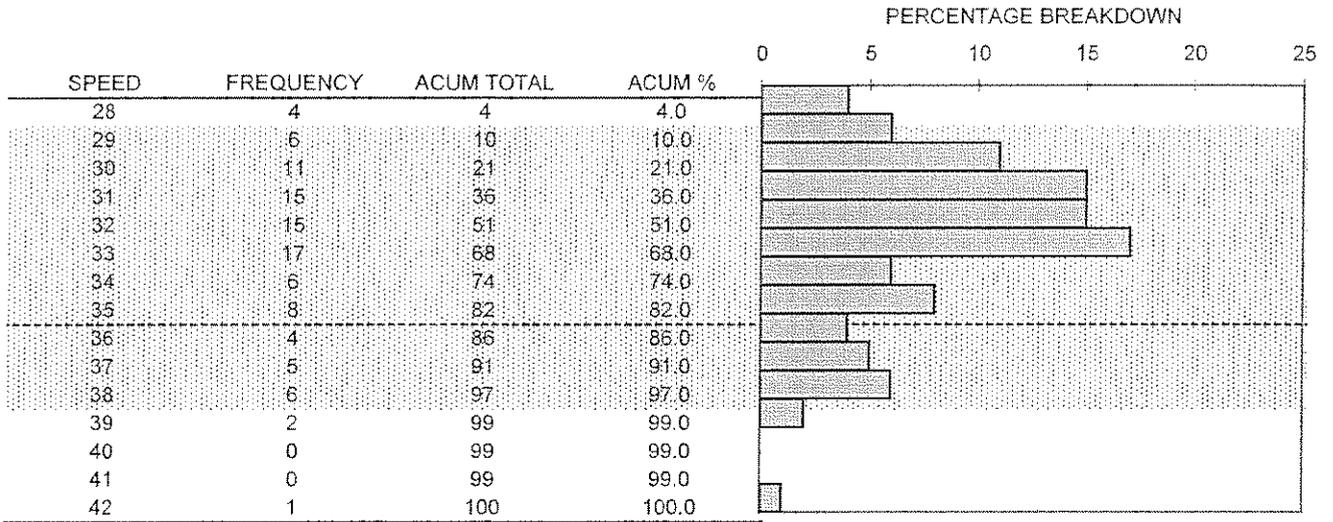
SAMPLE VARIANCE = 11.2617172
 STANDARD DEVIATION = 3.3558482
 RANGE 1*S = 79.
 RANGE 2*S = 96.
 RANGE 3*S = 98.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-13-04

COUNTY: Buffalo
 SPEED LIMIT: 35 mph
 DIRECTION: NB/SB

LOCATION: Central Avenue 8th St. - 11th St.
 TIME START: 12:30 PM
 TIME END: 1:15 PM



AVERAGE SPEED = 32.8
 50th PERCENTILE = 31.9
 85th PERCENTILE = 35.8
 90th PERCENTILE = 36.8
 95th PERCENTILE = 37.7

PACE = 29 - 38
 VEHICLES IN PACE = 92
 % IN PACE = 92.9
 % BELOW PACE = 4.
 % ABOVE PACE = 3.

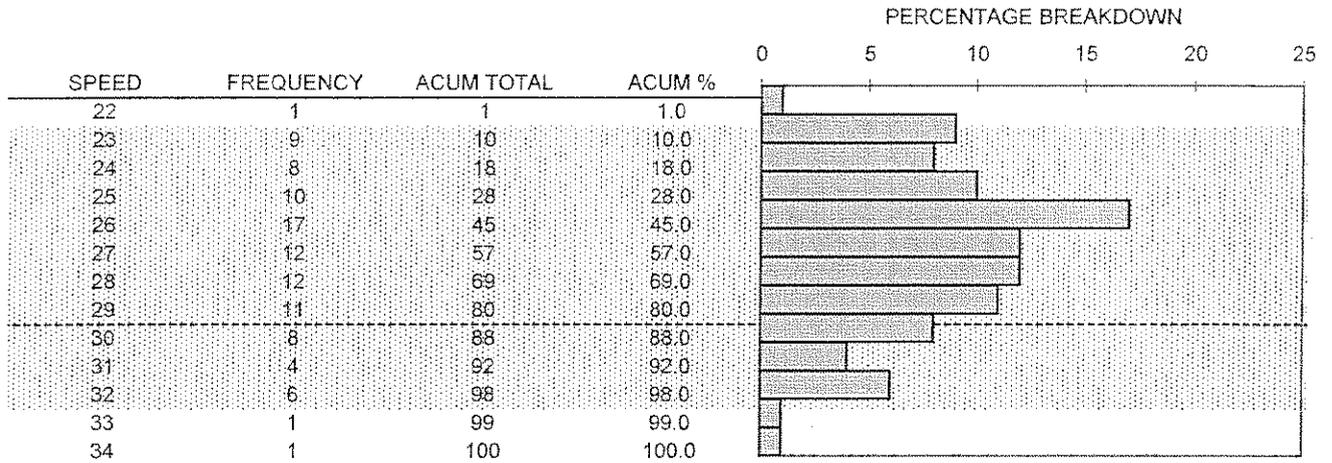
SAMPLE VARIANCE = 8.3607504
 STANDARD DEVIATION = 2.8914962
 RANGE 1*S = 71.71717
 RANGE 2*S = 96.9697
 RANGE 3*S = 98.9899

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-19-04

COUNTY: Buffalo
 SPEED LIMIT: 25 mph
 DIRECTION: NB/SB

LOCATION: Avenue E 31st St. - 34th St.
 TIME START: 5:00 PM
 TIME END: 5:30 PM



AVERAGE SPEED = 27.2
 50th PERCENTILE = 26.4
 85th PERCENTILE = 29.6
 90th PERCENTILE = 30.5
 95th PERCENTILE = 31.5

PACE = 23 - 32
 VEHICLES IN PACE = 97
 % IN PACE = 97.
 % BELOW PACE = 1.
 % ABOVE PACE = 2.

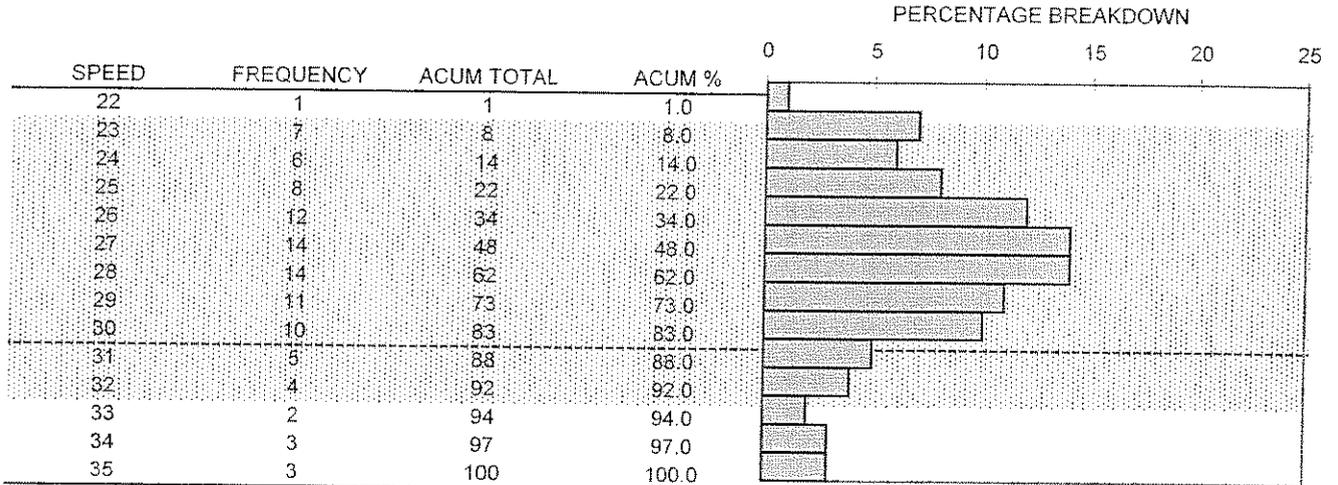
SAMPLE VARIANCE = 7.3005051
 STANDARD DEVIATION = 2.7019447
 RANGE 1*S = 70.
 RANGE 2*S = 98.
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-14-04

COUNTY: Buffalo
 SPEED LIMIT: 25 mph
 DIRECTION: NB/SB

LOCATION: Avenue E 39th St. - 48th St.
 TIME START: 2:00 PM
 TIME END: 2:45 PM



AVERAGE SPEED = 27.8
 50th PERCENTILE = 27.1
 85th PERCENTILE = 30.4
 90th PERCENTILE = 31.5
 95th PERCENTILE = 33.3

PACE = 23 - 32
 VEHICLES IN PACE = 91
 % IN PACE = 91.
 % BELOW PACE = 1.
 % ABOVE PACE = 8.

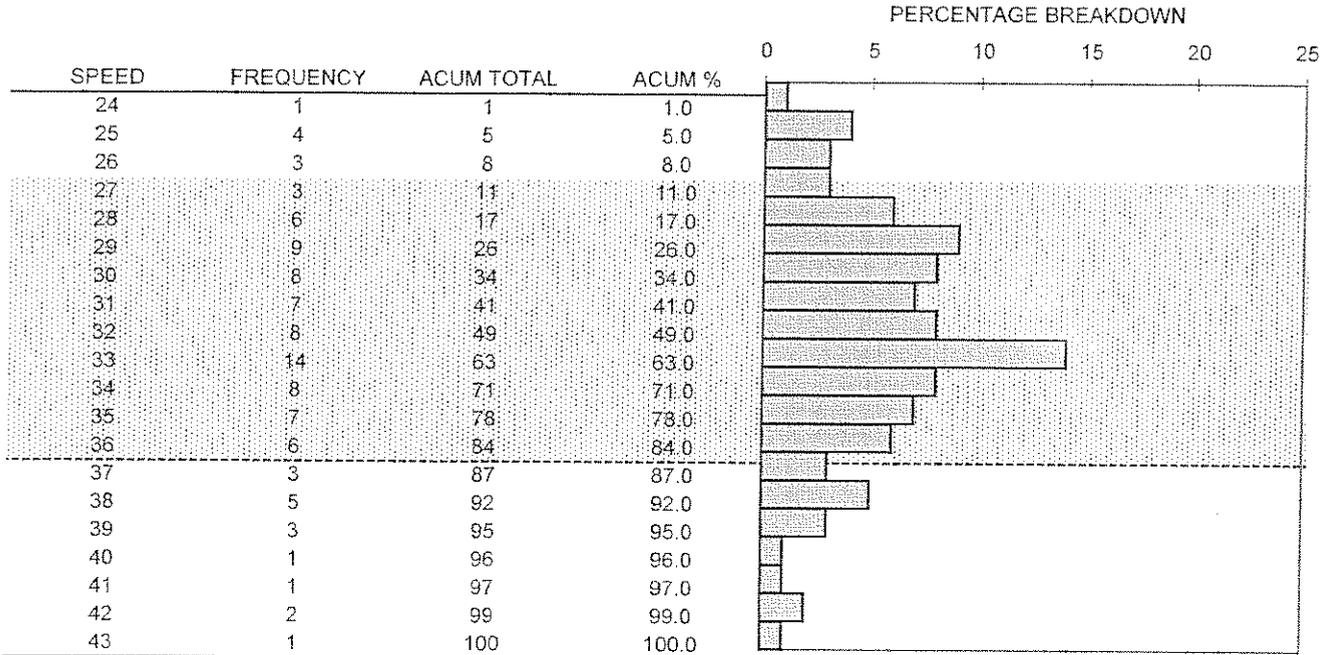
SAMPLE VARIANCE = 9.1256566
 STANDARD DEVIATION = 3.0208702
 RANGE 1*S = 69.
 RANGE 2*S = 94.
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-13-04

COUNTY: Buffalo
 SPEED LIMIT: 25 mph
 DIRECTION: NB/SB

LOCATION: Avenue E 48th St. - 56th St.
 TIME START: 4:00 PM
 TIME END: 5:00 PM



AVERAGE SPEED = 32.5
 50th PERCENTILE = 32.1
 85th PERCENTILE = 36.3
 90th PERCENTILE = 37.6
 95th PERCENTILE = 39.

PACE = 27 - 36
 VEHICLES IN PACE = 76
 % IN PACE = 76.
 % BELOW PACE = 8.
 % ABOVE PACE = 16.

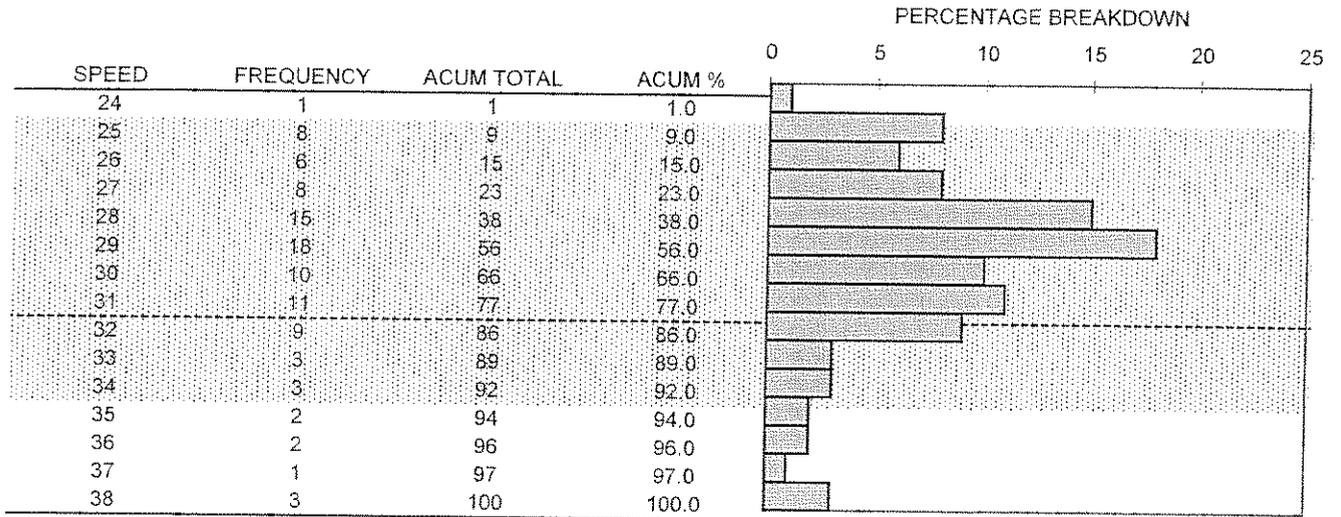
SAMPLE VARIANCE = 17.2812121
 STANDARD DEVIATION = 4.1570677
 RANGE 1*S = 73.
 RANGE 2*S = 96.
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-14-04

COUNTY: Buffalo
 SPEED LIMIT: 30 mph
 DIRECTION: NB/SB

LOCATION: Avenue H 16th St. - 20th St.
 TIME START: 4:00 PM
 TIME END: 4:45 PM



AVERAGE SPEED = 29.6
 50th PERCENTILE = 28.7
 85th PERCENTILE = 31.9
 90th PERCENTILE = 33.3
 95th PERCENTILE = 35.5

PACE = 25 - 34
 VEHICLES IN PACE = 91
 % IN PACE = 91.
 % BELOW PACE = 1.
 % ABOVE PACE = 8.

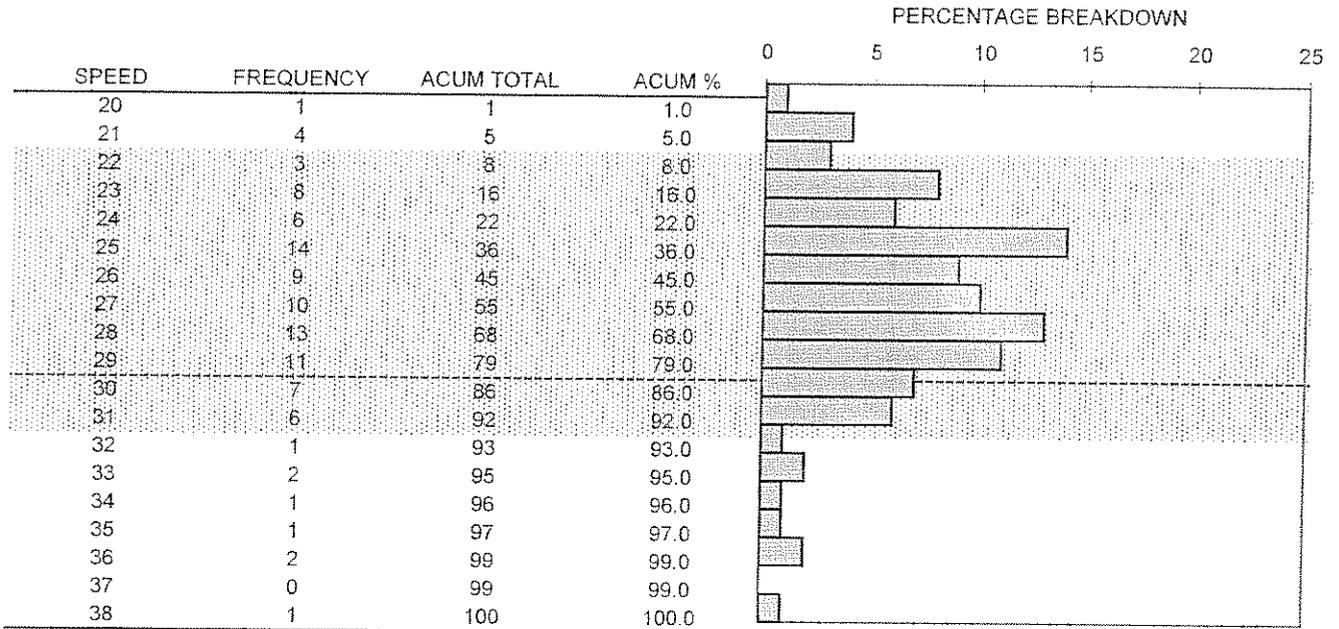
SAMPLE VARIANCE = 9.6140404
 STANDARD DEVIATION = 3.1006516
 RANGE 1*S = 71.
 RANGE 2*S = 94.
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-20-04

COUNTY: Buffalo
 SPEED LIMIT: 25 mph
 DIRECTION: NB/SB

LOCATION: Avenue I 31st St. - 34th St.
 TIME START: 11:30 AM
 TIME END: 12:30 PM



AVERAGE SPEED = 27.1
 50th PERCENTILE = 26.5
 85th PERCENTILE = 29.9
 90th PERCENTILE = 30.7
 95th PERCENTILE = 33.

PACE = 22 - 31
 VEHICLES IN PACE = 87
 % IN PACE = 87.
 % BELOW PACE = 5.
 % ABOVE PACE = 8.

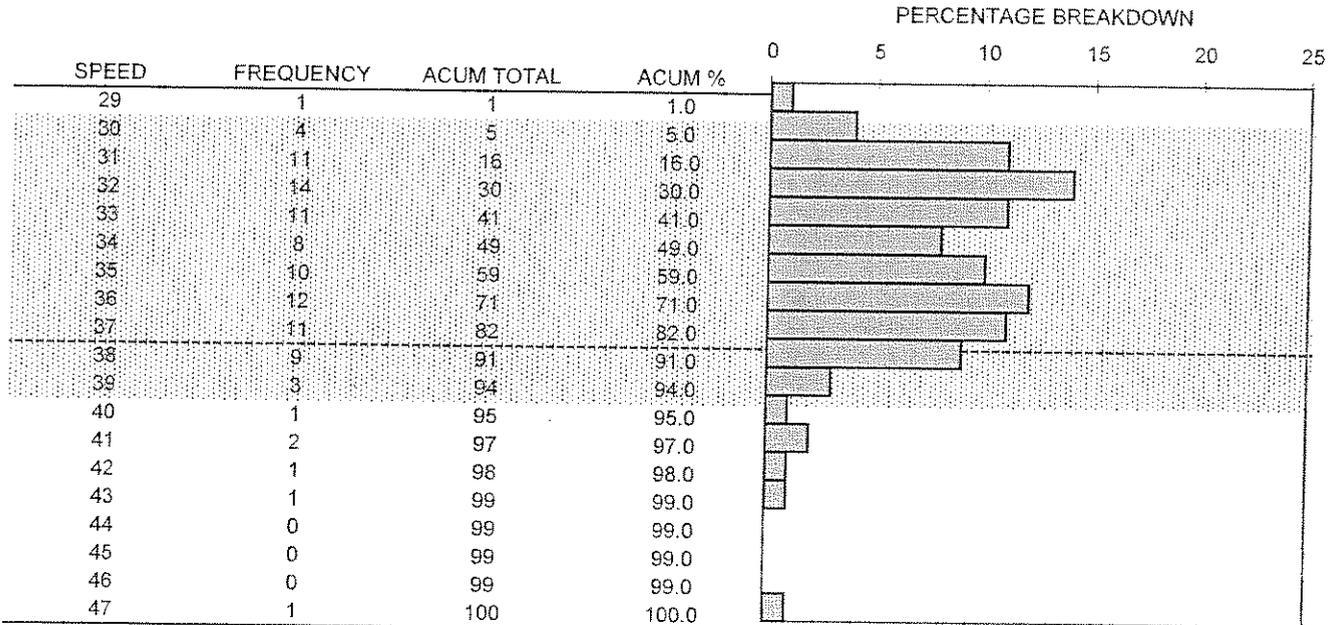
SAMPLE VARIANCE = 12.3571717
 STANDARD DEVIATION = 3.5152769
 RANGE 1*S = 70.
 RANGE 2*S = 96.
 RANGE 3*S = 99.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-14-04

COUNTY: Buffalo
 SPEED LIMIT: 35 mph
 DIRECTION: NEB/SWB

LOCATION: Grand Avenue 27th St. - 34th St.
 TIME START: 12:30 PM
 TIME END: 1:45 PM



AVERAGE SPEED = 34.8
 50th PERCENTILE = 34.1
 85th PERCENTILE = 37.3
 90th PERCENTILE = 37.9
 95th PERCENTILE = 40.

PACE = 30 - 39
 VEHICLES IN PACE = 93
 % IN PACE = 93.
 % BELOW PACE = 1.
 % ABOVE PACE = 6.

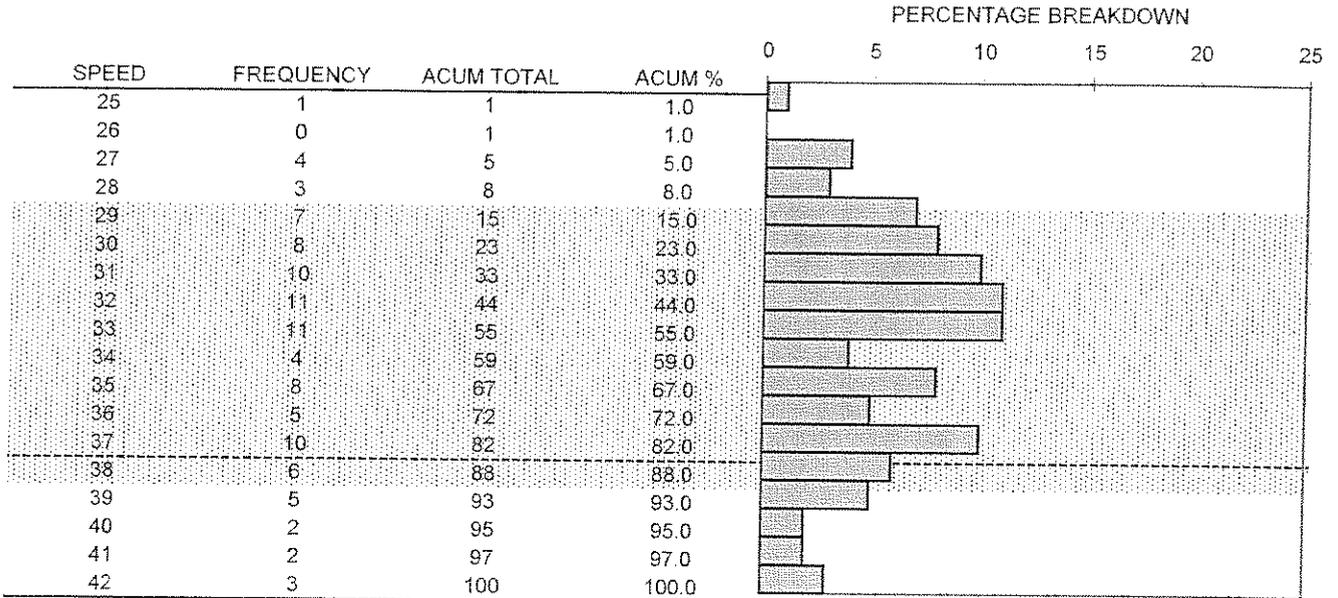
SAMPLE VARIANCE = 10.3308081
 STANDARD DEVIATION = 3.2141574
 RANGE 1*S = 66.
 RANGE 2*S = 97.
 RANGE 3*S = 99.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-19-04

COUNTY: Buffalo
 SPEED LIMIT: 25 mph
 DIRECTION: EB/WB

LOCATION: 48th Street East of 6th Ave.
 TIME START: 3:45 PM
 TIME END: 4:45 PM



AVERAGE SPEED = 33.6
 50th PERCENTILE = 32.5
 85th PERCENTILE = 37.5
 90th PERCENTILE = 38.4
 95th PERCENTILE = 40.

PACE = 29 - 38
 VEHICLES IN PACE = 80
 % IN PACE = 80.
 % BELOW PACE = 8.
 % ABOVE PACE = 12.

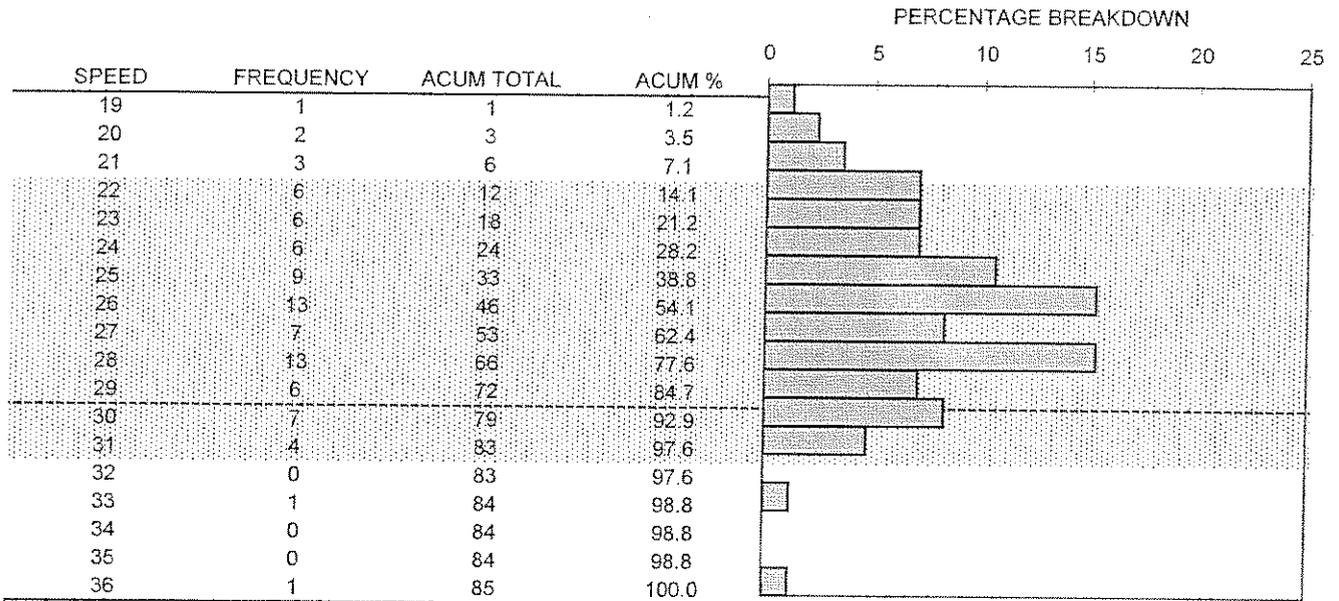
SAMPLE VARIANCE = 15.3490909
 STANDARD DEVIATION = 3.9177916
 RANGE 1*S = 67.
 RANGE 2*S = 96.
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-21-04

COUNTY: Buffalo
 SPEED LIMIT: 25 mph
 DIRECTION: EB/WB

LOCATION: 34th Street Ave. I - Ave N
 TIME START: 11:15 AM
 TIME END: 1:15 PM



AVERAGE SPEED = 26.2
 50th PERCENTILE = 25.8
 85th PERCENTILE = 29.1
 90th PERCENTILE = 29.7
 95th PERCENTILE = 30.5

PACE = 22 - 31
 VEHICLES IN PACE = 76
 % IN PACE = 90.5
 % BELOW PACE = 7.1
 % ABOVE PACE = 2.4

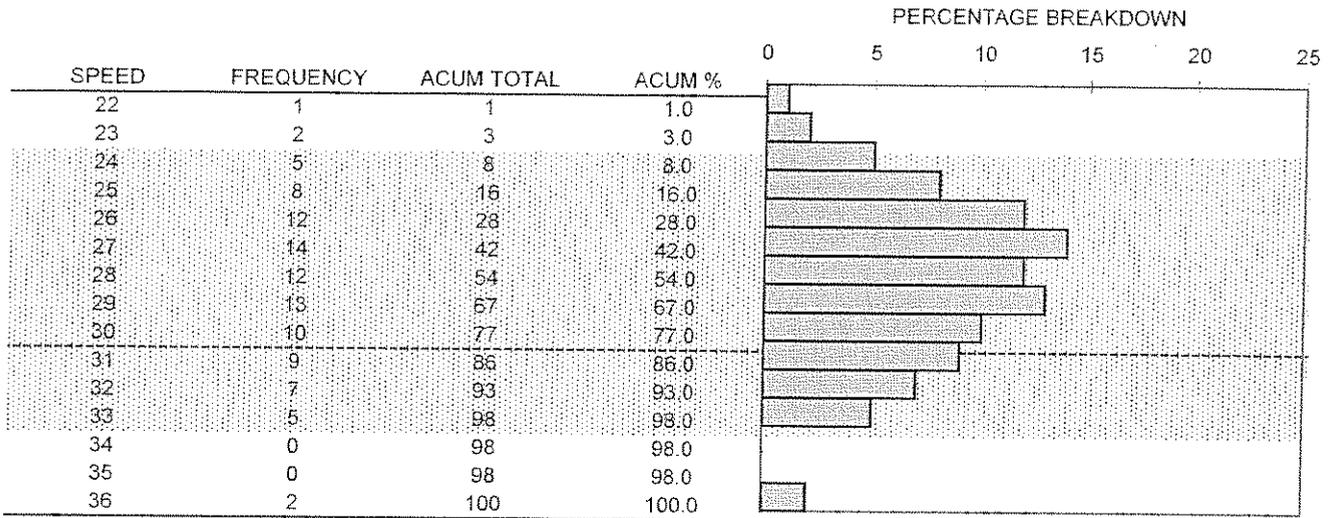
SAMPLE VARIANCE = 10.2076879
 STANDARD DEVIATION = 3.1949472
 RANGE 1*S = 70.2381
 RANGE 2*S = 96.42857
 RANGE 3*S = 98.80952

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-13-04

COUNTY: Buffalo
 SPEED LIMIT: 30 mph
 DIRECTION: EB/WB

LOCATION: 31st Street Ave. A - Ave. E
 TIME START: 1:30 PM
 TIME END: 2:15 PM



AVERAGE SPEED = 28.3
 50th PERCENTILE = 27.7
 85th PERCENTILE = 30.9
 90th PERCENTILE = 31.6
 95th PERCENTILE = 32.4

PACE = 24 - 33
 VEHICLES IN PACE = 95
 % IN PACE = 95.
 % BELOW PACE = 3.
 % ABOVE PACE = 2.

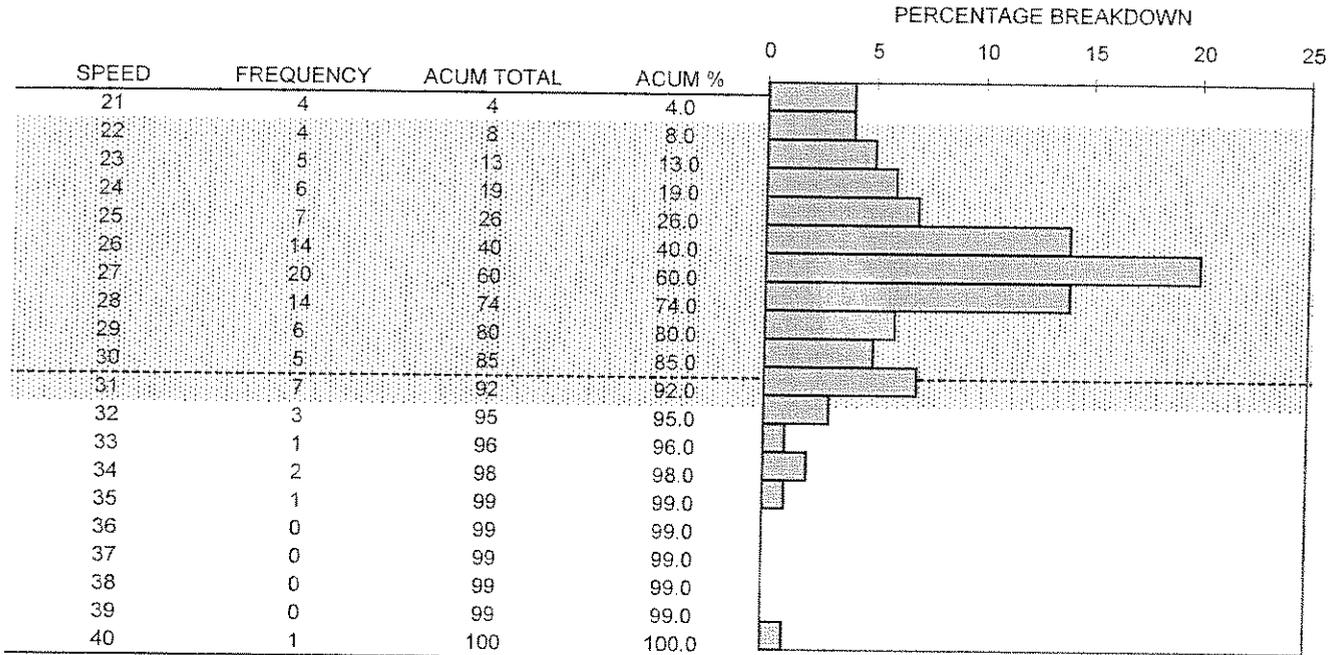
SAMPLE VARIANCE = 7.9736364
 STANDARD DEVIATION = 2.8237628
 RANGE 1*S = 78.
 RANGE 2*S = 97.
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-19-04

COUNTY: Buffalo
 SPEED LIMIT: 25 mph
 DIRECTION: EB/WB

LOCATION: 29th Street 5th Ave. - 2nd Ave.
 TIME START: 5:45 PM
 TIME END: 6:30 PM



AVERAGE SPEED = 27.1
 50th PERCENTILE = 26.5
 85th PERCENTILE = 30.
 90th PERCENTILE = 30.7
 95th PERCENTILE = 32.1

PACE = 22 - 31
 VEHICLES IN PACE = 87
 % IN PACE = 87.9
 % BELOW PACE = 4.
 % ABOVE PACE = 8.1

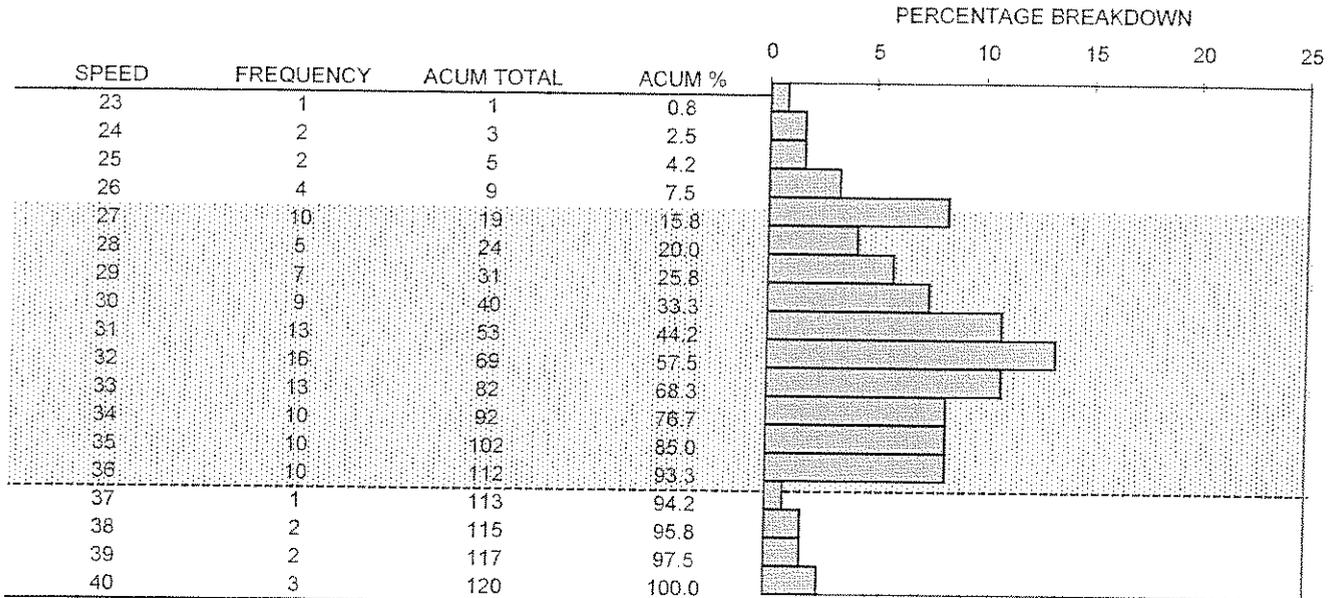
SAMPLE VARIANCE = 10.7553082
 STANDARD DEVIATION = 3.2795287
 RANGE 1*S = 71.71717
 RANGE 2*S = 95.95959
 RANGE 3*S = 98.9899

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Shane King
 DATE: 9-1-04

COUNTY: Buffalo
 SPEED LIMIT: 45
 DIRECTION: EB/WB

LOCATION: University Drive, UNK
 TIME START: 1:45 PM
 TIME END: 2:45 PM



AVERAGE SPEED = 31.8
 50th PERCENTILE = 31.4
 85th PERCENTILE = 35
 90th PERCENTILE = 35.6
 95th PERCENTILE = 37.5

PACE = 27 - 36
 VEHICLES IN PACE = 103
 % IN PACE = 85.8
 % BELOW PACE = 7.5
 % ABOVE PACE = 6.7

SAMPLE VARIANCE = 13.2514706
 STANDARD DEVIATION = 3.6402569
 RANGE 1*S = 69.16666
 RANGE 2*S = 96.66666
 RANGE 3*S = 100.

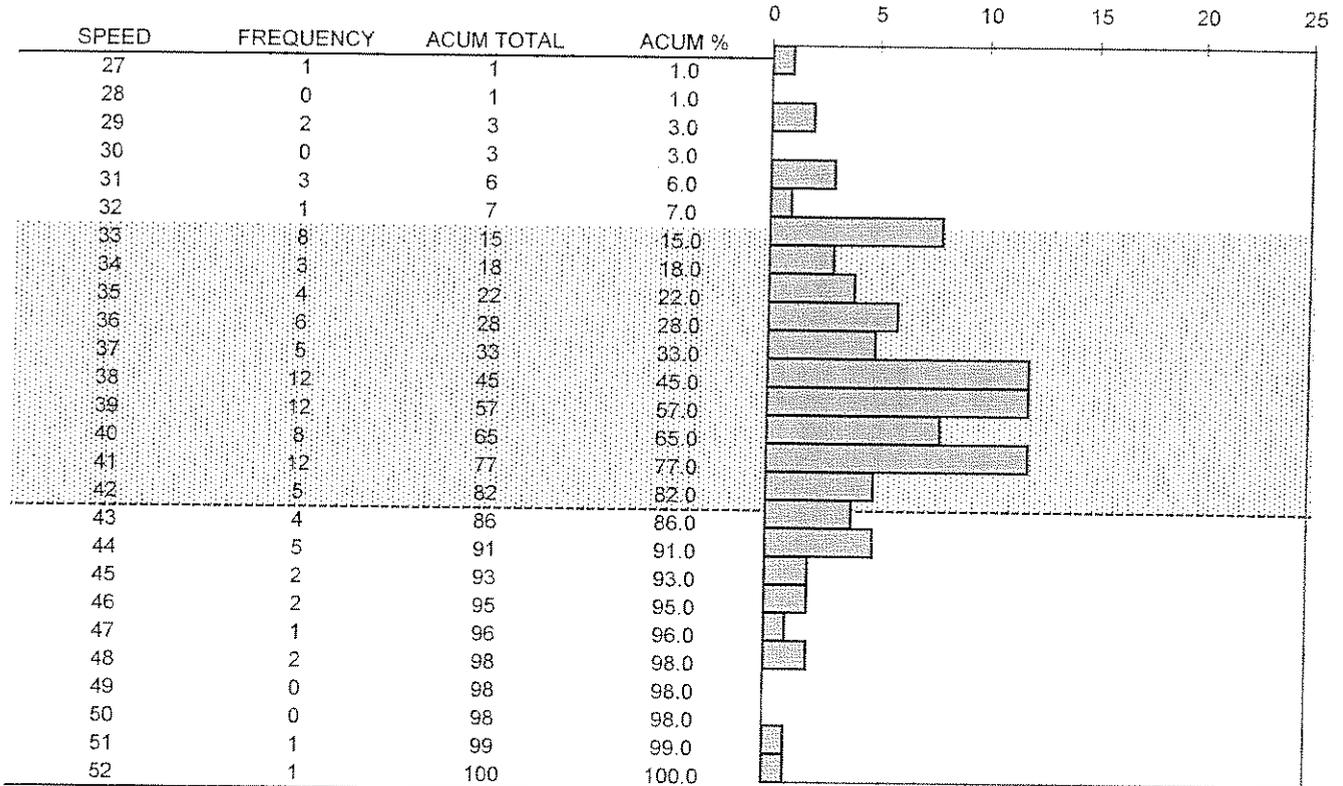
KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-20-04

COUNTY: Buffalo
 SPEED LIMIT: 35 mph
 DIRECTION: EB/WB

LOCATION: Railroad Street 30th Ave. - 17th Ave.
 TIME START: 4:15 PM
 TIME END: 5:15 PM

PERCENTAGE BREAKDOWN



AVERAGE SPEED = 38.8
 50th PERCENTILE = 38.4
 85th PERCENTILE = 42.8
 90th PERCENTILE = 43.8
 95th PERCENTILE = 46.

PACE = 33 - 42
 VEHICLES IN PACE = 75
 % IN PACE = 75.
 % BELOW PACE = 7.
 % ABOVE PACE = 18.

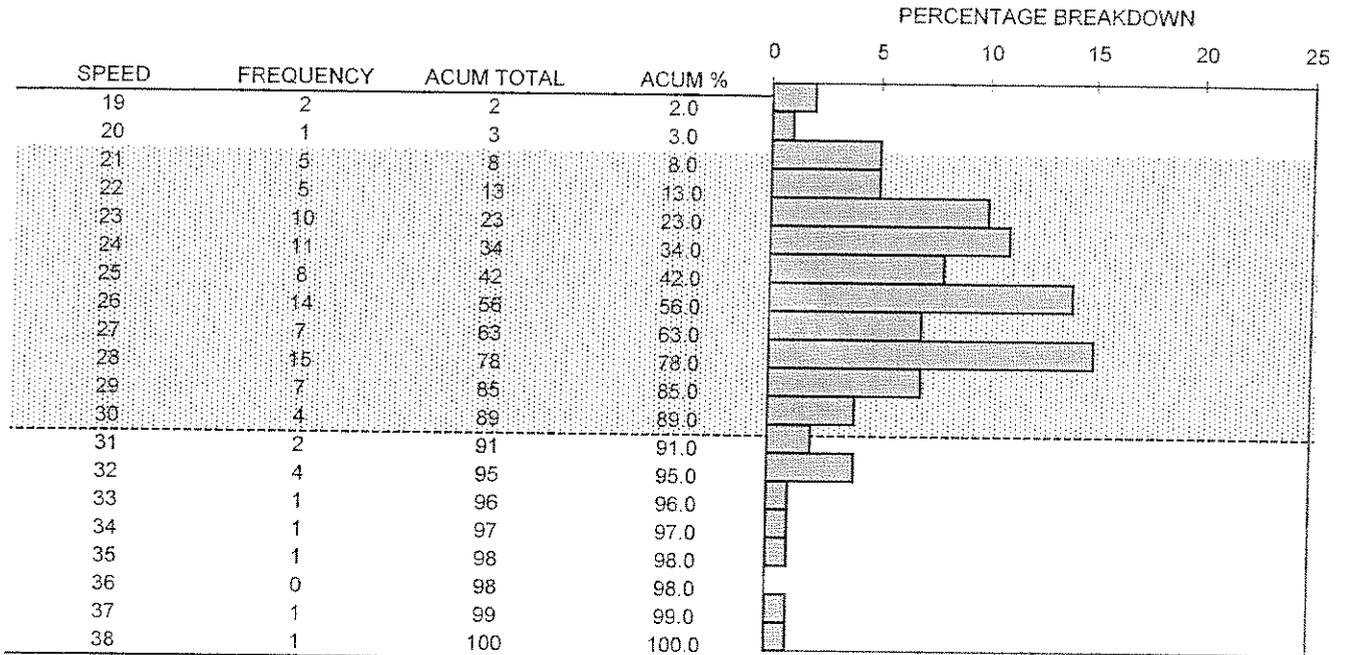
SAMPLE VARIANCE = 21.1526263
 STANDARD DEVIATION = 4.5991984
 RANGE 1*S = 71.
 RANGE 2*S = 95.
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-20-04

COUNTY: Buffalo
 SPEED LIMIT: 25 mph
 DIRECTION: EB/WB

LOCATION: Railroad Street 2nd Ave. - Central Ave.
 TIME START: 10:00 AM
 TIME END: 11:00 AM



AVERAGE SPEED = 26.3
 50th PERCENTILE = 25.6
 85th PERCENTILE = 29.
 90th PERCENTILE = 30.5
 95th PERCENTILE = 32.

PACE = 21 - 30
 VEHICLES IN PACE = 86
 % IN PACE = 86.
 % BELOW PACE = 3.
 % ABOVE PACE = 11.

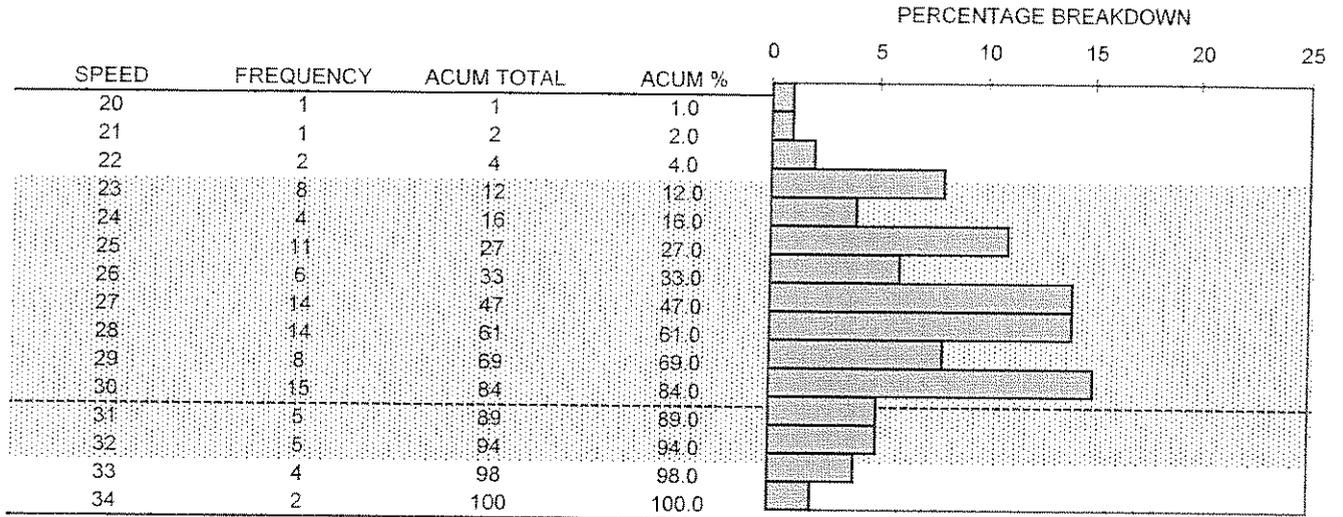
SAMPLE VARIANCE = 13.3232323
 STANDARD DEVIATION = 3.6501003
 RANGE 1*S = 72.
 RANGE 2*S = 96.
 RANGE 3*S = 99.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-20-04

COUNTY: Buffalo
 SPEED LIMIT: 30 mph
 DIRECTION: EB/WB

LOCATION: 16th Street 5th Ave. - 2nd Ave.
 TIME START: 7:45 AM
 TIME END: 8:45 AM



AVERAGE SPEED = 27.6
 50th PERCENTILE = 27.2
 85th PERCENTILE = 30.2
 90th PERCENTILE = 31.2
 95th PERCENTILE = 32.3

PACE = 23 - 32
 VEHICLES IN PACE = 89
 % IN PACE = 89.9
 % BELOW PACE = 4.
 % ABOVE PACE = 6.1

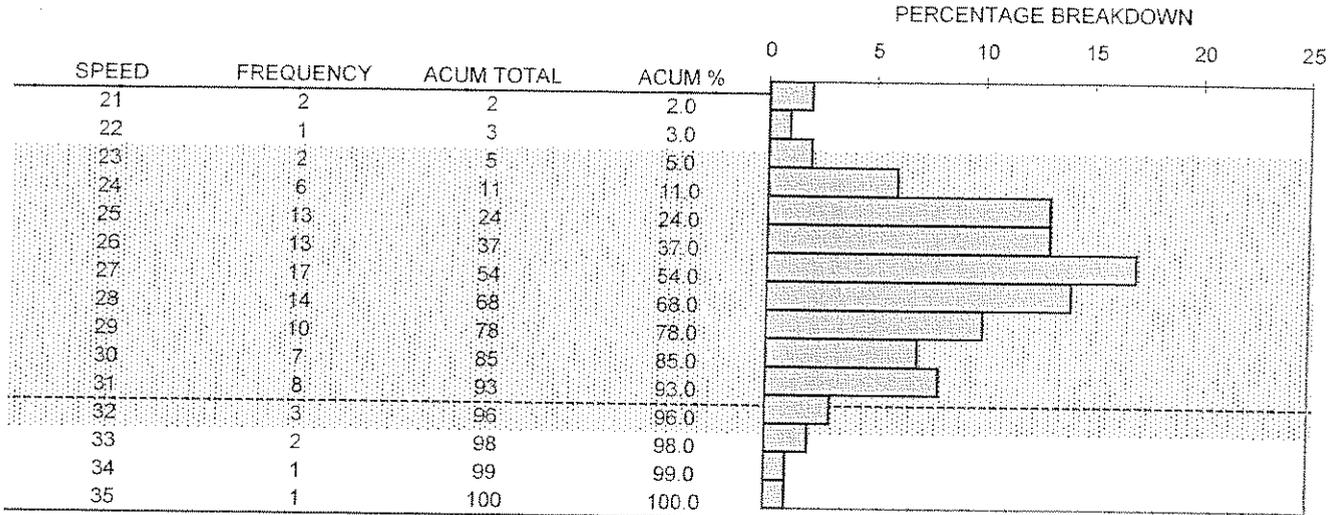
SAMPLE VARIANCE = 9.5629767
 STANDARD DEVIATION = 3.0924063
 RANGE 1*S = 67.67677
 RANGE 2*S = 96.9697
 RANGE 3*S = 100.

KEARNEY COMP. PLAN (PHASE II)
 SPEED STUDY
 CITY OF KEARNEY
 OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
 OBSERVER: Ben Messersmith
 DATE: 7-21-04

COUNTY: Buffalo
 SPEED LIMIT: 30 mph
 DIRECTION: EB/WB

LOCATION: 16th Street Central Ave. - Ave. H
 TIME START: 7:45 AM
 TIME END: 9:15 AM



AVERAGE SPEED = 27.5
 50th PERCENTILE = 26.8
 85th PERCENTILE = 30.
 90th PERCENTILE = 30.6
 95th PERCENTILE = 31.7

PACE = 23 - 32
 VEHICLES IN PACE = 93
 % IN PACE = 93.
 % BELOW PACE = 3.
 % ABOVE PACE = 4.

SAMPLE VARIANCE = 7.3829293
 STANDARD DEVIATION = 2.7171546
 RANGE 1*S = 74.
 RANGE 2*S = 94.
 RANGE 3*S = 100.

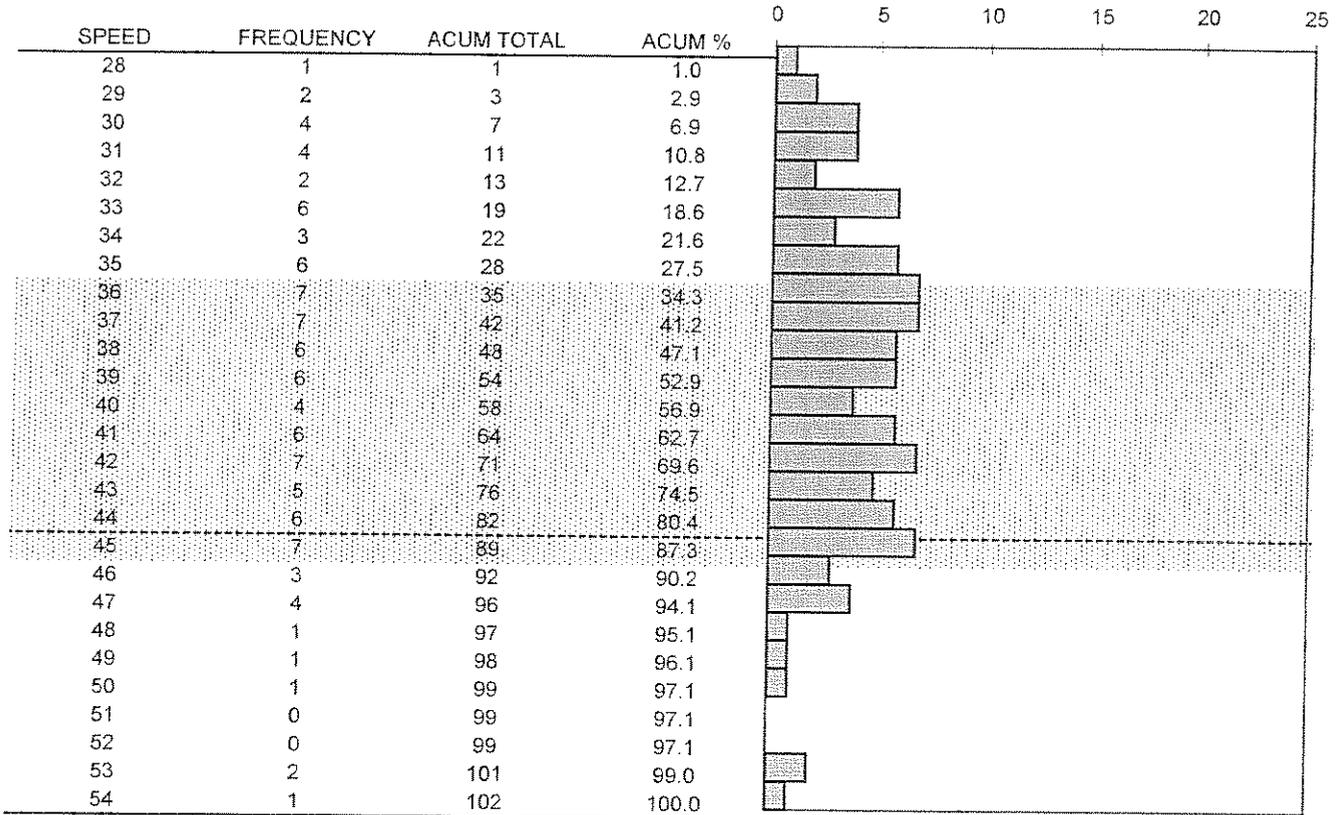
KEARNEY COMP. PLAN (PHASE II)
SPEED STUDY
CITY OF KEARNEY
OLSSON ASSOCIATES TRAFFIC ENGINEERING

CITY: Kearney
OBSERVER: Ben Messersmith
DATE: 7-19-04

COUNTY: Buffalo
SPEED LIMIT: 35 mph
DIRECTION: EB/WB

LOCATION: Archway Parkway Central Ave. - Ave. M
TIME START: 9:15 AM
TIME END: 10:50 AM

PERCENTAGE BREAKDOWN



AVERAGE SPEED = 39.3
50th PERCENTILE = 38.5
85th PERCENTILE = 44.7
90th PERCENTILE = 45.9
95th PERCENTILE = 47.9

PACE = 36 - 45
VEHICLES IN PACE = 61
% IN PACE = 59.8
% BELOW PACE = 27.5
% ABOVE PACE = 12.7

SAMPLE VARIANCE = 33.3799262
STANDARD DEVIATION = 5.7775363
RANGE 1*S = 74.5098
RANGE 2*S = 97.05882
RANGE 3*S = 100.

APPENDIX C

TRAVEL TIME RESULTS

- Figure C-1 2nd Avenue Travel Time NB
- Figure C-2 2nd Avenue Travel Time SB
- Figure C-3 25th Street Travel Time EB
- Figure C-4 25th Street Travel Time WB
- Figure C-5 39th Street Travel Time EB
- Figure C-6 39th Street Travel Time WB

2nd Avenue Travel Time (NB)

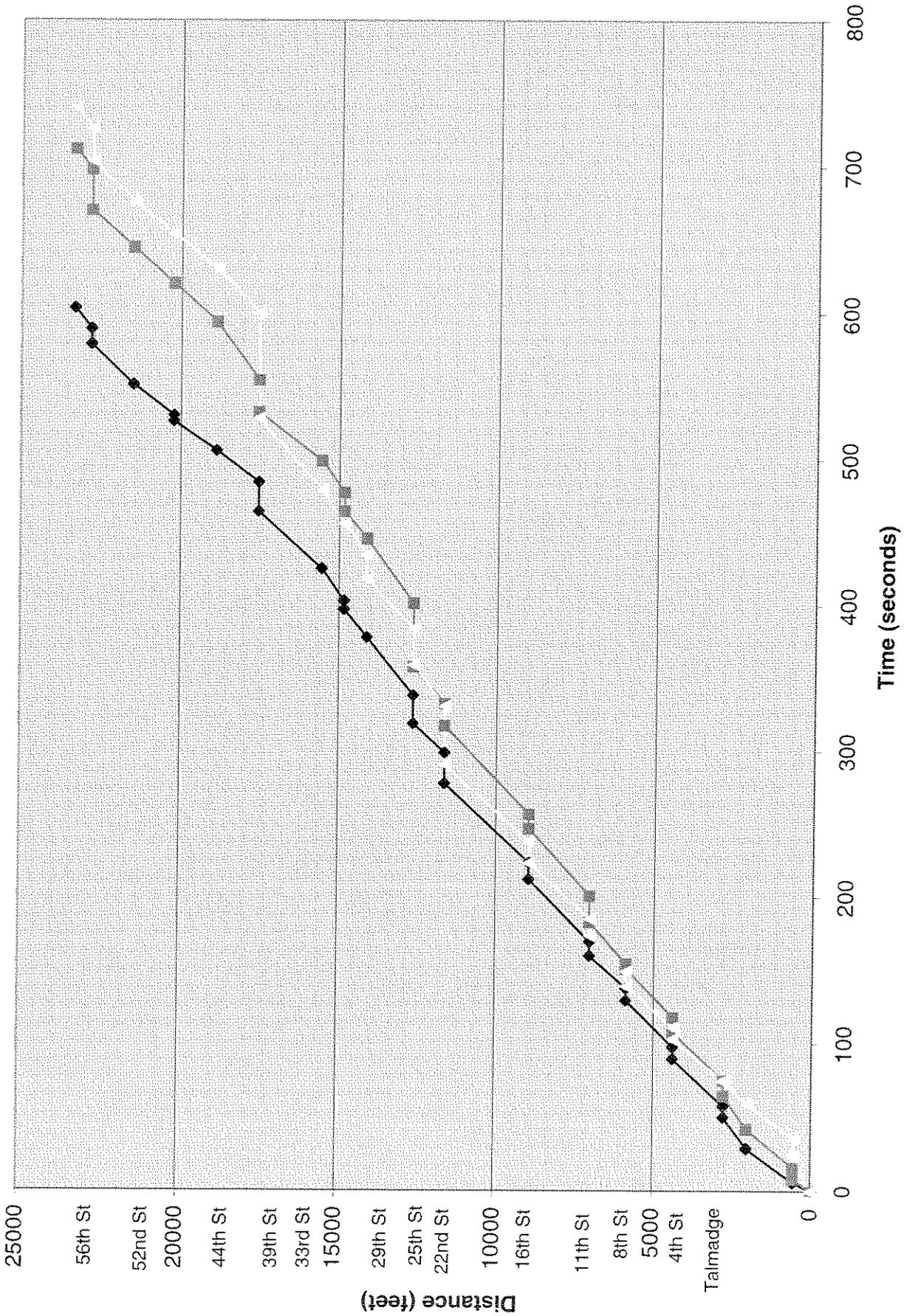
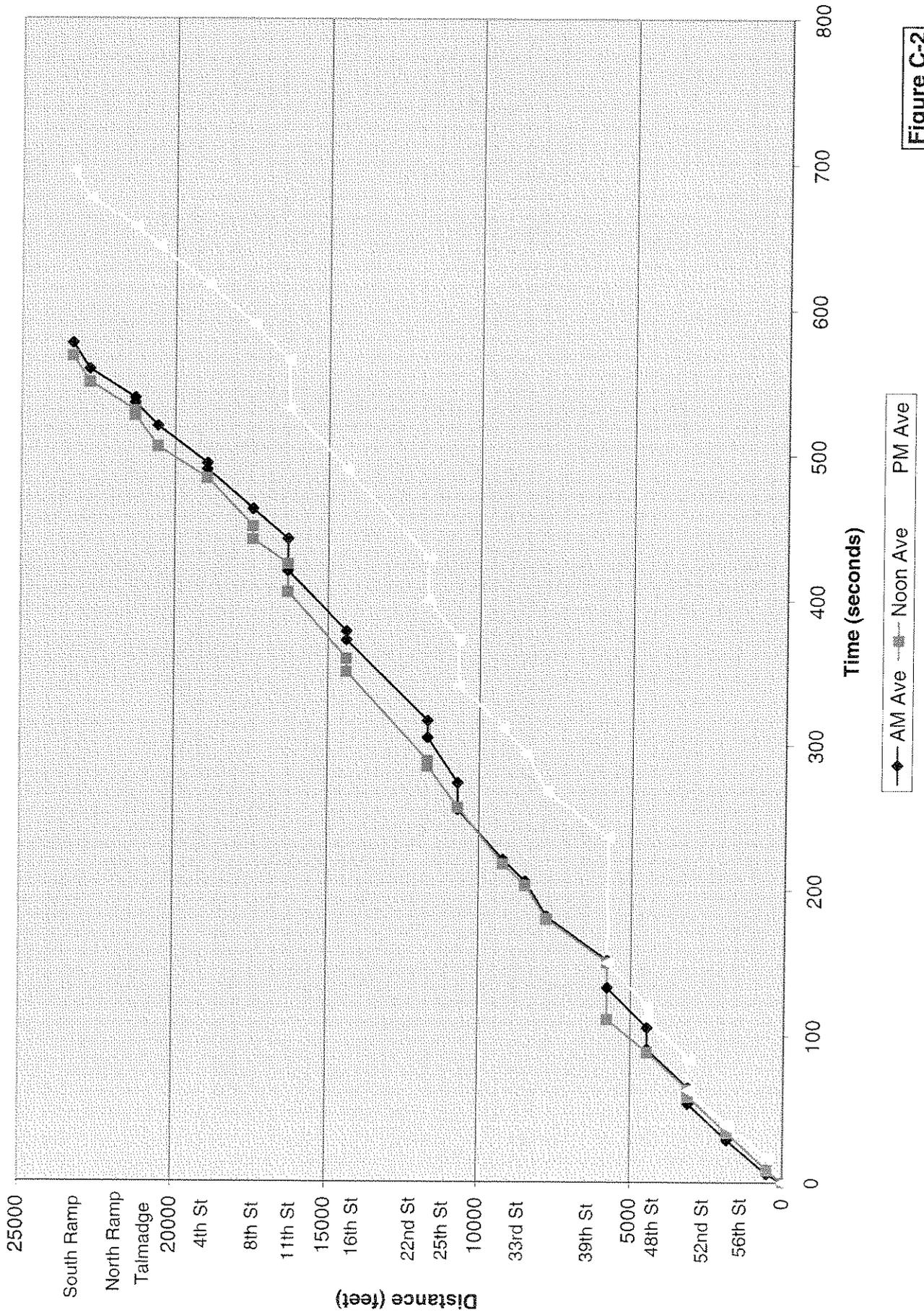
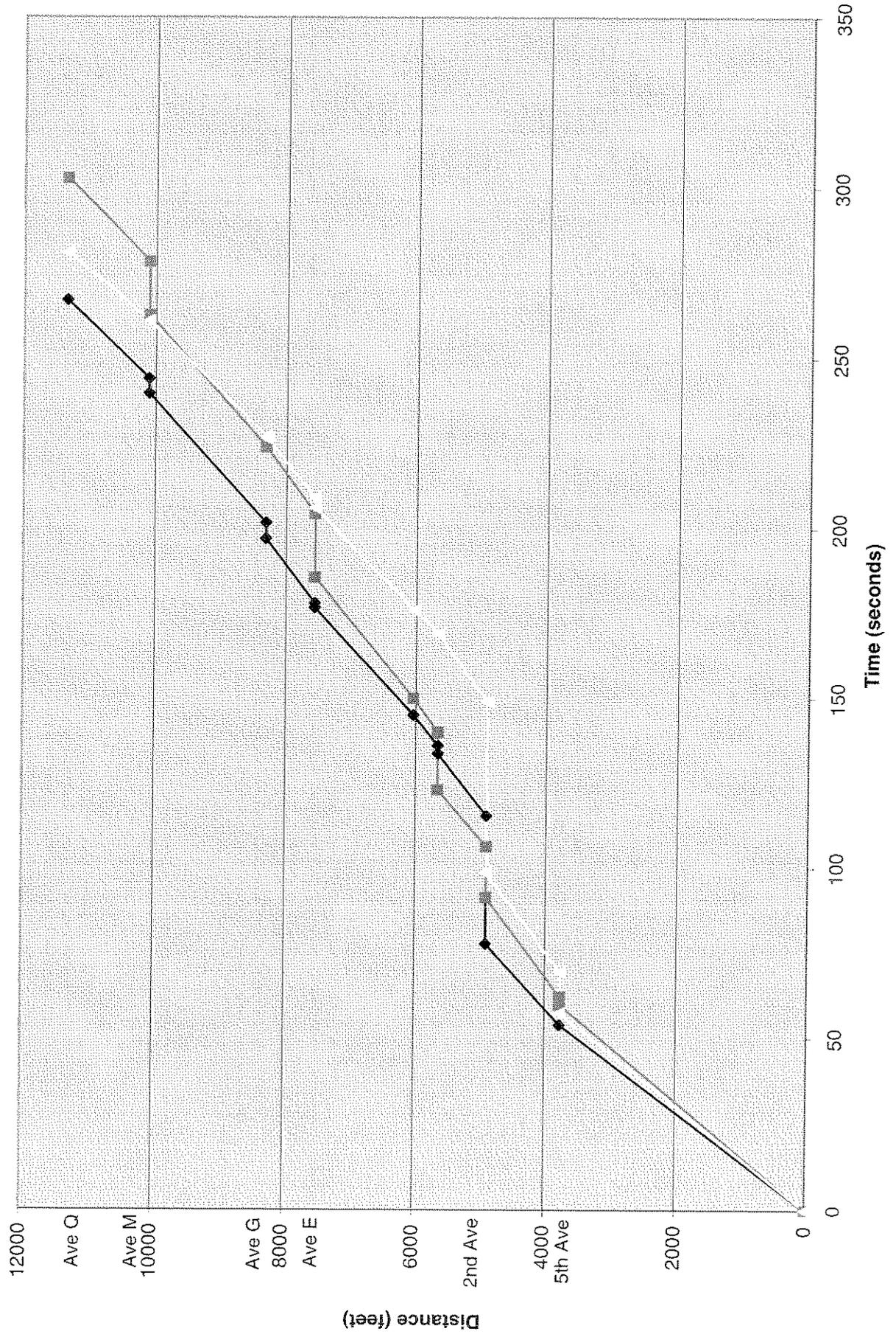


Figure C-1

2nd Avenue Travel Time (SB)



25th Street Travel Time (EB)



Legend:
 -◆- AM Ave
 -■- Noon Ave
 -△- PM Ave

Figure C-3

25th Street Travel Time (WB)

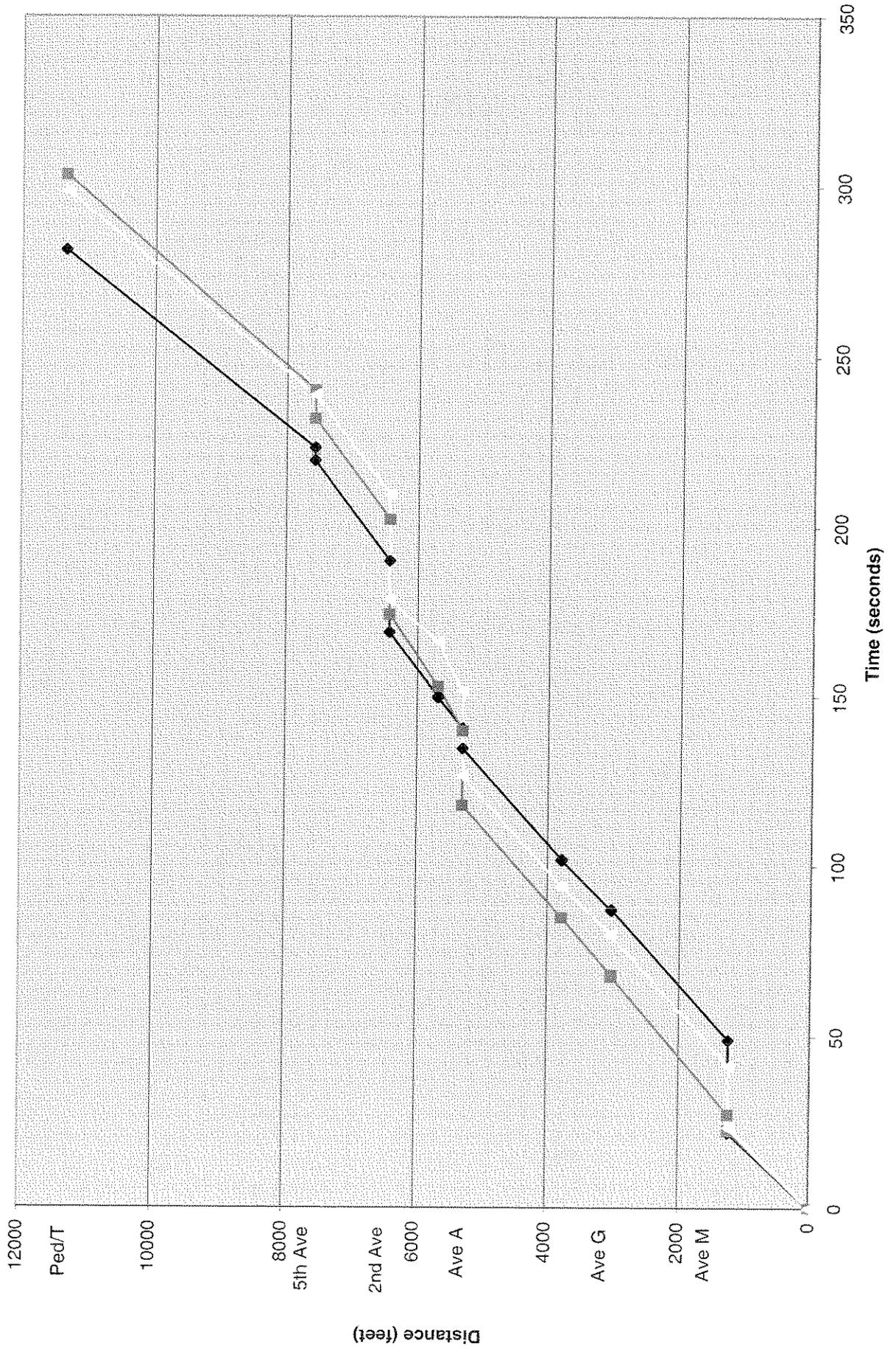


Figure C-4

39th Street Travel Time (EB)

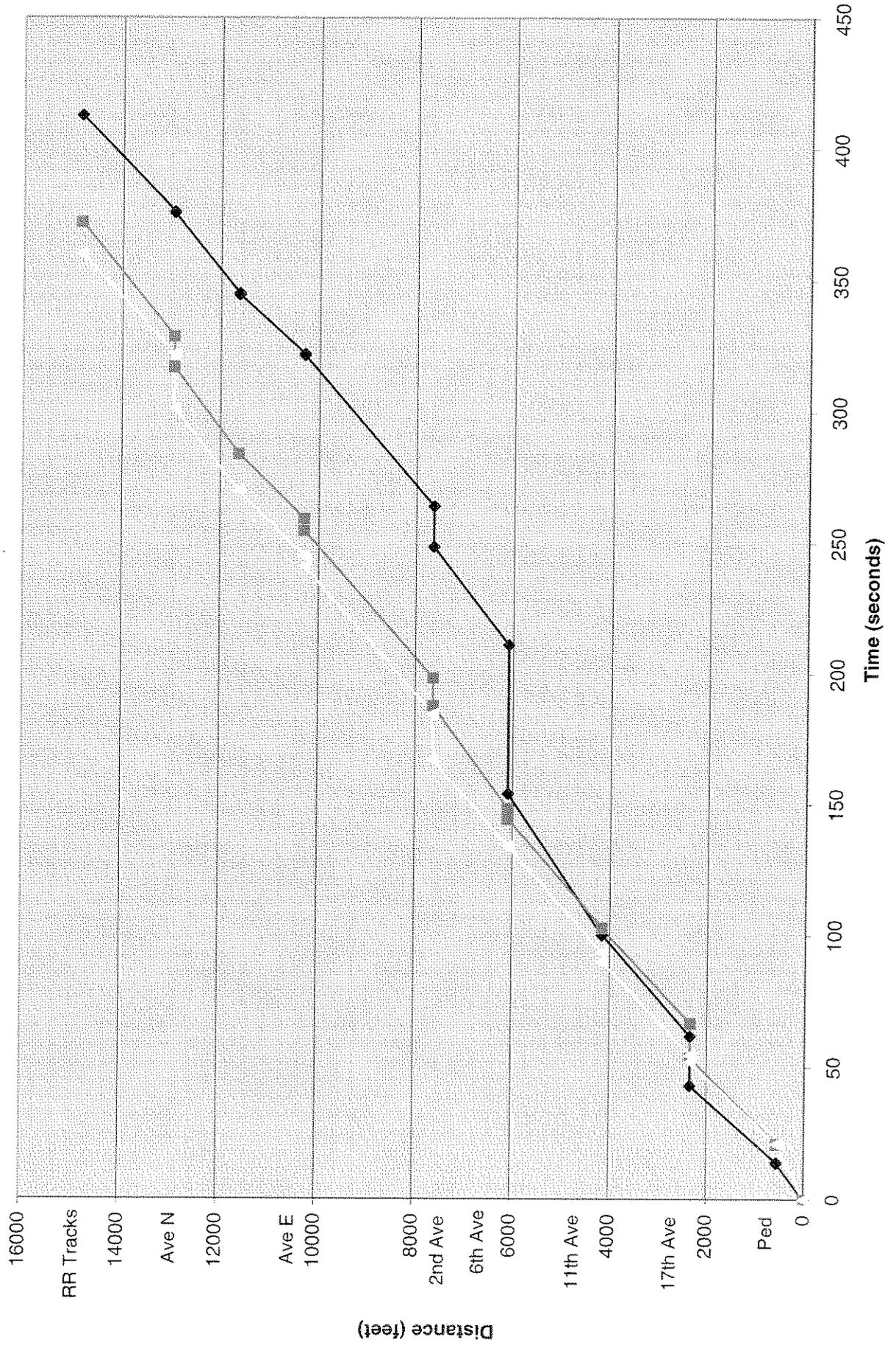


Figure C-5

—◆— AM Ave - - - ■ - - - Noon Ave ····· ▲ ····· PM Ave

39th Street Travel Time (WB)

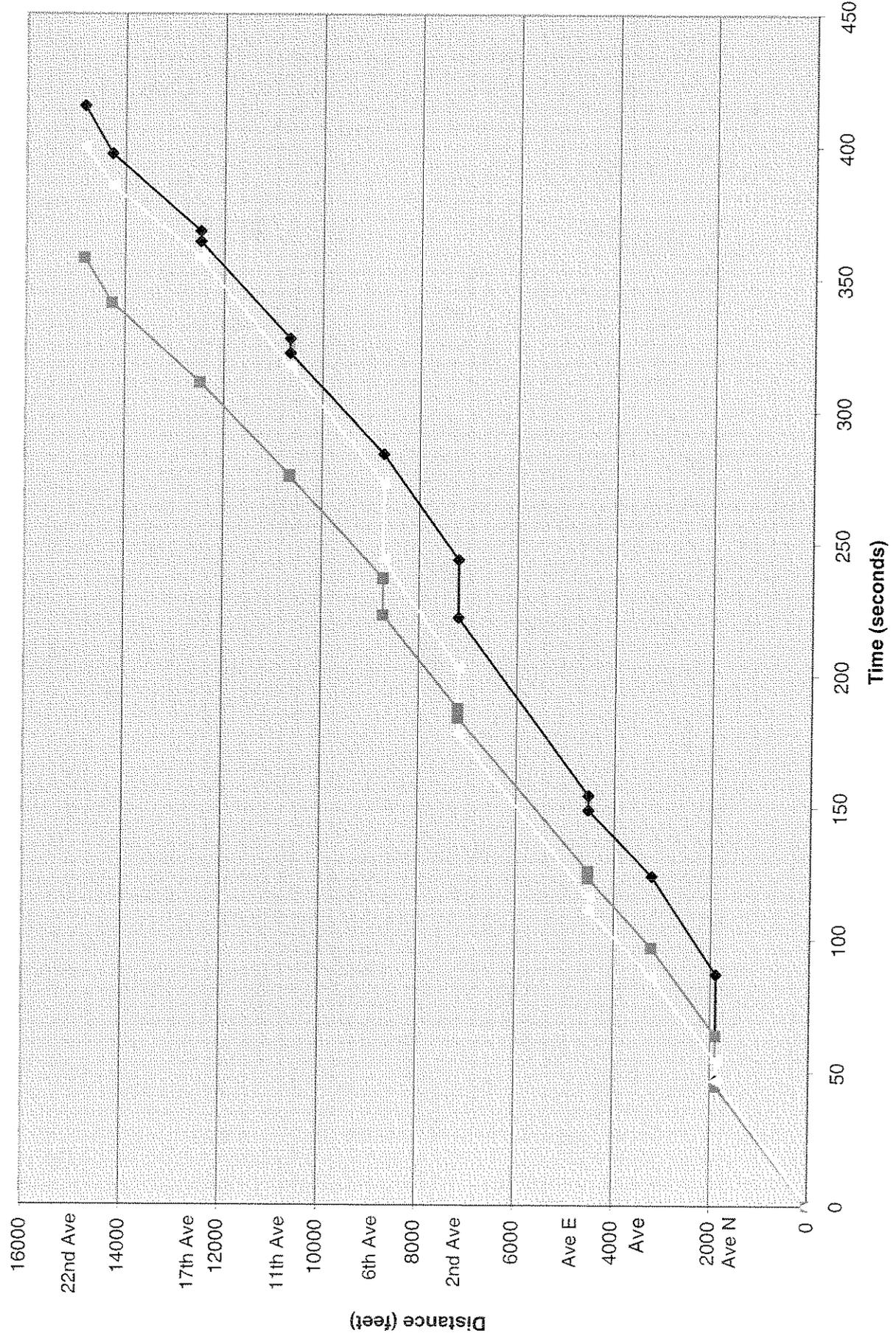
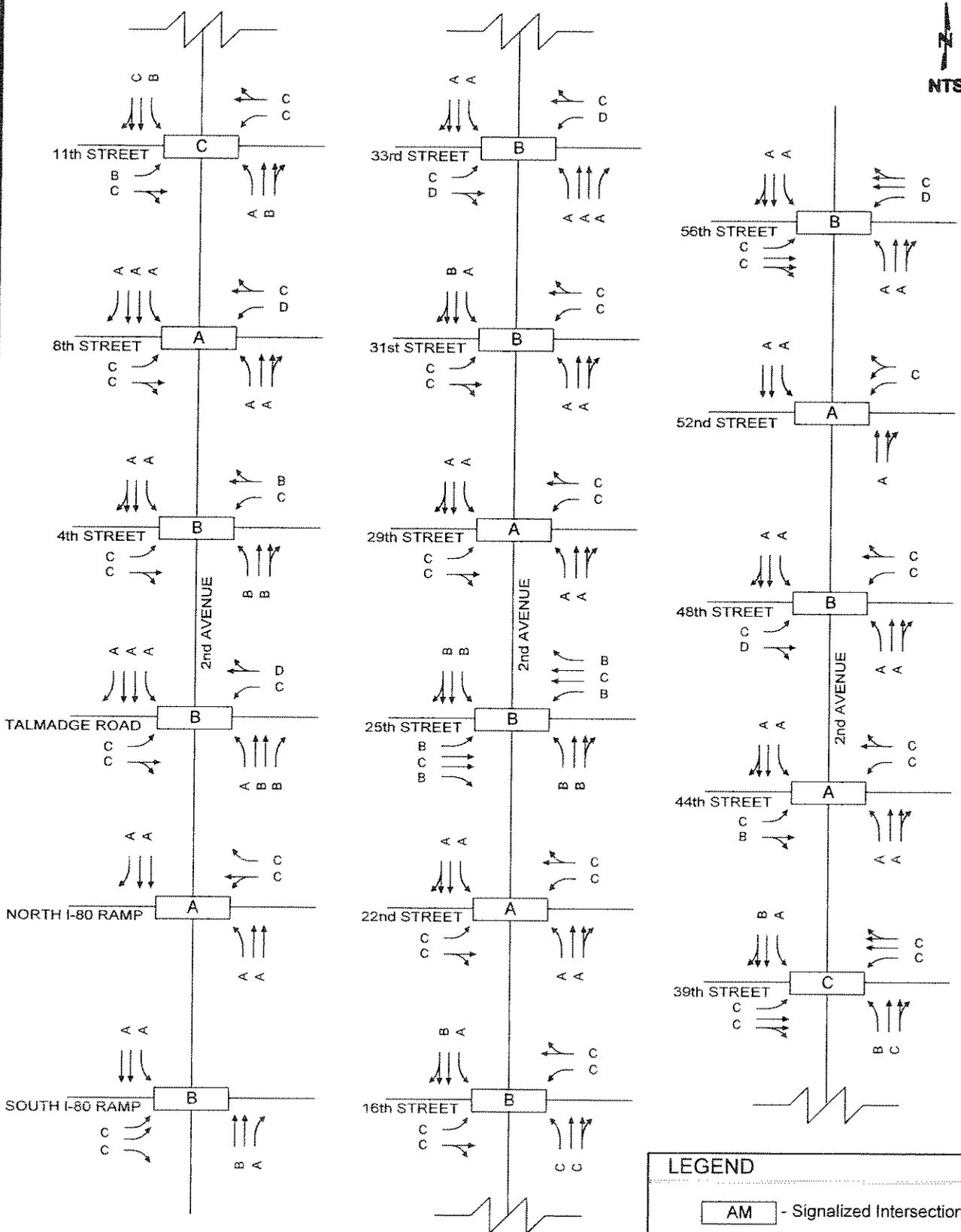


Figure C-6

APPENDIX D

EXISTING CAPACITY ANALYSIS SUMMARIES

- Figure D-1 2nd Avenue Existing AM Capacity Analysis Summary
- Figure D-2 25th Street Existing AM Capacity Analysis Summary
- Figure D-3 39th Street Existing AM Capacity Analysis Summary
- Figure D-4 2nd Avenue Existing NOON Capacity Analysis Summary
- Figure D-5 25th Street Existing NOON Capacity Analysis Summary
- Figure D-6 39th Street Existing NOON Capacity Analysis Summary
- Figure D-7 2nd Avenue Existing PM Capacity Analysis Summary
- Figure D-8 25th Street Existing PM Capacity Analysis Summary
- Figure D-9 39th Street Existing PM Capacity Analysis Summary



LEGEND

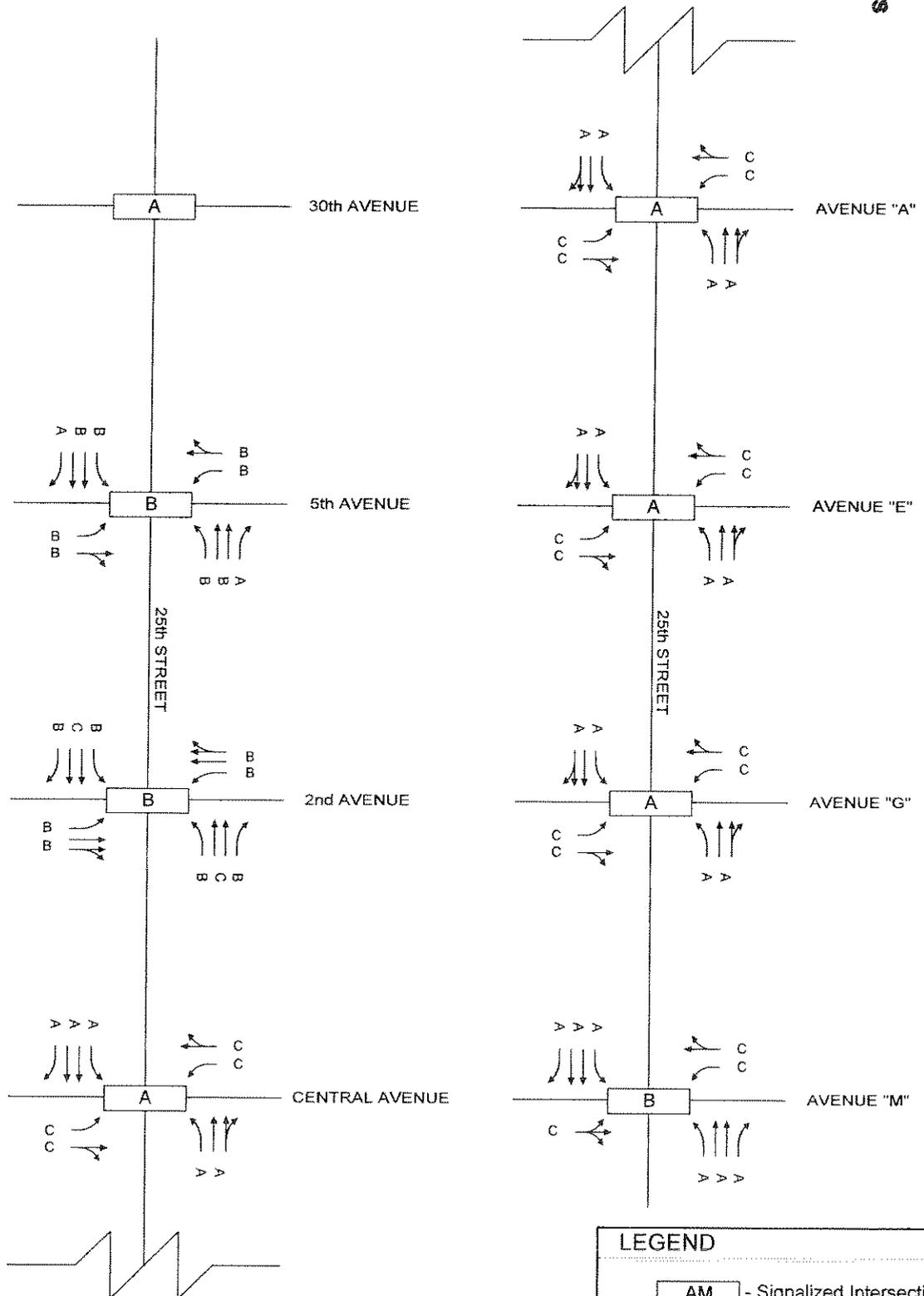
- AM - Signalized Intersection LOS
- AM - Movement Level Of Service

F:\PROJECTS\20030493\TRMF\IC\DRGN\FIGURES.DGN
 05/13/2005
 09:09:33 AM



2nd Avenue Existing AM Capacity Analysis Summary

**FIGURE
D-1**



LEGEND

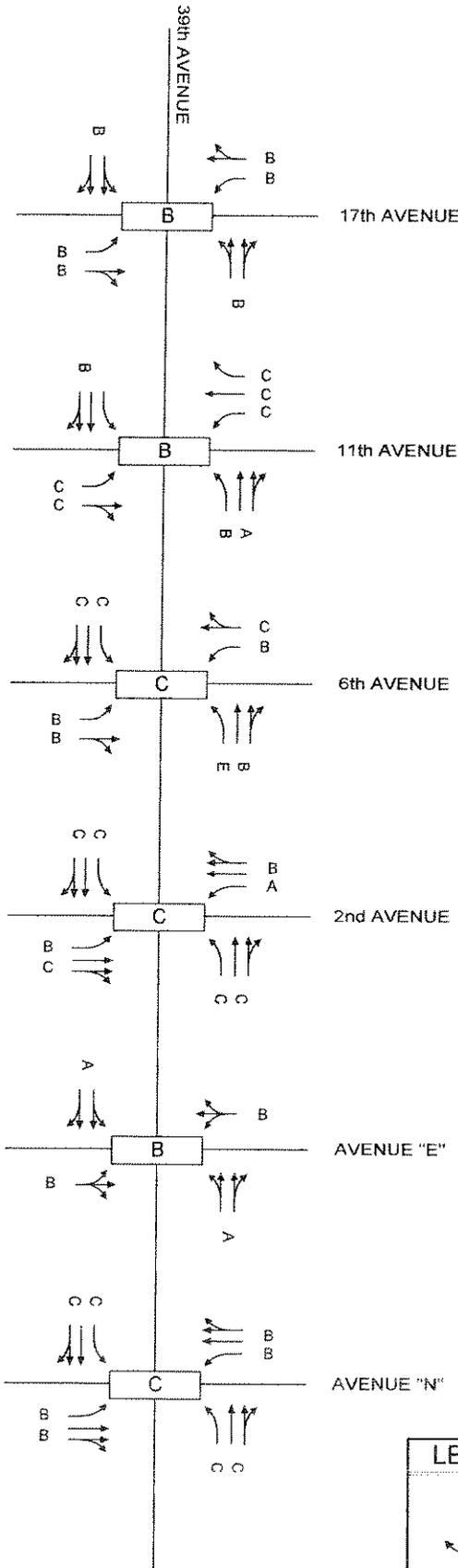
- A - Signalized Intersection LOS
- Movement Level Of Service

F:\PROJECTS\2008\04\9\11\RAFT\1\000\NF\FIGURES.DGN
 05/13/2005
 09:18:29 AM



**25th Street Existing AM
Capacity Analysis Summary**

**FIGURE
D-2**



LEGEND

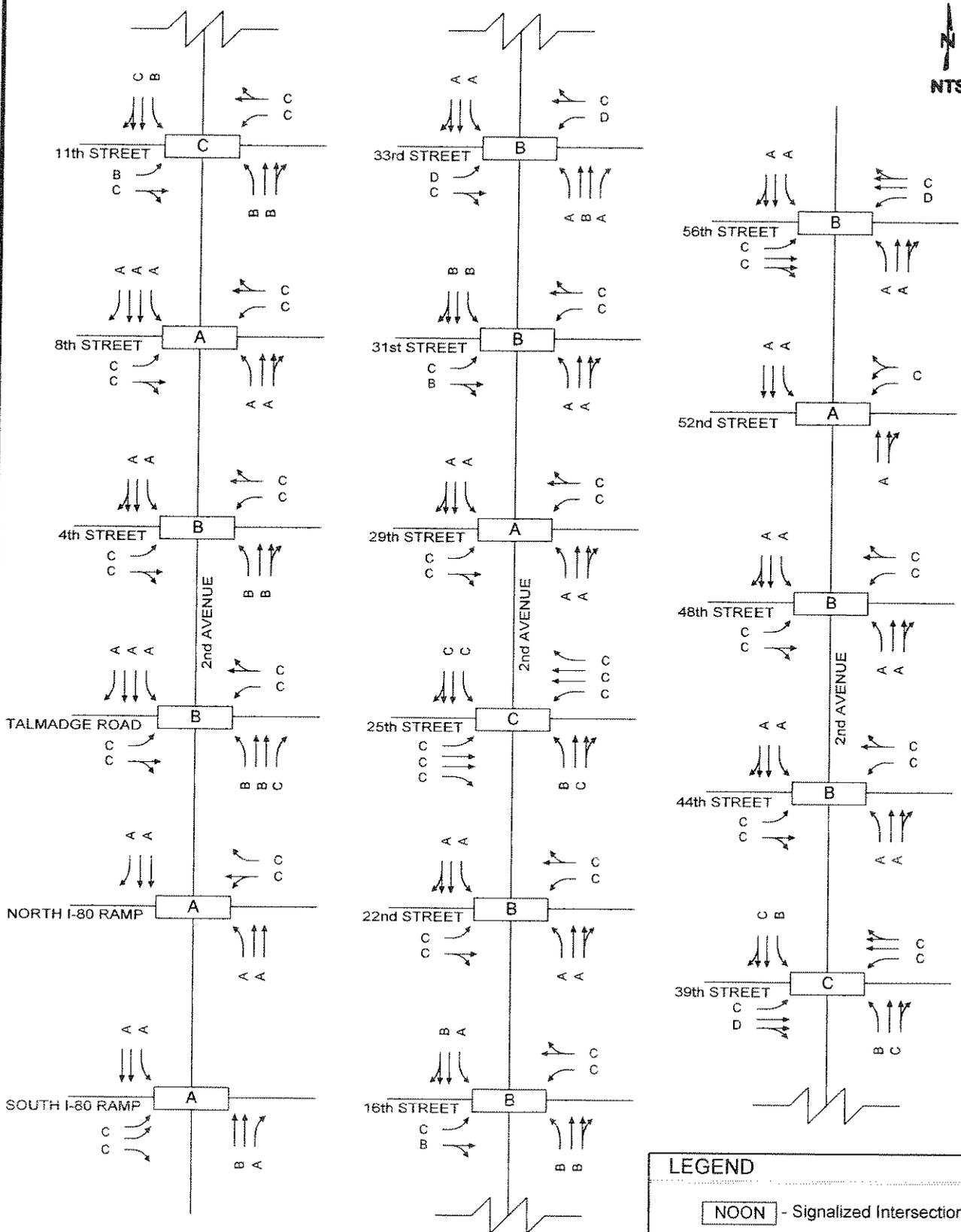
- AM - Signalized Intersection LOS
- Movement Level Of Service

F:\PROJECTS\2003049\31194\FIC\DOCAF\FIGURES.DGN
 05/13/2005
 09:11:08 AM



39th Street Existing AM Capacity Analysis Summary

FIGURE D-3



LEGEND

NOON - Signalized Intersection LOS

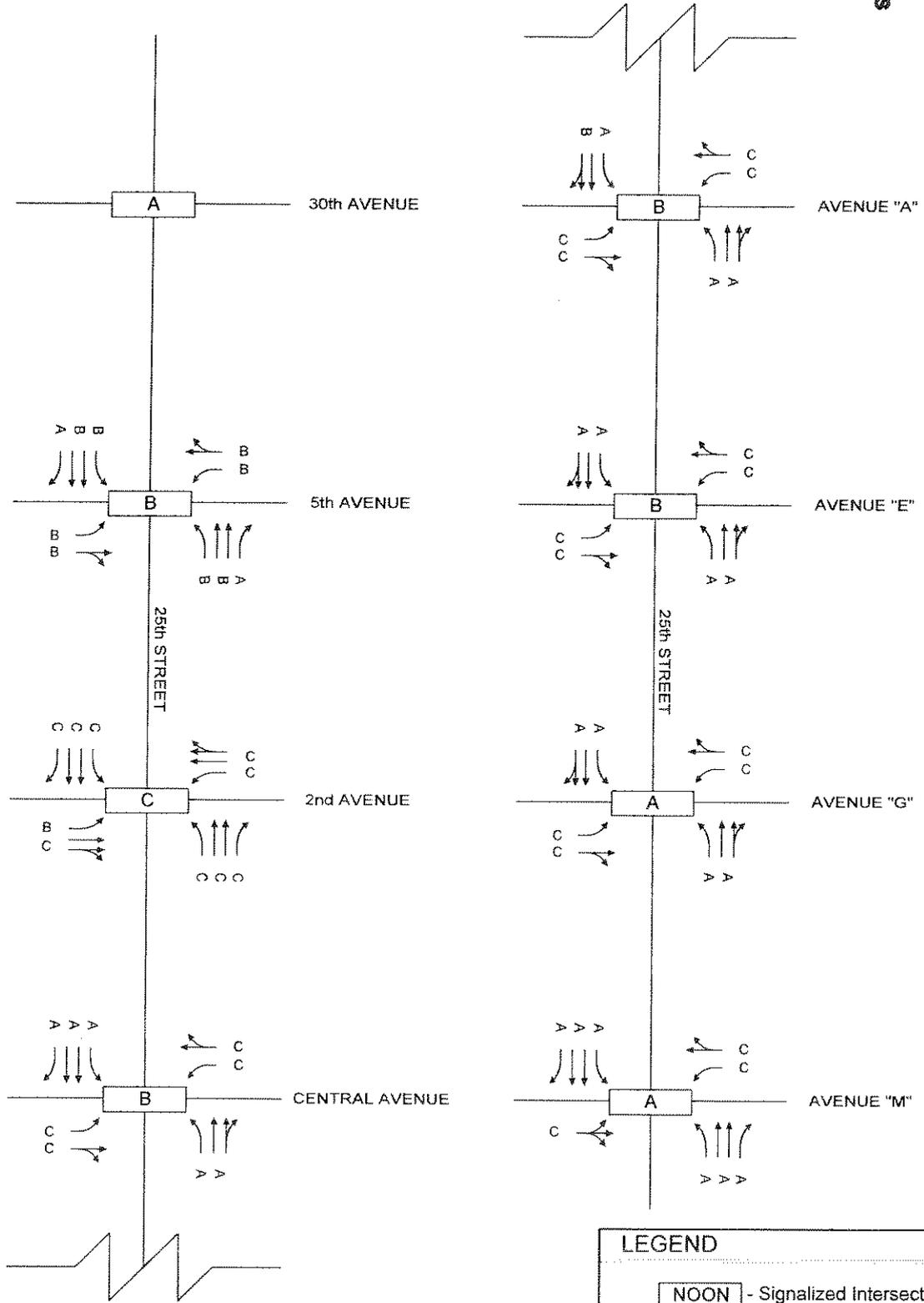
↔ - NOON - Movement Level Of Service

F:\PROJECTS\2008\04\93\TRAFFIC\NOON\FIGURES.DGN
 05/13/2005
 09:07:44 AM



**2nd Avenue Existing NOON
Capacity Analysis Summary**

**FIGURE
D-4**



LEGEND

NOON - Signalized Intersection LOS

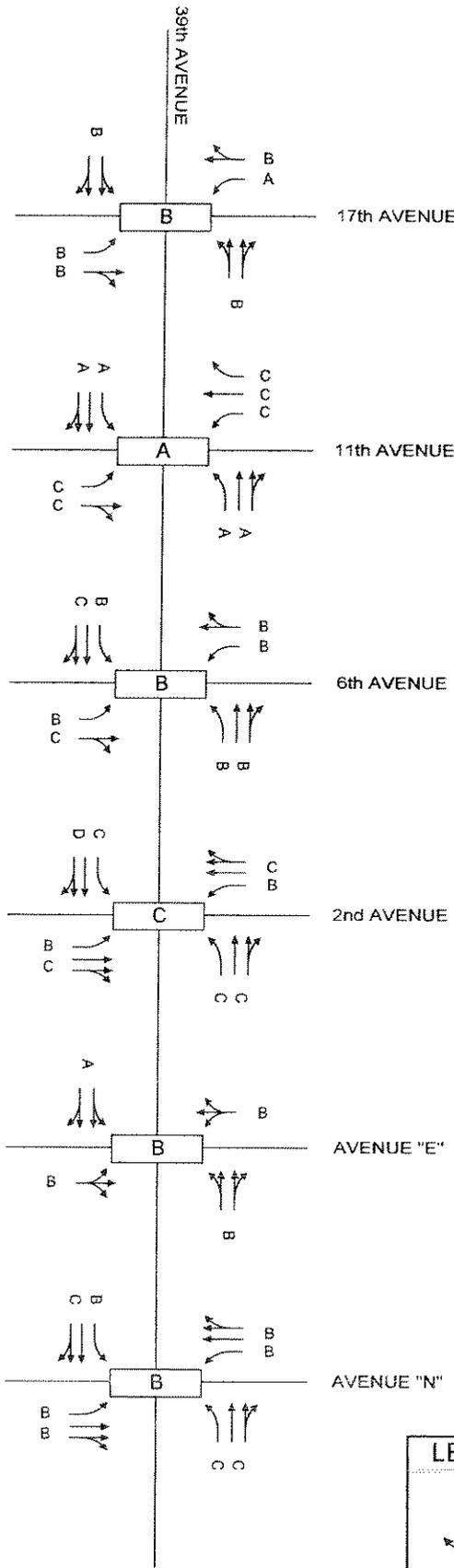
NOON - Movement Level Of Service

F:\PROJECTS\2008\04\93\TRAFFIC\DOGM\FIGURES.DGN
 05/13/2005
 09:16:45 AM



25th Street Existing NOON Capacity Analysis Summary

FIGURE D-5



LEGEND

NOON - Signalized Intersection LOS

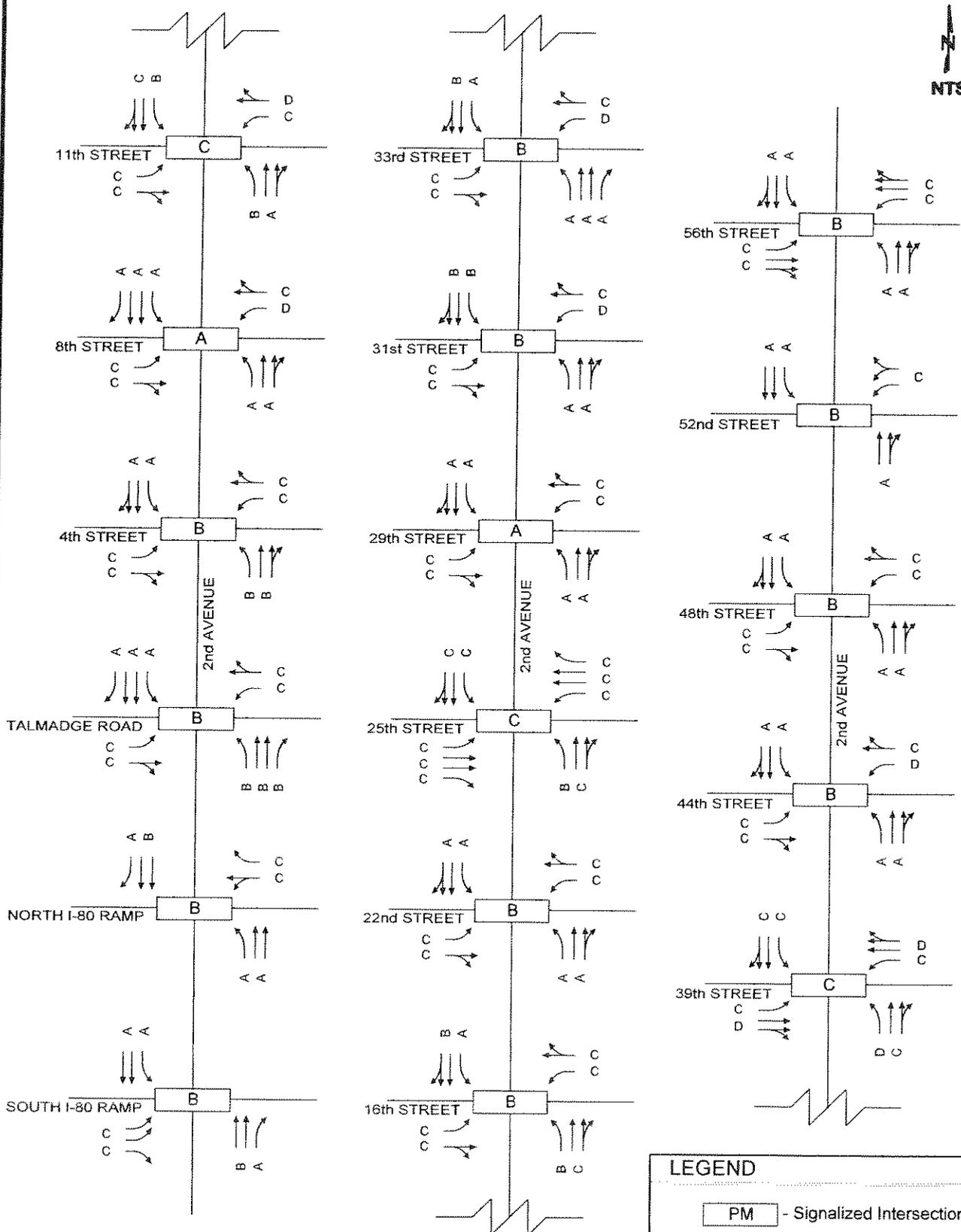
NOON - Movement Level Of Service

F:\PROJECTS\20080493\TRAFFIC\006\FIGURES.DGN
 05/13/2005
 09:11:18 AM



39th Street Existing NOON
Capacity Analysis Summary

FIGURE
D-6



LEGEND

PM - Signalized Intersection LOS

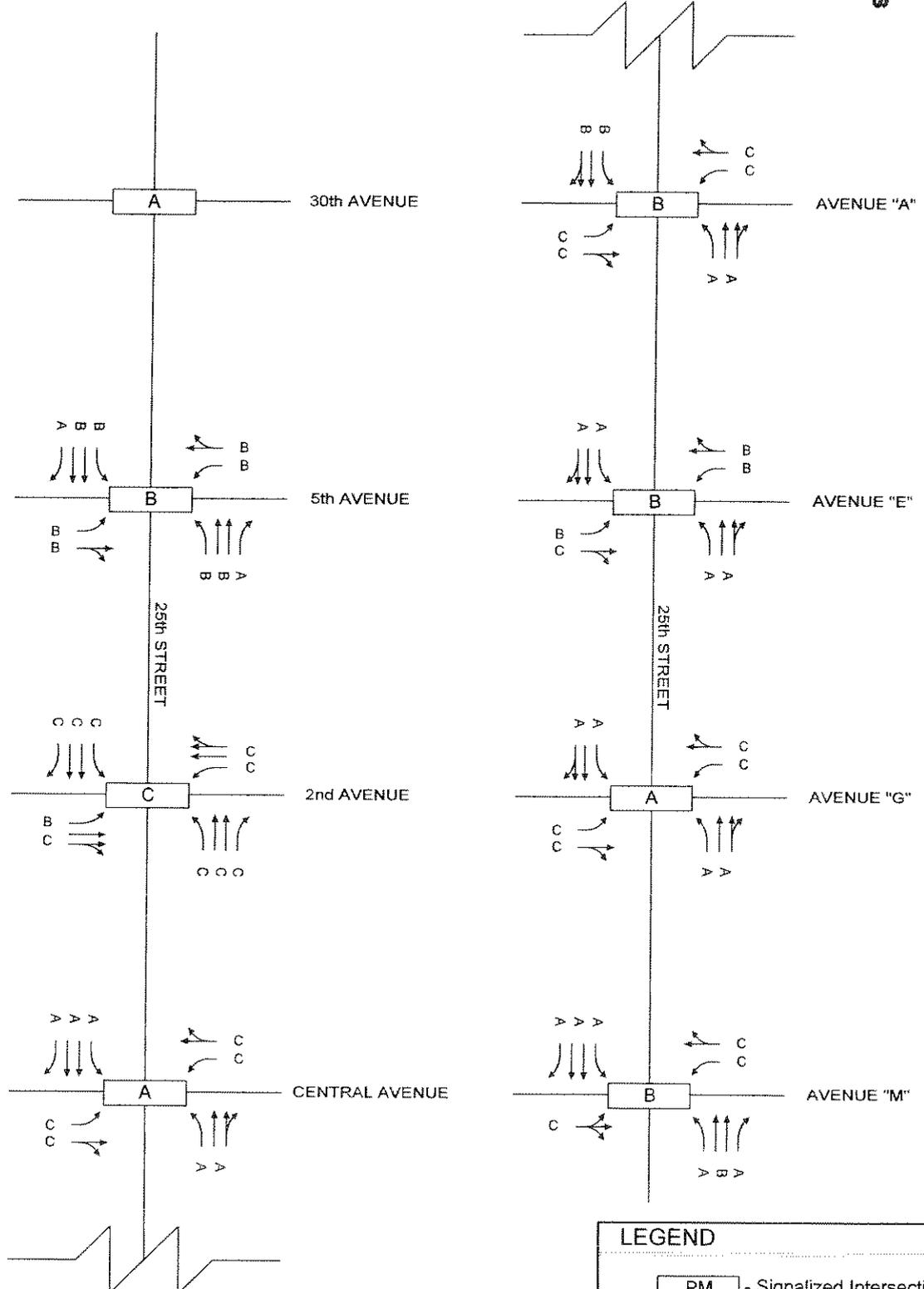
PM - Movement Level Of Service

F:\PROJECTS\2003049\TRAFFIC\DC\DATA\FIGURES.DGN
 05/13/2005
 09:09:56 AM



**2nd Avenue Existing PM
Capacity Analysis Summary**

**FIGURE
D-7**



LEGEND

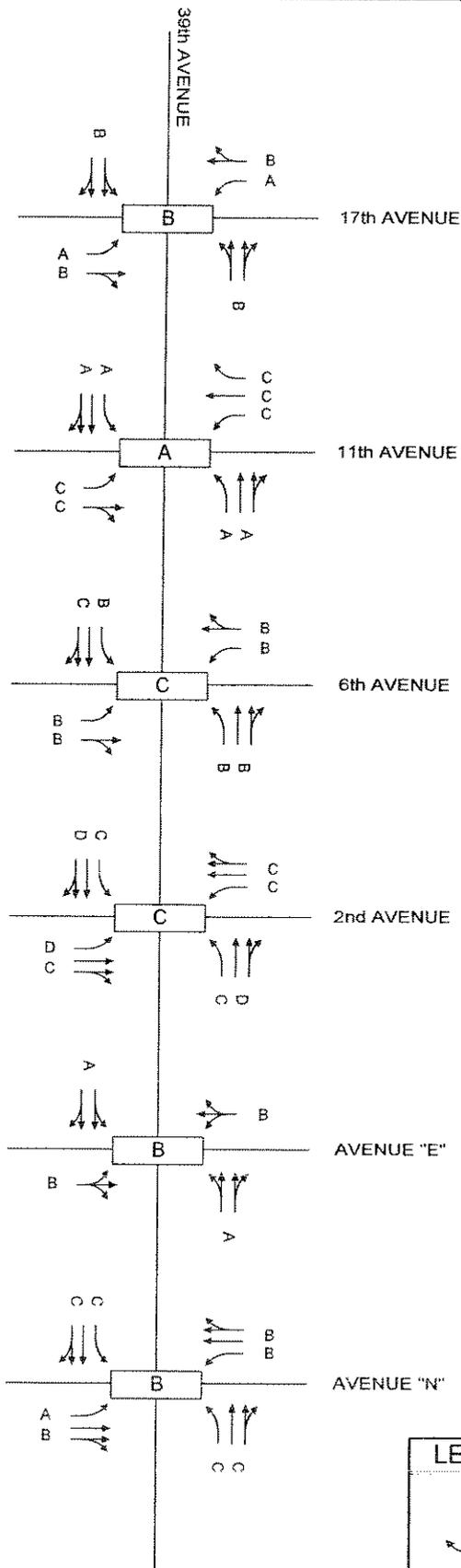
A - Signalized Intersection LOS
 - Movement Level Of Service

F:\PROJECTS\2008\0493\TRAFFIC\ORGN\FIGURES.DGN
 05/13/2005
 09:10:55 AM



25th Street Existing PM Capacity Analysis Summary

**FIGURE
D-8**



LEGEND

- PM - Signalized Intersection LOS
- PM - Movement Level Of Service

F:\PROJECTS\20080493\TRAFFIC\CD\GN\FIGURES.DGN
 05/13/2005
 09:11:31 AM



39th Street Existing PM Capacity Analysis Summary

**FIGURE
D-9**

APPENDIX E

COUPLING INDEXES and COORDINABILITY FACTORS

Table E-1	2 nd Avenue Coupling Indexes
Table E-2	25 th Street Coupling Indexes
Table E-3	39 th Street Coupling Indexes
Table E-4	Network Coordinability Factors

Table E-1
2nd Avenue
Coupling Indexes

2nd Avenue								
Link	ADT Volume	AM Peak Volume	PM Peak Volume	Speed (mph)	Length (feet)	ADT Index	AM Index	PM Index
North of 56th Street	11465			45				
56th St. to 52nd St.	9400	813	966	40	1,317	285	25	29
52nd St. to 48th St.	16450	912	1,662	40	1,278	515	29	52
48th St. to 44th St.	23500	957	1,863	40	1,347	698	28	55
44th St. to 39th St.	25400	1,228	2,335	35	1,331	668	32	61
39th St. to 33rd St.	29070	1,378	2,460	35	1,999	509	24	43
33rd St. to 31st St.	29620	1,432	2,247	35	708	1,464	71	111
31st St. to 29th St.	30170	1,437	2,236	35	722	1,463	70	108
29th St. to 25th St.	32000	1,518	2,175	35	1,483	755	36	51
25th St. to 22nd St.	25000	1,616	2,074	30	1,001	749	48	62
22nd St. to 16th St.	24020	1,314	1,668	35	2,676	314	17	22
16th St. to 11th St.	22040	1,143	1,482	35	1,939	398	21	27
11th St. to 8th St.	20865	989	1,296	45	1,151	816	39	51
8th St. to 4th St.	19695	1,040	1,333	45	1,491	594	31	40
4th St. to Talmadge Rd	18520	1,279	1,670	45	1,611	517	36	47
Talmadge Rd to I-80 N	17345	1,265	1,438	45	739	1,056	77	88
I-80 N to I-80 S	12225	1,021	1,134	45	1,473	373	31	35
South of I-80 S	7,100			45				
	Estimated							

Table E-2
25th Street
Coupling Indexes

25th Street								
Link	ADT Volume	AM Peak Volume	PM Peak Volume	Speed (mph)	Length (feet)	ADT Index	AM Index	PM Index
West of 30th Ave	9030			35				
30th Ave to 5th Ave	15810	1,252	1,603	35	9,631	57	5	6
5th Ave to 2nd Ave	19010	1,179	1,582	35	1,139	584	36	49
2nd Ave to Central Ave	23255	1,246	1,659	35	747	1,090	58	78
Central Ave to Ave A	19650	1,217	1,590	35	380	1,810	112	146
Ave A to Ave E	22480	1,201	1,554	35	1,520	518	28	36
Ave E to Ave G	20570	1,094	1,497	35	752	957	51	70
Ave G to Ave N/M	18660	1,117	1,532	35	1,790	365	22	30
East of Ave N/M	19510	1,066	1,575	40				
	Estimated							

Table E-3
 39th Street
 Coupling Indexes

39th Street								
Link	ADT Volume	AM Peak Volume	PM Peak Volume	Speed (mph)	Length (feet)	ADT Index	AM Index	PM Index
West of 17th Ave	6855			35				
17th Ave to 11th Ave	11905	1,098	1,170	35	1,814	230	21	23
11th Ave to 6th Ave	16600	1,009	1,299	35	1,926	302	18	24
6th Ave to 2nd Ave	14380	1,239	1,365	35	1,548	325	28	31
2nd Ave to Ave E	15160	1,509	1,172	35	2,656	200	20	15
Ave E to Ave N	7800	918	862	35	2,640	103	12	11
East of Ave N	4800			35				

Table E-4

Network Coupling Indexes

Optimized (Natural) Intersection Cycle Lengths & Coordinatability Factors

* Denotes Master Intersection

		2nd Ave					25th St		
		AM	NOON	PM			AM	NOON	PM
Existing Control Section	56th	55	55	55	Existing Control Section	5th	60	60	60
		71	59	70			72	81	77
	52nd	45	45	45		2nd	80	80	80
		72	64	73			69	82	81
	48th	65	65	65		Cntrl *	75	75	75
		71	73	75			77	91	93
	44th *	55	55	55		A	65	65	65
		64	74	70			51	63	61
	39th	70	70	80		E	60	60	60
		54	57	56			78	80	82
Existing Control Section	33rd	70	70	70	G	55	55	55	
		91	96	89		48	49	53	
	31st *	70	70	70	M	65	65	65	
		86	93	91					
Existing Control Section	29th	70	70	70					
		56	71	72					
	25th	80	80	80					
		58	69	70					
	22nd	65	65	65					
		22	28	33					
	16th	60	60	65					
		52	55	59					
	11th	65	65	65					
		72	72	80					
Existing Control Section	8th *	50	50	50					
		79	75	81					
	4th	50	50	50					
		49	55	60					
	Tlmdg	75	75	75					
		78	75	86					
	I-80 W	60	60	60					
		89	76	87					
	I-80 E	60	60	60					

APPENDIX F

UPDATED AM TIMING PLANS

Updated AM Timing Plans

Timing Report, Sorted By Phase
1: 25th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	3	4	5	6	7	8
Movement	WBL	EBTL	NBL	SBTL	EBL	WBTL	SBL	NBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	None	None	C-Max	None	None	None	C-Max
Maximum Split (s)	8	26	8	28	8	26	8	28
Maximum Split (%)	11.4%	37.1%	11.4%	40.0%	11.4%	37.1%	11.4%	40.0%
Minimum Split (s)	8	26	8	28	8	26	8	28
Yellow Time (s)	3	4	3	4	3	4	3	4
All-Red Time (s)	0	1	0	1	0	1	0	1
Minimum Initial (s)	5	15	5	15	5	15	5	15
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		5		5		5		5
Flash Dont Walk (s)		16		19		16		19
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	24	32	58	66	24	32	58	66
End Time (s)	32	58	66	24	32	58	66	24
Yield/Force Off (s)	29	53	63	19	29	53	63	19
Yield/Force Off 170(s)	29	37	63	0	29	37	63	0
Local Start Time (s)	24	32	58	66	24	32	58	66
Local Yield (s)	29	53	63	19	29	53	63	19
Local Yield 170(s)	29	37	63	0	29	37	63	0

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	70
Offset: 0 (0%), Referenced to phase 4:SBTL and 8:NBTL, Start of FDW or yellow, Master Intersection	

Splits and Phases: 1: 25th St. & 2nd Ave.

ø1	ø2	ø3	ø4
8 s	26 s	8 s	28 s
ø5	ø6	ø7	ø8
8 s	26 s	8 s	28 s

Timing Report, Sorted By Phase
 2: 29th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	SBL	NBTL	EBTL	NBL	SBTL	WBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	9	35	26	9	35	26
Maximum Split (%)	12.9%	50.0%	37.1%	12.9%	50.0%	37.1%
Minimum Split (s)	8	19	26	10	19	26
Yellow Time (s)	3	4.5	4	3	4.5	4
All-Red Time (s)	0	0.5	1	0	0.5	1
Minimum Initial (s)	5	13	15	5	13	15
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		9	16		9	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	25	34	69	25	34	69
End Time (s)	34	69	25	34	69	25
Yield/Force Off (s)	31	64	20	31	64	20
Yield/Force Off 170(s)	31	55	4	31	55	4
Local Start Time (s)	40	49	14	40	49	14
Local Yield (s)	46	9	35	46	9	35
Local Yield 170(s)	46	0	19	46	0	19

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 55 (79%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 2: 29th St. & 2nd Ave.

01	02	04
9 s	35 s	26 s
05	06	08
9 s	35 s	26 s

Timing Report, Sorted By Phase
 3: SW Ramp & 2nd Ave.

10/27/2005



Phase Number	1	2	3	6	8
Movement	SBL	NBT	EBL	SBTL	EBR
Lead/Lag	Lead	Lag			
Lead-Lag Optimize	Yes	Yes			
Recall Mode	None	C-Max	None	C-Max	None
Maximum Split (s)	8	36	26	44	26
Maximum Split (%)	11.4%	51.4%	37.1%	62.9%	37.1%
Minimum Split (s)	8	19	25	19	26
Yellow Time (s)	3	4.5	4.5	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0.5	0.5
Minimum Initial (s)	3	13	15	13	10
Vehicle Extension (s)	3	2	3	2	3
Minimum Gap (s)	3	2	3	2	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)		5		5	5
Flash Dont Walk (s)		9		9	16
Dual Entry	No	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	56	64	30	56	30
End Time (s)	64	30	56	30	56
Yield/Force Off (s)	61	25	51	25	51
Yield/Force Off 170(s)	61	16	51	16	35
Local Start Time (s)	40	48	14	40	14
Local Yield (s)	45	9	35	9	35
Local Yield 170(s)	45	0	35	0	19

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 16 (23%), Referenced to phase 2:NBT and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 3: SW Ramp & 2nd Ave.

01	02	03
8 s	36 s	26 s
06		08
44 s		26 s

Timing Report, Sorted By Phase
7: NW Ramp & 2nd Ave.

10/27/2005



Phase Number	2	4	5	6
Movement	NBTL	WBTL	NBL	SBT
Lead/Lag			Lead	Lag
Lead-Lag Optimize			Yes	Yes
Recall Mode	C-Max	None	None	C-Max
Maximum Split (s)	45	25	8	37
Maximum Split (%)	64.3%	35.7%	11.4%	52.9%
Minimum Split (s)	19	25	8	19
Yellow Time (s)	4.5	4.5	3	4.5
All-Red Time (s)	0.5	0.5	0	0.5
Minimum Initial (s)	13	15	3	13
Vehicle Extension (s)	2	3	3	2
Minimum Gap (s)	2	3	3	2
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5			5
Flash Dont Walk (s)	9			9
Dual Entry	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	23	68	23	31
End Time (s)	68	23	31	68
Yield/Force Off (s)	63	18	28	63
Yield/Force Off 170(s)	54	18	28	54
Local Start Time (s)	39	14	39	47
Local Yield (s)	9	34	44	9
Local Yield 170(s)	0	34	44	0

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 54 (77%), Referenced to phase 2:NBTL and 6:SBT, Start of FDW or yellow	

Splits and Phases: 7: NW Ramp & 2nd Ave.

φ2 45 s	φ4 25 s
φ5 8 s	φ6 37 s

Timing Report, Sorted By Phase
 10: Talmadge St. & 2nd Ave.

10/27/2005



Phase Number	1	2	3	4	5	6	7	8
Movement	SBL	NBTL	EBL	WBTL	NBL	SBTL	WBL	EBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	C-Max	None	None	None	C-Max	None	None
Maximum Split (s)	8	23	8	31	8	23	8	31
Maximum Split (%)	11.4%	32.9%	11.4%	44.3%	11.4%	32.9%	11.4%	44.3%
Minimum Split (s)	8	19	8	31	8	19	8	31
Yellow Time (s)	3	4.5	3	4.5	3	4.5	3	4.5
All-Red Time (s)	0	0.5	0	0.5	0	0.5	0	0.5
Minimum Initial (s)	5	13	5	10	5	13	5	10
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		5		5		5		5
Flash Dont Walk (s)		9		19		9		19
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	39	47	0	8	39	47	0	8
End Time (s)	47	0	8	39	47	0	8	39
Yield/Force Off (s)	44	65	5	34	44	65	5	34
Yield/Force Off 170(s)	44	56	5	15	44	56	5	15
Local Start Time (s)	53	61	14	22	53	61	14	22
Local Yield (s)	58	9	19	48	58	9	19	48
Local Yield 170(s)	58	0	19	29	58	0	19	29

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	70
Offset: 56 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 10: Talmadge St. & 2nd Ave.

8 s	23 s	8 s	31 s
8 s	23 s	8 s	31 s

Timing Report, Sorted By Phase
13: 4th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	NBL	SBTL	EBTL	SBL	NBTL	WBTl
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	40	22	8	40	22
Maximum Split (%)	11.4%	57.1%	31.4%	11.4%	57.1%	31.4%
Minimum Split (s)	8	19	15	8	19	15
Yellow Time (s)	3	4.5	4	3	4.5	4
All-Red Time (s)	0	0.5	1	0	0.5	1
Minimum Initial (s)	5	10	10	5	10	10
Vehicle Extension (s)	3	2	3	3	2	3
Minimum Gap (s)	3	2	3	3	2	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5			5	
Flash Dont Walk (s)		9			9	
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	52	60	30	52	60	30
End Time (s)	60	30	52	60	30	52
Yield/Force Off (s)	57	25	47	57	25	47
Yield/Force Off 170(s)	57	16	47	57	16	47
Local Start Time (s)	36	44	14	36	44	14
Local Yield (s)	41	9	31	41	9	31
Local Yield 170(s)	41	0	31	41	0	31

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 16 (23%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 13: 4th St. & 2nd Ave.

ø1	ø2	ø4
8 s	40 s	22 s
ø5	ø6	ø8
8 s	40 s	22 s

Timing Report, Sorted By Phase
16: 8th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	NBL	SBTL	EBTL	SBL	NBTL	WBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	40	22	8	40	22
Maximum Split (%)	11.4%	57.1%	31.4%	11.4%	57.1%	31.4%
Minimum Split (s)	8	19	15	8	19	15
Yellow Time (s)	3	4.5	4	3	4.5	4
All-Red Time (s)	0	0.5	1	0	0.5	1
Minimum Initial (s)	5	10	10	5	10	10
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	2	3	3	2	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5			5	
Flash Dont Walk (s)		9			9	
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	56	64	34	56	64	34
End Time (s)	64	34	56	64	34	56
Yield/Force Off (s)	61	29	51	61	29	51
Yield/Force Off 170(s)	61	20	51	61	20	51
Local Start Time (s)	36	44	14	36	44	14
Local Yield (s)	41	9	31	41	9	31
Local Yield 170(s)	41	0	31	41	0	31

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 20 (29%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 16: 8th St. & 2nd Ave.



Timing Report, Sorted By Phase
 19: 11th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	3	4	5	6	7	8
Movement	NBL	SBTL	EBL	WBTL	SBL	NBTL	WBL	EBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	C-Max	None	None	None	C-Max	None	None
Maximum Split (s)	8	27	8	27	8	27	8	27
Maximum Split (%)	11.4%	38.6%	11.4%	38.6%	11.4%	38.6%	11.4%	38.6%
Minimum Split (s)	8	20	8	15	8	20	8	26
Yellow Time (s)	3	4.5	3	4.5	3	4.5	3	4.5
All-Red Time (s)	0	0.5	0	0.5	0	0.5	0	0.5
Minimum Initial (s)	5	15	5	10	5	15	5	10
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	2	3	2	3	2	3	2
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)								5
Flash Dont Walk (s)								16
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	24	32	59	67	24	32	59	67
End Time (s)	32	59	67	24	32	59	67	24
Yield/Force Off (s)	29	54	64	19	29	54	64	19
Yield/Force Off 170(s)	29	54	64	19	29	54	64	3
Local Start Time (s)	40	48	5	13	40	48	5	13
Local Yield (s)	45	0	10	35	45	0	10	35
Local Yield 170(s)	45	0	10	35	45	0	10	19

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	65
Offset: 54 (77%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 19: 11th St. & 2nd Ave.

ø1	ø2	ø3	ø4
8 s	27 s	8 s	27 s
ø5	ø6	ø7	ø8
8 s	27 s	8 s	27 s

Timing Report, Sorted By Phase
 22: 16th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	3	4	5	6	7	8
Movement	SBL	NBTL	EBL	WBTL	NBL	SBTL	WBL	EBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	C-Max	None	None	None	C-Max	None	None
Maximum Split (s)	8	27	8	27	8	27	8	27
Maximum Split (%)	11.4%	38.6%	11.4%	38.6%	11.4%	38.6%	11.4%	38.6%
Minimum Split (s)	8	19	8	26	8	19	8	26
Yellow Time (s)	3	4.5	3	4.5	3	4.5	3	4.5
All-Red Time (s)	0	0.5	0	0.5	0	0.5	0	0.5
Minimum Initial (s)	5	11	5	10	5	11	5	10
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	2	3	2	3	2	3	2
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		5		5		5		5
Flash Dont Walk (s)		9		16		9		16
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	63	1	28	36	63	1	28	36
End Time (s)	1	28	36	63	1	28	36	63
Yield/Force Off (s)	68	23	33	58	68	23	33	58
Yield/Force Off 170(s)	68	14	33	42	68	14	33	42
Local Start Time (s)	49	57	14	22	49	57	14	22
Local Yield (s)	54	9	19	44	54	9	19	44
Local Yield 170(s)	54	0	19	28	54	0	19	28

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	65
Offset: 14 (20%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 22: 16th St. & 2nd Ave.

ø1	ø2	ø3	ø4
8 s	27 s	8 s	27 s
ø5	ø6	ø7	ø8
8 s	27 s	8 s	27 s

Timing Report, Sorted By Phase
 25: 22nd St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	NBL	SBTL	WBTL	SBL	NBTL	EBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min	None	None	C-Min	None
Maximum Split (s)	8	36	26	8	36	26
Maximum Split (%)	11.4%	51.4%	37.1%	11.4%	51.4%	37.1%
Minimum Split (s)	8	20	26	8	20	26
Yellow Time (s)	3	4.5	4.5	3	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0.5
Minimum Initial (s)	5	14	7	5	14	7
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		10	16		10	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	25	33	69	25	33	69
End Time (s)	33	69	25	33	69	25
Yield/Force Off (s)	30	64	20	30	64	20
Yield/Force Off 170(s)	30	54	4	30	54	4
Local Start Time (s)	31	39	5	31	39	5
Local Yield (s)	36	0	26	36	0	26
Local Yield 170(s)	36	60	10	36	60	10

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 64 (91%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 25: 22nd St. & 2nd Ave.

	ø1		ø2		ø4
8 s		36 s		26 s	
	ø5		ø6		ø8
8 s		36 s		26 s	

Timing Report, Sorted By Phase

28: 25th St. & 5th Ave.

10/27/2005



Phase Number	2	4	6	8
Movement	EBTL	SBTL	WBTL	NBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	Max	C-Max	Max
Maximum Split (s)	40	30	40	30
Maximum Split (%)	57.1%	42.9%	57.1%	42.9%
Minimum Split (s)	19	29	19	29
Yellow Time (s)	4.5	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Minimum Initial (s)	10	10	10	10
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	19	9	19
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	59	29	59	29
End Time (s)	29	59	29	59
Yield/Force Off (s)	24	54	24	54
Yield/Force Off 170(s)	15	35	15	35
Local Start Time (s)	44	14	44	14
Local Yield (s)	9	39	9	39
Local Yield 170(s)	0	20	0	20

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	50
Offset: 15 (21%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 28: 25th St. & 5th Ave.

→ a2	↓ a4
40 s	30 s
← a6	↑ a8
40 s	30 s

Timing Report, Sorted By Phase
 29: 25th St. & Central Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	36	26	8	36	26
Maximum Split (%)	11.4%	51.4%	37.1%	11.4%	51.4%	37.1%
Minimum Split (s)	8	22	26	8	22	26
Yellow Time (s)	3	4.5	4.5	3	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0.5
Minimum Initial (s)	5	12	12	5	12	12
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		12	16		12	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	28	36	2	28	36	2
End Time (s)	36	2	28	36	2	28
Yield/Force Off (s)	33	67	23	33	67	23
Yield/Force Off 170(s)	33	55	7	33	55	7
Local Start Time (s)	43	51	17	43	51	17
Local Yield (s)	48	12	38	48	12	38
Local Yield 170(s)	48	0	22	48	0	22

Intersection Summary

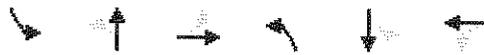
Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 55 (79%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 29: 25th St. & Central Ave.

ø1	ø2	ø4
8 s	36 s	26 s
ø5	ø6	ø8
8 s	36 s	26 s

Timing Report, Sorted By Phase
 32: 31st St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	SBL	NBTL	EBTL	NBL	SBTL	WBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	36	26	8	36	26
Maximum Split (%)	11.4%	51.4%	37.1%	11.4%	51.4%	37.1%
Minimum Split (s)	8	19	26	8	21	26
Yellow Time (s)	3	4.5	4	3	4.5	4
All-Red Time (s)	0	0.5	1	0	0.5	1
Minimum Initial (s)	5	13	15	5	16	15
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		9	16		9	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	28	36	2	28	36	2
End Time (s)	36	2	28	36	2	28
Yield/Force Off (s)	33	67	23	33	67	23
Yield/Force Off 170(s)	33	58	7	33	58	7
Local Start Time (s)	40	48	14	40	48	14
Local Yield (s)	45	9	35	45	9	35
Local Yield 170(s)	45	0	19	45	0	19

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 58 (83%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 32: 31st St. & 2nd Ave.

α1	α2	α4
8 s	36 s	26 s
α5	α6	α8
8 s	36 s	26 s

Timing Report, Sorted By Phase
 35: 39th St & 2nd Ave.

10/27/2005



Phase Number	1	2	3	4	5	6	7	8
Movement	NBL	SBTL	EBL	WBTL	SBL	NBTL	WBL	EBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize								
Recall Mode	None	C-Max	None	None	None	C-Max	None	None
Maximum Split (s)	8	28	8	26	8	28	8	26
Maximum Split (%)	11.4%	40.0%	11.4%	37.1%	11.4%	40.0%	11.4%	37.1%
Minimum Split (s)	8	26	8	26	8	26	8	26
Yellow Time (s)	3	4.5	3	4.5	3	4.5	3	4.5
All-Red Time (s)	0	0.5	0	0.5	0	0.5	0	0.5
Minimum Initial (s)	5	15	5	10	5	10	5	10
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		5		5		5		5
Flash Dont Walk (s)		16		16		16		16
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	22	30	58	66	22	30	58	66
End Time (s)	30	58	66	22	30	58	66	22
Yield/Force Off (s)	27	53	63	17	27	53	63	17
Yield/Force Off 170(s)	27	37	63	1	27	37	63	1
Local Start Time (s)	55	63	21	29	55	63	21	29
Local Yield (s)	60	16	26	50	60	16	26	50
Local Yield 170(s)	60	0	26	34	60	0	26	34

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	70
Offset: 37 (53%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 35: 39th St & 2nd Ave.

ø1	ø2	ø3	ø4
8 s	28 s	8 s	26 s
ø5	ø6	ø7	ø8
8 s	28 s	8 s	26 s

Timing Report, Sorted By Phase
 36: 39th St & Ave. E

10/27/2005

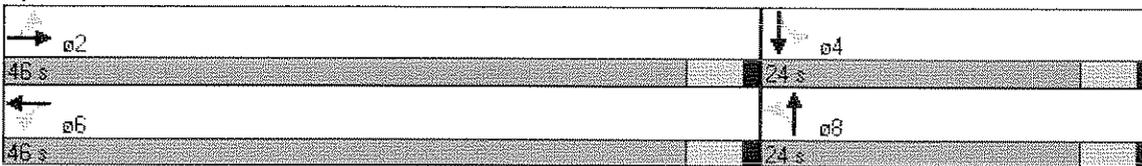


Phase Number	2	4	6	8
Movement	EBTL	SBTL	WBTL	NBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	None	Max	None	Max
Maximum Split (s)	46	24	46	24
Maximum Split (%)	65.7%	34.3%	65.7%	34.3%
Minimum Split (s)	35	23.5	35	23.5
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	20	10	20	10
Vehicle Extension (s)	4	4	4	4
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	7	7	7	7
Flash Dont Walk (s)	9	12	9	12
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	46	0	46
End Time (s)	46	0	46	0
Yield/Force Off (s)	41.5	65.5	41.5	65.5
Yield/Force Off 170(s)	32.5	53.5	32.5	53.5
Local Start Time (s)	37.5	13.5	37.5	13.5
Local Yield (s)	9	33	9	33
Local Yield 170(s)	0	21	0	21

Intersection Summary

Cycle Length	70
Control Type	Actuated-Uncoordinated
Natural Cycle	60

Splits and Phases: 36: 39th St & Ave. E



Timing Report, Sorted By Phase
37: 39th St & 6th Ave.

10/27/2005



Phase Number	1	2	3	4	5	6	7	8
Movement	EBL	WBTL	SBL	NBTL	WBL	EBTL	NBL	SBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	C-Min	None	None	None	C-Min	None	None
Maximum Split (s)	8	28	7	27	8	28	7	27
Maximum Split (%)	11.4%	40.0%	10.0%	38.6%	11.4%	40.0%	10.0%	38.6%
Minimum Split (s)	8	22	7	27	7	22	7	27
Yellow Time (s)	4	4	3	4	4	4	3	4
All-Red Time (s)	1	1	1	1	1	1	1	1
Minimum Initial (s)	3	15	3	10	2	15	3	10
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		7		7		7		7
Flash Dont Walk (s)		10		15		10		15
Dual Entry	Yes	Yes	Yes	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	22	30	58	65	22	30	58	65
End Time (s)	30	58	65	22	30	58	65	22
Yield/Force Off (s)	25	53	61	17	25	53	61	17
Yield/Force Off 170(s)	25	43	61	2	25	43	61	2
Local Start Time (s)	39	47	5	12	39	47	5	12
Local Yield (s)	42	0	8	34	42	0	8	34
Local Yield 170(s)	42	60	8	19	42	60	8	19

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	75
Offset: 53 (76%), Referenced to phase 2:WBTL and 6:EBTL, Start of FDW or yellow	

Splits and Phases: 37: 39th St & 6th Ave.

01	02	03	04
8 s	28 s	7 s	27 s
05	06	07	08
8 s	28 s	7 s	27 s

Timing Report, Sorted By Phase

38: 44th St. & 2nd Ave.

10/27/2005



Phase Number	2	4	6	8
Movement	SBTL	WBTL	NBTL	EBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	44	26	44	26
Maximum Split (%)	62.9%	37.1%	62.9%	37.1%
Minimum Split (s)	19	26	19	26
Yellow Time (s)	4.5	4	4.5	4
All-Red Time (s)	0.5	1	0.5	1
Minimum Initial (s)	13	15	13	15
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	16	9	16
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	60	34	60	34
End Time (s)	34	60	34	60
Yield/Force Off (s)	29	55	29	55
Yield/Force Off 170(s)	20	39	20	39
Local Start Time (s)	40	14	40	14
Local Yield (s)	9	35	9	35
Local Yield 170(s)	0	19	0	19

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 20 (29%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 38: 44th St. & 2nd Ave.

 44 s	 26 s
 44 s	 26 s

Timing Report, Sorted By Phase

41: 48th St. & 2nd Ave.

10/27/2005



Phase Number	2	3	4	6	7	8
Movement	SBTL	EBL	WBTL	NBTL	WBL	EBTL
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize						
Recall Mode	C-Max	None	None	C-Max	None	None
Maximum Split (s)	36	8	26	36	8	26
Maximum Split (%)	51.4%	11.4%	37.1%	51.4%	11.4%	37.1%
Minimum Split (s)	19	8	26	19	8	26
Yellow Time (s)	4.5	3	4	4.5	3	4
All-Red Time (s)	0.5	0	1	0.5	0	1
Minimum Initial (s)	13	5	15	13	5	15
Vehicle Extension (s)	3	3	2	3	3	2
Minimum Gap (s)	3	3	2	3	3	2
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)	5		5	5		5
Flash Dont Walk (s)	9		16	9		16
Dual Entry	Yes	No	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	66	32	40	66	32	40
End Time (s)	32	40	66	32	40	66
Yield/Force Off (s)	27	37	61	27	37	61
Yield/Force Off 170(s)	18	37	45	18	37	45
Local Start Time (s)	48	14	22	48	14	22
Local Yield (s)	9	19	43	9	19	43
Local Yield 170(s)	0	19	27	0	19	27

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 18 (26%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 41: 48th St. & 2nd Ave.

ø2	ø3	ø4
36 s	8 s	26 s
ø6	ø7	ø8
36 s	8 s	26 s

Timing Report, Sorted By Phase

44: 56th St. & 2nd Ave.

10/27/2005

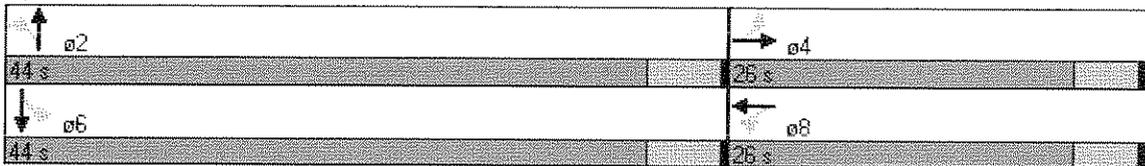


Phase Number	2	4	6	8
Movement	NBTL	EBTL	SBTL	WBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	44	26	44	26
Maximum Split (%)	62.9%	37.1%	62.9%	37.1%
Minimum Split (s)	26	26	26	26
Yellow Time (s)	4.5	4	4.5	4
All-Red Time (s)	0.5	1	0.5	1
Minimum Initial (s)	15	15	15	15
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	2	2	2	2
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	16	16	16	16
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	23	67	23	67
End Time (s)	67	23	67	23
Yield/Force Off (s)	62	18	62	18
Yield/Force Off 170(s)	46	2	46	2
Local Start Time (s)	47	21	47	21
Local Yield (s)	16	42	16	42
Local Yield 170(s)	0	26	0	26

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 46 (66%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 44: 56th St. & 2nd Ave.



Timing Report, Sorted By Phase
 50: 24th St. & 30th Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	SBL	NBTL	EBTL	NBL	SBTL	WBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	Max	None	None	Max	None
Maximum Split (s)	12	24	24	12	24	24
Maximum Split (%)	20.0%	40.0%	40.0%	20.0%	40.0%	40.0%
Minimum Split (s)	8	20	20	8	20	20
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Minimum Initial (s)	4	4	4	4	4	4
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		11	11		11	11
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	12	36	0	12	36
End Time (s)	12	36	0	12	36	0
Yield/Force Off (s)	8	32	56	8	32	56
Yield/Force Off 170(s)	8	21	45	8	21	45
Local Start Time (s)	39	51	15	39	51	15
Local Yield (s)	47	11	35	47	11	35
Local Yield 170(s)	47	0	24	47	0	24

Intersection Summary

Cycle Length	60
Control Type	Actuated-Uncoordinated
Natural Cycle	50

Splits and Phases: 50: 24th St. & 30th Ave.

ø1	ø2	ø4
12 s	24 s	24 s
ø5	ø6	ø8
12 s	24 s	24 s

Timing Report, Sorted By Phase
58: 25th St. & Ave. A

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	36	26	8	36	26
Maximum Split (%)	11.4%	51.4%	37.1%	11.4%	51.4%	37.1%
Minimum Split (s)	8	22	26	8	22	26
Yellow Time (s)	3	4.5	4.5	3	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0.5
Minimum Initial (s)	5	15	12	5	7	12
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		12	16		12	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	26	34	0	26	34	0
End Time (s)	34	0	26	34	0	26
Yield/Force Off (s)	31	65	21	31	65	21
Yield/Force Off 170(s)	31	53	5	31	53	5
Local Start Time (s)	43	51	17	43	51	17
Local Yield (s)	48	12	38	48	12	38
Local Yield 170(s)	48	0	22	48	0	22

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 53 (76%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 58: 25th St. & Ave. A

ø1	ø2	ø4
8 s	36 s	26 s
ø5	ø6	ø8
8 s	36 s	26 s

Timing Report, Sorted By Phase
61: 25th St. & Ave. E

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes			Yes		
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	36	26	8	36	26
Maximum Split (%)	11.4%	51.4%	37.1%	11.4%	51.4%	37.1%
Minimum Split (s)	8	22	26	8	22	26
Yellow Time (s)	3	4.5	4.5	3	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0.5
Minimum Initial (s)	4	16	10	4	16	10
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		12	16		12	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	56	64	30	56	64	30
End Time (s)	64	30	56	64	30	56
Yield/Force Off (s)	61	25	51	61	25	51
Yield/Force Off 170(s)	61	13	35	61	13	35
Local Start Time (s)	43	51	17	43	51	17
Local Yield (s)	48	12	38	48	12	38
Local Yield 170(s)	48	0	22	48	0	22

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 13 (19%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 61: 25th St. & Ave. E

01	02	04
8 s	36 s	26 s
05	06	08
8 s	36 s	26 s

Timing Report, Sorted By Phase

64: 25th St. & Ave. G

10/27/2005



Phase Number	2	4	6	8
Movement	EBTL	SBTL	WBTL	NBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	44	26	44	26
Maximum Split (%)	62.9%	37.1%	62.9%	37.1%
Minimum Split (s)	22	26	22	26
Yellow Time (s)	4.5	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Minimum Initial (s)	15	10	15	10
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	12	16	12	16
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	33	7	33	7
End Time (s)	7	33	7	33
Yield/Force Off (s)	2	28	2	28
Yield/Force Off 170(s)	60	12	60	12
Local Start Time (s)	43	17	43	17
Local Yield (s)	12	38	12	38
Local Yield 170(s)	0	22	0	22

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	50
Offset: 60 (86%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 64: 25th St. & Ave. G

→ ø2	↓ ø4
44 s	26 s
← ø6	↑ ø8
44 s	26 s

Timing Report, Sorted By Phase

67: 25th St. & Ave. M

10/27/2005



Phase Number	1	2	4	5	6	7	8
Movement	WBL	EBTL	SBTL	EBL	WBTL	SBL	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag
Lead-Lag Optimize							
Recall Mode	None	C-Max	None	None	C-Max	None	None
Maximum Split (s)	10	35	25	10	35	10	15
Maximum Split (%)	14.3%	50.0%	35.7%	14.3%	50.0%	14.3%	21.4%
Minimum Split (s)	8	21	15	8	21	10	15
Yellow Time (s)	3	4.5	4.5	3	4.5	3	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0	0.5
Minimum Initial (s)	5	15	10	5	15	5	10
Vehicle Extension (s)	3	2	2	3	2	3	2
Minimum Gap (s)	3	2	2	3	2	3	2
Time Before Reduce (s)	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0
Walk Time (s)		5			5		
Flash Dont Walk (s)		11			11		
Dual Entry	No	Yes	Yes	No	Yes	No	Yes
Inhibit Max	Yes						
Start Time (s)	62	2	37	62	2	37	47
End Time (s)	2	37	62	2	37	47	62
Yield/Force Off (s)	69	32	57	69	32	44	57
Yield/Force Off 170(s)	69	21	57	69	21	44	57
Local Start Time (s)	41	51	16	41	51	16	26
Local Yield (s)	48	11	36	48	11	23	36
Local Yield 170(s)	48	0	36	48	0	23	36

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 21 (30%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 67: 25th St. & Ave. M

ø1	ø2	ø4
10 s	35 s	25 s
ø5	ø6	ø7
10 s	35 s	10 s
		ø8
		15 s

Timing Report, Sorted By Phase
72: 39th St & 17th Ave

10/27/2005

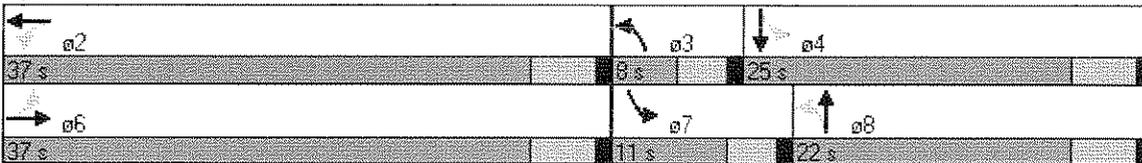


Phase Number	2	3	4	6	7	8
Movement	WBTL	NBL	SBTL	EBTL	SBL	NBTL
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize		Yes	Yes		Yes	Yes
Recall Mode	C-Max	None	Max	C-Max	None	Max
Maximum Split (s)	37	8	25	37	11	22
Maximum Split (%)	52.9%	11.4%	35.7%	52.9%	15.7%	31.4%
Minimum Split (s)	23	7	22	23	8	22
Yellow Time (s)	4	3	4	4	3	4
All-Red Time (s)	1	1	1	1	1	1
Minimum Initial (s)	15	3	10	15	4	10
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)	5		5	5		5
Flash Dont Walk (s)	9		12	9		12
Dual Entry	Yes	No	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	26	63	1	26	63	4
End Time (s)	63	1	26	63	4	26
Yield/Force Off (s)	58	67	21	58	0	21
Yield/Force Off 170(s)	49	67	9	49	0	9
Local Start Time (s)	47	14	22	47	14	25
Local Yield (s)	9	18	42	9	21	42
Local Yield 170(s)	0	18	30	0	21	30

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 49 (70%), Referenced to phase 2:WBTL and 6:EBTL, Start of FDW or yellow	

Splits and Phases: 72: 39th St & 17th Ave



Timing Report, Sorted By Phase

78: 39th St & Ave. N

10/27/2005

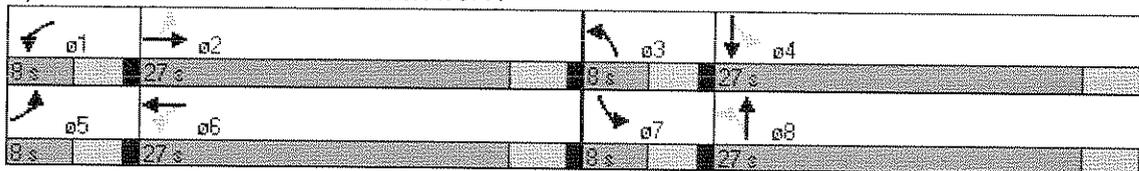


Phase Number	1	2	3	4	5	6	7	8
Movement	WBL	EBTL	NBL	SBTL	EBL	WBTL	SBL	NBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	None	None	Max	None	None	None	Max
Maximum Split (s)	8	27	8	27	8	27	8	27
Maximum Split (%)	11.4%	38.6%	11.4%	38.6%	11.4%	38.6%	11.4%	38.6%
Minimum Split (s)	7	26.5	7	27	7	26.5	7	27
Yellow Time (s)	3	3.5	3	3.5	3	3.5	3	3.5
All-Red Time (s)	1	1	1	1	1	1	1	1
Minimum Initial (s)	3	15	3	10	3	15	3	10
Vehicle Extension (s)	5	3	5	3	5	3	5	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		7		7		7		7
Flash Dont Walk (s)		15		15		15		15
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	0	8	35	43	0	8	35	43
End Time (s)	8	35	43	0	8	35	43	0
Yield/Force Off (s)	4	30.5	39	65.5	4	30.5	39	65.5
Yield/Force Off 170(s)	4	15.5	39	50.5	4	15.5	39	50.5
Local Start Time (s)	54.5	62.5	19.5	27.5	54.5	62.5	19.5	27.5
Local Yield (s)	58.5	15	23.5	50	58.5	15	23.5	50
Local Yield 170(s)	58.5	0	23.5	35	58.5	0	23.5	35

Intersection Summary

Cycle Length	70
Control Type	Actuated-Uncoordinated
Natural Cycle	70

Splits and Phases: 78: 39th St & Ave. N



Timing Report, Sorted By Phase

83: 33rd St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	SBL	NBTL	WBTL	NBL	SBTL	EBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	33	29	8	33	29
Maximum Split (%)	11.4%	47.1%	41.4%	11.4%	47.1%	41.4%
Minimum Split (s)	8	22	29	8	22	29
Yellow Time (s)	3	4.5	4	3	4.5	4
All-Red Time (s)	0	0.5	1	0	0.5	1
Minimum Initial (s)	5	15	10	5	15	10
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		12	19		12	19
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	61	69	32	61	69	32
End Time (s)	69	32	61	69	32	61
Yield/Force Off (s)	66	27	56	66	27	56
Yield/Force Off 170(s)	66	15	37	66	15	37
Local Start Time (s)	46	54	17	46	54	17
Local Yield (s)	51	12	41	51	12	41
Local Yield 170(s)	51	0	22	51	0	22

Intersection Summary

Cycle Length 70
 Control Type Actuated-Coordinated
 Natural Cycle 60
 Offset: 15 (21%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow

Splits and Phases: 83: 33rd St. & 2nd Ave.

φ1	φ2	φ4
8 s	33 s	29 s
φ5	φ6	φ8
8 s	33 s	29 s

Timing Report, Sorted By Phase

91: 39th St & 11th St.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	EBL	WBTL	NBTL	WBL	EBTL	SBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	37	25	8	37	25
Maximum Split (%)	11.4%	52.9%	35.7%	11.4%	52.9%	35.7%
Minimum Split (s)	8	23	25	8	23	25
Yellow Time (s)	4	4	4	4	4	4
All-Red Time (s)	1	1	1	1	1	1
Minimum Initial (s)	3	15	7	3	15	7
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		12	15		12	15
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	59	67	34	59	67	34
End Time (s)	67	34	59	67	34	59
Yield/Force Off (s)	62	29	54	62	29	54
Yield/Force Off 170(s)	62	17	39	62	17	39
Local Start Time (s)	42	50	17	42	50	17
Local Yield (s)	45	12	37	45	12	37
Local Yield 170(s)	45	0	22	45	0	22

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 17 (24%), Referenced to phase 2:WBTL and 6:EBTL, Start of FDW or yellow	

Splits and Phases: 91: 39th St & 11th St.

φ1	φ2	φ4
8 s	37 s	25 s
φ5	φ6	φ8
8 s	37 s	25 s

Timing Report, Sorted By Phase

94: 52nd St & 2nd Ave.

10/27/2005



Phase Number	2	4	6
Movement	SBTL	WBL	NBT
Lead/Lag			
Lead-Lag Optimize			
Recall Mode	C-Max	None	C-Max
Maximum Split (s)	50	20	50
Maximum Split (%)	71.4%	28.6%	71.4%
Minimum Split (s)	21	20	21
Yellow Time (s)	4.5	4	4.5
All-Red Time (s)	0.5	1	0.5
Minimum Initial (s)	15	10	15
Vehicle Extension (s)	3	3	3
Minimum Gap (s)	3	3	3
Time Before Reduce (s)	0	0	0
Time To Reduce (s)	0	0	0
Walk Time (s)	5		5
Flash Doht Walk (s)	11		11
Dual Entry	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes
Start Time (s)	20	0	20
End Time (s)	0	20	0
Yield/Force Off (s)	65	15	65
Yield/Force Off 170(s)	54	15	54
Local Start Time (s)	36	16	36
Local Yield (s)	11	31	11
Local Yield 170(s)	0	31	0

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 54 (77%), Referenced to phase 2:SBTL and 6:NBT, Start of FDW or yellow	

Splits and Phases: 94: 52nd St & 2nd Ave.

 a2 50 s	 a4 20 s
 a6 50 s	



APPENDIX G

UPDATED NOON TIMING PLANS

Updated NOON Timing Plans

Timing Report, Sorted By Phase

1: 25th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	3	4	5	6	7	8
Movement	WBL	EBTL	NBL	SBTL	EBL	WBTL	SBL	NBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	None	None	C-Max	None	None	None	C-Max
Maximum Split (s)	8	26	12	29	8	26	12	29
Maximum Split (%)	10.7%	34.7%	16.0%	38.7%	10.7%	34.7%	16.0%	38.7%
Minimum Split (s)	8	26	8	29	8	26	8	29
Yellow Time (s)	3	4	3	4	3	4	3	4
All-Red Time (s)	0	1	0	1	0	1	0	1
Minimum Initial (s)	5	15	5	15	5	15	5	15
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		5		5		5		5
Flash Dont Walk (s)		16		19		16		19
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	24	32	58	70	24	32	58	70
End Time (s)	32	58	70	24	32	58	70	24
Yield/Force Off (s)	29	53	67	19	29	53	67	19
Yield/Force Off 170(s)	29	37	67	0	29	37	67	0
Local Start Time (s)	24	32	58	70	24	32	58	70
Local Yield (s)	29	53	67	19	29	53	67	19
Local Yield 170(s)	29	37	67	0	29	37	67	0

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	75
Offset: 0 (0%), Referenced to phase 4:SBTL and 8:NBTL, Start of FDW or yellow, Master Intersection	

Splits and Phases: 1: 25th St. & 2nd Ave.

α1	α2	α3	α4
8 s	26 s	12 s	29 s
α5	α6	α7	α8
8 s	26 s	12 s	29 s

Timing Report, Sorted By Phase

2: 29th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	SBL	NBTL	EBTL	NBL	SBTL	WBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	41	26	8	41	26
Maximum Split (%)	10.7%	54.7%	34.7%	10.7%	54.7%	34.7%
Minimum Split (s)	8	19	26	8	19	26
Yellow Time (s)	3	4.5	4	3	4.5	4
All-Red Time (s)	0	0.5	1	0	0.5	1
Minimum Initial (s)	5	13	15	5	13	15
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		9	16		9	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	20	28	69	20	28	69
End Time (s)	28	69	20	28	69	20
Yield/Force Off (s)	25	64	15	25	64	15
Yield/Force Off 170(s)	25	55	74	25	55	74
Local Start Time (s)	40	48	14	40	48	14
Local Yield (s)	45	9	35	45	9	35
Local Yield 170(s)	45	0	19	45	0	19

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 55 (73%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 2: 29th St. & 2nd Ave.

01	02	04
8 s	41 s	26 s
05	06	08
8 s	41 s	26 s

Timing Report, Sorted By Phase

3: SW Ramp & 2nd Ave.

10/27/2005



Phase Number	1	2	3	6	8
Movement	SBL	NBT	EBL	SBTL	EBR
Lead/Lag	Lead	Lag			
Lead-Lag Optimize	Yes	Yes			
Recall Mode	None	C-Max	None	C-Max	None
Maximum Split (s)	8	41	26	49	26
Maximum Split (%)	10.7%	54.7%	34.7%	65.3%	34.7%
Minimum Split (s)	8	19	20	19	26
Yellow Time (s)	3	4.5	4.5	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0.5	0.5
Minimum Initial (s)	3	13	15	13	15
Vehicle Extension (s)	3	2	3	2	3
Minimum Gap (s)	3	2	3	2	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)		5		5	5
Flash Dont Walk (s)		9		9	16
Dual Entry	No	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	64	72	38	64	38
End Time (s)	72	38	64	38	64
Yield/Force Off (s)	69	33	59	33	59
Yield/Force Off 170(s)	69	24	59	24	43
Local Start Time (s)	40	48	14	40	14
Local Yield (s)	45	9	35	9	35
Local Yield 170(s)	45	0	35	0	19

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 24 (32%), Referenced to phase 2:NBT and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 3: SW Ramp & 2nd Ave.

01	02	03
8 s	41 s	26 s
06		08
49 s		26 s

Timing Report, Sorted By Phase

7: NW Ramp & 2nd Ave.

10/27/2005

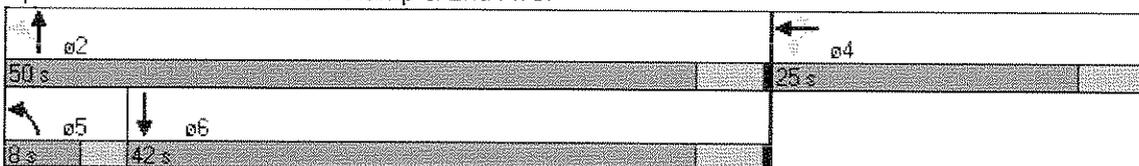


Phase Number	2	4	5	6
Movement	NBTL	WBTL	NBL	SBT
Lead/Lag			Lead	Lag
Lead-Lag Optimize			Yes	Yes
Recall Mode	C-Max	None	None	C-Max
Maximum Split (s)	50	25	8	42
Maximum Split (%)	66.7%	33.3%	10.7%	56.0%
Minimum Split (s)	19	25	8	19
Yellow Time (s)	4.5	4.5	3	4.5
All-Red Time (s)	0.5	0.5	0	0.5
Minimum Initial (s)	13	15	3	13
Vehicle Extension (s)	2	3	3	2
Minimum Gap (s)	2	3	3	2
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5			5
Flash Dont Walk (s)	9			9
Dual Entry	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	41	16	41	49
End Time (s)	16	41	49	16
Yield/Force Off (s)	11	36	46	11
Yield/Force Off 170(s)	2	36	46	2
Local Start Time (s)	39	14	39	47
Local Yield (s)	9	34	44	9
Local Yield 170(s)	0	34	44	0

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 2 (3%), Referenced to phase 2:NBTL and 6:SBT, Start of FDW or yellow	

Splits and Phases: 7: NW Ramp & 2nd Ave.



Timing Report, Sorted By Phase

10: Talmadge St. & 2nd Ave.

10/27/2005



Phase Number	1	2	3	4	5	6	7	8
Movement	SBL	NBTL	WBL	EBTL	NBL	SBTL	EBL	WBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	C-Max	None	None	None	C-Max	None	None
Maximum Split (s)	8	29	8	30	8	29	8	30
Maximum Split (%)	10.7%	38.7%	10.7%	40.0%	10.7%	38.7%	10.7%	40.0%
Minimum Split (s)	8	19	8	29	8	19	8	29
Yellow Time (s)	3	4.5	3	4.5	3	4.5	3	4.5
All-Red Time (s)	0	0.5	0	0.5	0	0.5	0	0.5
Minimum Initial (s)	5	13	5	10	5	13	5	10
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		5		5		5		5
Flash Dont Walk (s)		9		19		9		19
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	43	51	5	13	43	51	5	13
End Time (s)	51	5	13	43	51	5	13	43
Yield/Force Off (s)	48	0	10	38	48	0	10	38
Yield/Force Off 170(s)	48	66	10	19	48	66	10	19
Local Start Time (s)	52	60	14	22	52	60	14	22
Local Yield (s)	57	9	19	47	57	9	19	47
Local Yield 170(s)	57	0	19	28	57	0	19	28

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	65
Offset: 66 (88%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 10: Talmadge St. & 2nd Ave.

8 s	29 s	8 s	30 s
8 s	29 s	8 s	30 s

Timing Report, Sorted By Phase

13: 4th St. & 2nd Ave.

10/27/2005

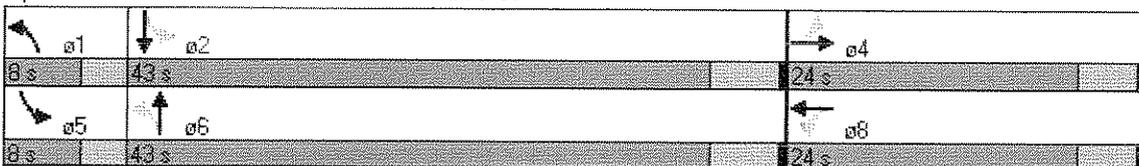


Phase Number	1	2	4	5	6	8
Movement	NBL	SBTL	EBTL	SBL	NBTL	WBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	43	24	8	43	24
Maximum Split (%)	10.7%	57.3%	32.0%	10.7%	57.3%	32.0%
Minimum Split (s)	8	19	15	8	19	15
Yellow Time (s)	3	4.5	4	3	4.5	4
All-Red Time (s)	0	0.5	1	0	0.5	1
Minimum Initial (s)	5	10	10	5	10	10
Vehicle Extension (s)	3	2	3	3	2	3
Minimum Gap (s)	3	2	3	3	2	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5			5	
Flash Dont Walk (s)		9			9	
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	70	3	46	70	3	46
End Time (s)	3	46	70	3	46	70
Yield/Force Off (s)	0	41	65	0	41	65
Yield/Force Off 170(s)	0	32	65	0	32	65
Local Start Time (s)	38	46	14	38	46	14
Local Yield (s)	43	9	33	43	9	33
Local Yield 170(s)	43	0	33	43	0	33

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 32 (43%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 13: 4th St. & 2nd Ave.



Timing Report, Sorted By Phase

16: 8th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	NBL	SBTL	EBTL	SBL	NBTL	WBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	44	23	8	44	23
Maximum Split (%)	10.7%	58.7%	30.7%	10.7%	58.7%	30.7%
Minimum Split (s)	8	19	15	8	19	15
Yellow Time (s)	3	4.5	4	3	4.5	4
All-Red Time (s)	0	0.5	1	0	0.5	1
Minimum Initial (s)	5	10	10	5	10	10
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	2	3	3	2	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5			5	
Flash Dont Walk (s)		9			9	
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	66	74	43	66	74	43
End Time (s)	74	43	66	74	43	66
Yield/Force Off (s)	71	38	61	71	38	61
Yield/Force Off 170(s)	71	29	61	71	29	61
Local Start Time (s)	37	45	14	37	45	14
Local Yield (s)	42	9	32	42	9	32
Local Yield 170(s)	42	0	32	42	0	32

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 29 (39%)	Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow

Splits and Phases: 16: 8th St. & 2nd Ave.

8 s	44 s	23 s
8 s	44 s	23 s

Timing Report, Sorted By Phase

19: 11th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	3	4	5	6	7	8
Movement	NBL	SBTL	EBL	WBTL	SBL	NBTL	WBL	EBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	C-Max	None	None	None	C-Max	None	None
Maximum Split (s)	8	33	8	26	8	33	8	26
Maximum Split (%)	10.7%	44.0%	10.7%	34.7%	10.7%	44.0%	10.7%	34.7%
Minimum Split (s)	8	20	8	15	8	20	8	26
Yellow Time (s)	3	4.5	3	4.5	3	4.5	3	4.5
All-Red Time (s)	0	0.5	0	0.5	0	0.5	0	0.5
Minimum Initial (s)	5	15	5	10	5	15	5	10
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	2	3	2	3	2	3	2
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)								5
Flash Dont Walk (s)								16
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	33	41	74	7	33	41	74	7
End Time (s)	41	74	7	33	41	74	7	33
Yield/Force Off (s)	38	69	4	28	38	69	4	28
Yield/Force Off 170(s)	38	69	4	28	38	69	4	12
Local Start Time (s)	39	47	5	13	39	47	5	13
Local Yield (s)	44	0	10	34	44	0	10	34
Local Yield 170(s)	44	0	10	34	44	0	10	18

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	65
Offset: 69 (92%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 19: 11th St. & 2nd Ave.

01	02	03	04
8 s	33 s	8 s	26 s
05	06	07	08
8 s	33 s	8 s	26 s

Timing Report, Sorted By Phase

22: 16th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	3	4	5	6	7	8
Movement	SBL	NBTL	EBL	WBTL	NBL	SBTL	WBL	EBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	C-Max	None	None	None	C-Max	None	None
Maximum Split (s)	8	33	8	26	8	33	8	26
Maximum Split (%)	10.7%	44.0%	10.7%	34.7%	10.7%	44.0%	10.7%	34.7%
Minimum Split (s)	8	19	8	26	8	19	8	26
Yellow Time (s)	3	4.5	3	4.5	3	4.5	3	4.5
All-Red Time (s)	0	0.5	0	0.5	0	0.5	0	0.5
Minimum Initial (s)	5	11	5	10	5	11	5	10
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	2	3	2	3	2	3	2
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		5		5		5		5
Flash Dont Walk (s)		9		16		9		16
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	71	4	37	45	71	4	37	45
End Time (s)	4	37	45	71	4	37	45	71
Yield/Force Off (s)	1	32	42	66	1	32	42	66
Yield/Force Off 170(s)	1	23	42	50	1	23	42	50
Local Start Time (s)	48	56	14	22	48	56	14	22
Local Yield (s)	53	9	19	43	53	9	19	43
Local Yield 170(s)	53	0	19	27	53	0	19	27

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	65
Offset: 23 (31%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 22: 16th St. & 2nd Ave.

φ1	φ2	φ3	φ4
8 s	33 s	8 s	26 s
φ5	φ6	φ7	φ8
8 s	33 s	8 s	26 s

Timing Report, Sorted By Phase

25: 22nd St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	NBL	SBTL	WBTL	SBL	NBTL	EBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min	None	None	C-Min	None
Maximum Split (s)	8	41	26	8	41	26
Maximum Split (%)	10.7%	54.7%	34.7%	10.7%	54.7%	34.7%
Minimum Split (s)	8	20	26	8	20	26
Yellow Time (s)	3	4.5	4.5	3	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0.5
Minimum Initial (s)	5	14	7	5	14	7
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		10	16		10	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	27	35	1	27	35	1
End Time (s)	35	1	27	35	1	27
Yield/Force Off (s)	32	71	22	32	71	22
Yield/Force Off 170(s)	32	61	6	32	61	6
Local Start Time (s)	31	39	5	31	39	5
Local Yield (s)	36	0	26	36	0	26
Local Yield 170(s)	36	65	10	36	65	10

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 71 (95%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 25: 22nd St. & 2nd Ave.

α1	α2	α4
8 s	41 s	26 s
α5	α6	α8
8 s	41 s	26 s

Timing Report, Sorted By Phase

28: 25th St. & 5th Ave.

10/27/2005

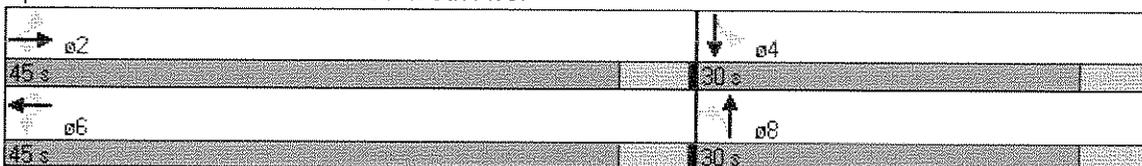


Phase Number	2	4	6	8
Movement	EBTL	SBTL	WBTL	NBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	Max	C-Max	Max
Maximum Split (s)	45	30	45	30
Maximum Split (%)	60.0%	40.0%	60.0%	40.0%
Minimum Split (s)	19	29	19	29
Yellow Time (s)	4.5	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Minimum Initial (s)	13	10	13	10
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	2	3	2	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	19	9	19
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	60	30	60	30
End Time (s)	30	60	30	60
Yield/Force Off (s)	25	55	25	55
Yield/Force Off 170(s)	16	36	16	36
Local Start Time (s)	44	14	44	14
Local Yield (s)	9	39	9	39
Local Yield 170(s)	0	20	0	20

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: (21%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 28: 25th St. & 5th Ave.



Timing Report, Sorted By Phase
 29: 25th St. & Central Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	41	26	8	41	26
Maximum Split (%)	10.7%	54.7%	34.7%	10.7%	54.7%	34.7%
Minimum Split (s)	8	22	26	8	22	26
Yellow Time (s)	3	4.5	4.5	3	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0.5
Minimum Initial (s)	5	12	12	5	12	12
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		12	16		12	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	22	30	71	22	30	71
End Time (s)	30	71	22	30	71	22
Yield/Force Off (s)	27	66	17	27	66	17
Yield/Force Off 170(s)	27	54	1	27	54	1
Local Start Time (s)	43	51	17	43	51	17
Local Yield (s)	48	12	38	48	12	38
Local Yield 170(s)	48	0	22	48	0	22

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 54 (72%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 29: 25th St. & Central Ave.

01	02	04
8 s	41 s	26 s
05	06	08
8 s	41 s	26 s

Timing Report, Sorted By Phase

32: 31st St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	SBL	NBTL	EBTL	NBL	SBTL	WBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	41	26	8	41	26
Maximum Split (%)	10.7%	54.7%	34.7%	10.7%	54.7%	34.7%
Minimum Split (s)	8	19	26	8	19	26
Yellow Time (s)	3	4.5	4	3	4.5	4
All-Red Time (s)	0	0.5	1	0	0.5	1
Minimum Initial (s)	5	13	15	5	13	15
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		9	16		9	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	29	37	3	29	37	3
End Time (s)	37	3	29	37	3	29
Yield/Force Off (s)	34	73	24	34	73	24
Yield/Force Off 170(s)	34	64	8	34	64	8
Local Start Time (s)	40	48	14	40	48	14
Local Yield (s)	45	9	35	45	9	35
Local Yield 170(s)	45	0	19	45	0	19

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 64 (85%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 32: 31st St. & 2nd Ave.

01	02	04
8 s	41 s	26 s
05	06	08
8 s	41 s	26 s

Timing Report, Sorted By Phase

35: 39th St & 2nd Ave.

10/27/2005



Phase Number	1	2	3	4	5	6	7	8
Movement	NBL	SBTL	EBL	WBTL	SBL	NBTL	WBL	EBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize								
Recall Mode	None	C-Max	None	None	None	C-Max	None	None
Maximum Split (s)	8	33	8	26	8	33	8	26
Maximum Split (%)	10.7%	44.0%	10.7%	34.7%	10.7%	44.0%	10.7%	34.7%
Minimum Split (s)	8	26	8	26	8	26	8	26
Yellow Time (s)	3	4.5	3	4.5	3	4.5	3	4.5
All-Red Time (s)	0	0.5	0	0.5	0	0.5	0	0.5
Minimum Initial (s)	5	15	5	10	5	10	5	10
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		5		5		5		5
Flash Dont Walk (s)		16		16		16		16
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	73	6	39	47	73	6	39	47
End Time (s)	6	39	47	73	6	39	47	73
Yield/Force Off (s)	3	34	44	68	3	34	44	68
Yield/Force Off 170(s)	3	18	44	52	3	18	44	52
Local Start Time (s)	55	63	21	29	55	63	21	29
Local Yield (s)	60	16	26	50	60	16	26	50
Local Yield 170(s)	60	0	26	34	60	0	26	34

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	70
Offset: 18 (24%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 35: 39th St & 2nd Ave.

01	02	03	04
8 s	33 s	8 s	26 s
05	06	07	08
8 s	33 s	8 s	26 s

Timing Report, Sorted By Phase

36: 39th St & Ave. E

10/27/2005



Phase Number	2	4	6	8
Movement	EBTL	SBTL	WBTL	NBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	None	Max	None	Max
Maximum Split (s)	52	23	52	23
Maximum Split (%)	69.3%	30.7%	69.3%	30.7%
Minimum Split (s)	18.5	21.5	18.5	21.5
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	13.5	10	13.5	10
Vehicle Extension (s)	4	4	4	4
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	12	9	12
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	52	0	52
End Time (s)	52	0	52	0
Yield/Force Off (s)	47.5	70.5	47.5	70.5
Yield/Force Off 170(s)	38.5	58.5	38.5	58.5
Local Start Time (s)	36.5	13.5	36.5	13.5
Local Yield (s)	9	32	9	32
Local Yield 170(s)	0	20	0	20

Intersection Summary

Cycle Length	75
Control Type	Actuated-Uncoordinated
Natural Cycle	40

Splits and Phases: 36: 39th St & Ave. E

→ φ2	52 s	↓ φ4	23 s
← φ6	52 s	↑ φ8	23 s

Timing Report, Sorted By Phase

37: 39th St & 6th Ave.

10/27/2005

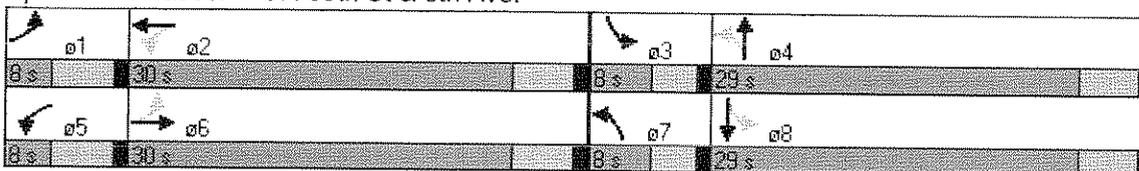


Phase Number	1	2	3	4	5	6	7	8
Movement	EBL	WBTL	SBL	NBTL	WBL	EBTL	NBL	SBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	C-Min	None	None	None	C-Min	None	None
Maximum Split (s)	8	30	8	29	8	30	8	29
Maximum Split (%)	10.7%	40.0%	10.7%	38.7%	10.7%	40.0%	10.7%	38.7%
Minimum Split (s)	8	22	7	27	7	22	7	27
Yellow Time (s)	4	4	3	4	4	4	3	4
All-Red Time (s)	1	1	1	1	1	1	1	1
Minimum Initial (s)	3	14	3	10	2	14	3	10
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		7		7		7		7
Flash Dont Walk (s)		10		15		10		15
Dual Entry	Yes	Yes	Yes	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	6	14	44	52	6	14	44	52
End Time (s)	14	44	52	6	14	44	52	6
Yield/Force Off (s)	9	39	48	1	9	39	48	1
Yield/Force Off 170(s)	9	29	48	61	9	29	48	61
Local Start Time (s)	42	50	5	13	42	50	5	13
Local Yield (s)	45	0	9	37	45	0	9	37
Local Yield 170(s)	45	65	9	22	45	65	9	22

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	65
Offset: 39 (52%), Referenced to phase 2:WBTL and 6:EBTL, Start of FDW or yellow	

Splits and Phases: 37: 39th St & 6th Ave.



Timing Report, Sorted By Phase

38: 44th St. & 2nd Ave.

10/27/2005

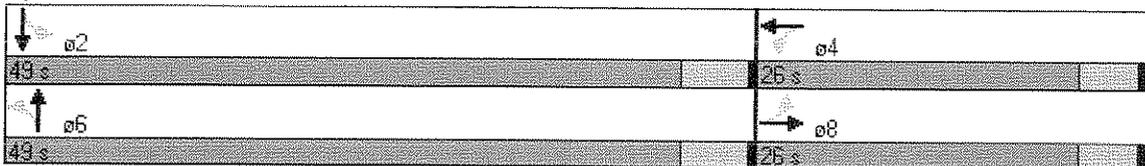


Phase Number	2	4	6	8
Movement	SBTL	WBTL	NBTL	EBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	49	26	49	26
Maximum Split (%)	65.3%	34.7%	65.3%	34.7%
Minimum Split (s)	19	26	19	26
Yellow Time (s)	4.5	4	4.5	4
All-Red Time (s)	0.5	1	0.5	1
Minimum Initial (s)	13	15	13	15
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	16	9	16
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	31	5	31	5
End Time (s)	5	31	5	31
Yield/Force Off (s)	0	26	0	26
Yield/Force Off 170(s)	66	10	66	10
Local Start Time (s)	40	14	40	14
Local Yield (s)	9	35	9	35
Local Yield 170(s)	0	19	0	19

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 66 (88%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 38: 44th St. & 2nd Ave.



Timing Report, Sorted By Phase

41: 48th St. & 2nd Ave.

10/27/2005



Phase Number	2	3	4	6	7	8
Movement	SBTL	EBL	WBTL	NBTL	WBL	EBTL
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize						
Recall Mode	C-Max	None	None	C-Max	None	None
Maximum Split (s)	41	8	26	41	8	26
Maximum Split (%)	54.7%	10.7%	34.7%	54.7%	10.7%	34.7%
Minimum Split (s)	19	8	26	19	8	26
Yellow Time (s)	4.5	3	4	4.5	3	4
All-Red Time (s)	0.5	0	1	0.5	0	1
Minimum Initial (s)	13	5	15	13	5	15
Vehicle Extension (s)	3	3	2	3	3	2
Minimum Gap (s)	3	3	2	3	3	2
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)	5		5	5		5
Flash Dont Walk (s)	9		16	9		16
Dual Entry	Yes	No	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	50	16	24	50	16	24
End Time (s)	16	24	50	16	24	50
Yield/Force Off (s)	11	21	45	11	21	45
Yield/Force Off 170(s)	2	21	29	2	21	29
Local Start Time (s)	48	14	22	48	14	22
Local Yield (s)	9	19	43	9	19	43
Local Yield 170(s)	0	19	27	0	19	27

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 2 (3%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 41: 48th St. & 2nd Ave.

ø2	ø3	ø4
41 s	8 s	26 s
ø6	ø7	ø8
41 s	8 s	26 s

Timing Report, Sorted By Phase

44: 56th St. & 2nd Ave.

10/27/2005



Phase Number	2	4	6	8
Movement	NBTL	EBTL	SBTL	WBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	49	26	49	26
Maximum Split (%)	65.3%	34.7%	65.3%	34.7%
Minimum Split (s)	26	26	26	26
Yellow Time (s)	4.5	4	4.5	4
All-Red Time (s)	0.5	1	0.5	1
Minimum Initial (s)	15	15	15	15
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	2	2	2	2
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	16	16	16	16
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	26	0	26	0
End Time (s)	0	26	0	26
Yield/Force Off (s)	70	21	70	21
Yield/Force Off 170(s)	54	5	54	5
Local Start Time (s)	47	21	47	21
Local Yield (s)	16	42	16	42
Local Yield 170(s)	0	26	0	26

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 54 (72%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 44: 56th St. & 2nd Ave.



Timing Report, Sorted By Phase
50: 24th St. & 30th Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	SBL	NBTL	EBTL	NBL	SBTL	WBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	Max	None	None	Max	None
Maximum Split (s)	12	24	24	12	24	24
Maximum Split (%)	20.0%	40.0%	40.0%	20.0%	40.0%	40.0%
Minimum Split (s)	8	20	20	8	20	20
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Minimum Initial (s)	4	4	4	4	4	4
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		11	11		11	11
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	12	36	0	12	36
End Time (s)	12	36	0	12	36	0
Yield/Force Off (s)	8	32	56	8	32	56
Yield/Force Off 170(s)	8	21	45	8	21	45
Local Start Time (s)	39	51	15	39	51	15
Local Yield (s)	47	11	35	47	11	35
Local Yield 170(s)	47	0	24	47	0	24

Intersection Summary

Cycle Length	60
Control Type	Actuated-Uncoordinated
Natural Cycle	50

Splits and Phases: 50: 24th St. & 30th Ave.

ø1	ø2	ø4
12 s	24 s	24 s
ø5	ø6	ø8
12 s	24 s	24 s

Timing Report, Sorted By Phase

58: 25th St. & Ave. A

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	41	26	8	41	26
Maximum Split (%)	10.7%	54.7%	34.7%	10.7%	54.7%	34.7%
Minimum Split (s)	8	22	26	8	22	26
Yellow Time (s)	3	4.5	4.5	3	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0.5
Minimum Initial (s)	5	15	12	5	7	12
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		12	16		12	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	25	33	74	25	33	74
End Time (s)	33	74	25	33	74	25
Yield/Force Off (s)	30	69	20	30	69	20
Yield/Force Off 170(s)	30	57	4	30	57	4
Local Start Time (s)	43	51	17	43	51	17
Local Yield (s)	48	12	38	48	12	38
Local Yield 170(s)	48	0	22	48	0	22

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 57 (76%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 58: 25th St. & Ave. A

ø1	ø2	ø4
8 s	41 s	26 s
ø5	ø6	ø8
8 s	41 s	26 s

Timing Report, Sorted By Phase
61: 25th St. & Ave. E

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes			Yes		
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	41	26	8	41	26
Maximum Split (%)	10.7%	54.7%	34.7%	10.7%	54.7%	34.7%
Minimum Split (s)	8	22	26	8	22	26
Yellow Time (s)	3	4.5	4.5	3	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0.5
Minimum Initial (s)	4	16	9	4	16	9
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		12	16		12	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	55	63	29	55	63	29
End Time (s)	63	29	55	63	29	55
Yield/Force Off (s)	60	24	50	60	24	50
Yield/Force Off 170(s)	60	12	34	60	12	34
Local Start Time (s)	43	51	17	43	51	17
Local Yield (s)	48	12	38	48	12	38
Local Yield 170(s)	48	0	22	48	0	22

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 12 (16%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 61: 25th St. & Ave. E

ø1	ø2	ø4
8 s	41 s	26 s
ø5	ø6	ø8
8 s	41 s	26 s

Timing Report, Sorted By Phase

64: 25th St. & Ave. G

10/27/2005



Phase Number	2	4	6	8
Movement	EBTL	SBTL	WBTL	NBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	49	26	49	26
Maximum Split (%)	65.3%	34.7%	65.3%	34.7%
Minimum Split (s)	22	26	22	26
Yellow Time (s)	4.5	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Minimum Initial (s)	15	10	15	10
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	12	16	12	16
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	19	68	19	68
End Time (s)	68	19	68	19
Yield/Force Off (s)	63	14	63	14
Yield/Force Off 170(s)	51	73	51	73
Local Start Time (s)	43	17	43	17
Local Yield (s)	12	38	12	38
Local Yield 170(s)	0	22	0	22

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	50
Offset: 51 (68%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 64: 25th St. & Ave. G

→ ø2	↓ ø4
43 s	26 s
← ø6	↑ ø8
43 s	26 s

Timing Report, Sorted By Phase

67: 25th St. & Ave. M

10/27/2005



Phase Number	1	2	4	5	6	7	8
Movement	WBL	EBTL	SBTL	EBL	WBTL	SBL	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag
Lead-Lag Optimize							
Recall Mode	None	C-Max	None	None	C-Max	None	None
Maximum Split (s)	10	40	25	10	40	10	15
Maximum Split (%)	13.3%	53.3%	33.3%	13.3%	53.3%	13.3%	20.0%
Minimum Split (s)	8	21	15	8	21	8	15
Yellow Time (s)	3	4.5	4.5	3	4.5	3	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0	0.5
Minimum Initial (s)	5	15	10	5	15	5	10
Vehicle Extension (s)	3	2	2	3	2	3	2
Minimum Gap (s)	3	2	2	3	2	3	2
Time Before Reduce (s)	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0
Walk Time (s)		5			5		
Flash Dont Walk (s)		11			11		
Dual Entry	No	Yes	Yes	No	Yes	No	Yes
Inhibit Max	Yes						
Start Time (s)	58	68	33	58	68	33	43
End Time (s)	68	33	58	68	33	43	58
Yield/Force Off (s)	65	28	53	65	28	40	53
Yield/Force Off 170(s)	65	17	53	65	17	40	53
Local Start Time (s)	41	51	16	41	51	16	26
Local Yield (s)	48	11	36	48	11	23	36
Local Yield 170(s)	48	0	36	48	0	23	36

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 17 (23%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 67: 25th St. & Ave. M

α1	α2	α4
10 s	40 s	25 s
α5	α6	α7
10 s	40 s	10 s
		α8
		15 s

Timing Report, Sorted By Phase

72: 39th St & 17th Ave

10/27/2005

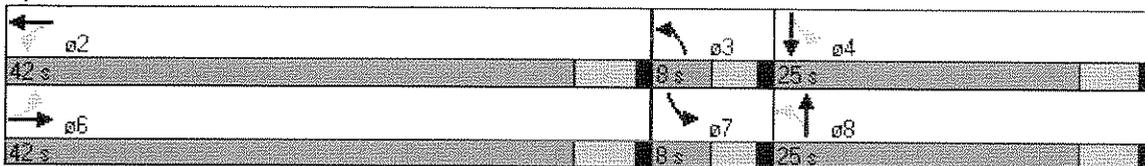


Phase Number	2	3	4	6	7	8
Movement	WBTL	NBL	SBTL	EBTL	SBL	NBTL
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize		Yes	Yes		Yes	Yes
Recall Mode	C-Max	None	Max	C-Max	None	Max
Maximum Split (s)	42	8	25	42	8	25
Maximum Split (%)	56.0%	10.7%	33.3%	56.0%	10.7%	33.3%
Minimum Split (s)	19	8	22	19	8	22
Yellow Time (s)	4	3	4	4	3	4
All-Red Time (s)	1	1	1	1	1	1
Minimum Initial (s)	13	4	10	13	4	10
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)	5		5	5		5
Flash Dont Walk (s)	9		12	9		12
Dual Entry	Yes	No	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	42	50	0	42	50
End Time (s)	42	50	0	42	50	0
Yield/Force Off (s)	37	46	70	37	46	70
Yield/Force Off 170(s)	28	46	58	28	46	58
Local Start Time (s)	47	14	22	47	14	22
Local Yield (s)	9	18	42	9	18	42
Local Yield 170(s)	0	18	30	0	18	30

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	50
Offset: 28 (37%), Referenced to phase 2:WBTL and 6:EBTL, Start of FDW or yellow	

Splits and Phases: 72: 39th St & 17th Ave



Timing Report, Sorted By Phase

78: 39th St & Ave. N

10/27/2005

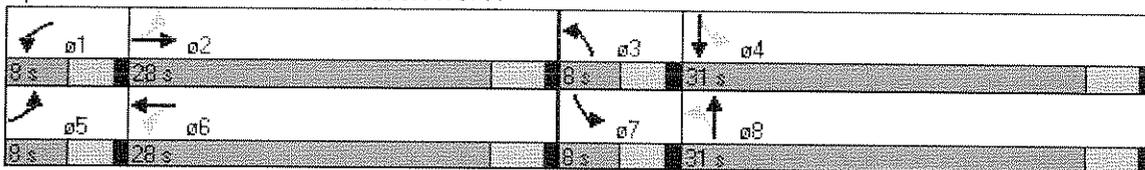


Phase Number	1	2	3	4	5	6	7	8
Movement	WBL	EBTL	NBL	SBTL	EBL	WBTL	SBL	NBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	None	None	Max	None	None	None	Max
Maximum Split (s)	8	28	8	31	8	28	8	31
Maximum Split (%)	10.7%	37.3%	10.7%	41.3%	10.7%	37.3%	10.7%	41.3%
Minimum Split (s)	7	24.5	7	25	7	24.5	7	25
Yellow Time (s)	3	3.5	3	3.5	3	3.5	3	3.5
All-Red Time (s)	1	1	1	1	1	1	1	1
Minimum Initial (s)	3	15	3	10	3	15	3	10
Vehicle Extension (s)	5	3	5	3	5	3	5	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		5		5		5		5
Flash Dont Walk (s)		15		15		15		15
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	0	8	36	44	0	8	36	44
End Time (s)	8	36	44	0	8	36	44	0
Yield/Force Off (s)	4	31.5	40	70.5	4	31.5	40	70.5
Yield/Force Off 170(s)	4	16.5	40	55.5	4	16.5	40	55.5
Local Start Time (s)	58.5	66.5	19.5	27.5	58.5	66.5	19.5	27.5
Local Yield (s)	62.5	15	23.5	54	62.5	15	23.5	54
Local Yield 170(s)	62.5	0	23.5	39	62.5	0	23.5	39

Intersection Summary

Cycle Length	75
Control Type	Actuated-Uncoordinated
Natural Cycle	65

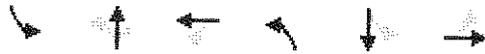
Splits and Phases: 78: 39th St & Ave. N



Timing Report, Sorted By Phase

83: 33rd St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	SBL	NBTL	WBTL	NBL	SBTL	EBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	38	29	8	38	29
Maximum Split (%)	10.7%	50.7%	38.7%	10.7%	50.7%	38.7%
Minimum Split (s)	8	22	29	8	22	29
Yellow Time (s)	3	4.5	4	3	4.5	4
All-Red Time (s)	0	0.5	1	0	0.5	1
Minimum Initial (s)	5	15	10	5	15	10
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		12	19		12	19
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	30	38	1	30	38	1
End Time (s)	38	1	30	38	1	30
Yield/Force Off (s)	35	71	25	35	71	25
Yield/Force Off 170(s)	35	59	6	35	59	6
Local Start Time (s)	46	54	17	46	54	17
Local Yield (s)	51	12	41	51	12	41
Local Yield 170(s)	51	0	22	51	0	22

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 59 (79%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 83: 33rd St. & 2nd Ave.

ø1	ø2	ø4
8 s	38 s	29 s
ø5	ø6	ø8
8 s	38 s	29 s

Timing Report, Sorted By Phase

91: 39th St & 11th St.

10/27/2005

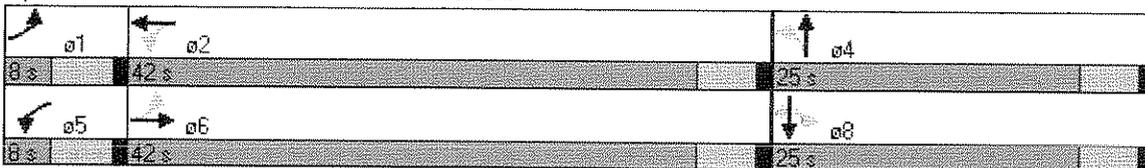


Phase Number	1	2	4	5	6	8
Movement	EBL	WBTL	NBTL	WBL	EBTL	SBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	42	25	8	42	25
Maximum Split (%)	10.7%	56.0%	33.3%	10.7%	56.0%	33.3%
Minimum Split (s)	8	22	25	8	22	25
Yellow Time (s)	4	4	4	4	4	4
All-Red Time (s)	1	1	1	1	1	1
Minimum Initial (s)	3	15	7	3	15	7
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		12	15		12	15
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	38	46	13	38	46	13
End Time (s)	46	13	38	46	13	38
Yield/Force Off (s)	41	8	33	41	8	33
Yield/Force Off 170(s)	41	71	18	41	71	18
Local Start Time (s)	42	50	17	42	50	17
Local Yield (s)	45	12	37	45	12	37
Local Yield 170(s)	45	0	22	45	0	22

Intersection Summary

Cycle Length 75
 Control Type Actuated-Coordinated
 Natural Cycle 55
 Offset: 71 (95%), Referenced to phase 2:WBTL and 6:EBTL, Start of FDW or yellow

Splits and Phases: 91: 39th St & 11th St.



Timing Report, Sorted By Phase

94: 52nd St & 2nd Ave.

10/27/2005



Phase Number	2	4	6
Movement	SBTL	WBL	NBT
Lead/Lag			
Lead-Lag Optimize			
Recall Mode	C-Max	None	C-Max
Maximum Split (s)	50	25	50
Maximum Split (%)	66.7%	33.3%	66.7%
Minimum Split (s)	21	20	21
Yellow Time (s)	4.5	4	4.5
All-Red Time (s)	0.5	1	0.5
Minimum Initial (s)	15	15	15
Vehicle Extension (s)	3	3	3
Minimum Gap (s)	3	3	3
Time Before Reduce (s)	0	0	0
Time To Reduce (s)	0	0	0
Walk Time (s)	5		5
Flash Dont Walk (s)	11		11
Dual Entry	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes
Start Time (s)	4	54	4
End Time (s)	54	4	54
Yield/Force Off (s)	49	74	49
Yield/Force Off 170(s)	38	74	38
Local Start Time (s)	41	16	41
Local Yield (s)	11	36	11
Local Yield 170(s)	0	36	0

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 38 (51%), Referenced to phase 2:SBTL and 6:NBT, Start of FDW or yellow	

Splits and Phases: 94: 52nd St & 2nd Ave.

 50 s	 25 s
 50 s	



APPENDIX H

UPDATED PM TIMING PLANS

Updated PM Timing Plans

Timing Report, Sorted By Phase

1: 25th St. & 2nd Ave.

10/27/2005

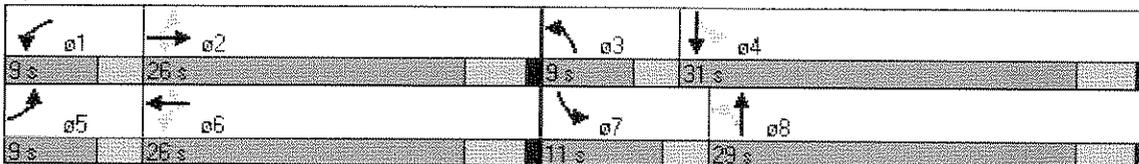


Phase Number	1	2	3	4	5	6	7	8
Movement	WBL	EBTL	NBL	SBTL	EBL	WBTL	SBL	NBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	None	None	C-Max	None	None	None	C-Max
Maximum Split (s)	9	26	9	31	9	26	11	29
Maximum Split (%)	12.0%	34.7%	12.0%	41.3%	12.0%	34.7%	14.7%	38.7%
Minimum Split (s)	8	26	8	29	8	26	8	29
Yellow Time (s)	3	4	3	4	3	4	3	4
All-Red Time (s)	0	1	0	1	0	1	0	1
Minimum Initial (s)	5	15	5	15	5	15	5	15
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		5		5		5		5
Flash Dont Walk (s)		16		19		16		19
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	24	33	59	68	24	33	59	70
End Time (s)	33	59	68	24	33	59	70	24
Yield/Force Off (s)	30	54	65	19	30	54	67	19
Yield/Force Off 170(s)	30	38	65	0	30	38	67	0
Local Start Time (s)	24	33	59	68	24	33	59	70
Local Yield (s)	30	54	65	19	30	54	67	19
Local Yield 170(s)	30	38	65	0	30	38	67	0

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	75
Offset: 0 (0%), Referenced to phase 4:SBTL and 8:NBTL, Start of FDW or yellow, Master Intersection	

Splits and Phases: 1: 25th St. & 2nd Ave.



Timing Report, Sorted By Phase

2: 29th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	SBL	NBTL	EBTL	NBL	SBTL	WBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	41	26	8	41	26
Maximum Split (%)	10.7%	54.7%	34.7%	10.7%	54.7%	34.7%
Minimum Split (s)	8	19	26	8	19	26
Yellow Time (s)	3	4.5	4	3	4.5	4
All-Red Time (s)	0	0.5	1	0	0.5	1
Minimum Initial (s)	5	13	15	5	13	15
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		9	16		9	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	20	28	69	20	28	69
End Time (s)	28	69	20	28	69	20
Yield/Force Off (s)	25	64	15	25	64	15
Yield/Force Off 170(s)	25	55	74	25	55	74
Local Start Time (s)	40	48	14	40	48	14
Local Yield (s)	45	9	35	45	9	35
Local Yield 170(s)	45	0	19	45	0	19

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 55 (73%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 2: 29th St. & 2nd Ave.

ø1	ø2	ø4
8 s	41 s	26 s
ø5	ø6	ø8
8 s	41 s	26 s

Timing Report, Sorted By Phase
 3: SW Ramp & 2nd Ave.

10/27/2005



Phase Number	1	2	3	6	8
Movement	SBL	NBT	EBL	SBTL	EBR
Lead/Lag	Lead	Lag			
Lead-Lag Optimize	Yes	Yes			
Recall Mode	None	C-Max	None	C-Max	None
Maximum Split (s)	8	41	26	49	26
Maximum Split (%)	10.7%	54.7%	34.7%	65.3%	34.7%
Minimum Split (s)	8	19	20	19	26
Yellow Time (s)	3	4.5	4.5	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0.5	0.5
Minimum Initial (s)	3	13	15	13	15
Vehicle Extension (s)	3	2	3	2	3
Minimum Gap (s)	3	2	3	2	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)		5		5	5
Flash Dont Walk (s)		9		9	16
Dual Entry	No	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	61	69	35	61	35
End Time (s)	69	35	61	35	61
Yield/Force Off (s)	66	30	56	30	56
Yield/Force Off 170(s)	66	21	56	21	40
Local Start Time (s)	40	48	14	40	14
Local Yield (s)	45	9	35	9	35
Local Yield 170(s)	45	0	35	0	19

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 21 (28%), Referenced to phase 2:NBT and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 3: SW Ramp & 2nd Ave.

01	02	03
8 s	41 s	26 s
06		08
49 s		26 s

Timing Report, Sorted By Phase
7: NW Ramp & 2nd Ave.

10/27/2005



Phase Number	2	4	5	6
Movement	NBTL	WBTL	NBL	SBT
Lead/Lag			Lead	Lag
Lead-Lag Optimize			Yes	Yes
Recall Mode	C-Max	None	None	C-Max
Maximum Split (s)	50	25	8	42
Maximum Split (%)	66.7%	33.3%	10.7%	56.0%
Minimum Split (s)	19	25	8	19
Yellow Time (s)	4.5	4.5	3	4.5
All-Red Time (s)	0.5	0.5	0	0.5
Minimum Initial (s)	13	15	3	13
Vehicle Extension (s)	2	3	3	2
Minimum Gap (s)	2	3	3	2
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5			5
Flash Dont Walk (s)	9			9
Dual Entry	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	47	22	47	55
End Time (s)	22	47	55	22
Yield/Force Off (s)	17	42	52	17
Yield/Force Off 170(s)	8	42	52	8
Local Start Time (s)	39	14	39	47
Local Yield (s)	9	34	44	9
Local Yield 170(s)	0	34	44	0

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 8 (11%), Referenced to phase 2:NBTL and 6:SBT, Start of FDW or yellow	

Splits and Phases: 7: NW Ramp & 2nd Ave.

ø2	ø4
50 s	25 s
ø5	ø6
8 s	42 s

Timing Report, Sorted By Phase
 10: Talmadge St. & 2nd Ave.

10/27/2005



Phase Number	1	2	3	4	5	6	7	8
Movement	SBL	NBTL	EBL	WBTL	NBL	SBTL	WBL	EBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	C-Max	None	None	None	C-Max	None	None
Maximum Split (s)	8	28	8	31	8	28	8	31
Maximum Split (%)	10.7%	37.3%	10.7%	41.3%	10.7%	37.3%	10.7%	41.3%
Minimum Split (s)	8	19	8	31	8	19	8	31
Yellow Time (s)	3	4.5	3	4.5	3	4.5	3	4.5
All-Red Time (s)	0	0.5	0	0.5	0	0.5	0	0.5
Minimum Initial (s)	5	13	5	10	5	13	5	10
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		5		5		5		5
Flash Dont Walk (s)		9		19		9		19
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	41	49	2	10	41	49	2	10
End Time (s)	49	2	10	41	49	2	10	41
Yield/Force Off (s)	46	72	7	36	46	72	7	36
Yield/Force Off 170(s)	46	63	7	17	46	63	7	17
Local Start Time (s)	53	61	14	22	53	61	14	22
Local Yield (s)	58	9	19	48	58	9	19	48
Local Yield 170(s)	58	0	19	29	58	0	19	29

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	70
Offset: 63 (84%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 10: Talmadge St. & 2nd Ave.

01	02	03	04
8 s	28 s	8 s	31 s
05	06	07	08
8 s	28 s	8 s	31 s

Timing Report, Sorted By Phase
 13: 4th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	NBL	SBTL	EBTL	SBL	NBTL	WBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	45	22	8	45	22
Maximum Split (%)	10.7%	60.0%	29.3%	10.7%	60.0%	29.3%
Minimum Split (s)	8	19	15	8	19	15
Yellow Time (s)	3	4.5	4	3	4.5	4
All-Red Time (s)	0	0.5	1	0	0.5	1
Minimum Initial (s)	5	10	10	5	10	10
Vehicle Extension (s)	3	2	3	3	2	3
Minimum Gap (s)	3	2	3	3	2	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5			5	
Flash Dont Walk (s)		9			9	
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	67	0	45	67	0	45
End Time (s)	0	45	67	0	45	67
Yield/Force Off (s)	72	40	62	72	40	62
Yield/Force Off 170(s)	72	31	62	72	31	62
Local Start Time (s)	36	44	14	36	44	14
Local Yield (s)	41	9	31	41	9	31
Local Yield 170(s)	41	0	31	41	0	31

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 31 (41%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 13: 4th St. & 2nd Ave.

ø1	ø2	ø4
8 s	45 s	22 s
ø5	ø6	ø8
8 s	45 s	22 s

Timing Report, Sorted By Phase
16: 8th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	NBL	SBTL	EBTL	SBL	NBTL	WBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	45	22	8	45	22
Maximum Split (%)	10.7%	60.0%	29.3%	10.7%	60.0%	29.3%
Minimum Split (s)	8	19	15	8	19	15
Yellow Time (s)	3	4.5	4	3	4.5	4
All-Red Time (s)	0	0.5	1	0	0.5	1
Minimum Initial (s)	5	10	10	5	10	10
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	2	3	3	2	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5			5	
Flash Dont Walk (s)		9			9	
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	61	69	39	61	69	39
End Time (s)	69	39	61	69	39	61
Yield/Force Off (s)	66	34	56	66	34	56
Yield/Force Off 170(s)	66	25	56	66	25	56
Local Start Time (s)	36	44	14	36	44	14
Local Yield (s)	41	9	31	41	9	31
Local Yield 170(s)	41	0	31	41	0	31

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 25 (33%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 16: 8th St. & 2nd Ave.

ø1	ø2	ø4
8 s	45 s	22 s
ø5	ø6	ø8
8 s	45 s	22 s

Timing Report, Sorted By Phase
 19: 11th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	3	4	5	6	7	8
Movement	NBL	SBTL	EBL	WBTL	SBL	NBTL	WBL	EBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	C-Max	None	None	None	C-Max	None	None
Maximum Split (s)	8	33	8	26	8	33	8	26
Maximum Split (%)	10.7%	44.0%	10.7%	34.7%	10.7%	44.0%	10.7%	34.7%
Minimum Split (s)	8	20	8	15	8	20	8	26
Yellow Time (s)	3	4.5	3	4.5	3	4.5	3	4.5
All-Red Time (s)	0	0.5	0	0.5	0	0.5	0	0.5
Minimum Initial (s)	5	15	5	10	5	15	5	10
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	2	3	2	3	2	3	2
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)								5
Flash Dont Walk (s)								16
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	31	39	72	5	31	39	72	5
End Time (s)	39	72	5	31	39	72	5	31
Yield/Force Off (s)	36	67	2	26	36	67	2	26
Yield/Force Off 170(s)	36	67	2	26	36	67	2	10
Local Start Time (s)	39	47	5	13	39	47	5	13
Local Yield (s)	44	0	10	34	44	0	10	34
Local Yield 170(s)	44	0	10	34	44	0	10	18

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	65
Offset: 67 (89%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 19: 11th St. & 2nd Ave.

	01		02		03		04
8 s		33 s		8 s		26 s	
	05		06		07		08
8 s		33 s		6 s		26 s	

Timing Report, Sorted By Phase
 22: 16th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	3	4	5	6	7	8
Movement	SBL	NBTL	EBL	WBTL	NBL	SBTL	WBL	EBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	C-Max	None	None	None	C-Max	None	None
Maximum Split (s)	8	33	8	26	8	33	8	26
Maximum Split (%)	10.7%	44.0%	10.7%	34.7%	10.7%	44.0%	10.7%	34.7%
Minimum Split (s)	8	19	8	26	8	19	8	26
Yellow Time (s)	3	4.5	3	4.5	3	4.5	3	4.5
All-Red Time (s)	0	0.5	0	0.5	0	0.5	0	0.5
Minimum Initial (s)	5	11	5	10	5	11	5	10
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	2	3	2	3	2	3	2
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		5		5		5		5
Flash Dont Walk (s)		9		16		9		16
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	68	1	34	42	68	1	34	42
End Time (s)	1	34	42	68	1	34	42	68
Yield/Force Off (s)	73	29	39	63	73	29	39	63
Yield/Force Off 170(s)	73	20	39	47	73	20	39	47
Local Start Time (s)	48	56	14	22	48	56	14	22
Local Yield (s)	53	9	19	43	53	9	19	43
Local Yield 170(s)	53	0	19	27	53	0	19	27

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	65
Offset: 20 (27%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 22: 16th St. & 2nd Ave.

01	02	03	04
8 s	33 s	8 s	26 s
05	06	07	08
8 s	33 s	8 s	26 s

Timing Report, Sorted By Phase
 25: 22nd St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	NBL	SBTL	WBTL	SBL	NBTL	EBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min	None	None	C-Min	None
Maximum Split (s)	8	41	26	8	41	26
Maximum Split (%)	10.7%	54.7%	34.7%	10.7%	54.7%	34.7%
Minimum Split (s)	8	20	26	8	20	26
Yellow Time (s)	3	4.5	4.5	3	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0.5
Minimum Initial (s)	5	14	7	5	14	7
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		10	16		10	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	19	27	68	19	27	68
End Time (s)	27	68	19	27	68	19
Yield/Force Off (s)	24	63	14	24	63	14
Yield/Force Off 170(s)	24	53	73	24	53	73
Local Start Time (s)	31	39	5	31	39	5
Local Yield (s)	36	0	26	36	0	26
Local Yield 170(s)	36	65	10	36	65	10

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 63 (84%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 25: 22nd St. & 2nd Ave.

ø1	ø2	ø4
8 s	41 s	26 s
ø5	ø6	ø8
8 s	41 s	26 s

Timing Report, Sorted By Phase
 28: 25th St. & 5th Ave.

10/27/2005



Phase Number	2	4	6	8
Movement	EBTL	SBTL	WBTL	NBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	Max	C-Max	Max
Maximum Split (s)	45	30	45	30
Maximum Split (%)	60.0%	40.0%	60.0%	40.0%
Minimum Split (s)	28	29	28	25
Yellow Time (s)	4.5	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Minimum Initial (s)	23	10	23	10
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	2	3	2	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	19	9	15
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	61	31	61	31
End Time (s)	31	61	31	61
Yield/Force Off (s)	26	56	26	56
Yield/Force Off 170(s)	17	37	17	41
Local Start Time (s)	44	14	44	14
Local Yield (s)	9	39	9	39
Local Yield 170(s)	0	20	0	24

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 17 (23%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 28: 25th St. & 5th Ave.

→ ø2 45 s	↓ ø4 30 s
← ø6 45 s	↑ ø8 30 s

Timing Report, Sorted By Phase
 29: 25th St. & Central Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	41	26	8	41	26
Maximum Split (%)	10.7%	54.7%	34.7%	10.7%	54.7%	34.7%
Minimum Split (s)	8	22	26	8	22	26
Yellow Time (s)	3	4.5	4.5	3	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0.5
Minimum Initial (s)	5	12	12	5	12	12
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		12	16		12	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	21	29	70	21	29	70
End Time (s)	29	70	21	29	70	21
Yield/Force Off (s)	26	65	16	26	65	16
Yield/Force Off 170(s)	26	53	0	26	53	0
Local Start Time (s)	43	51	17	43	51	17
Local Yield (s)	48	12	38	48	12	38
Local Yield 170(s)	48	0	22	48	0	22

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 53 (71%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 29: 25th St. & Central Ave.

ø1	ø2	ø4
8 s	41 s	26 s
ø5	ø6	ø8
8 s	41 s	26 s

Timing Report, Sorted By Phase

32: 31st St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	SBL	NBTL	EBTL	NBL	SBTL	WBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	41	26	8	41	26
Maximum Split (%)	10.7%	54.7%	34.7%	10.7%	54.7%	34.7%
Minimum Split (s)	8	19	26	8	19	26
Yellow Time (s)	3	4.5	4	3	4.5	4
All-Red Time (s)	0	0.5	1	0	0.5	1
Minimum Initial (s)	5	13	15	5	13	15
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		9	16		9	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	11	19	60	11	19	60
End Time (s)	19	60	11	19	60	11
Yield/Force Off (s)	16	55	6	16	55	6
Yield/Force Off 170(s)	16	46	65	16	46	65
Local Start Time (s)	40	48	14	40	48	14
Local Yield (s)	45	9	35	45	9	35
Local Yield 170(s)	45	0	19	45	0	19

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 46 (61%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 32: 31st St. & 2nd Ave.

ø1	ø2	ø4
8 s	41 s	26 s
ø5	ø6	ø8
8 s	41 s	26 s

Timing Report, Sorted By Phase

35: 39th St & 2nd Ave.

10/27/2005

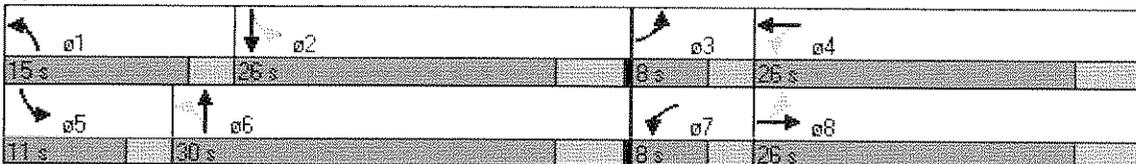


Phase Number	1	2	3	4	5	6	7	8
Movement	NBL	SBTL	EBL	WBTL	SBL	NBTL	WBL	EBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize								
Recall Mode	None	C-Max	None	None	None	C-Max	None	None
Maximum Split (s)	15	26	8	26	11	30	8	26
Maximum Split (%)	20.0%	34.7%	10.7%	34.7%	14.7%	40.0%	10.7%	34.7%
Minimum Split (s)	8	26	8	26	8	26	8	26
Yellow Time (s)	3	4.5	3	4.5	3	4.5	3	4.5
All-Red Time (s)	0	0.5	0	0.5	0	0.5	0	0.5
Minimum Initial (s)	5	15	5	10	5	10	5	10
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		5		5		5		5
Flash Dont Walk (s)		16		16		16		16
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	50	65	16	24	50	61	16	24
End Time (s)	65	16	24	50	61	16	24	50
Yield/Force Off (s)	62	11	21	45	58	11	21	45
Yield/Force Off 170(s)	62	70	21	29	58	70	21	29
Local Start Time (s)	55	70	21	29	55	66	21	29
Local Yield (s)	67	16	26	50	63	16	26	50
Local Yield 170(s)	67	0	26	34	63	0	26	34

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	75
Offset: 70 (93%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 35: 39th St & 2nd Ave.



Timing Report, Sorted By Phase

36: 39th St & Ave. E

10/27/2005

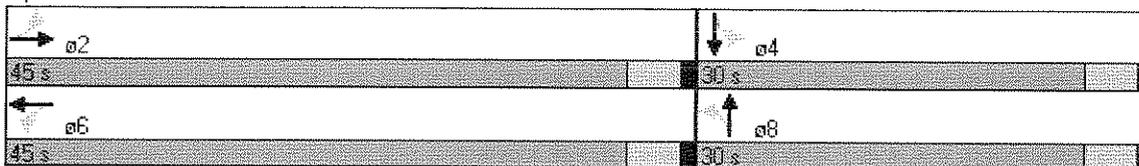


Phase Number	2	4	6	8
Movement	EBTL	SBTL	WBTL	NBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	None	Max	None	Max
Maximum Split (s)	45	30	45	30
Maximum Split (%)	60.0%	40.0%	60.0%	40.0%
Minimum Split (s)	18.5	21.5	18.5	21.5
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	13.5	10	13.5	10
Vehicle Extension (s)	4	4	4	4
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	12	9	12
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	45	0	45
End Time (s)	45	0	45	0
Yield/Force Off (s)	40.5	70.5	40.5	70.5
Yield/Force Off 170(s)	31.5	58.5	31.5	58.5
Local Start Time (s)	43.5	13.5	43.5	13.5
Local Yield (s)	9	39	9	39
Local Yield 170(s)	0	27	0	27

Intersection Summary

Cycle Length	75
Control Type	Actuated-Uncoordinated
Natural Cycle	40

Splits and Phases: 36: 39th St & Ave. E



Timing Report, Sorted By Phase
 37: 39th St & 6th Ave.

10/27/2005



Phase Number	1	2	3	4	5	6	7	8
Movement	EBL	WBTL	SBL	NBTL	WBL	EBTL	NBL	SBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	C-Min	None	None	None	C-Min	None	None
Maximum Split (s)	8	32	8	27	8	32	8	27
Maximum Split (%)	10.7%	42.7%	10.7%	36.0%	10.7%	42.7%	10.7%	36.0%
Minimum Split (s)	8	22	8	27	8	22	8	27
Yellow Time (s)	4	4	3	4	4	4	3	4
All-Red Time (s)	1	1	1	1	1	1	1	1
Minimum Initial (s)	3	15	4	20	3	15	4	20
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		7		7		7		7
Flash Dont Walk (s)		10		15		10		15
Dual Entry	Yes	Yes	Yes	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	55	63	20	28	55	63	20	28
End Time (s)	63	20	28	55	63	20	28	55
Yield/Force Off (s)	58	15	24	50	58	15	24	50
Yield/Force Off 170(s)	58	5	24	35	58	5	24	35
Local Start Time (s)	40	48	5	13	40	48	5	13
Local Yield (s)	43	0	9	35	43	0	9	35
Local Yield 170(s)	43	65	9	20	43	65	9	20

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	65
Offset: 15 (20%), Referenced to phase 2:WBTL and 6:EBTL, Start of FDW or yellow	

Splits and Phases: 37: 39th St & 6th Ave.

ø1	ø2	ø3	ø4
8 s	32 s	8 s	27 s
ø5	ø6	ø7	ø8
8 s	32 s	8 s	27 s

Timing Report, Sorted By Phase

38: 44th St. & 2nd Ave.

10/27/2005

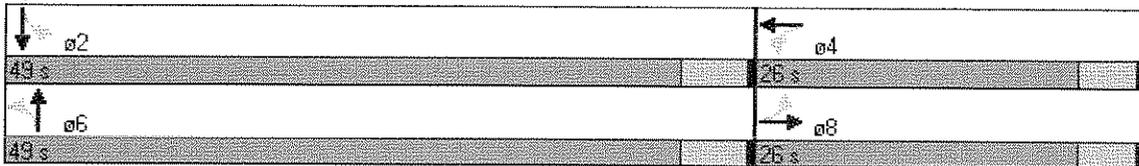


Phase Number	2	4	6	8
Movement	SBTL	WBTL	NBTL	EBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	49	26	49	26
Maximum Split (%)	65.3%	34.7%	65.3%	34.7%
Minimum Split (s)	19	26	19	26
Yellow Time (s)	4.5	4	4.5	4
All-Red Time (s)	0.5	1	0.5	1
Minimum Initial (s)	13	15	13	15
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	16	9	16
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	10	59	10	59
End Time (s)	59	10	59	10
Yield/Force Off (s)	54	5	54	5
Yield/Force Off 170(s)	45	64	45	64
Local Start Time (s)	40	14	40	14
Local Yield (s)	9	35	9	35
Local Yield 170(s)	0	19	0	19

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	50
Offset: 45 (60%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 38: 44th St. & 2nd Ave.



Timing Report, Sorted By Phase

41: 48th St. & 2nd Ave.

10/27/2005



Phase Number	2	3	4	6	7	8
Movement	SBTL	EBL	WBTL	NBTL	WBL	EBTL
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize						
Recall Mode	C-Max	None	None	C-Max	None	None
Maximum Split (s)	41	8	26	41	8	26
Maximum Split (%)	54.7%	10.7%	34.7%	54.7%	10.7%	34.7%
Minimum Split (s)	19	5	26	19	8	26
Yellow Time (s)	4.5	3	4	4.5	3	4
All-Red Time (s)	0.5	0	1	0.5	0	1
Minimum Initial (s)	13	2	15	13	5	15
Vehicle Extension (s)	3	3	2	3	3	2
Minimum Gap (s)	3	3	2	3	3	2
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)	5		5	5		5
Flash Dont Walk (s)	9		16	9		16
Dual Entry	Yes	No	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	30	71	4	30	71	4
End Time (s)	71	4	30	71	4	30
Yield/Force Off (s)	66	1	25	66	1	25
Yield/Force Off 170(s)	57	1	9	57	1	9
Local Start Time (s)	48	14	22	48	14	22
Local Yield (s)	9	19	43	9	19	43
Local Yield 170(s)	0	19	27	0	19	27

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 57 (76%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 41: 48th St. & 2nd Ave.

02	03	04
41 s	8 s	26 s
06	07	08
41 s	8 s	26 s

Timing Report, Sorted By Phase

44: 56th St. & 2nd Ave.

10/27/2005

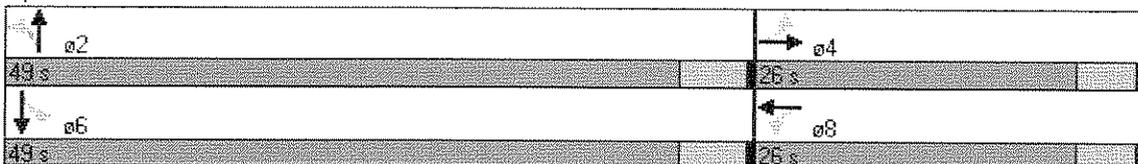


Phase Number	2	4	6	8
Movement	NBTL	EBTL	SBTL	WBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	49	26	49	26
Maximum Split (%)	65.3%	34.7%	65.3%	34.7%
Minimum Split (s)	26	26	26	26
Yellow Time (s)	4.5	4	4.5	4
All-Red Time (s)	0.5	1	0.5	1
Minimum Initial (s)	15	15	15	15
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	2	2	2	2
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	16	16	16	16
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	7	56	7	56
End Time (s)	56	7	56	7
Yield/Force Off (s)	51	2	51	2
Yield/Force Off 170(s)	35	61	35	61
Local Start Time (s)	47	21	47	21
Local Yield (s)	16	42	16	42
Local Yield 170(s)	0	26	0	26

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 35 (47%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 44: 56th St. & 2nd Ave.



Timing Report, Sorted By Phase
 50: 24th St. & 30th Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	SBL	NBTL	EBTL	NBL	SBTL	WBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	Max	None	None	Max	None
Maximum Split (s)	12	24	24	12	24	24
Maximum Split (%)	20.0%	40.0%	40.0%	20.0%	40.0%	40.0%
Minimum Split (s)	8	20	20	8	20	20
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Minimum Initial (s)	4	4	4	4	4	4
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		11	11		11	11
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	12	36	0	12	36
End Time (s)	12	36	0	12	36	0
Yield/Force Off (s)	8	32	56	8	32	56
Yield/Force Off 170(s)	8	21	45	8	21	45
Local Start Time (s)	39	51	15	39	51	15
Local Yield (s)	47	11	35	47	11	35
Local Yield 170(s)	47	0	24	47	0	24

Intersection Summary

Cycle Length	60
Control Type	Actuated-Uncoordinated
Natural Cycle	50

Splits and Phases: 50: 24th St. & 30th Ave.

ø1	ø2	ø4
12 s	24 s	24 s
ø5	ø6	ø8
12 s	24 s	24 s

Timing Report, Sorted By Phase

58: 25th St. & Ave. A

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	41	26	8	41	26
Maximum Split (%)	10.7%	54.7%	34.7%	10.7%	54.7%	34.7%
Minimum Split (s)	8	22	26	8	22	26
Yellow Time (s)	3	4.5	4.5	3	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0.5
Minimum Initial (s)	5	15	12	5	7	12
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		12	16		12	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	25	33	74	25	33	74
End Time (s)	33	74	25	33	74	25
Yield/Force Off (s)	30	69	20	30	69	20
Yield/Force Off 170(s)	30	57	4	30	57	4
Local Start Time (s)	43	51	17	43	51	17
Local Yield (s)	48	12	38	48	12	38
Local Yield 170(s)	48	0	22	48	0	22

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 57 (76%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 58: 25th St. & Ave. A

01	02	04
08 s	41 s	26 s
05	06	08
08 s	41 s	26 s

Timing Report, Sorted By Phase

61: 25th St. & Ave. E

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes			Yes		
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	40	27	8	40	27
Maximum Split (%)	10.7%	53.3%	36.0%	10.7%	53.3%	36.0%
Minimum Split (s)	8	22	26	8	22	26
Yellow Time (s)	3	4.5	4.5	3	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0.5
Minimum Initial (s)	4	16	9	4	16	9
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		12	16		12	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	55	63	28	55	63	28
End Time (s)	63	28	55	63	28	55
Yield/Force Off (s)	60	23	50	60	23	50
Yield/Force Off 170(s)	60	11	34	60	11	34
Local Start Time (s)	44	52	17	44	52	17
Local Yield (s)	49	12	39	49	12	39
Local Yield 170(s)	49	0	23	49	0	23

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 11 (15%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 61: 25th St. & Ave. E

01	02	04
8 s	40 s	27 s
05	06	08
8 s	40 s	27 s

Timing Report, Sorted By Phase

64: 25th St. & Ave. G

10/27/2005

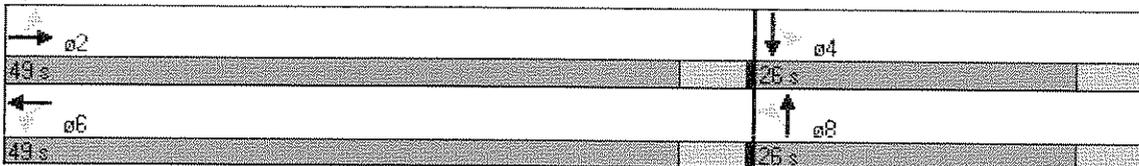


Phase Number	2	4	6	8
Movement	EBTL	SBTL	WBTL	NBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	49	26	49	26
Maximum Split (%)	65.3%	34.7%	65.3%	34.7%
Minimum Split (s)	22	26	22	26
Yellow Time (s)	4.5	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Minimum Initial (s)	15	10	15	10
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	12	16	12	16
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	26	0	26	0
End Time (s)	0	26	0	26
Yield/Force Off (s)	70	21	70	21
Yield/Force Off 170(s)	58	5	58	5
Local Start Time (s)	43	17	43	17
Local Yield (s)	12	38	12	38
Local Yield 170(s)	0	22	0	22

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	50
Offset: 58 (77%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 64: 25th St. & Ave. G



Timing Report, Sorted By Phase
67: 25th St. & Ave. M

10/27/2005



Phase Number	1	2	4	5	6	7	8
Movement	WBL	EBTL	SBTL	EBL	WBTL	SBL	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag
Lead-Lag Optimize							
Recall Mode	None	C-Max	None	None	C-Max	None	None
Maximum Split (s)	12	33	30	12	33	15	15
Maximum Split (%)	16.0%	44.0%	40.0%	16.0%	44.0%	20.0%	20.0%
Minimum Split (s)	8	21	15	8	21	8	15
Yellow Time (s)	3	4.5	4.5	3	4.5	3	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0	0.5
Minimum Initial (s)	5	15	10	5	15	5	10
Vehicle Extension (s)	3	2	2	3	2	3	2
Minimum Gap (s)	3	2	2	3	2	3	2
Time Before Reduce (s)	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0
Walk Time (s)		5			5		
Flash Dont Walk (s)		11			11		
Dual Entry	No	Yes	Yes	No	Yes	No	Yes
Inhibit Max	Yes						
Start Time (s)	64	1	34	64	1	34	49
End Time (s)	1	34	64	1	34	49	64
Yield/Force Off (s)	73	29	59	73	29	46	59
Yield/Force Off 170(s)	73	18	59	73	18	46	59
Local Start Time (s)	46	58	16	46	58	16	31
Local Yield (s)	55	11	41	55	11	28	41
Local Yield 170(s)	55	0	41	55	0	28	41

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 18 (24%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 67: 25th St. & Ave. M

ø1	ø2	ø4	
12 s	33 s	30 s	
ø5	ø6	ø7	ø8
12 s	33 s	15 s	15 s

Timing Report, Sorted By Phase
72: 39th St & 17th Ave

10/27/2005

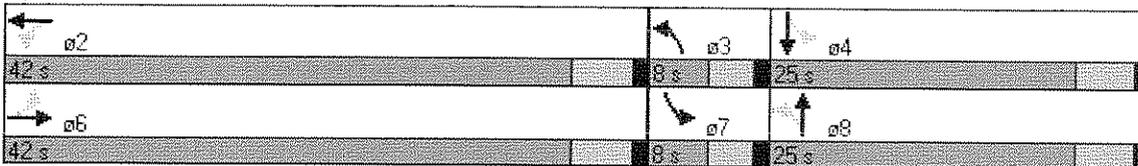


Phase Number	2	3	4	6	7	8
Movement	WBTL	NBL	SBTL	EBTL	SBL	NBTL
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize		Yes	Yes		Yes	Yes
Recall Mode	C-Max	None	Max	C-Max	None	Max
Maximum Split (s)	42	8	25	42	8	25
Maximum Split (%)	56.0%	10.7%	33.3%	56.0%	10.7%	33.3%
Minimum Split (s)	19	8	22	19	8	22
Yellow Time (s)	4	3	4	4	3	4
All-Red Time (s)	1	1	1	1	1	1
Minimum Initial (s)	13	4	16	13	4	16
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)	5		5	5		5
Flash Dont Walk (s)	9		12	9		12
Dual Entry	Yes	No	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	53	20	28	53	20	28
End Time (s)	20	28	53	20	28	53
Yield/Force Off (s)	15	24	48	15	24	48
Yield/Force Off 170(s)	6	24	36	6	24	36
Local Start Time (s)	47	14	22	47	14	22
Local Yield (s)	9	18	42	9	18	42
Local Yield 170(s)	0	18	30	0	18	30

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	50
Offset: 6 (8%), Referenced to phase 2:WBTL and 6:EBTL, Start of FDW or yellow	

Splits and Phases: 72: 39th St & 17th Ave



Timing Report, Sorted By Phase
78: 39th St & Ave. N

10/27/2005

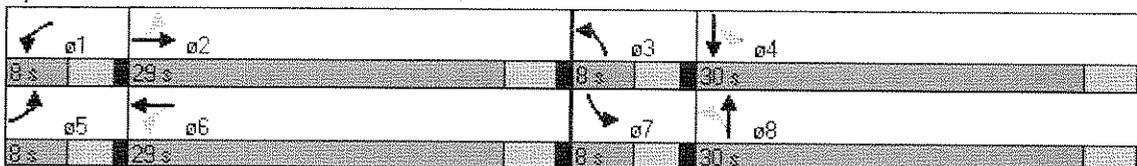


Phase Number	1	2	3	4	5	6	7	8
Movement	WBL	EBTL	NBL	SBTL	EBL	WBTL	SBL	NBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	None	None	Max	None	None	None	Max
Maximum Split (s)	8	29	8	30	8	29	8	30
Maximum Split (%)	10.7%	38.7%	10.7%	40.0%	10.7%	38.7%	10.7%	40.0%
Minimum Split (s)	7	24.5	7	25	7	24.5	7	25
Yellow Time (s)	3	3.5	3	3.5	3	3.5	3	3.5
All-Red Time (s)	1	1	1	1	1	1	1	1
Minimum Initial (s)	3	15	3	10	3	15	3	10
Vehicle Extension (s)	5	3	5	3	5	3	5	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		5		5		5		5
Flash Dont Walk (s)		15		15		15		15
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	0	8	37	45	0	8	37	45
End Time (s)	8	37	45	0	8	37	45	0
Yield/Force Off (s)	4	32.5	41	70.5	4	32.5	41	70.5
Yield/Force Off 170(s)	4	17.5	41	55.5	4	17.5	41	55.5
Local Start Time (s)	57.5	65.5	19.5	27.5	57.5	65.5	19.5	27.5
Local Yield (s)	61.5	15	23.5	53	61.5	15	23.5	53
Local Yield 170(s)	61.5	0	23.5	38	61.5	0	23.5	38

Intersection Summary

Cycle Length	75
Control Type	Actuated-Uncoordinated
Natural Cycle	65

Splits and Phases: 78: 39th St & Ave. N



Timing Report, Sorted By Phase

83: 33rd St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	SBL	NBTL	WBTL	NBL	SBTL	EBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	38	29	8	38	29
Maximum Split (%)	10.7%	50.7%	38.7%	10.7%	50.7%	38.7%
Minimum Split (s)	8	22	29	8	22	29
Yellow Time (s)	3	4.5	4	3	4.5	4
All-Red Time (s)	0	0.5	1	0	0.5	1
Minimum Initial (s)	5	15	10	5	15	10
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		12	19		12	19
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	17	25	63	17	25	63
End Time (s)	25	63	17	25	63	17
Yield/Force Off (s)	22	58	12	22	58	12
Yield/Force Off 170(s)	22	46	68	22	46	68
Local Start Time (s)	46	54	17	46	54	17
Local Yield (s)	51	12	41	51	12	41
Local Yield 170(s)	51	0	22	51	0	22

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	65
Offset: 46 (61%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 83: 33rd St. & 2nd Ave.

01	02	04
8 s	38 s	29 s
05	06	08
8 s	38 s	29 s

Timing Report, Sorted By Phase

91: 39th St & 11th St.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	EBL	WBTL	NBTL	WBL	EBTL	SBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	41	26	8	41	26
Maximum Split (%)	10.7%	54.7%	34.7%	10.7%	54.7%	34.7%
Minimum Split (s)	7	23	26	7	23	26
Yellow Time (s)	4	4	4	4	4	4
All-Red Time (s)	1	1	1	1	1	1
Minimum Initial (s)	2	15	7	2	15	7
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		12	15		12	15
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	18	26	67	18	26	67
End Time (s)	26	67	18	26	67	18
Yield/Force Off (s)	21	62	13	21	62	13
Yield/Force Off 170(s)	21	50	73	21	50	73
Local Start Time (s)	43	51	17	43	51	17
Local Yield (s)	46	12	38	46	12	38
Local Yield 170(s)	46	0	23	46	0	23

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 50 (67%), Referenced to phase 2:WBTL and 6:EBTL, Start of FDW or yellow	

Splits and Phases: 91: 39th St & 11th St.

01	02	04
8 s	41 s	26 s
05	06	08
8 s	41 s	26 s

Timing Report, Sorted By Phase

94: 52nd St & 2nd Ave.

10/27/2005



Phase Number	2	4	6
Movement	SBTL	WBL	NBT
Lead/Lag			
Lead-Lag Optimize			
Recall Mode	C-Max	None	C-Max
Maximum Split (s)	50	25	50
Maximum Split (%)	66.7%	33.3%	66.7%
Minimum Split (s)	21	20	21
Yellow Time (s)	4.5	4	4.5
All-Red Time (s)	0.5	1	0.5
Minimum Initial (s)	15	15	15
Vehicle Extension (s)	3	3	3
Minimum Gap (s)	3	3	3
Time Before Reduce (s)	0	0	0
Time To Reduce (s)	0	0	0
Walk Time (s)	5		5
Flash Dont Walk (s)	11		11
Dual Entry	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes
Start Time (s)	58	33	58
End Time (s)	33	58	33
Yield/Force Off (s)	28	53	28
Yield/Force Off 170(s)	17	53	17
Local Start Time (s)	41	16	41
Local Yield (s)	11	36	11
Local Yield 170(s)	0	36	0

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 17 (23%), Referenced to phase 2:SBTL and 6:NBT, Start of FDW or yellow	

Splits and Phases: 94: 52nd St & 2nd Ave.

 50 s	 25 s
 50 s	

APPENDIX I

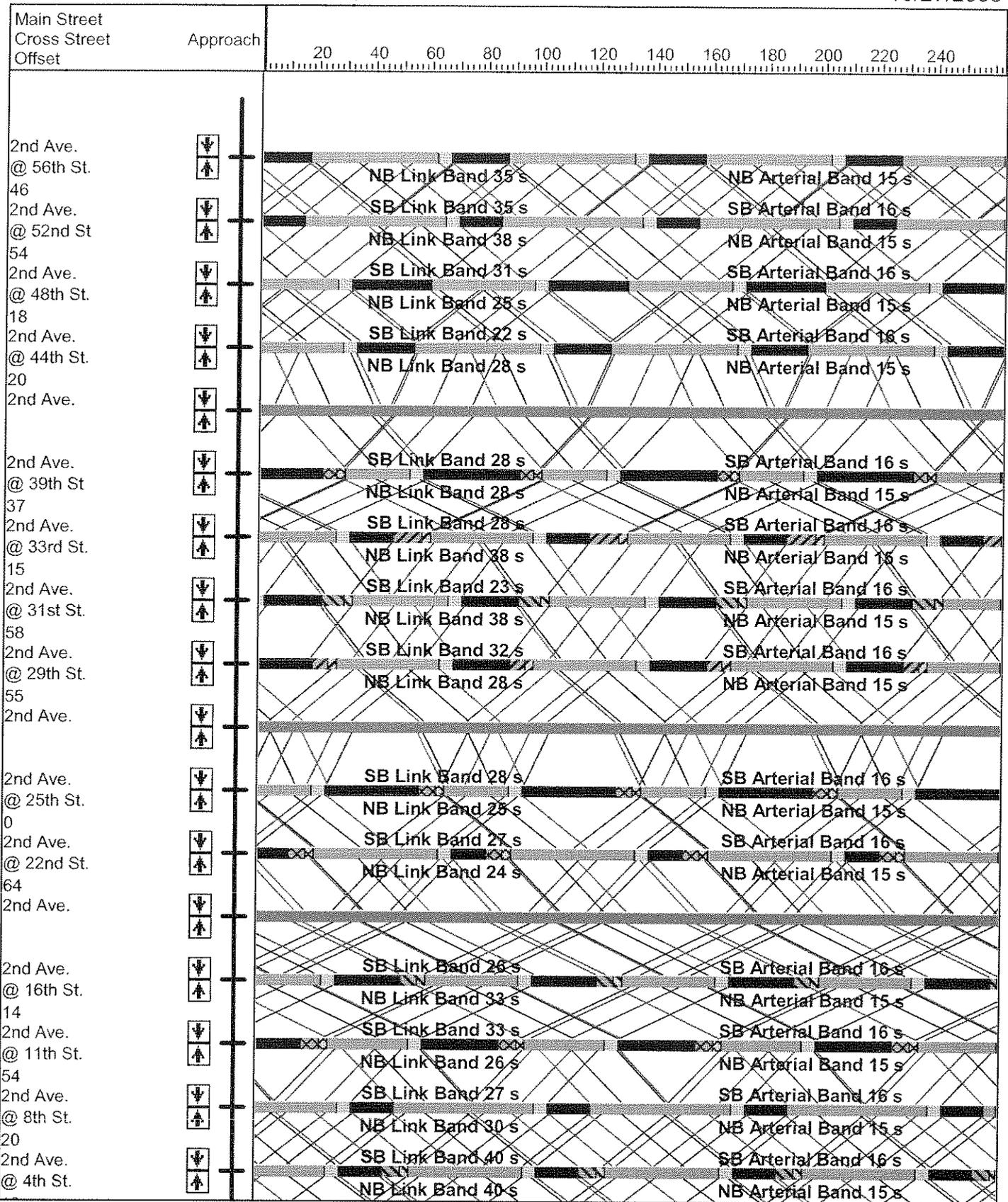
UPDATED TIMINGS TIME-SPACE DIAGRAMS

2nd Avenue - AM
25th Street - AM
39th Street - AM
2nd Avenue - NOON
25th Street - NOON
39th Street - NOON
2nd Avenue - PM
25th Street - PM
39th Street - PM

Time-Space Diagram - 2nd Ave.

Arterial and Link-Link Bandwidths, 50th Percentile Green Times

10/27/2005



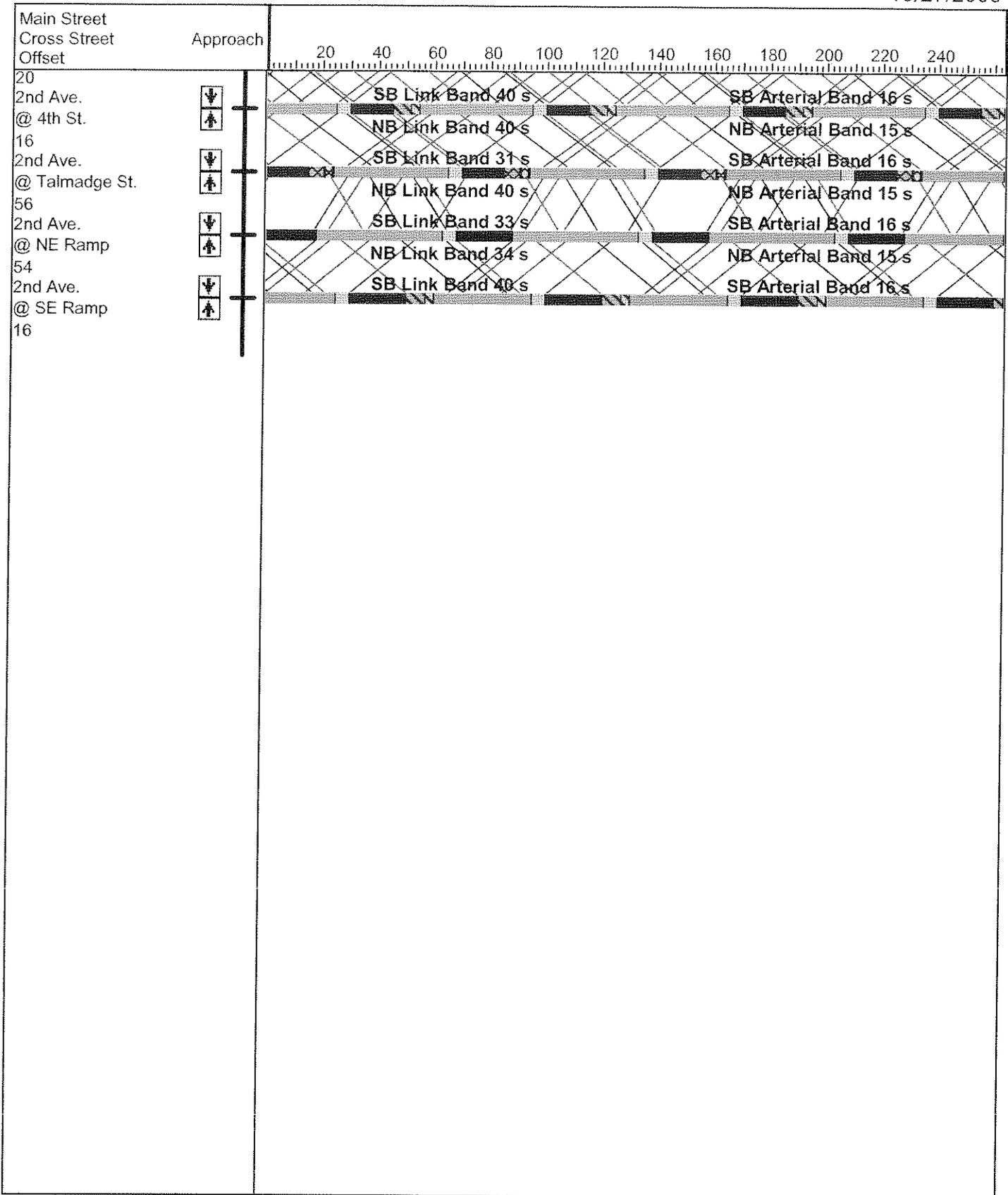
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Olsson Associates

Time-Space Diagram - 2nd Ave.

Arterial and Link-Link Bandwidths, 50th Percentile Green Times

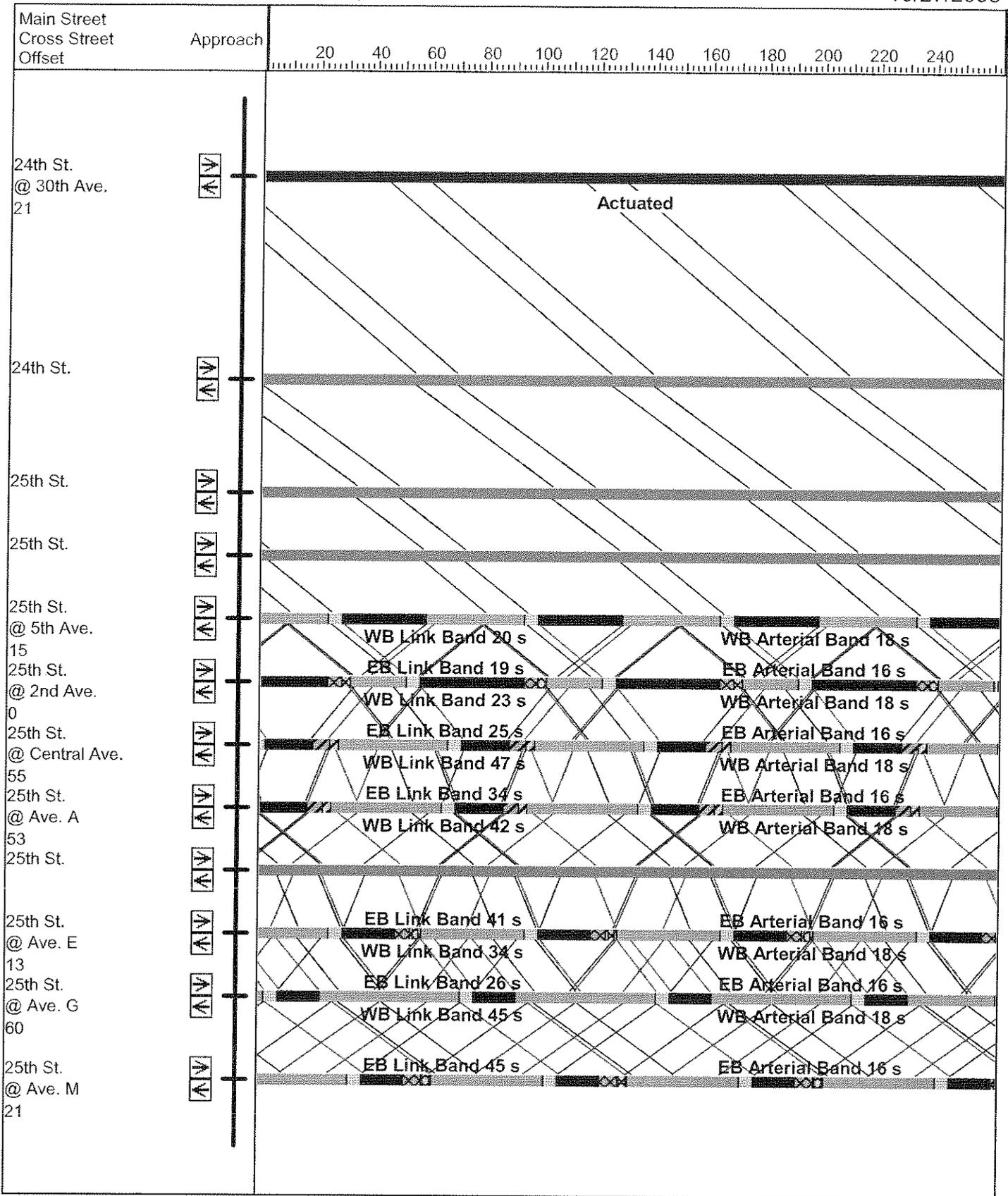
10/27/2005



Time-Space Diagram - 25th St.

Arterial and Link-Link Bandwidths, 50th Percentile Green Times

10/27/2005

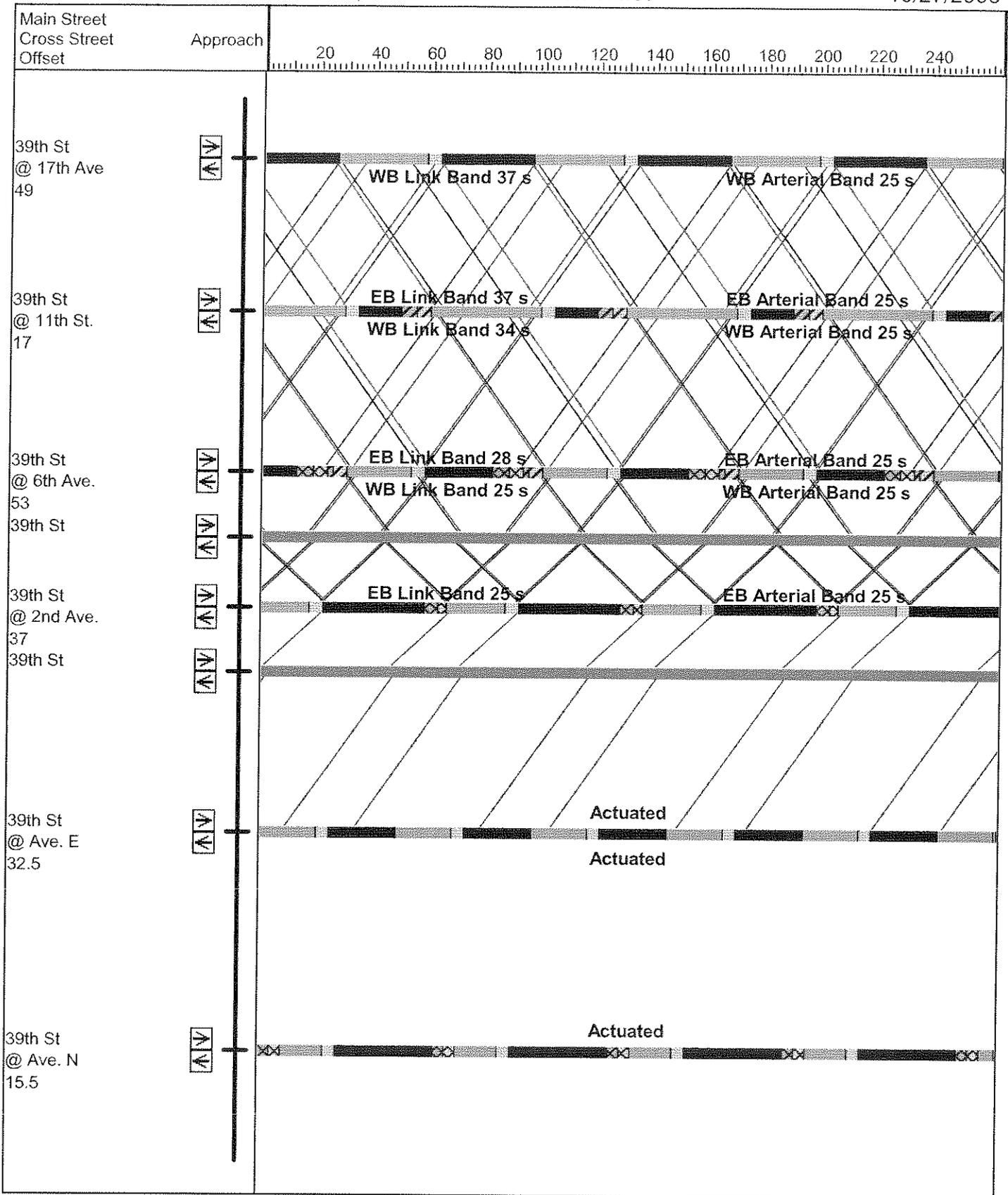


F:\Projects\20030493\Traffic\Synchro\03 UpdatedTimings\Updated Timings AM.sy7

Olsson Associates

Time-Space Diagram - 39th St
 Arterial and Link-Link Bandwidths, 50th Percentile Green Times

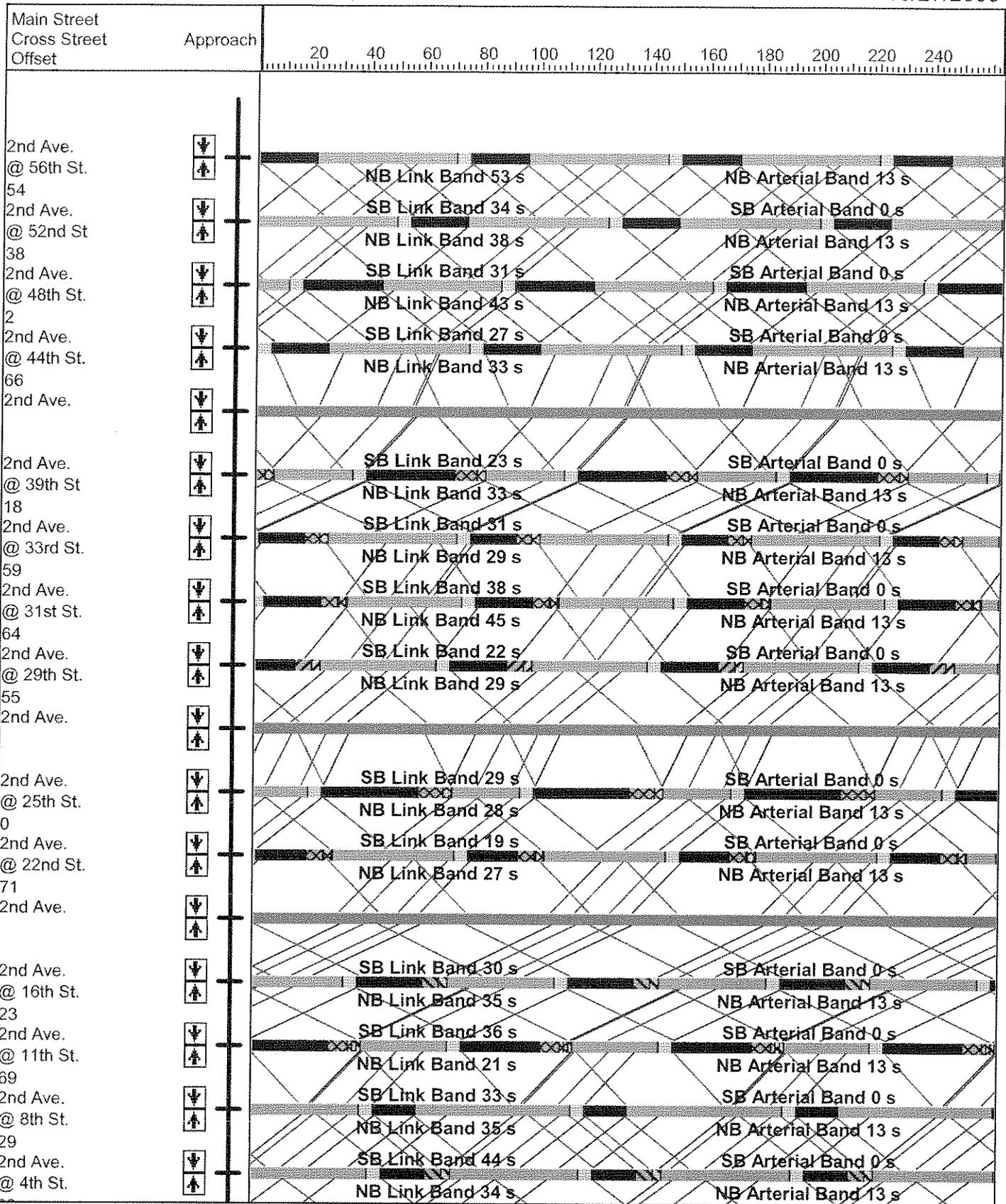
10/27/2005



Time-Space Diagram - 2nd Ave.

Arterial and Link-Link Bandwidths, 50th Percentile Green Times

10/27/2005



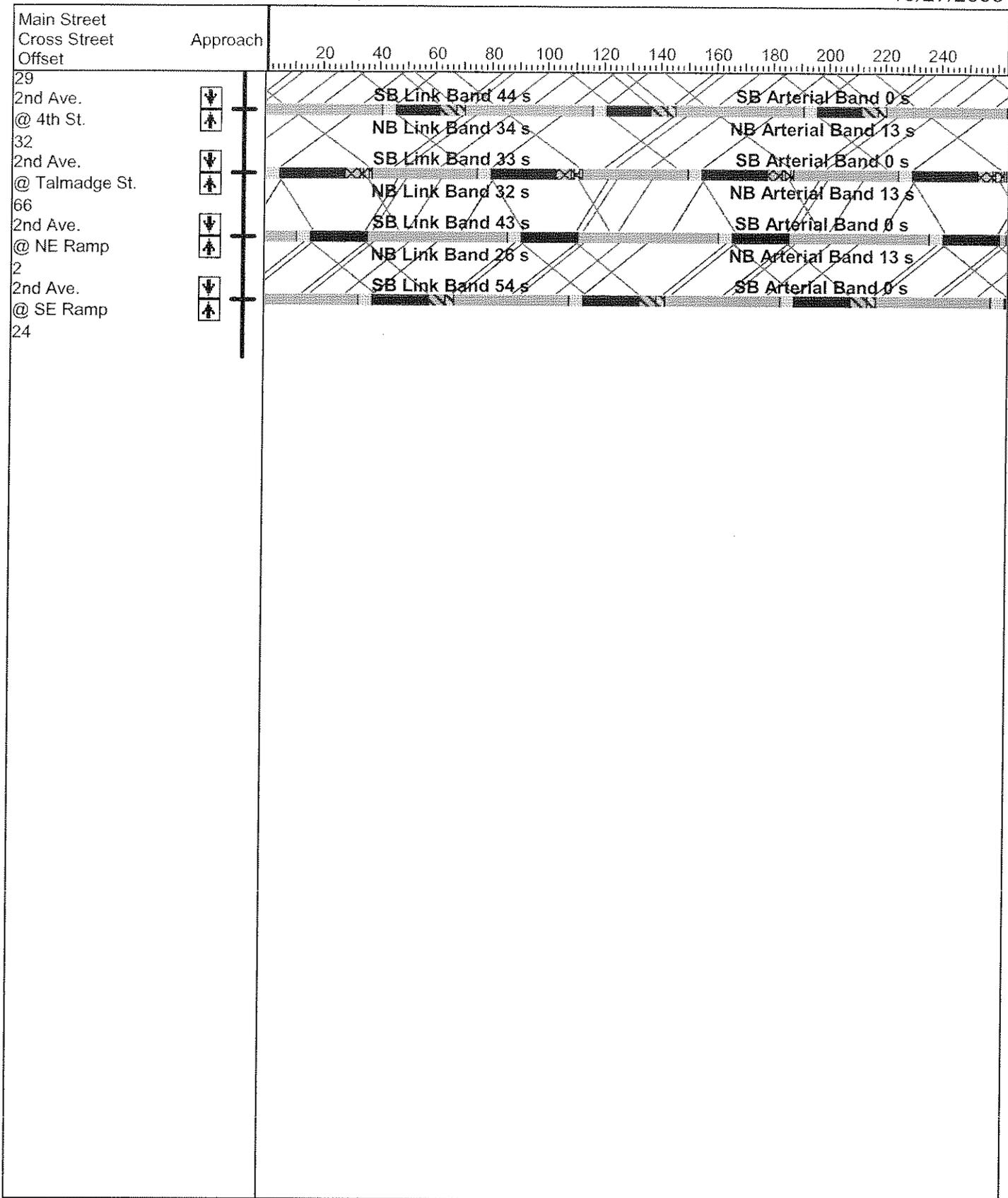
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Olsson Associates

Time-Space Diagram - 2nd Ave.

Arterial and Link-Link Bandwidths, 50th Percentile Green Times

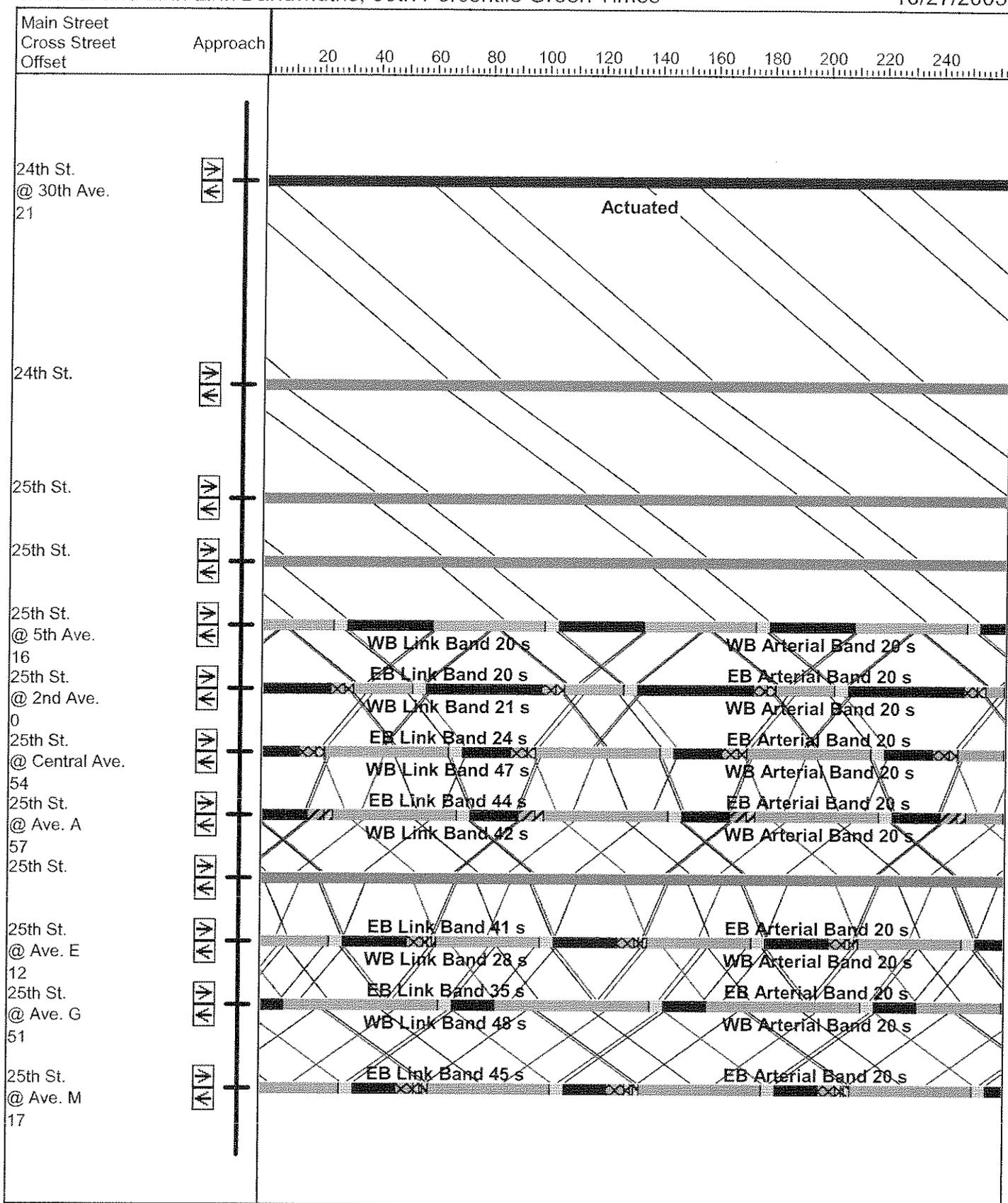
10/27/2005



Time-Space Diagram - 25th St.

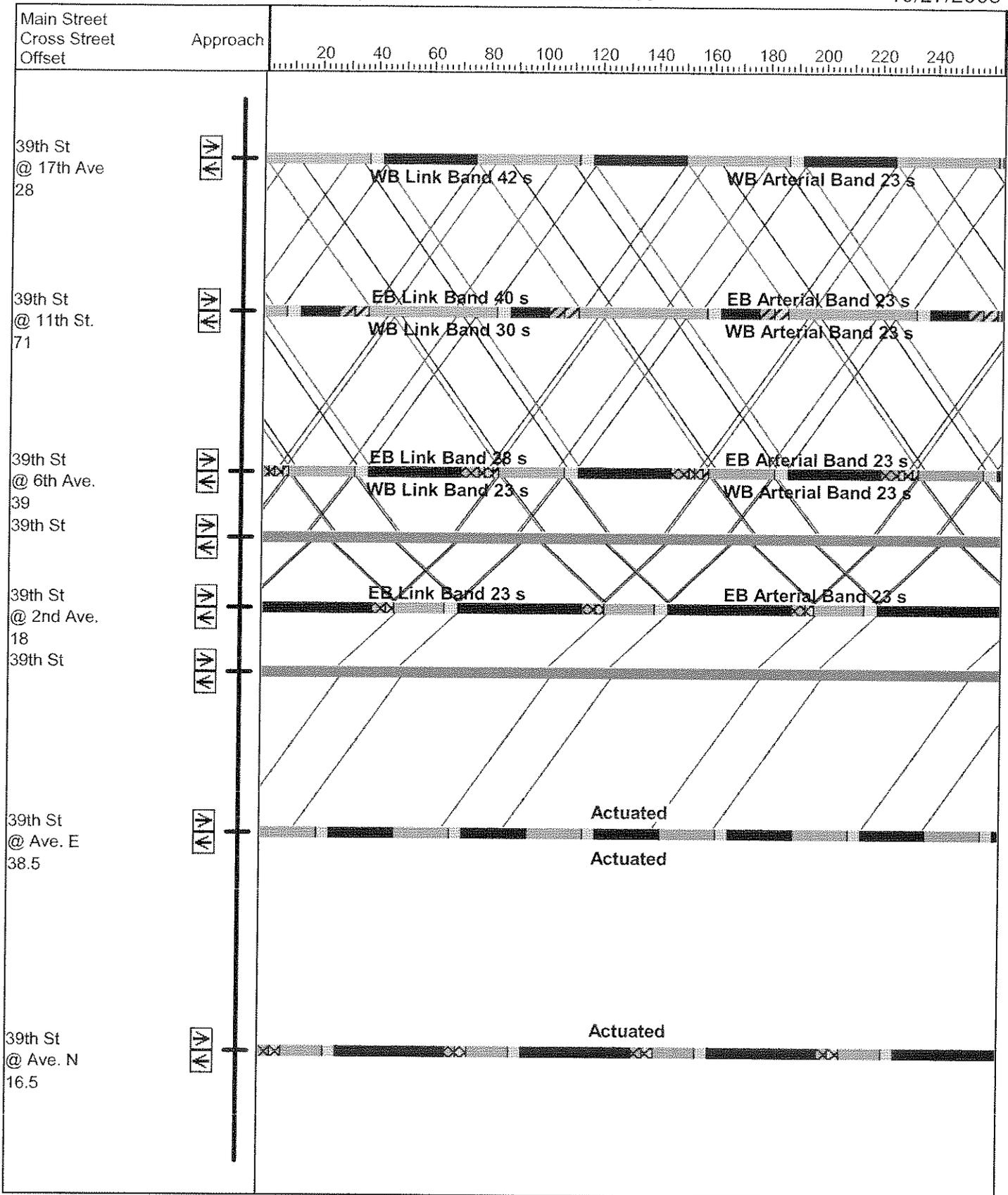
Arterial and Link-Link Bandwidths, 50th Percentile Green Times

10/27/2005



Time-Space Diagram - 39th St
 Arterial and Link-Link Bandwidths, 50th Percentile Green Times

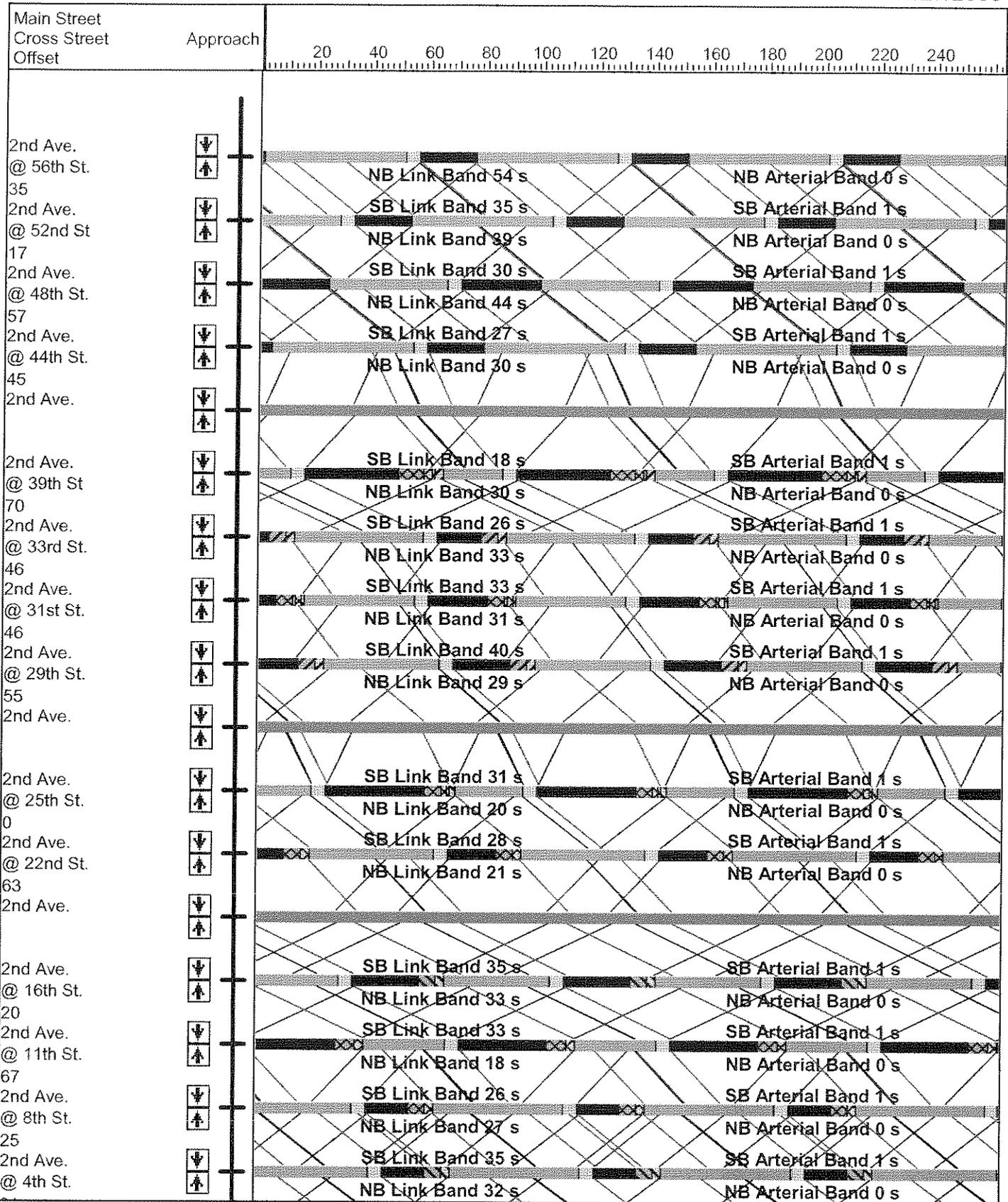
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Time-Space Diagram - 2nd Ave.

Arterial and Link-Link Bandwidths, 50th Percentile Green Times

10/27/2005



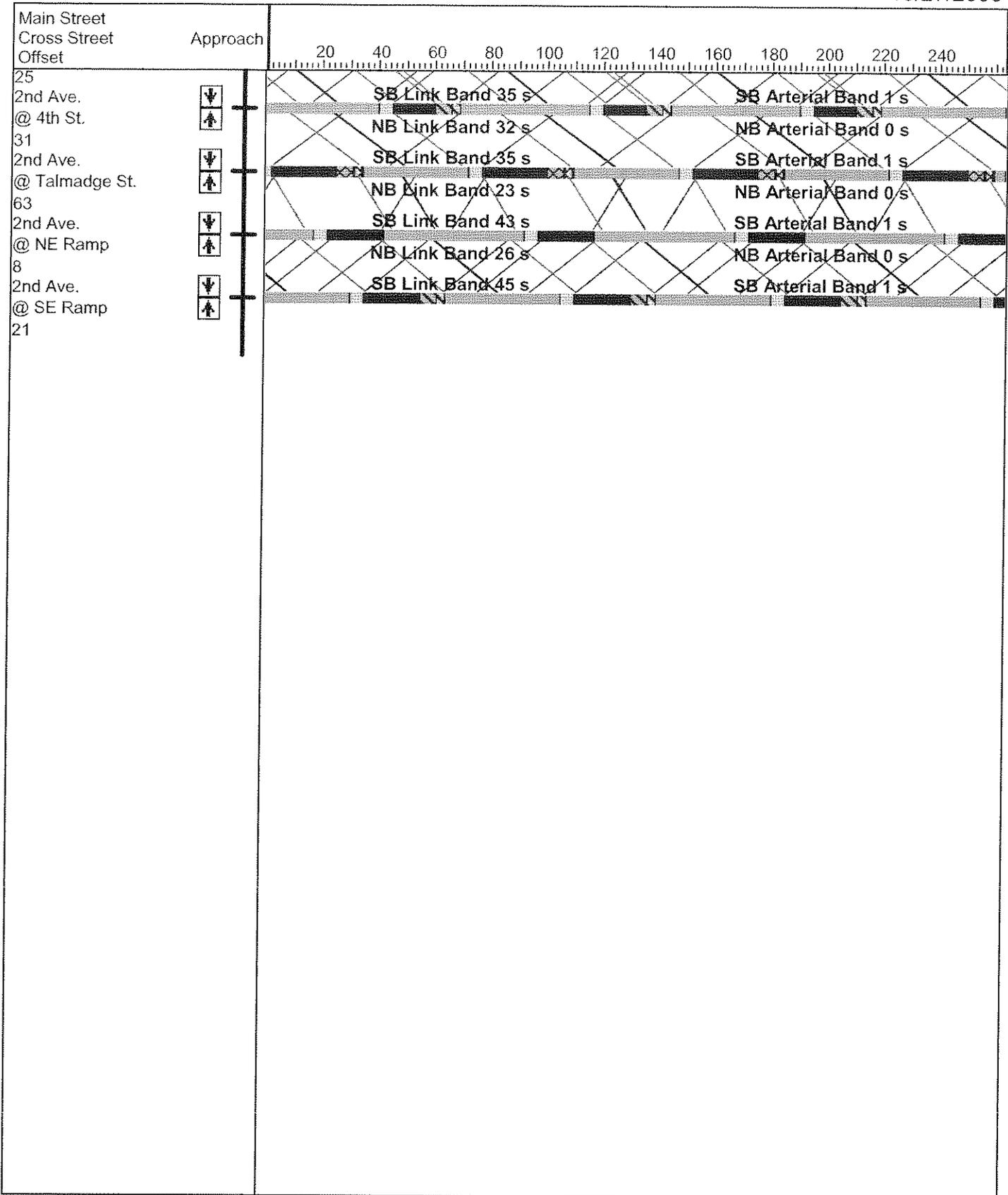
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Time-Space Diagram - 2nd Ave.

Arterial and Link-Link Bandwidths, 50th Percentile Green Times

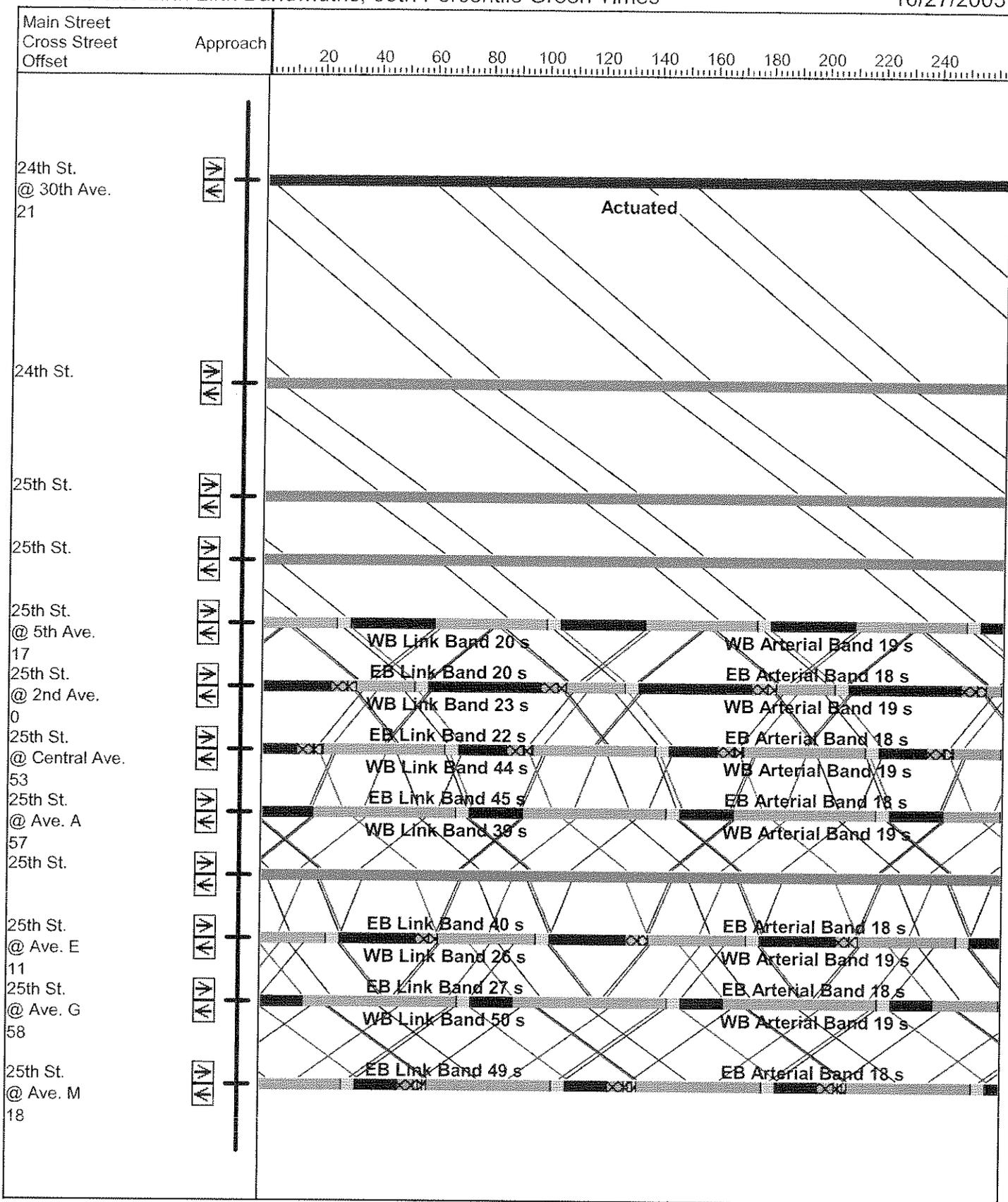
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Time-Space Diagram - 25th St.

Arterial and Link-Link Bandwidths, 50th Percentile Green Times

10/27/2005

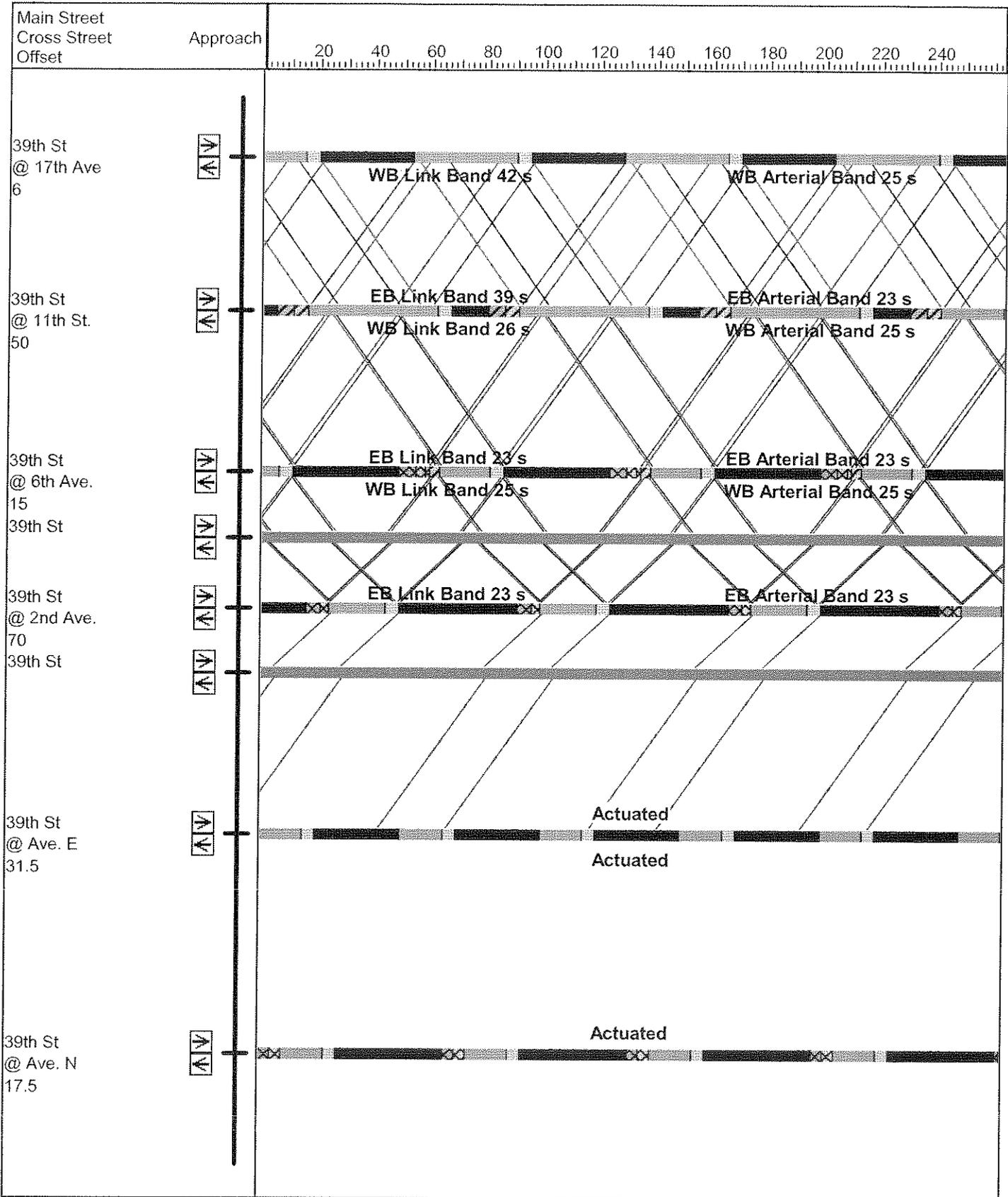


F:\Projects\20030493\Traffic\Synchro\03 Updated Timings\Updated Timings PM.sy7

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Time-Space Diagram - 39th St
 Arterial and Link-Link Bandwidths, 50th Percentile Green Times

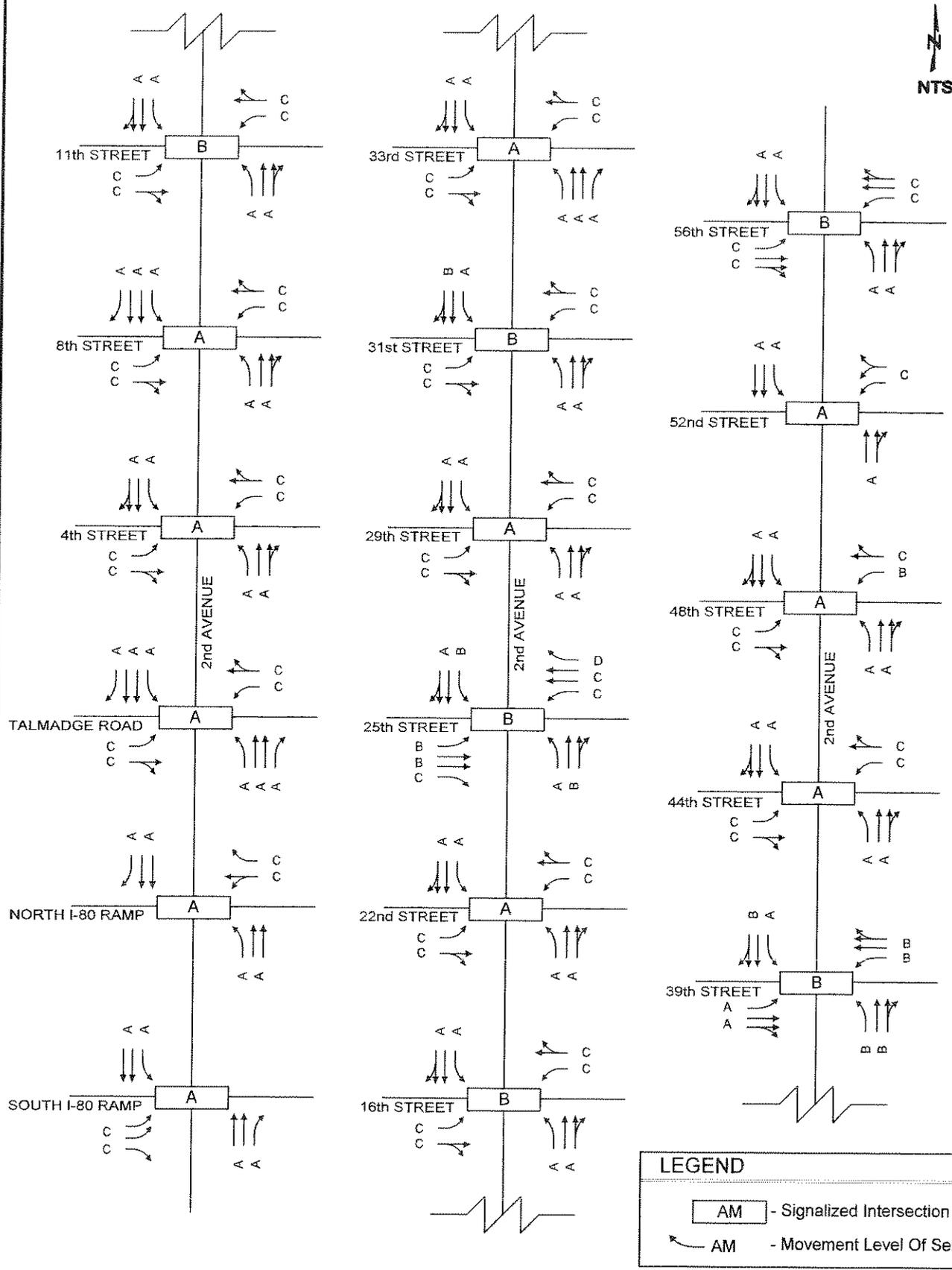
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APPENDIX J

UPDATED TIMINGS CAPACITY ANALYSIS SUMMARIES

- Figure J-1 2nd Avenue Updated AM Capacity Analysis Summary
- Figure J-2 25th Street Updated AM Capacity Analysis Summary
- Figure J-3 39th Street Updated AM Capacity Analysis Summary
- Figure J-4 2nd Avenue Updated NOON Capacity Analysis Summary
- Figure J-5 25th Street Updated NOON Capacity Analysis Summary
- Figure J-6 39th Street Updated NOON Capacity Analysis Summary
- Figure J-7 2nd Avenue Updated PM Capacity Analysis Summary
- Figure J-8 25th Street Updated PM Capacity Analysis Summary
- Figure J-9 39th Street Updated PM Capacity Analysis Summary



LEGEND

AM - Signalized Intersection LOS

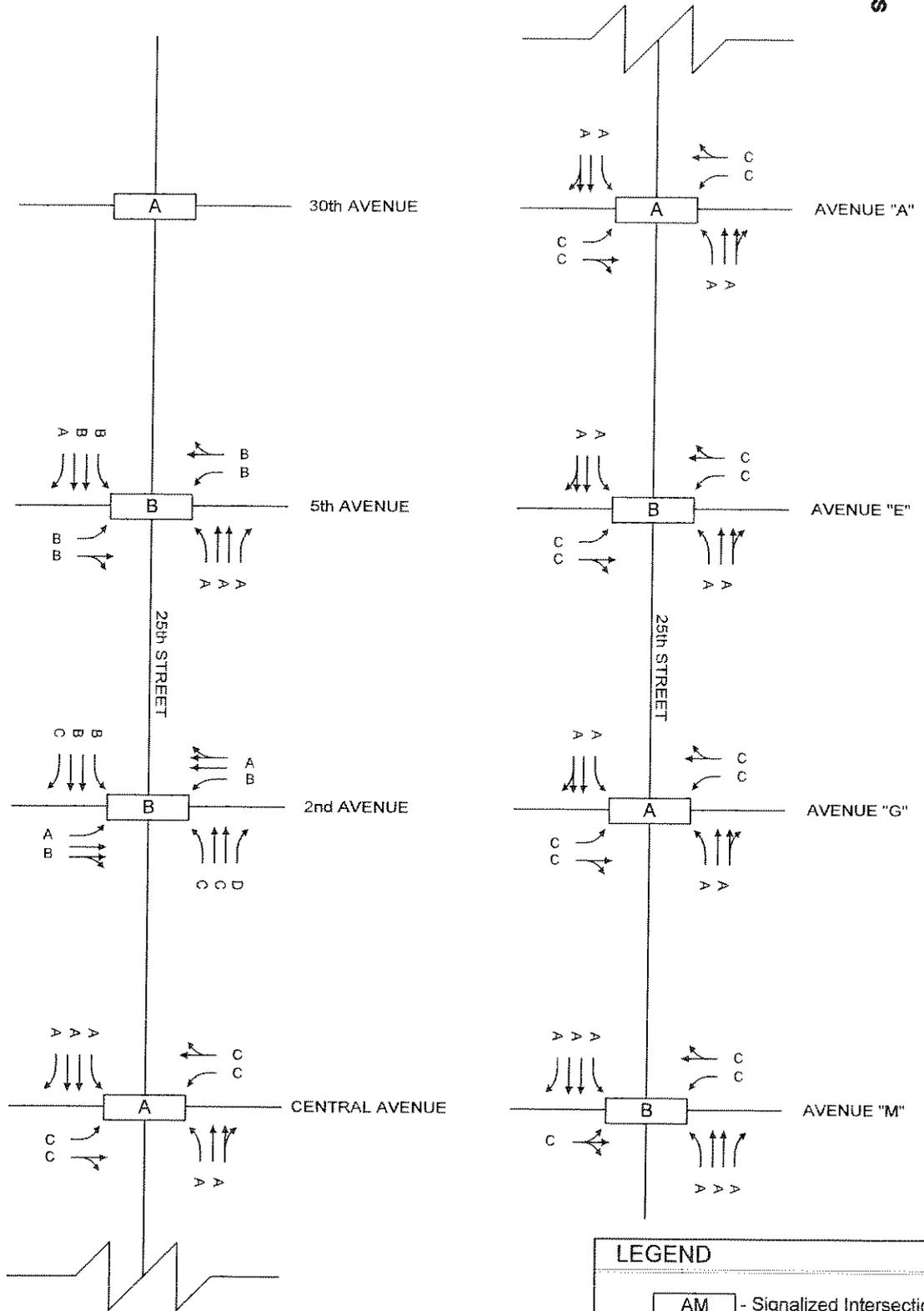
AM - Movement Level Of Service

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 10/27/2005
 11:44:11 AM



2nd Avenue Updated AM Capacity Analysis Summary

**FIGURE
J-1**



LEGEND

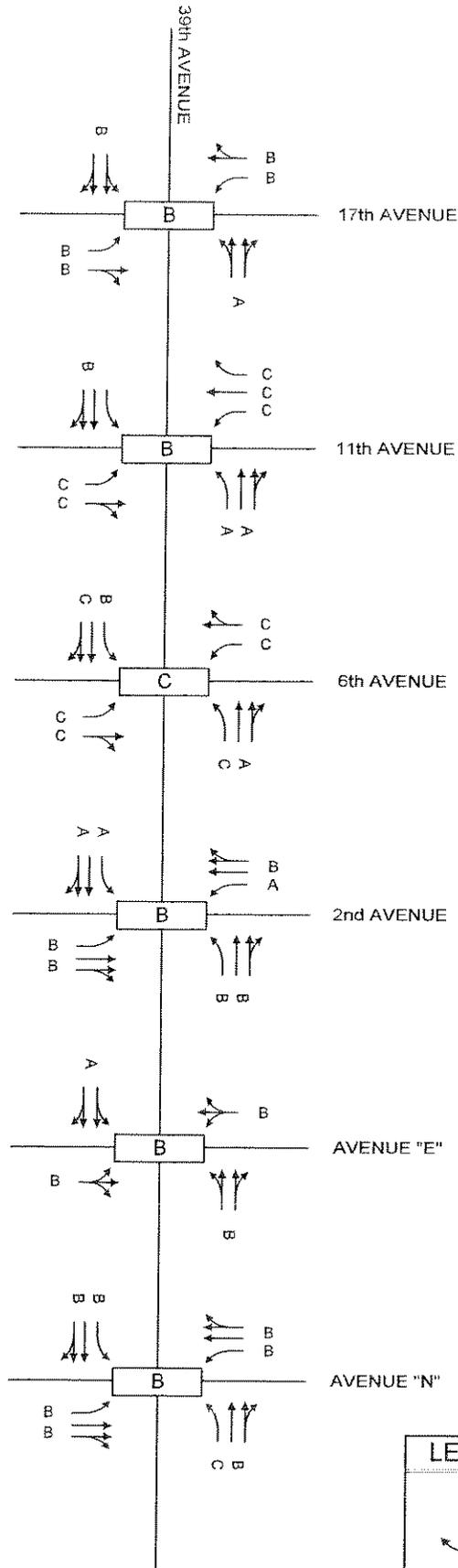
- AM - Signalized Intersection LOS
- Movement Level Of Service

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 10/27/2005
 11:46:34 AM



**25th Street Updated AM
Capacity Analysis Summary**

**FIGURE
J-2**



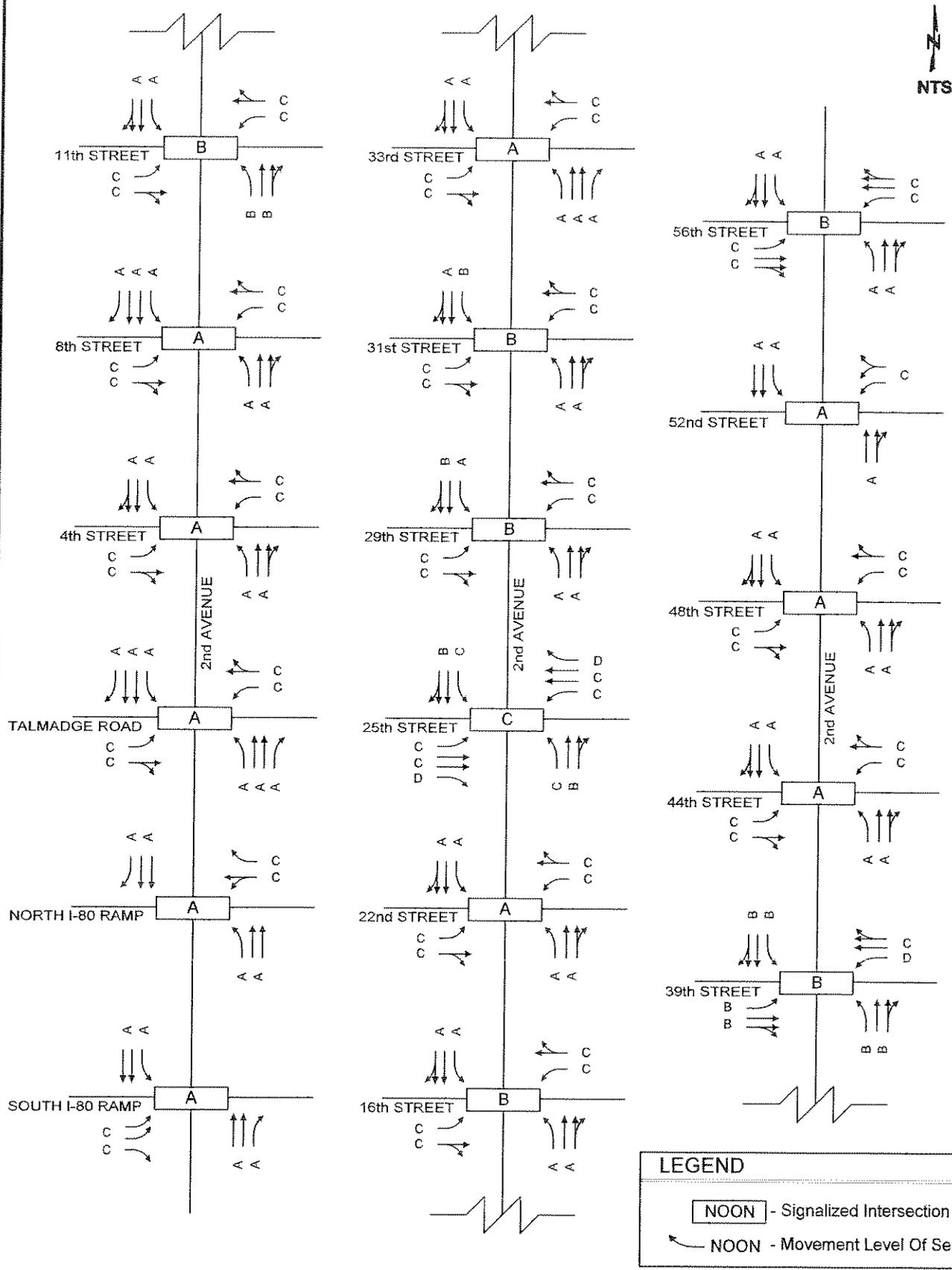
LEGEND	
AM	- Signalized Intersection LOS
	- Movement Level Of Service

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 10/27/2005
 11:44:59 AM



39th Street Updated AM Capacity Analysis Summary

FIGURE
J-3



LEGEND

NOON - Signalized Intersection LOS

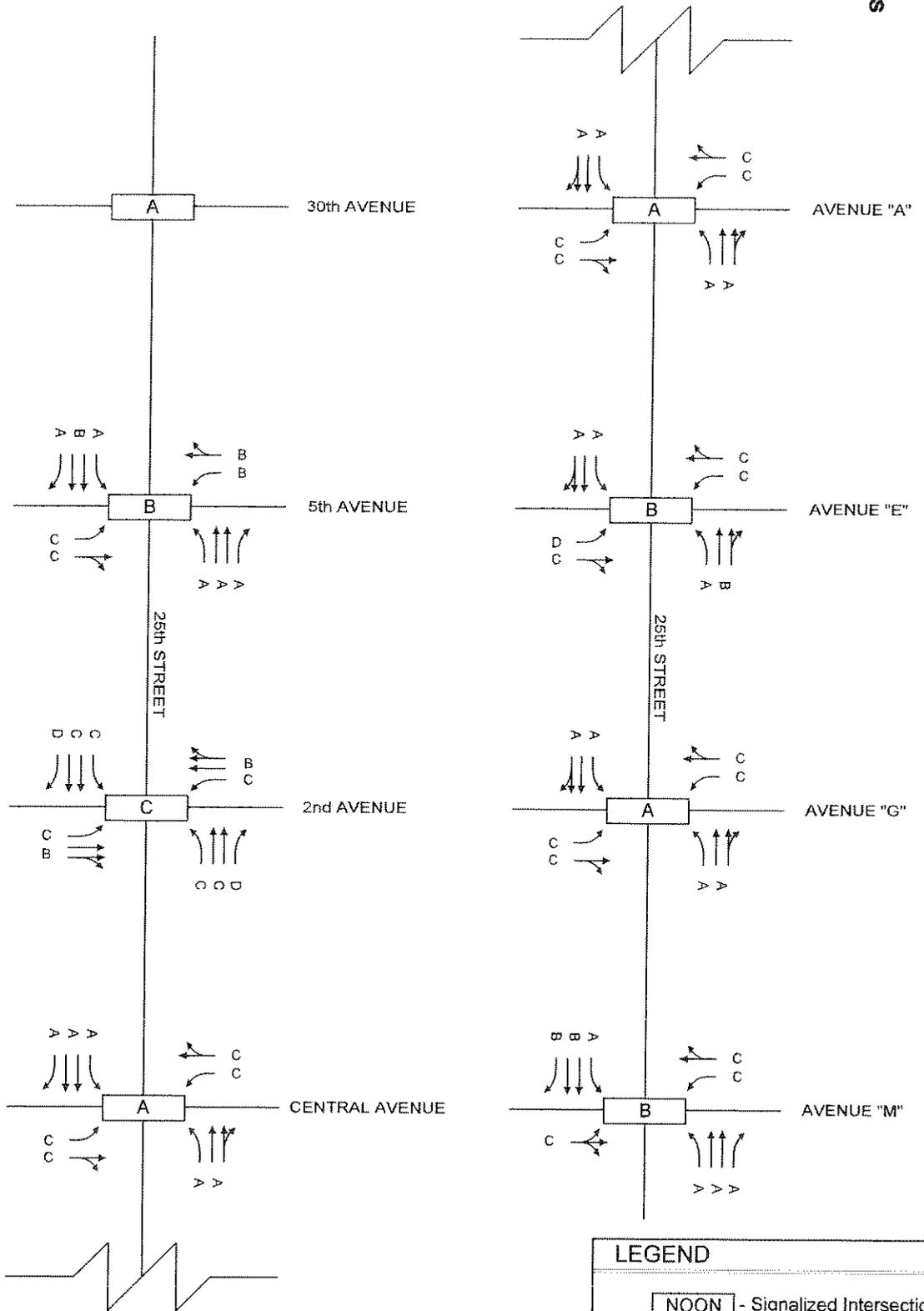
NOON - Movement Level Of Service

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 10/27/2005
 11:44:20 AM



**2nd Avenue Updated NOON
Capacity Analysis Summary**

**FIGURE
J-4**

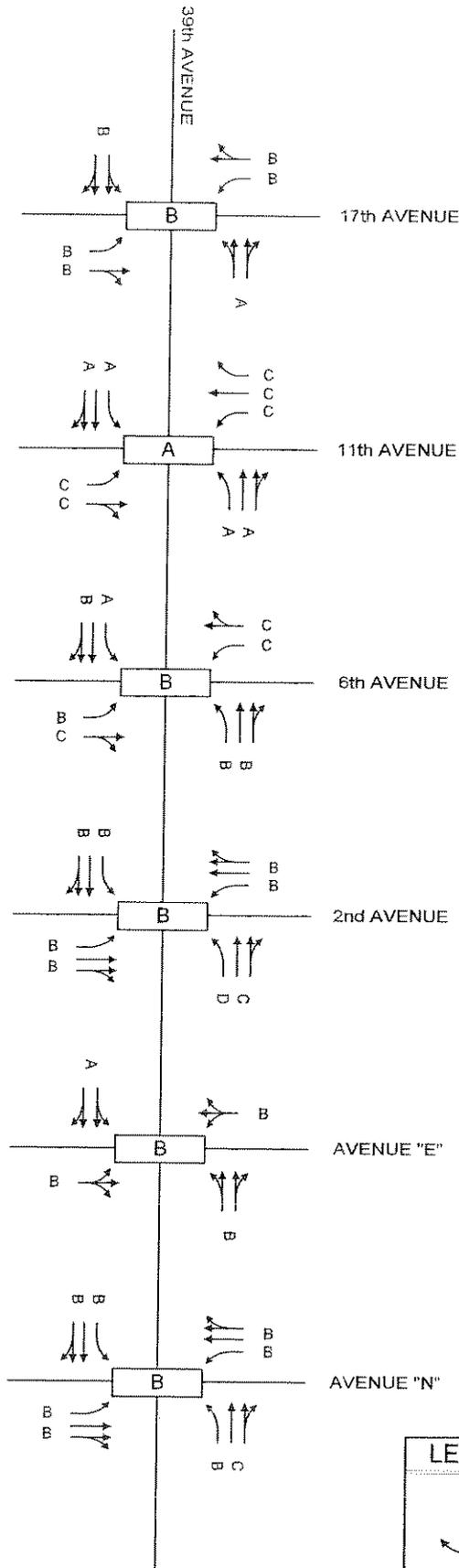


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25th Street Updated NOON
Capacity Analysis Summary

FIGURE
J-5



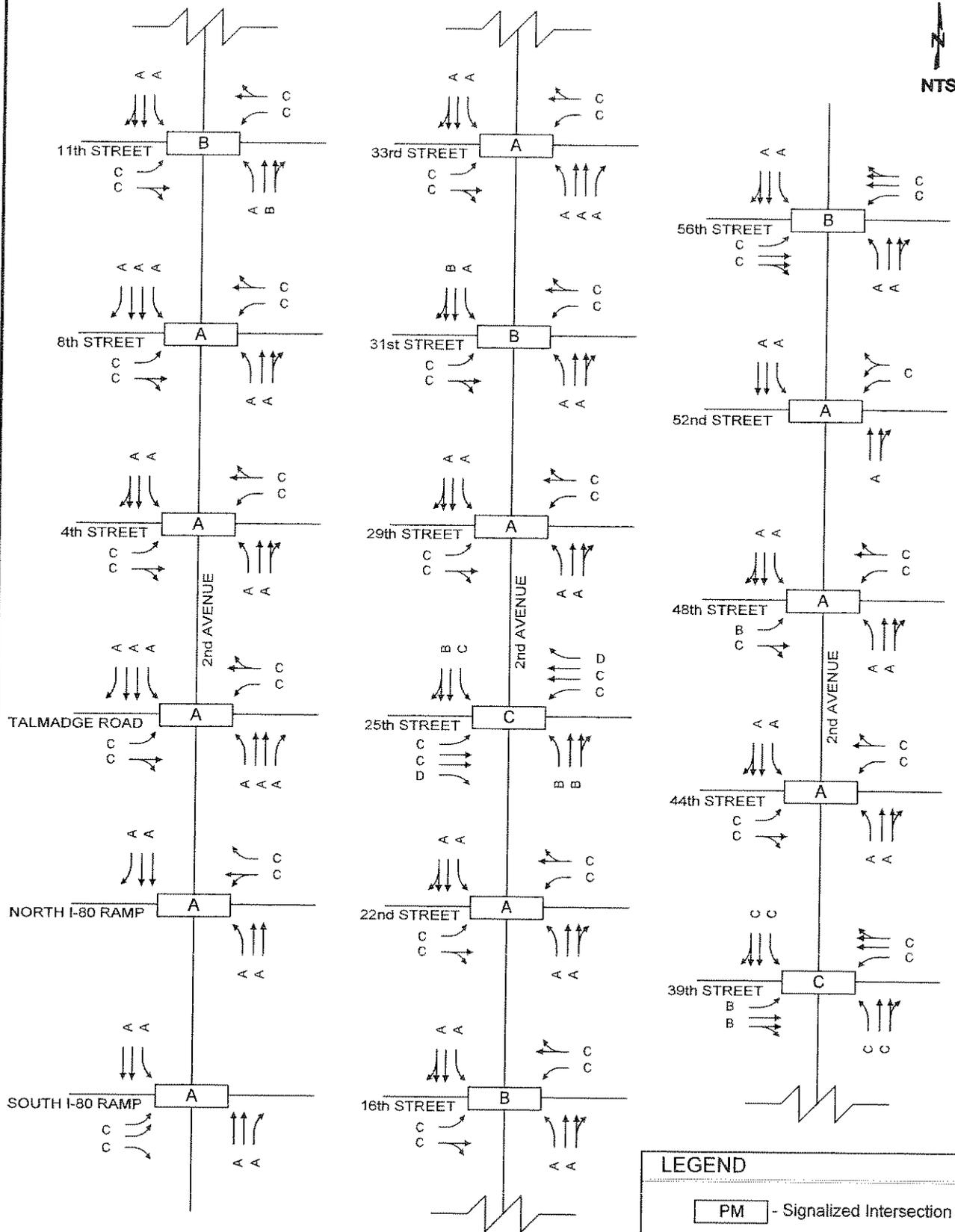
LEGEND	
NOON	- Signalized Intersection LOS
	- NOON - Movement Level Of Service

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 11:45:06 AM



39th Street Updated NOON Capacity Analysis Summary

FIGURE
J-6



LEGEND

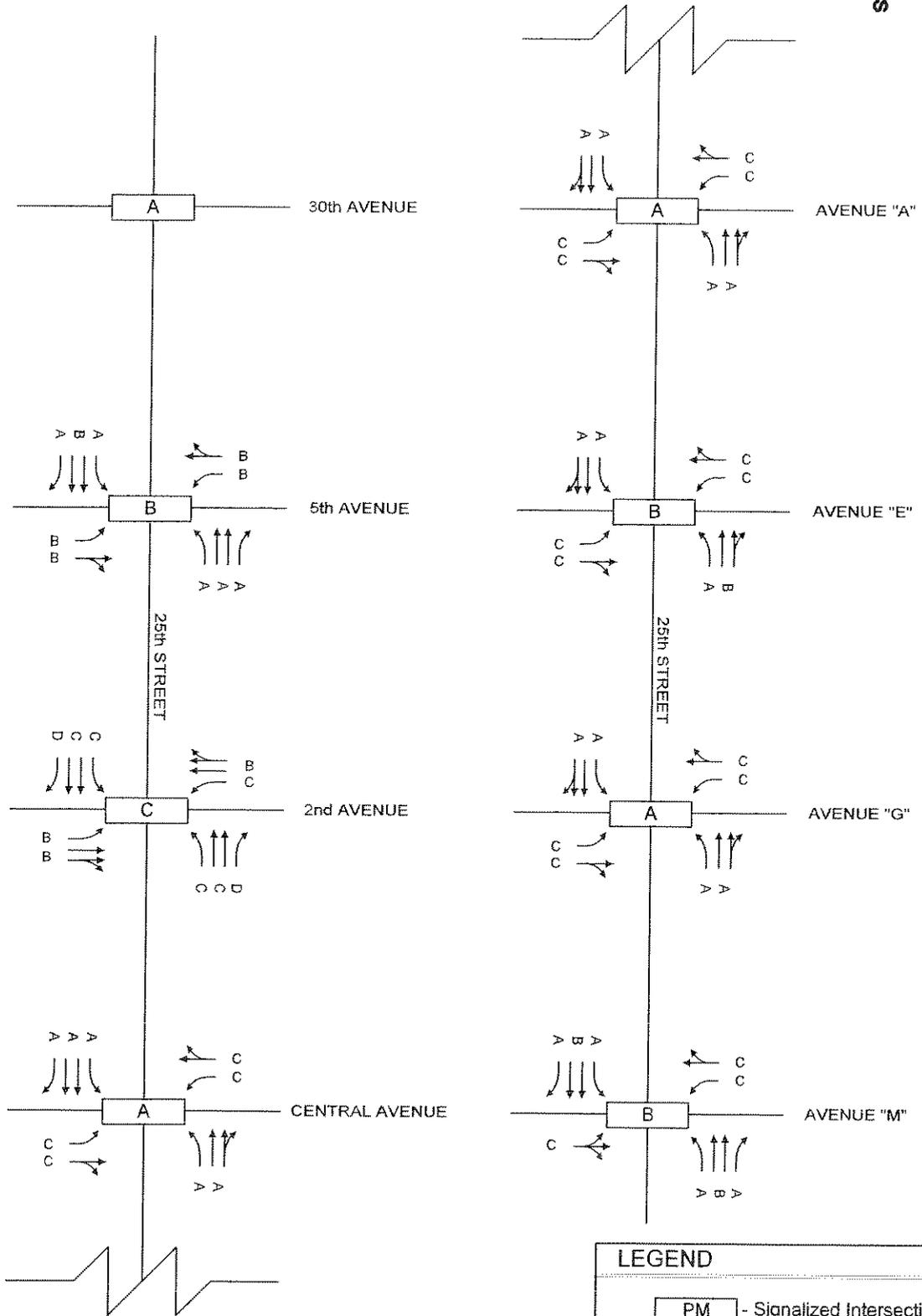
- PM - Signalized Intersection LOS
- ↔ PM - Movement Level Of Service

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 10/27/2005
 11:44:27 AM



2nd Avenue Updated PM Capacity Analysis Summary

**FIGURE
J-7**



LEGEND

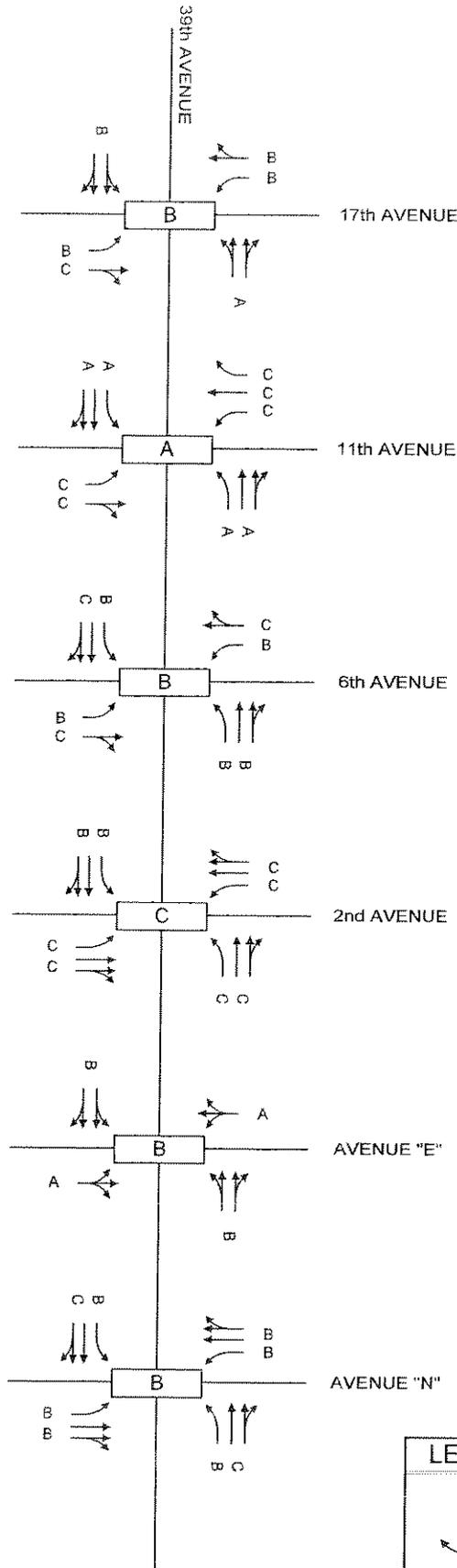
- PM - Signalized Intersection LOS
- Movement Level Of Service

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 10/27/2005
 11:44:51 AM



25th Street Updated PM Capacity Analysis Summary

**FIGURE
J-8**



LEGEND	
PM	- Signalized Intersection LOS
	PM - Movement Level Of Service

F:\Projects\20030493\Traffic\dgn\Figures.dgn
 10/27/2005
 11:45:13 AM



39th Street Updated PM Capacity Analysis Summary

**FIGURE
J-9**

APPENDIX K

CROSS PRODUCTS

Table K-1	2 nd Avenue Cross Products
Table K-2	25 th Street Cross Products
Table K-3	39 th Street Cross Products

Table K-1
2nd Avenue Cross Products

		AM				NOON				PM			
		Left	Opp. Thru	X product	Left	Opp. Thru	X product	Left	Opp. Thru	X product	Left	Opp. Thru	X product
I-80 S & 2nd Ave	NB	0	SB 183	NB 0	SB 272	NB 0	0	NB 0	SB 506	0	NB 0	SB 506	NB 0
	SB	124	NB 586	SB 72664	NB 291	SB 25317	0	SB 123	NB 375	0	SB 123	NB 375	SB 46125
	EB	128	WB 0	EB 0	WB 0	EB 0	0	EB 130	WB 0	0	EB 130	WB 0	EB 0
	WB	0	EB 2	WB 0	EB 0	WB 0	0	WB 0	EB 0	0	WB 0	EB 0	WB 0
I-80 N & 2nd Ave	NB	9	SB 298	NB 2682	Opp. Thru	X product	Left	Opp. Thru	X product	Left	Opp. Thru	X product	Left
	SB	0	NB 705	SB 0	SB 355	NB 2485	NB 7	SB 382	SB 0	NB 612	SB 612	NB 3672	SB 0
	EB	0	WB 0	EB 0	WB 2	EB 0	EB 0	WB 0	WB 2	EB 0	WB 0	EB 0	EB 0
	WB	9	EB 0	WB 0	WB 0	WB 0	0	WB 23	EB 0	WB 0	WB 17	EB 0	WB 0
Talmadge Rd & 2nd Ave	NB	61	SB 374	NB 22814	Opp. Thru	X product	Left	Opp. Thru	X product	Left	Opp. Thru	X product	Left
	SB	50	NB 616	SB 30800	SB 484	NB 16940	NB 35	SB 418	SB 60	NB 762	SB 762	NB 33528	SB 0
	EB	98	WB 3	EB 294	WB 5	EB 600	EB 120	WB 5	EB 85	WB 3	EB 3	EB 255	WB 0
	WB	26	EB 4	WB 104	WB 9	WB 243	WB 27	EB 9	WB 16	EB 22	WB 22	WB 352	WB 0
4th St & 2nd Ave	NB	23	SB 348	NB 8004	Opp. Thru	X product	Left	Opp. Thru	X product	Left	Opp. Thru	X product	Left
	SB	88	NB 503	SB 44264	SB 390	NB 12870	NB 33	SB 397	SB 80	NB 638	SB 638	NB 15312	SB 0
	EB	12	WB 18	EB 216	WB 48	EB 1824	EB 38	WB 48	EB 29	WB 30	EB 30	EB 870	WB 0
	WB	36	EB 26	WB 936	WB 42	WB 3108	WB 74	EB 42	WB 47	EB 26	WB 26	WB 1222	WB 0
8th St & 2nd Ave	NB	23	SB 323	NB 7429	Opp. Thru	X product	Left	Opp. Thru	X product	Left	Opp. Thru	X product	Left
	SB	25	NB 598	SB 14950	SB 447	NB 11622	NB 26	SB 399	SB 35	SB 743	SB 743	NB 26005	SB 0
	EB	4	WB 12	EB 48	WB 24	EB 840	EB 35	WB 24	EB 29	WB 27	EB 27	EB 783	WB 0
	WB	48	EB 4	WB 192	WB 28	WB 1260	WB 45	EB 28	WB 67	EB 24	WB 24	WB 1608	WB 0
11th St & 2nd Ave	NB	51	SB 331	NB 16881	Opp. Thru	X product	Left	Opp. Thru	X product	Left	Opp. Thru	X product	Left
	SB	97	NB 495	SB 48015	SB 426	NB 28968	NB 68	SB 455	SB 76	SB 592	SB 592	NB 44992	SB 0
	EB	107	WB 91	EB 9737	WB 158	EB 20382	EB 129	WB 158	EB 109	WB 192	EB 192	EB 20928	WB 0
	WB	54	EB 128	WB 6912	WB 137	WB 7809	WB 57	EB 137	WB 79	EB 124	WB 124	WB 9796	WB 0

Table K-1 (Continued)
2nd Avenue Cross Products

		AM				NOON				PM			
		Left	Opp. Thru	X product	Left	Opp. Thru	X product	Left	Opp. Thru	X product	Left	Opp. Thru	X product
16th St & 2nd Ave	NB	11	SB 443	NB 4873	NB 20	SB 702	NB 14040	NB 10	SB 789	NB 7890			
	SB	47	NB 594	SB 27918	SB 62	NB 679	SB 42098	SB 45	NB 585	SB 26325			
	EB	153	WB 39	EB 5967	EB 104	WB 38	EB 3952	EB 110	WB 81	EB 8910			
	WB	13	EB 42	WB 546	WB 71	EB 45	WB 3195	WB 66	EB 63	WB 4158			
22nd St & 2nd Ave		Left	Opp. Thru	X product	Left	Opp. Thru	X product	Left	Opp. Thru	X product			
	NB	44	SB 681	NB 29964	NB 55	SB 771	NB 42405	NB 67	SB 1115	NB 74705			
	SB	55	NB 776	SB 42680	SB 73	NB 847	SB 61831	SB 67	NB 955	SB 63985			
	EB	37	WB 9	EB 333	EB 29	WB 36	EB 1044	EB 35	WB 50	EB 1750			
25th St & 2nd Ave	WB	34	EB 37	WB 1258	WB 112	EB 45	WB 5040	WB 121	EB 45	WB 5445			
		Left	Opp. Thru	X product	Left	Opp. Thru	X product	Left	Opp. Thru	X product			
	NB	159	SB 474	NB 75366	NB 211	SB 672	NB 141792	NB 162	SB 728	NB 117936			
	SB	141	NB 566	SB 79806	SB 271	NB 730	SB 197830	SB 275	NB 620	SB 170500			
29th St & 2nd Ave	EB	161	WB 312	EB 50232	EB 199	WB 404	EB 80396	EB 225	WB 385	EB 86625			
	WB	156	EB 362	WB 56472	WB 199	EB 459	WB 91341	WB 222	EB 453	WB 100566			
		Left	Opp. Thru	X product	Left	Opp. Thru	X product	Left	Opp. Thru	X product			
	NB	38	SB 718	NB 27284	NB 42	SB 947	NB 39774	NB 56	SB 1092	NB 61152			
31st St & 2nd Ave	SB	11	NB 639	SB 7029	SB 19	NB 987	SB 18753	SB 30	NB 843	SB 25290			
	EB	42	WB 36	EB 1512	EB 145	WB 36	EB 5220	EB 118	WB 21	EB 2478			
	WB	7	EB 37	WB 259	WB 6	EB 75	WB 450	WB 13	EB 48	WB 624			
		Left	Opp. Thru	X product	Left	Opp. Thru	X product	Left	Opp. Thru	X product			
33rd St & 2nd Ave	NB	20	SB 672	NB 13440	NB 39	SB 944	NB 36816	NB 36	SB 1211	NB 43596			
	SB	78	NB 563	SB 43914	SB 110	NB 1043	SB 114730	SB 132	NB 741	SB 97812			
	EB	28	WB 42	EB 1176	EB 60	WB 89	EB 5340	EB 93	WB 69	EB 6417			
	WB	80	EB 111	WB 8880	WB 120	EB 78	WB 9360	WB 151	EB 130	WB 19630			
33rd St & 2nd Ave		Left	Opp. Thru	X product	Left	Opp. Thru	X product	Left	Opp. Thru	X product			
	NB	183	SB 790	NB 144570	NB 49	SB 904	NB 44296	NB 64	SB 1030	NB 65920			
	SB	23	NB 609	SB 14007	SB 34	NB 976	SB 33184	SB 24	NB 1128	SB 27072			
	EB	22	WB 11	EB 242	EB 27	WB 16	EB 432	EB 36	WB 35	EB 1260			
33rd St & 2nd Ave	WB	10	EB 39	WB 390	WB 64	EB 16	WB 1024	WB 67	EB 10	WB 670			

Table K-1 (Continued)

2nd Avenue Cross Products

		AM				NOON				PM			
		Left	Opp. Thru	X product	Left	Opp. Thru	X product	Left	Opp. Thru	X product	Left	Opp. Thru	X product
39th St & 2nd Ave	NB	148	SB 478	70744	NB 209	SB 807	NB 168663	NB 284	SB 824	NB 234016	NB 178	SB 960	SB 170880
	SB	149	NB 387	57663	SB 136	NB 959	SB 130424	SB 178	NB 960	SB 170880	SB 180	WB 330	EB 59400
	EB	78	WB 375	29250	EB 154	WB 237	EB 36498	EB 180	WB 330	EB 59400	WB 163	EB 325	WB 52975
	WB	140	EB 390	54600	WB 180	EB 265	WB 47700	WB 163	EB 325	WB 52975			
44th St & 2nd Ave		Left	Opp. Thru	X product	Left	Opp. Thru	X product	Left	Opp. Thru	X product	Left	Opp. Thru	X product
	NB	34	SB 609	20706	NB 37	SB 701	NB 25937	NB 45	SB 721	NB 32445	NB 31	NB 922	SB 28582
	SB	16	NB 345	5520	SB 24	NB 836	SB 20064	SB 31	NB 922	SB 28582	EB 50	WB 28	EB 1400
	EB	12	WB 13	156	EB 63	WB 29	EB 1827	EB 50	WB 28	EB 1400	WB 101	EB 21	WB 2121
48th St & 2nd Ave		Left	Opp. Thru	X product	Left	Opp. Thru	X product	Left	Opp. Thru	X product	Left	Opp. Thru	X product
	NB	34	SB 526	17884	NB 112	SB 614	NB 68768	NB 97	SB 607	NB 58879	NB 8	NB 822	SB 6576
	SB	8	NB 270	2160	SB 13	NB 637	SB 8281	SB 8	NB 822	SB 6576	EB 130	WB 82	EB 10660
	EB	48	WB 65	3120	EB 82	WB 68	EB 5576	EB 130	WB 82	EB 10660	WB 110	EB 90	WB 9900
52nd St & 2nd Ave		Left	Opp. Thru	X product	Left	Opp. Thru	X product	Left	Opp. Thru	X product	Left	Opp. Thru	X product
	NB	0	SB 358	0	NB 0	SB 295	NB 0	NB 0	SB 317	NB 0	NB 37	NB 571	SB 21127
	SB	11	NB 196	2156	SB 26	NB 354	SB 9204	SB 37	NB 571	SB 21127	EB 0	WB 0	EB 0
	EB	0	WB 0	0	EB 0	WB 0	EB 0	EB 0	WB 0	EB 0	WB 321	EB 0	WB 0
56th St & 2nd Ave		Left	Opp. Thru	X product	Left	Opp. Thru	X product	Left	Opp. Thru	X product	Left	Opp. Thru	X product
	NB	48	SB 374	17952	NB 109	SB 179	NB 19511	NB 169	SB 172	NB 29068	NB 87	NB 315	SB 27405
	SB	122	NB 129	15738	SB 65	NB 167	SB 10855	SB 87	NB 315	SB 27405	EB 12	WB 147	EB 1764
	EB	6	WB 84	504	EB 7	WB 94	EB 658	EB 12	WB 147	EB 1764	WB 81	EB 122	WB 9882

Table K-2
25th Street Cross Products

		AM				NOON				PM			
		Left	Opp. Thru	X product									
30th Ave & 24th St	NB	SB		0	NB	SB	0	NB	SB	0	NB	SB	0
	SB	NB		0	SB	NB	0	SB	NB	0	SB	NB	0
	EB	WB		0	EB	WB	0	EB	WB	0	EB	WB	0
	WB	EB		0	WB	EB	0	WB	EB	0	WB	EB	0
5th Ave & 25th St													
	NB	SB	120	12840	NB	SB	98	NB	SB	10486	NB	SB	11832
	SB	NB	158	6004	SB	NB	129	SB	NB	6966	SB	NB	7980
	EB	WB	500	21000	EB	WB	627	EB	WB	25707	EB	WB	27664
Central Ave & 25th St	WB	EB	520	10920	WB	EB	682	WB	EB	31372	WB	EB	32050
	NB	SB	23	552	NB	SB	46	NB	SB	4324	NB	SB	4800
	SB	NB	11	253	SB	NB	52	SB	NB	2548	SB	NB	2914
Ave A & 25th St	EB	WB	582	11640	EB	WB	692	EB	WB	29756	EB	WB	45612
	WB	EB	239	9560	WB	EB	724	WB	EB	40544	WB	EB	45126
	NB	SB	25	1200	NB	SB	29	NB	SB	2088	NB	SB	4100
Ave E & 25th St	SB	NB	17	459	SB	NB	41	SB	NB	1640	SB	NB	4386
	EB	WB	571	10278	EB	WB	702	EB	WB	16146	EB	WB	18512
	WB	EB	523	18828	WB	EB	819	WB	EB	40950	WB	EB	15141
Ave G & 25th St	NB	SB	131	7860	NB	SB	140	NB	SB	18200	NB	SB	17399
	SB	NB	105	4305	SB	NB	157	SB	NB	7693	SB	NB	9360
	EB	WB	494	23218	EB	WB	585	EB	WB	33345	EB	WB	47658
	WB	EB	400	22400	WB	EB	593	WB	EB	48033	WB	EB	48843
	NB	SB	16	528	NB	SB	20	NB	SB	1100	NB	SB	726
	SB	NB	10	270	SB	NB	30	SB	NB	1200	SB	NB	860
	EB	WB	536	16616	EB	WB	516	EB	WB	41280	EB	WB	53622
	WB	EB	417	18765	WB	EB	606	WB	EB	30906	WB	EB	21830
	NB	SB	33	528	NB	SB	20	NB	SB	1100	NB	SB	726
	SB	NB	10	270	SB	NB	30	SB	NB	1200	SB	NB	860
	EB	WB	536	16616	EB	WB	516	EB	WB	41280	EB	WB	53622
	WB	EB	417	18765	WB	EB	606	WB	EB	30906	WB	EB	21830
	NB	SB	33	528	NB	SB	20	NB	SB	1100	NB	SB	726
	SB	NB	10	270	SB	NB	30	SB	NB	1200	SB	NB	860
	EB	WB	536	16616	EB	WB	516	EB	WB	41280	EB	WB	53622
	WB	EB	417	18765	WB	EB	606	WB	EB	30906	WB	EB	21830

Table K-3

39th Street Cross Products

		AM						NOON						PM					
		Left	Opp. Thru	X product															
17th Ave & 39th St	NB	44	SB	120	NB	23	SB	40	NB	920	NB	37	SB	68	NB	2516			
	SB	203	NB	40	SB	94	NB	54	SB	5076	SB	79	NB	101	SB	7979			
	EB	27	WB	219	EB	18	WB	292	EB	5256	EB	27	WB	409	EB	11043			
	WB	26	EB	407	WB	45	EB	262	WB	11790	WB	60	EB	268	WB	16080			
11th Ave & 39th St	NB	24	SB	34	NB	31	SB	4	NB	124	NB	26	SB	4	NB	104			
	SB	5	NB	15	SB	21	NB	10	SB	210	SB	40	NB	14	SB	560			
	EB	0	WB	274	EB	3	WB	404	EB	1212	EB	7	WB	661	EB	4627			
	WB	63	EB	679	WB	60	EB	428	WB	25680	WB	58	EB	458	WB	26564			
6th Ave & 39th St	NB	34	SB	94	NB	48	SB	100	NB	4800	NB	68	SB	92	NB	6256			
	SB	28	NB	63	SB	92	NB	78	SB	7176	SB	106	NB	98	SB	10388			
	EB	42	WB	250	EB	47	WB	338	EB	15886	EB	35	WB	350	EB	12250			
	WB	190	EB	586	WB	108	EB	448	WB	48384	WB	176	EB	492	WB	86592			
Ave E & 39th St	NB	57	SB	117	NB	51	SB	96	NB	4896	NB	86	SB	123	NB	10578			
	SB	48	NB	60	SB	54	NB	106	SB	5724	SB	56	NB	149	SB	8344			
	EB	11	WB	525	EB	18	WB	464	EB	8352	EB	25	WB	436	EB	10900			
	WB	25	EB	301	WB	36	EB	345	WB	12420	WB	23	EB	387	WB	8901			
Ave N & 39th St	NB	120	SB	242	NB	109	SB	171	NB	18639	NB	138	SB	185	NB	25530			
	SB	69	NB	211	SB	44	NB	158	SB	6952	SB	41	NB	270	SB	11070			
	EB	161	WB	201	EB	62	WB	158	EB	9796	EB	105	WB	245	EB	25725			
	WB	127	EB	196	WB	36	EB	121	WB	4356	WB	61	EB	160	WB	9760			

APPENDIX L

ALTERNATIVE NETWORK AM TIMING PLANS

Alternative Network AM Timing Plans

Timing Report, Sorted By Phase

1: 25th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	3	4	5	6	7	8
Movement	WBL	EBTL	NBL	SBTL	EBL	WBTL	SBL	NBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	None	None	C-Max	None	None	None	C-Max
Maximum Split (s)	8	26	8	28	8	26	8	28
Maximum Split (%)	11.4%	37.1%	11.4%	40.0%	11.4%	37.1%	11.4%	40.0%
Minimum Split (s)	8	26	8	29	8	26	8	29
Yellow Time (s)	3	4	3	4	3	4	3	4
All-Red Time (s)	0	1	0	1	0	1	0	1
Minimum Initial (s)	5	15	5	15	5	15	5	15
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		5		5		5		5
Flash Dont Walk (s)		16		19		16		19
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	24	32	58	66	24	32	58	66
End Time (s)	32	58	66	24	32	58	66	24
Yield/Force Off (s)	29	53	63	19	29	53	63	19
Yield/Force Off 170(s)	29	37	63	0	29	37	63	0
Local Start Time (s)	24	32	58	66	24	32	58	66
Local Yield (s)	29	53	63	19	29	53	63	19
Local Yield 170(s)	29	37	63	0	29	37	63	0

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	75
Offset: 0 (0%), Referenced to phase 4:SBTL and 8:NBTL, Start of FDW or yellow, Master Intersection	

Splits and Phases: 1: 25th St. & 2nd Ave.

ø1	ø2	ø3	ø4
8 s	26 s	8 s	28 s
ø5	ø6	ø7	ø8
8 s	26 s	8 s	28 s

Timing Report, Sorted By Phase
2: 29th St. & 2nd Ave.

10/27/2005



Phase Number	2	4	5	6	8
Movement	NBTL	EBTL	NBL	SBTL	WBTL
Lead/Lag			Lead	Lag	
Lead-Lag Optimize					
Recall Mode	C-Max	None	None	C-Max	None
Maximum Split (s)	44	26	8	36	26
Maximum Split (%)	62.9%	37.1%	11.4%	51.4%	37.1%
Minimum Split (s)	19	26	8	19	26
Yellow Time (s)	4.5	4	3	4.5	4
All-Red Time (s)	0.5	1	0	0.5	1
Minimum Initial (s)	13	15	5	13	15
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)	5	5		5	5
Flash Dont Walk (s)	9	16		9	16
Dual Entry	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	30	4	30	38	4
End Time (s)	4	30	38	4	30
Yield/Force Off (s)	69	25	35	69	25
Yield/Force Off 170(s)	60	9	35	60	9
Local Start Time (s)	40	14	40	48	14
Local Yield (s)	9	35	45	9	35
Local Yield 170(s)	0	19	45	0	19

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 60 (86%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 2: 29th St. & 2nd Ave.

ø2	ø4
44 s	26 s
ø5	ø6
8 s	36 s
	ø8
	26 s

Timing Report, Sorted By Phase

3: SW Ramp & 2nd Ave.

10/27/2005



Phase Number	1	2	3	6	8
Movement	SBL	NBT	EBL	SBTL	EBR
Lead/Lag	Lead	Lag			
Lead-Lag Optimize	Yes	Yes			
Recall Mode	None	C-Max	None	C-Max	None
Maximum Split (s)	10	34	26	44	26
Maximum Split (%)	14.3%	48.6%	37.1%	62.9%	37.1%
Minimum Split (s)	8	19	25	19	26
Yellow Time (s)	3	4.5	4.5	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0.5	0.5
Minimum Initial (s)	5	13	15	13	10
Vehicle Extension (s)	3	2	3	2	3
Minimum Gap (s)	3	2	3	2	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)		5		5	5
Flash Dont Walk (s)		9		9	16
Dual Entry	No	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	53	63	27	53	27
End Time (s)	63	27	53	27	53
Yield/Force Off (s)	60	22	48	22	48
Yield/Force Off 170(s)	60	13	48	13	32
Local Start Time (s)	40	50	14	40	14
Local Yield (s)	47	9	35	9	35
Local Yield 170(s)	47	0	35	0	19

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 13 (19%), Referenced to phase 2:NBT and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 3: SW Ramp & 2nd Ave.

ø1	ø2	ø3
10 s	34 s	26 s
ø6		ø8
44 s		26 s

Timing Report, Sorted By Phase
7: NW Ramp & 2nd Ave.

10/27/2005

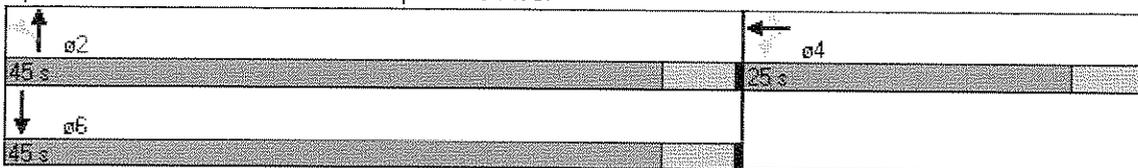


Phase Number	2	4	6
Movement	NBTL	WBTL	SBT
Lead/Lag			
Lead-Lag Optimize			
Recall Mode	C-Max	None	C-Max
Maximum Split (s)	45	25	45
Maximum Split (%)	64.3%	35.7%	64.3%
Minimum Split (s)	19	25	19
Yellow Time (s)	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5
Minimum Initial (s)	13	15	13
Vehicle Extension (s)	2	3	2
Minimum Gap (s)	2	3	2
Time Before Reduce (s)	0	0	0
Time To Reduce (s)	0	0	0
Walk Time (s)	5		5
Flash Dont Walk (s)	9		9
Dual Entry	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes
Start Time (s)	19	64	19
End Time (s)	64	19	64
Yield/Force Off (s)	59	14	59
Yield/Force Off 170(s)	50	14	50
Local Start Time (s)	39	14	39
Local Yield (s)	9	34	9
Local Yield 170(s)	0	34	0

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 50 (71%), Referenced to phase 2:NBTL and 6:SBT, Start of FDW or yellow	

Splits and Phases: 7: NW Ramp & 2nd Ave.



Timing Report, Sorted By Phase
 10: Talmadge St. & 2nd Ave.

10/27/2005

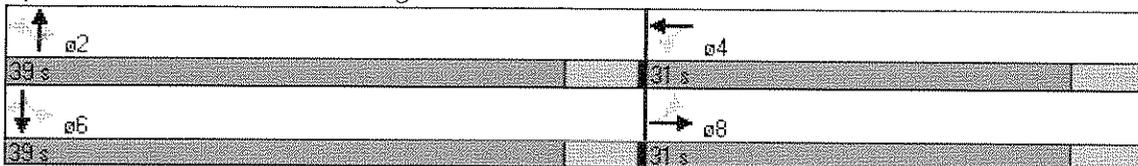


Phase Number	2	4	6	8
Movement	NBTL	WBTL	SBTL	EBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	39	31	39	31
Maximum Split (%)	55.7%	44.3%	55.7%	44.3%
Minimum Split (s)	19	31	19	31
Yellow Time (s)	4.5	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Minimum Initial (s)	13	10	13	10
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	19	9	19
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	32	1	32	1
End Time (s)	1	32	1	32
Yield/Force Off (s)	66	27	66	27
Yield/Force Off 170(s)	57	8	57	8
Local Start Time (s)	45	14	45	14
Local Yield (s)	9	40	9	40
Local Yield 170(s)	0	21	0	21

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	50
Offset: 57 (81%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 10: Talmadge St. & 2nd Ave.



Timing Report, Sorted By Phase

13: 4th St. & 2nd Ave.

10/27/2005

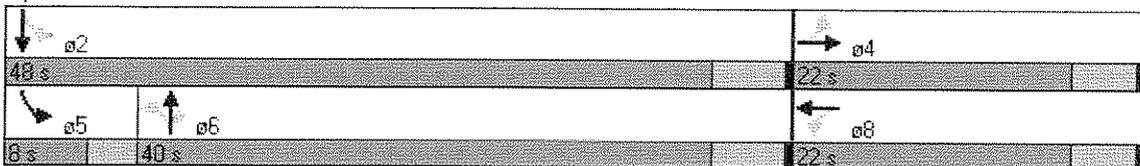


Phase Number	2	4	5	6	8
Movement	SBTL	EBTL	SBL	NBTL	WBTL
Lead/Lag			Lead	Lag	
Lead-Lag Optimize			Yes	Yes	
Recall Mode	C-Max	None	None	C-Max	None
Maximum Split (s)	48	22	8	40	22
Maximum Split (%)	68.6%	31.4%	11.4%	57.1%	31.4%
Minimum Split (s)	19	15	8	19	15
Yellow Time (s)	4.5	4	3	4.5	4
All-Red Time (s)	0.5	1	0	0.5	1
Minimum Initial (s)	10	10	5	10	10
Vehicle Extension (s)	2	3	3	2	3
Minimum Gap (s)	2	3	3	2	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)	5			5	
Flash Dont Walk (s)	9			9	
Dual Entry	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	44	22	44	52	22
End Time (s)	22	44	52	22	44
Yield/Force Off (s)	17	39	49	17	39
Yield/Force Off 170(s)	8	39	49	8	39
Local Start Time (s)	36	14	36	44	14
Local Yield (s)	9	31	41	9	31
Local Yield 170(s)	0	31	41	0	31

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 8 (11%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 13: 4th St. & 2nd Ave.



Timing Report, Sorted By Phase

16: 8th St. & 2nd Ave.

10/27/2005



Phase Number	2	4	6	8
Movement	SBTL	EBTL	NBTL	WBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	48	22	48	22
Maximum Split (%)	68.6%	31.4%	68.6%	31.4%
Minimum Split (s)	19	15	19	15
Yellow Time (s)	4.5	4	4.5	4
All-Red Time (s)	0.5	1	0.5	1
Minimum Initial (s)	10	10	10	10
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	2	3	2	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5		5	
Flash Dont Walk (s)	9		9	
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	11	59	11	59
End Time (s)	59	11	59	11
Yield/Force Off (s)	54	6	54	6
Yield/Force Off 170(s)	45	6	45	6
Local Start Time (s)	36	14	36	14
Local Yield (s)	9	31	9	31
Local Yield 170(s)	0	31	0	31

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	40
Offset: 45 (64%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 16: 8th St. & 2nd Ave.

 48 s	 22 s
 48 s	 22 s

Timing Report, Sorted By Phase

19: 11th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	3	4	5	6	7	8
Movement	NBL	SBTL	EBL	WBTL	SBL	NBTL	WBL	EBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	C-Max	None	None	None	C-Max	None	None
Maximum Split (s)	8	28	8	26	8	28	8	26
Maximum Split (%)	11.4%	40.0%	11.4%	37.1%	11.4%	40.0%	11.4%	37.1%
Minimum Split (s)	8	20	8	15	8	20	8	26
Yellow Time (s)	3	4.5	3	4.5	3	4.5	3	4.5
All-Red Time (s)	0	0.5	0	0.5	0	0.5	0	0.5
Minimum Initial (s)	5	15	5	10	5	15	5	10
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	2	3	2	3	2	3	2
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)								5
Flash Dont Walk (s)								16
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	17	25	53	61	17	25	53	61
End Time (s)	25	53	61	17	25	53	61	17
Yield/Force Off (s)	22	48	58	12	22	48	58	12
Yield/Force Off 170(s)	22	48	58	12	22	48	58	66
Local Start Time (s)	39	47	5	13	39	47	5	13
Local Yield (s)	44	0	10	34	44	0	10	34
Local Yield 170(s)	44	0	10	34	44	0	10	18

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	65
Offset: 48 (69%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 19: 11th St. & 2nd Ave.

01	02	03	04
8 s	28 s	8 s	26 s
05	06	07	08
8 s	28 s	8 s	26 s

Timing Report, Sorted By Phase

22: 16th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	6	8
Movement	SBL	NBTL	WBTL	SBTL	EBTL
Lead/Lag	Lead	Lag			
Lead-Lag Optimize	Yes	Yes			
Recall Mode	None	C-Max	None	C-Max	None
Maximum Split (s)	8	36	26	44	26
Maximum Split (%)	11.4%	51.4%	37.1%	62.9%	37.1%
Minimum Split (s)	8	19	26	19	26
Yellow Time (s)	3	4.5	4.5	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0.5	0.5
Minimum Initial (s)	5	11	10	11	10
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	2	2	2	2
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)		5	5	5	5
Flash Dont Walk (s)		9	16	9	16
Dual Entry	No	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	54	62	28	54	28
End Time (s)	62	28	54	28	54
Yield/Force Off (s)	59	23	49	23	49
Yield/Force Off 170(s)	59	14	33	14	33
Local Start Time (s)	40	48	14	40	14
Local Yield (s)	45	9	35	9	35
Local Yield 170(s)	45	0	19	0	19

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 14 (20%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 22: 16th St. & 2nd Ave.

ø1	ø2	ø4
8 s	36 s	26 s
ø6		ø8
44 s		26 s

Timing Report, Sorted By Phase
 25: 22nd St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	NBL	SBTL	WBTL	SBL	NBTL	EBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min	None	None	C-Min	None
Maximum Split (s)	8	36	26	8	36	26
Maximum Split (%)	11.4%	51.4%	37.1%	11.4%	51.4%	37.1%
Minimum Split (s)	8	20	26	8	20	26
Yellow Time (s)	3	4.5	4.5	3	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0.5
Minimum Initial (s)	5	14	7	5	14	7
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		10	16		10	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	22	30	66	22	30	66
End Time (s)	30	66	22	30	66	22
Yield/Force Off (s)	27	61	17	27	61	17
Yield/Force Off 170(s)	27	51	1	27	51	1
Local Start Time (s)	31	39	5	31	39	5
Local Yield (s)	36	0	26	36	0	26
Local Yield 170(s)	36	60	10	36	60	10

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 61 (87%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 25: 22nd St. & 2nd Ave.

ø1	ø2	ø4
8 s	36 s	26 s
ø5	ø6	ø8
8 s	36 s	26 s

Timing Report, Sorted By Phase

28: 25th St. & 5th Ave.

10/27/2005



Phase Number	2	4	6	8
Movement	EBTL	SBTL	WBTL	NBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	Max	C-Max	Max
Maximum Split (s)	40	30	40	30
Maximum Split (%)	57.1%	42.9%	57.1%	42.9%
Minimum Split (s)	19	29	19	29
Yellow Time (s)	4.5	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Minimum Initial (s)	10	10	10	10
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	19	9	19
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	67	37	67	37
End Time (s)	37	67	37	67
Yield/Force Off (s)	32	62	32	62
Yield/Force Off 170(s)	23	43	23	43
Local Start Time (s)	44	14	44	14
Local Yield (s)	9	39	9	39
Local Yield 170(s)	0	20	0	20

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	50
Offset: 23 (33%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 28: 25th St. & 5th Ave.

→ φ2	↓ φ4
40 s	30 s
← φ6	↑ φ8
40 s	30 s

Timing Report, Sorted By Phase
 29: 25th St. & Central Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	36	26	8	36	26
Maximum Split (%)	11.4%	51.4%	37.1%	11.4%	51.4%	37.1%
Minimum Split (s)	8	22	26	8	22	26
Yellow Time (s)	3	4.5	4.5	3	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0.5
Minimum Initial (s)	5	12	12	5	12	12
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		12	16		12	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	18	26	62	18	26	62
End Time (s)	26	62	18	26	62	18
Yield/Force Off (s)	23	57	13	23	57	13
Yield/Force Off 170(s)	23	45	67	23	45	67
Local Start Time (s)	43	51	17	43	51	17
Local Yield (s)	48	12	38	48	12	38
Local Yield 170(s)	48	0	22	48	0	22

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 45 (64%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 29: 25th St. & Central Ave.

01	02	04
36 s	36 s	26 s
05	06	08
36 s	36 s	26 s

Timing Report, Sorted By Phase

32: 31st St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	6	8
Movement	SBL	NBTL	EBTL	SBTL	WBTL
Lead/Lag	Lead	Lag			
Lead-Lag Optimize					
Recall Mode	None	C-Max	None	C-Max	None
Maximum Split (s)	8	36	26	44	26
Maximum Split (%)	11.4%	51.4%	37.1%	62.9%	37.1%
Minimum Split (s)	8	19	26	21	26
Yellow Time (s)	3	4.5	4	4.5	4
All-Red Time (s)	0	0.5	1	0.5	1
Minimum Initial (s)	5	13	15	16	15
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)		5	5	5	5
Flash Dont Walk (s)		9	16	9	16
Dual Entry	No	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	25	33	69	25	69
End Time (s)	33	69	25	69	25
Yield/Force Off (s)	30	64	20	64	20
Yield/Force Off 170(s)	30	55	4	55	4
Local Start Time (s)	40	48	14	40	14
Local Yield (s)	45	9	35	9	35
Local Yield 170(s)	45	0	19	0	19

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 55 (79%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 32: 31st St. & 2nd Ave.

ø1	ø2	ø4
8 s	36 s	26 s
ø6	ø8	
44 s	26 s	

Timing Report, Sorted By Phase

35: 39th St & 2nd Ave.

10/27/2005

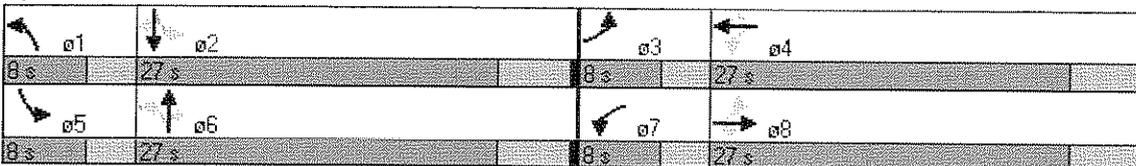


Phase Number	1	2	3	4	5	6	7	8
Movement	NBL	SBTL	EBL	WBTL	SBL	NBTL	WBL	EBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize								
Recall Mode	None	C-Max	None	None	None	C-Max	None	None
Maximum Split (s)	8	27	8	27	8	27	8	27
Maximum Split (%)	11.4%	38.6%	11.4%	38.6%	11.4%	38.6%	11.4%	38.6%
Minimum Split (s)	8	26	8	26	8	26	8	26
Yellow Time (s)	3	4.5	3	4.5	3	4.5	3	4.5
All-Red Time (s)	0	0.5	0	0.5	0	0.5	0	0.5
Minimum Initial (s)	5	15	5	10	5	10	5	10
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		5		5		5		5
Flash Dont Walk (s)		16		16		16		16
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	23	31	58	66	23	31	58	66
End Time (s)	31	58	66	23	31	58	66	23
Yield/Force Off (s)	28	53	63	18	28	53	63	18
Yield/Force Off 170(s)	28	37	63	2	28	37	63	2
Local Start Time (s)	56	64	21	29	56	64	21	29
Local Yield (s)	61	16	26	51	61	16	26	51
Local Yield 170(s)	61	0	26	35	61	0	26	35

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	70
Offset: 37 (53%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 35: 39th St & 2nd Ave.



Timing Report, Sorted By Phase

36: 39th St & Ave. E

10/27/2005



Phase Number	2	4	6	8
Movement	EBTL	SBTL	WBTL	NBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	None	Max	None	Max
Maximum Split (s)	46	24	46	24
Maximum Split (%)	65.7%	34.3%	65.7%	34.3%
Minimum Split (s)	35	23.5	35	23.5
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	20	10	20	10
Vehicle Extension (s)	4	4	4	4
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	7	7	7	7
Flash Don't Walk (s)	9	12	9	12
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	46	0	46
End Time (s)	46	0	46	0
Yield/Force Off (s)	41.5	65.5	41.5	65.5
Yield/Force Off 170(s)	32.5	53.5	32.5	53.5
Local Start Time (s)	37.5	13.5	37.5	13.5
Local Yield (s)	9	33	9	33
Local Yield 170(s)	0	21	0	21

Intersection Summary

Cycle Length	70
Control Type	Actuated-Uncoordinated
Natural Cycle	60

Splits and Phases: 36: 39th St & Ave. E

→ ø2	↓ ø4
46 s	24 s
← ø6	↑ ø8
46 s	24 s

Timing Report, Sorted By Phase

37: 39th St & 6th Ave.

10/27/2005

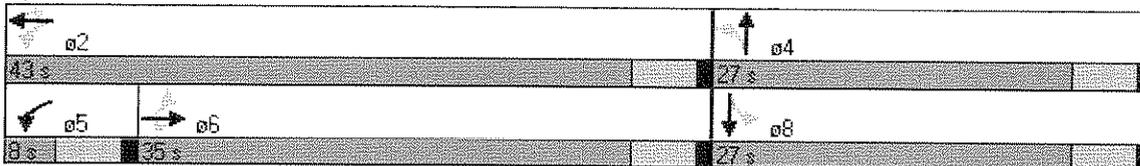


Phase Number	2	4	5	6	8
Movement	WBTL	NBTL	WBL	EBTL	SBTL
Lead/Lag			Lead	Lag	
Lead-Lag Optimize			Yes	Yes	
Recall Mode	C-Min	None	None	C-Min	None
Maximum Split (s)	43	27	8	35	27
Maximum Split (%)	61.4%	38.6%	11.4%	50.0%	38.6%
Minimum Split (s)	22	27	7	22	27
Yellow Time (s)	4	4	4	4	4
All-Red Time (s)	1	1	1	1	1
Minimum Initial (s)	15	10	2	15	10
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)	7	7		7	7
Flash Dont Walk (s)	10	15		10	15
Dual Entry	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	31	4	31	39	4
End Time (s)	4	31	39	4	31
Yield/Force Off (s)	69	26	34	69	26
Yield/Force Off 170(s)	59	11	34	59	11
Local Start Time (s)	32	5	32	40	5
Local Yield (s)	0	27	35	0	27
Local Yield 170(s)	60	12	35	60	12

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 69 (99%), Referenced to phase 2:WBTL and 6:EBTL, Start of FDW or yellow	

Splits and Phases: 37: 39th St & 6th Ave.



Timing Report, Sorted By Phase

38: 44th St. & 2nd Ave.

10/27/2005

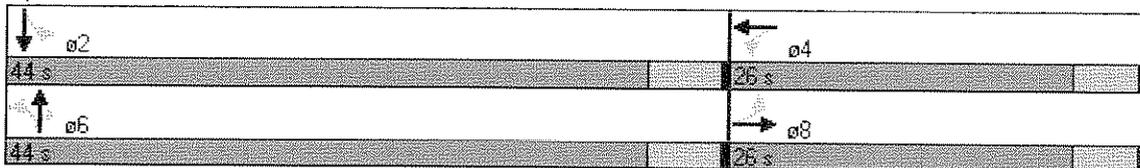


Phase Number	2	4	6	8
Movement	SBTL	WBTL	NBTL	EBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	44	26	44	26
Maximum Split (%)	62.9%	37.1%	62.9%	37.1%
Minimum Split (s)	19	26	19	26
Yellow Time (s)	4.5	4	4.5	4
All-Red Time (s)	0.5	1	0.5	1
Minimum Initial (s)	13	15	13	15
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	16	9	16
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	63	37	63	37
End Time (s)	37	63	37	63
Yield/Force Off (s)	32	58	32	58
Yield/Force Off 170(s)	23	42	23	42
Local Start Time (s)	40	14	40	14
Local Yield (s)	9	35	9	35
Local Yield 170(s)	0	19	0	19

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 23 (33%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 38: 44th St. & 2nd Ave.



Timing Report, Sorted By Phase

41: 48th St. & 2nd Ave.

10/27/2005



Phase Number	2	4	6	8
Movement	SBTL	WBTL	NBTL	EBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	44	26	44	26
Maximum Split (%)	62.9%	37.1%	62.9%	37.1%
Minimum Split (s)	19	26	19	26
Yellow Time (s)	4.5	4	4.5	4
All-Red Time (s)	0.5	1	0.5	1
Minimum Initial (s)	13	15	13	15
Vehicle Extension (s)	3	2	3	2
Minimum Gap (s)	3	2	3	2
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	16	9	16
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	66	40	66	40
End Time (s)	40	66	40	66
Yield/Force Off (s)	35	61	35	61
Yield/Force Off 170(s)	26	45	26	45
Local Start Time (s)	40	14	40	14
Local Yield (s)	9	35	9	35
Local Yield 170(s)	0	19	0	19

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 26 (37%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 41: 48th St. & 2nd Ave.

 44 s	 26 s
 44 s	 26 s

Timing Report, Sorted By Phase

44: 56th St. & 2nd Ave.

10/27/2005



Phase Number	2	4	6	8
Movement	NBTL	EBTL	SBTL	WBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	44	26	44	26
Maximum Split (%)	62.9%	37.1%	62.9%	37.1%
Minimum Split (s)	26	26	26	26
Yellow Time (s)	4.5	4	4.5	4
All-Red Time (s)	0.5	1	0.5	1
Minimum Initial (s)	15	15	15	15
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	2	2	2	2
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	16	16	16	16
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	26	0	26	0
End Time (s)	0	26	0	26
Yield/Force Off (s)	65	21	65	21
Yield/Force Off 170(s)	49	5	49	5
Local Start Time (s)	47	21	47	21
Local Yield (s)	16	42	16	42
Local Yield 170(s)	0	26	0	26

Intersection Summary

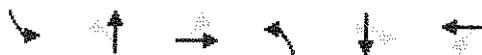
Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 49 (70%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 44: 56th St. & 2nd Ave.

ø2	ø4
44 s	26 s
ø6	ø8
44 s	26 s

Timing Report, Sorted By Phase
 50: 24th St. & 30th Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	SBL	NBTL	EBTL	NBL	SBTL	WBTl
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	Max	None	None	Max	None
Maximum Split (s)	12	24	24	12	24	24
Maximum Split (%)	20.0%	40.0%	40.0%	20.0%	40.0%	40.0%
Minimum Split (s)	8	20	20	8	20	20
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Minimum Initial (s)	4	4	4	4	4	4
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		11	11		11	11
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	12	36	0	12	36
End Time (s)	12	36	0	12	36	0
Yield/Force Off (s)	8	32	56	8	32	56
Yield/Force Off 170(s)	8	21	45	8	21	45
Local Start Time (s)	39	51	15	39	51	15
Local Yield (s)	47	11	35	47	11	35
Local Yield 170(s)	47	0	24	47	0	24

Intersection Summary

Cycle Length	60
Control Type	Actuated-Uncoordinated
Natural Cycle	50

Splits and Phases: 50: 24th St. & 30th Ave.

ø1	ø2	ø4
12 s	24 s	24 s
ø5	ø6	ø8
12 s	24 s	24 s

Timing Report, Sorted By Phase

58: 25th St. & Ave. A

10/27/2005



Phase Number	2	4	6	8
Movement	EBTL	SBTL	WBTL	NBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	44	26	44	26
Maximum Split (%)	62.9%	37.1%	62.9%	37.1%
Minimum Split (s)	22	26	22	26
Yellow Time (s)	4.5	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Minimum Initial (s)	15	12	7	12
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	12	16	12	16
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	24	68	24	68
End Time (s)	68	24	68	24
Yield/Force Off (s)	63	19	63	19
Yield/Force Off 170(s)	51	3	51	3
Local Start Time (s)	43	17	43	17
Local Yield (s)	12	38	12	38
Local Yield 170(s)	0	22	0	22

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	50
Offset: 51 (73%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 58: 25th St. & Ave. A

02	04
44 s	26 s
06	08
44 s	26 s

Timing Report, Sorted By Phase
61: 25th St. & Ave. E

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes			Yes		
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	36	26	8	36	26
Maximum Split (%)	11.4%	51.4%	37.1%	11.4%	51.4%	37.1%
Minimum Split (s)	8	22	26	8	22	26
Yellow Time (s)	3	4.5	4.5	3	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0.5
Minimum Initial (s)	5	16	10	5	16	10
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		12	16		12	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	52	60	26	52	60	26
End Time (s)	60	26	52	60	26	52
Yield/Force Off (s)	57	21	47	57	21	47
Yield/Force Off 170(s)	57	9	31	57	9	31
Local Start Time (s)	43	51	17	43	51	17
Local Yield (s)	48	12	38	48	12	38
Local Yield 170(s)	48	0	22	48	0	22

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 9 (13%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 61: 25th St. & Ave. E

01	02	04
8 s	36 s	26 s
05	06	08
8 s	36 s	26 s

Timing Report, Sorted By Phase

64: 25th St. & Ave. G

10/27/2005



Phase Number	2	4	6	8
Movement	EBTL	SBTL	WBTL	NBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	44	26	44	26
Maximum Split (%)	62.9%	37.1%	62.9%	37.1%
Minimum Split (s)	22	26	22	26
Yellow Time (s)	4.5	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Minimum Initial (s)	15	10	15	10
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	12	16	12	16
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	3	47	3	47
End Time (s)	47	3	47	3
Yield/Force Off (s)	42	68	42	68
Yield/Force Off 170(s)	30	52	30	52
Local Start Time (s)	43	17	43	17
Local Yield (s)	12	38	12	38
Local Yield 170(s)	0	22	0	22

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	50
Offset: 30 (43%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 64: 25th St. & Ave. G

→ ø2	↓ ø4
44 s	26 s
← ø6	↑ ø8
44 s	26 s

Timing Report, Sorted By Phase
67: 25th St. & Ave. M

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	12	35	23	12	35	23
Maximum Split (%)	17.1%	50.0%	32.9%	17.1%	50.0%	32.9%
Minimum Split (s)	8	21	15	8	21	15
Yellow Time (s)	3	4.5	4.5	3	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0.5
Minimum Initial (s)	5	15	10	5	15	10
Vehicle Extension (s)	3	2	2	3	2	2
Minimum Gap (s)	3	2	2	3	2	2
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5			5	
Flash Dont Walk (s)		11			11	
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	61	3	38	61	3	38
End Time (s)	3	38	61	3	38	61
Yield/Force Off (s)	0	33	56	0	33	56
Yield/Force Off 170(s)	0	22	56	0	22	56
Local Start Time (s)	39	51	16	39	51	16
Local Yield (s)	48	11	34	48	11	34
Local Yield 170(s)	48	0	34	48	0	34

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 22 (31%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 67: 25th St. & Ave. M

01	02	04
12 s	35 s	23 s
05	06	08
12 s	35 s	23 s

Timing Report, Sorted By Phase

72: 39th St & 17th Ave

10/27/2005

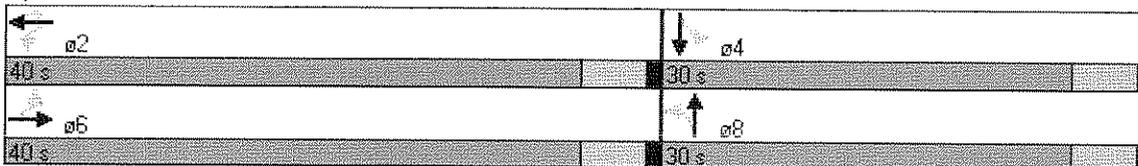


Phase Number	2	4	6	8
Movement	WBTL	SBTL	EBTL	NBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	Max	C-Max	Max
Maximum Split (s)	40	30	40	30
Maximum Split (%)	57.1%	42.9%	57.1%	42.9%
Minimum Split (s)	23	22	23	22
Yellow Time (s)	4	4	4	4
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	15	10	15	10
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	12	9	12
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	42	12	42	12
End Time (s)	12	42	12	42
Yield/Force Off (s)	7	37	7	37
Yield/Force Off 170(s)	68	25	68	25
Local Start Time (s)	44	14	44	14
Local Yield (s)	9	39	9	39
Local Yield 170(s)	0	27	0	27

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 68 (97%), Referenced to phase 2:WBTL and 6:EBTL, Start of FDW or yellow	

Splits and Phases: 72: 39th St & 17th Ave



Timing Report, Sorted By Phase

78: 39th St & Ave. N

10/27/2005



Phase Number	1	2	3	4	5	6	7	8
Movement	WBL	EBTL	NBL	SBTL	EBL	WBTL	SBL	NBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	None	None	Max	None	None	None	Max
Maximum Split (s)	8	27	8	27	8	27	8	27
Maximum Split (%)	11.4%	38.6%	11.4%	38.6%	11.4%	38.6%	11.4%	38.6%
Minimum Split (s)	7	26.5	7	27	7	26.5	7	27
Yellow Time (s)	3	3.5	3	3.5	3	3.5	3	3.5
All-Red Time (s)	1	1	1	1	1	1	1	1
Minimum Initial (s)	3	15	3	10	3	15	3	10
Vehicle Extension (s)	5	3	5	3	5	3	5	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		7		7		7		7
Flash Dont Walk (s)		15		15		15		15
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	0	8	35	43	0	8	35	43
End Time (s)	8	35	43	0	8	35	43	0
Yield/Force Off (s)	4	30.5	39	65.5	4	30.5	39	65.5
Yield/Force Off 170(s)	4	15.5	39	50.5	4	15.5	39	50.5
Local Start Time (s)	54.5	62.5	19.5	27.5	54.5	62.5	19.5	27.5
Local Yield (s)	58.5	15	23.5	50	58.5	15	23.5	50
Local Yield 170(s)	58.5	0	23.5	35	58.5	0	23.5	35

Intersection Summary

Cycle Length	70
Control Type	Actuated-Uncoordinated
Natural Cycle	70

Splits and Phases: 78: 39th St & Ave. N

01	02	03	04
8 s	27 s	8 s	27 s
05	06	07	08
8 s	27 s	8 s	27 s

Timing Report, Sorted By Phase

83: 33rd St. & 2nd Ave.

10/27/2005

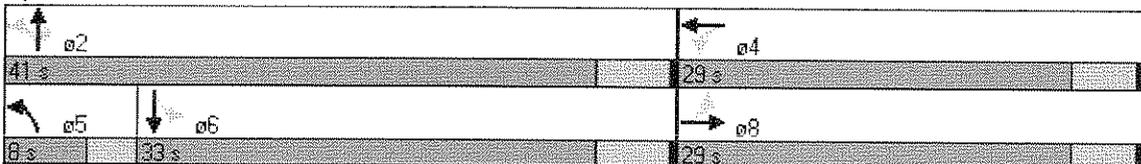


Phase Number	2	4	5	6	8
Movement	NBTL	WBTL	NBL	SBTL	EBTL
Lead/Lag			Lead	Lag	
Lead-Lag Optimize			Yes	Yes	
Recall Mode	C-Max	None	None	C-Max	None
Maximum Split (s)	41	29	8	33	29
Maximum Split (%)	58.6%	41.4%	11.4%	47.1%	41.4%
Minimum Split (s)	22	29	8	22	29
Yellow Time (s)	4.5	4	3	4.5	4
All-Red Time (s)	0.5	1	0	0.5	1
Minimum Initial (s)	15	10	5	15	10
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)	5	5		5	5
Flash Dont Walk (s)	12	19		12	19
Dual Entry	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	65	36	65	3	36
End Time (s)	36	65	3	36	65
Yield/Force Off (s)	31	60	0	31	60
Yield/Force Off 170(s)	19	41	0	19	41
Local Start Time (s)	46	17	46	54	17
Local Yield (s)	12	41	51	12	41
Local Yield 170(s)	0	22	51	0	22

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 19 (27%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 83: 33rd St. & 2nd Ave.



Timing Report, Sorted By Phase

91: 39th St & 11th St.

10/27/2005



Phase Number	2	4	5	6	8
Movement	WBTL	NBTL	WBL	EBTL	SBTL
Lead/Lag			Lead	Lag	
Lead-Lag Optimize			Yes	Yes	
Recall Mode	C-Max	None	None	C-Max	None
Maximum Split (s)	45	25	8	37	25
Maximum Split (%)	64.3%	35.7%	11.4%	52.9%	35.7%
Minimum Split (s)	23	25	8	23	25
Yellow Time (s)	4	4	4	4	4
All-Red Time (s)	1	1	1	1	1
Minimum Initial (s)	15	7	3	15	7
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)	5	5		5	5
Flash Dont Walk (s)	12	15		12	15
Dual Entry	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	61	36	61	69	36
End Time (s)	36	61	69	36	61
Yield/Force Off (s)	31	56	64	31	56
Yield/Force Off 170(s)	19	41	64	19	41
Local Start Time (s)	42	17	42	50	17
Local Yield (s)	12	37	45	12	37
Local Yield 170(s)	0	22	45	0	22

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 19 (27%), Referenced to phase 2:WBTL and 6:EBTL, Start of FDW or yellow	

Splits and Phases: 91: 39th St & 11th St.



Timing Report, Sorted By Phase
 94: 52nd St & 2nd Ave.

10/27/2005



Phase Number	2	4	6
Movement	SBTL	WBL	NBT
Lead/Lag			
Lead-Lag Optimize			
Recall Mode	C-Max	None	C-Max
Maximum Split (s)	50	20	50
Maximum Split (%)	71.4%	28.6%	71.4%
Minimum Split (s)	21	20	21
Yellow Time (s)	4.5	4	4.5
All-Red Time (s)	0.5	1	0.5
Minimum Initial (s)	15	10	15
Vehicle Extension (s)	3	3	3
Minimum Gap (s)	3	3	3
Time Before Reduce (s)	0	0	0
Time To Reduce (s)	0	0	0
Walk Time (s)	5		5
Flash Dont Walk (s)	11		11
Dual Entry	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes
Start Time (s)	41	21	41
End Time (s)	21	41	21
Yield/Force Off (s)	16	36	16
Yield/Force Off 170(s)	5	36	5
Local Start Time (s)	36	16	36
Local Yield (s)	11	31	11
Local Yield 170(s)	0	31	0

Intersection Summary

Cycle Length	70
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 5 (7%), Referenced to phase 2:SBTL and 6:NBT, Start of FDW or yellow	

Splits and Phases: 94: 52nd St & 2nd Ave.

↓ φ2 50 s	↙ φ4 20 s
↑ φ6 50 s	



APPENDIX M

ALTERNATIVE NETWORK NOON TIMING PLANS

Alternative Network NOON Timing Plans

Timing Report, Sorted By Phase
1: 25th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	3	4	5	6	7	8
Movement	WBL	EBTL	NBL	SBTL	EBL	WBTL	SBL	NBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	None	None	C-Max	None	None	None	C-Max
Maximum Split (s)	8	26	9	32	8	26	10	31
Maximum Split (%)	10.7%	34.7%	12.0%	42.7%	10.7%	34.7%	13.3%	41.3%
Minimum Split (s)	8	26	8	29	8	26	8	29
Yellow Time (s)	3	4	3	4	3	4	3	4
All-Red Time (s)	0	1	0	1	0	1	0	1
Minimum Initial (s)	5	15	5	15	5	15	5	15
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		5		5		5		5
Flash Dont Walk (s)		16		19		16		19
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	24	32	58	67	24	32	58	68
End Time (s)	32	58	67	24	32	58	68	24
Yield/Force Off (s)	29	53	64	19	29	53	65	19
Yield/Force Off 170(s)	29	37	64	0	29	37	65	0
Local Start Time (s)	24	32	58	67	24	32	58	68
Local Yield (s)	29	53	64	19	29	53	65	19
Local Yield 170(s)	29	37	64	0	29	37	65	0

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	75
Offset: 0 (0%), Referenced to phase 4:SBTL and 8:NBTL, Start of FDW or yellow, Master Intersection	

Splits and Phases: 1: 25th St. & 2nd Ave.

ø1	ø2	ø3	ø4
8 s	26 s	9 s	32 s
ø5	ø6	ø7	ø8
8 s	26 s	10 s	31 s

Timing Report, Sorted By Phase
2: 29th St. & 2nd Ave.

10/27/2005



Phase Number	2	4	5	6	8
Movement	NBTL	EBTL	NBL	SBTL	WBTL
Lead/Lag			Lead	Lag	
Lead-Lag Optimize					
Recall Mode	C-Max	None	None	C-Max	None
Maximum Split (s)	49	26	8	41	26
Maximum Split (%)	65.3%	34.7%	10.7%	54.7%	34.7%
Minimum Split (s)	19	26	8	19	26
Yellow Time (s)	4.5	4	3	4.5	4
All-Red Time (s)	0.5	1	0	0.5	1
Minimum Initial (s)	13	15	5	13	15
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)	5	5		5	5
Flash Don't Walk (s)	9	16		9	16
Dual Entry	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	20	69	20	28	69
End Time (s)	69	20	28	69	20
Yield/Force Off (s)	64	15	25	64	15
Yield/Force Off 170(s)	55	74	25	55	74
Local Start Time (s)	40	14	40	48	14
Local Yield (s)	9	35	45	9	35
Local Yield 170(s)	0	19	45	0	19

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 55 (73%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 2: 29th St. & 2nd Ave.



Timing Report, Sorted By Phase
 3: SW Ramp & 2nd Ave.

10/27/2005



Phase Number	1	2	3	6	8
Movement	SBL	NBT	EBL	SBTL	EBR
Lead/Lag	Lead	Lag			
Lead-Lag Optimize	Yes	Yes			
Recall Mode	None	C-Max	None	C-Max	None
Maximum Split (s)	15	34	26	49	26
Maximum Split (%)	20.0%	45.3%	34.7%	65.3%	34.7%
Minimum Split (s)	15	19	20	19	26
Yellow Time (s)	3	4.5	4.5	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0.5	0.5
Minimum Initial (s)	10	13	15	13	15
Vehicle Extension (s)	3	2	3	2	3
Minimum Gap (s)	3	2	3	2	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)		5		5	5
Flash Dont Walk (s)		9		9	16
Dual Entry	No	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	58	73	32	58	32
End Time (s)	73	32	58	32	58
Yield/Force Off (s)	70	27	53	27	53
Yield/Force Off 170(s)	70	18	53	18	37
Local Start Time (s)	40	55	14	40	14
Local Yield (s)	52	9	35	9	35
Local Yield 170(s)	52	0	35	0	19

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 18 (24%), Referenced to phase 2:NBT and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 3: SW Ramp & 2nd Ave.

φ1	φ2	φ3
15 s	34 s	26 s
φ6		φ8
49 s		26 s

Timing Report, Sorted By Phase
7: NW Ramp & 2nd Ave.

10/27/2005



Phase Number	2	4	6
Movement	NBTL	WBTL	SBT
Lead/Lag			
Lead-Lag Optimize			
Recall Mode	C-Max	None	C-Max
Maximum Split (s)	50	25	50
Maximum Split (%)	66.7%	33.3%	66.7%
Minimum Split (s)	19	25	19
Yellow Time (s)	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5
Minimum Initial (s)	13	15	13
Vehicle Extension (s)	2	3	2
Minimum Gap (s)	2	3	2
Time Before Reduce (s)	0	0	0
Time To Reduce (s)	0	0	0
Walk Time (s)	5		5
Flash Dont Walk (s)	9		9
Dual Entry	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes
Start Time (s)	34	9	34
End Time (s)	9	34	9
Yield/Force Off (s)	4	29	4
Yield/Force Off 170(s)	70	29	70
Local Start Time (s)	39	14	39
Local Yield (s)	9	34	9
Local Yield 170(s)	0	34	0

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 70 (93%), Referenced to phase 2:NBTL and 6:SBT, Start of FDW or yellow	

Splits and Phases: 7: NW Ramp & 2nd Ave.

Timing Report, Sorted By Phase
 10: Talmadge St. & 2nd Ave.

10/27/2005



Phase Number	2	4	6	8
Movement	NBTL	WBTL	SBTL	EBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	46	29	46	29
Maximum Split (%)	61.3%	38.7%	61.3%	38.7%
Minimum Split (s)	19	29	19	29
Yellow Time (s)	4.5	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Minimum Initial (s)	13	10	13	10
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	19	9	19
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	28	74	28	74
End Time (s)	74	28	74	28
Yield/Force Off (s)	69	23	69	23
Yield/Force Off 170(s)	60	4	60	4
Local Start Time (s)	43	14	43	14
Local Yield (s)	9	38	9	38
Local Yield 170(s)	0	19	0	19

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	50
Offset: 60 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 10: Talmadge St. & 2nd Ave.

02	04
46 s	29 s
06	08
46 s	29 s

Timing Report, Sorted By Phase
 13: 4th St. & 2nd Ave.

10/27/2005

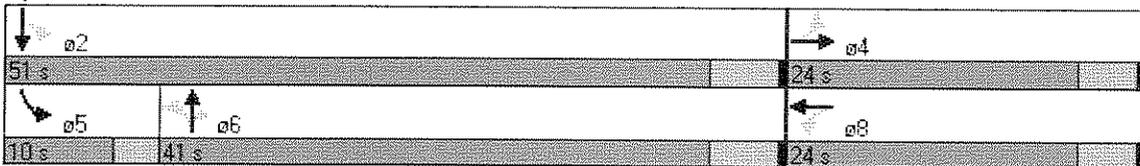


Phase Number	2	4	5	6	8
Movement	SBTL	EBTL	SBL	NBTL	WBTL
Lead/Lag			Lead	Lag	
Lead-Lag Optimize			Yes	Yes	
Recall Mode	C-Max	None	None	C-Max	None
Maximum Split (s)	51	24	10	41	24
Maximum Split (%)	68.0%	32.0%	13.3%	54.7%	32.0%
Minimum Split (s)	19	15	8	19	15
Yellow Time (s)	4.5	4	3	4.5	4
All-Red Time (s)	0.5	1	0	0.5	1
Minimum Initial (s)	10	10	5	10	10
Vehicle Extension (s)	2	3	3	2	3
Minimum Gap (s)	2	3	3	2	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)	5			5	
Flash Dont Walk (s)	9			9	
Dual Entry	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	63	39	63	73	39
End Time (s)	39	63	73	39	63
Yield/Force Off (s)	34	58	70	34	58
Yield/Force Off 170(s)	25	58	70	25	58
Local Start Time (s)	38	14	38	48	14
Local Yield (s)	9	33	45	9	33
Local Yield 170(s)	0	33	45	0	33

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 25 (33%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 13: 4th St. & 2nd Ave.



Timing Report, Sorted By Phase
 16: 8th St. & 2nd Ave.

10/27/2005

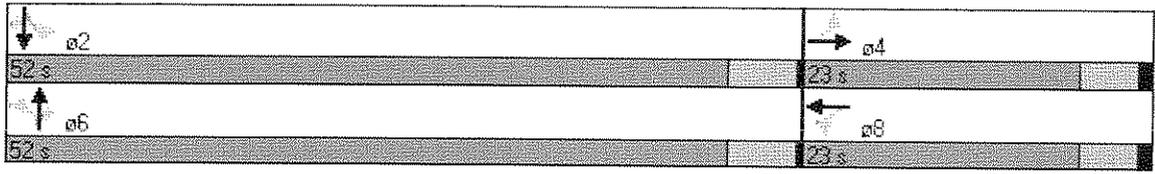


Phase Number	2	4	6	8
Movement	SBTL	EBTL	NBTL	WBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	52	23	52	23
Maximum Split (%)	69.3%	30.7%	69.3%	30.7%
Minimum Split (s)	19	15	19	15
Yellow Time (s)	4.5	4	4.5	4
All-Red Time (s)	0.5	1	0.5	1
Minimum Initial (s)	10	10	10	10
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	2	3	2	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5		5	
Flash Dont Walk (s)	9		9	
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	57	34	57	34
End Time (s)	34	57	34	57
Yield/Force Off (s)	29	52	29	52
Yield/Force Off 170(s)	20	52	20	52
Local Start Time (s)	37	14	37	14
Local Yield (s)	9	32	9	32
Local Yield 170(s)	0	32	0	32

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	40
Offset: 20 (27%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 16: 8th St. & 2nd Ave.



Timing Report, Sorted By Phase
 19: 11th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	3	4	5	6	7	8
Movement	NBL	SBTL	EBL	WBTL	SBL	NBTL	WBL	EBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	C-Max	None	None	None	C-Max	None	None
Maximum Split (s)	8	33	8	26	8	33	8	26
Maximum Split (%)	10.7%	44.0%	10.7%	34.7%	10.7%	44.0%	10.7%	34.7%
Minimum Split (s)	8	20	8	15	8	20	8	26
Yellow Time (s)	3	4.5	3	4.5	3	4.5	3	4.5
All-Red Time (s)	0	0.5	0	0.5	0	0.5	0	0.5
Minimum Initial (s)	5	15	5	10	5	15	5	10
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	2	3	2	3	2	3	2
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)								5
Flash Don't Walk (s)								16
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	33	41	74	7	33	41	74	7
End Time (s)	41	74	7	33	41	74	7	33
Yield/Force Off (s)	38	69	4	28	38	69	4	28
Yield/Force Off 170(s)	38	69	4	28	38	69	4	12
Local Start Time (s)	39	47	5	13	39	47	5	13
Local Yield (s)	44	0	10	34	44	0	10	34
Local Yield 170(s)	44	0	10	34	44	0	10	18

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	65
Offset: 69 (92%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 19: 11th St. & 2nd Ave.

α1	α2	α3	α4
8 s	33 s	8 s	26 s
α5	α6	α7	α8
8 s	33 s	8 s	26 s

Timing Report, Sorted By Phase
 22: 16th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	6	8
Movement	SBL	NBTL	WBTL	SBTL	EBTL
Lead/Lag	Lead	Lag			
Lead-Lag Optimize	Yes	Yes			
Recall Mode	None	C-Max	None	C-Max	None
Maximum Split (s)	8	39	28	47	28
Maximum Split (%)	10.7%	52.0%	37.3%	62.7%	37.3%
Minimum Split (s)	8	19	26	19	26
Yellow Time (s)	3	4.5	4.5	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0.5	0.5
Minimum Initial (s)	5	11	10	11	10
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	2	2	2	2
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)		5	5	5	5
Flash Dont Walk (s)		9	16	9	16
Dual Entry	No	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	71	4	43	71	43
End Time (s)	4	43	71	43	71
Yield/Force Off (s)	1	38	66	38	66
Yield/Force Off 170(s)	1	29	50	29	50
Local Start Time (s)	42	50	14	42	14
Local Yield (s)	47	9	37	9	37
Local Yield 170(s)	47	0	21	0	21

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 29 (39%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 22: 16th St. & 2nd Ave.

01	02	04
8 s	39 s	28 s
06	08	
47 s	28 s	

Timing Report, Sorted By Phase
 25: 22nd St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	NBL	SBTL	WBTL	SBL	NBTL	EBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min	None	None	C-Min	None
Maximum Split (s)	8	41	26	8	41	26
Maximum Split (%)	10.7%	54.7%	34.7%	10.7%	54.7%	34.7%
Minimum Split (s)	8	20	26	8	20	26
Yellow Time (s)	3	4.5	4.5	3	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0.5
Minimum Initial (s)	5	14	7	5	14	7
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		10	16		10	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	27	35	1	27	35	1
End Time (s)	35	1	27	35	1	27
Yield/Force Off (s)	32	71	22	32	71	22
Yield/Force Off 170(s)	32	61	6	32	61	6
Local Start Time (s)	31	39	5	31	39	5
Local Yield (s)	36	0	26	36	0	26
Local Yield 170(s)	36	65	10	36	65	10

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 71 (95%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 25: 22nd St. & 2nd Ave.

01	02	04
8 s	41 s	26 s
05	06	08
8 s	41 s	26 s

Timing Report, Sorted By Phase

28: 25th St. & 5th Ave.

10/27/2005



Phase Number	2	4	6	8
Movement	EBTL	SBTL	WBTL	NBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	Max	C-Max	Max
Maximum Split (s)	45	30	45	30
Maximum Split (%)	60.0%	40.0%	60.0%	40.0%
Minimum Split (s)	19	29	19	29
Yellow Time (s)	4.5	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Minimum Initial (s)	13	10	13	10
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	2	3	2	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	19	9	19
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	66	36	66	36
End Time (s)	36	66	36	66
Yield/Force Off (s)	31	61	31	61
Yield/Force Off 170(s)	22	42	22	42
Local Start Time (s)	44	14	44	14
Local Yield (s)	9	39	9	39
Local Yield 170(s)	0	20	0	20

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 22 (29%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 28: 25th St. & 5th Ave.

→ ø2	↓ ø4
45 s	30 s
← ø6	↑ ø8
45 s	30 s

Timing Report, Sorted By Phase
 29: 25th St. & Central Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	41	26	8	41	26
Maximum Split (%)	10.7%	54.7%	34.7%	10.7%	54.7%	34.7%
Minimum Split (s)	8	22	26	8	22	26
Yellow Time (s)	3	4.5	4.5	3	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0.5
Minimum Initial (s)	5	12	12	5	12	12
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		12	16		12	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	16	24	65	16	24	65
End Time (s)	24	65	16	24	65	16
Yield/Force Off (s)	21	60	11	21	60	11
Yield/Force Off 170(s)	21	48	70	21	48	70
Local Start Time (s)	43	51	17	43	51	17
Local Yield (s)	48	12	38	48	12	38
Local Yield 170(s)	48	0	22	48	0	22

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 48 (64%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 29: 25th St. & Central Ave.

ø1	ø2	ø4
8 s	41 s	26 s
ø5	ø6	ø8
8 s	41 s	26 s

Timing Report, Sorted By Phase

32: 31st St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	6	8
Movement	SBL	NBTL	EBTL	SBTL	WBTL
Lead/Lag	Lead	Lag			
Lead-Lag Optimize					
Recall Mode	None	C-Max	None	C-Max	None
Maximum Split (s)	8	41	26	49	26
Maximum Split (%)	10.7%	54.7%	34.7%	65.3%	34.7%
Minimum Split (s)	8	19	26	19	26
Yellow Time (s)	3	4.5	4	4.5	4
All-Red Time (s)	0	0.5	1	0.5	1
Minimum Initial (s)	5	13	15	13	15
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)		5	5	5	5
Flash Dont Walk (s)		9	16	9	16
Dual Entry	No	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	15	23	64	15	64
End Time (s)	23	64	15	64	15
Yield/Force Off (s)	20	59	10	59	10
Yield/Force Off 170(s)	20	50	69	50	69
Local Start Time (s)	40	48	14	40	14
Local Yield (s)	45	9	35	9	35
Local Yield 170(s)	45	0	19	0	19

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 50 (67%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

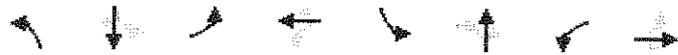
Splits and Phases: 32: 31st St. & 2nd Ave.

ø1	ø2	ø4
8 s	41 s	26 s
ø6		ø8
49 s		26 s

Timing Report, Sorted By Phase

35: 39th St & 2nd Ave.

10/27/2005



Phase Number	1	2	3	4	5	6	7	8
Movement	NBL	SBTL	EBL	WBTL	SBL	NBTL	WBL	EBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize								
Recall Mode	None	C-Max	None	None	None	C-Max	None	None
Maximum Split (s)	13	28	8	26	10	31	8	26
Maximum Split (%)	17.3%	37.3%	10.7%	34.7%	13.3%	41.3%	10.7%	34.7%
Minimum Split (s)	8	26	8	26	8	26	8	26
Yellow Time (s)	3	4.5	3	4.5	3	4.5	3	4.5
All-Red Time (s)	0	0.5	0	0.5	0	0.5	0	0.5
Minimum Initial (s)	5	15	5	10	5	10	5	10
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		5		5		5		5
Flash Dont Walk (s)		16		16		16		16
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	58	71	24	32	58	68	24	32
End Time (s)	71	24	32	58	68	24	32	58
Yield/Force Off (s)	68	19	29	53	65	19	29	53
Yield/Force Off 170(s)	68	3	29	37	65	3	29	37
Local Start Time (s)	55	68	21	29	55	65	21	29
Local Yield (s)	65	16	26	50	62	16	26	50
Local Yield 170(s)	65	0	26	34	62	0	26	34

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	70
Offset: 3 (4%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 35: 39th St & 2nd Ave.

α1	α2	α3	α4
13 s	28 s	8 s	26 s
α5	α6	α7	α8
10 s	31 s	8 s	26 s

Timing Report, Sorted By Phase

36: 39th St & Ave. E

10/27/2005

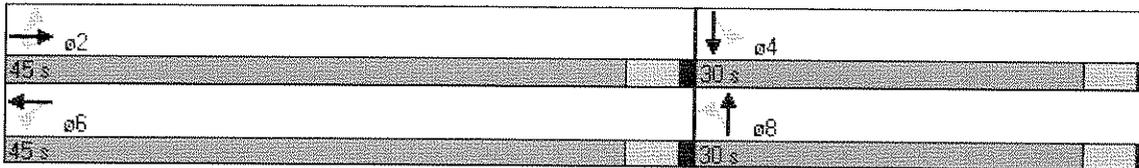


Phase Number	2	4	6	8
Movement	EBTL	SBTL	WBTL	NBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	None	Max	None	Max
Maximum Split (s)	45	30	45	30
Maximum Split (%)	60.0%	40.0%	60.0%	40.0%
Minimum Split (s)	18.5	21.5	18.5	21.5
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	13.5	10	13.5	10
Vehicle Extension (s)	4	4	4	4
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	12	9	12
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	45	0	45
End Time (s)	45	0	45	0
Yield/Force Off (s)	40.5	70.5	40.5	70.5
Yield/Force Off 170(s)	31.5	58.5	31.5	58.5
Local Start Time (s)	43.5	13.5	43.5	13.5
Local Yield (s)	9	39	9	39
Local Yield 170(s)	0	27	0	27

Intersection Summary

Cycle Length	75
Control Type	Actuated-Uncoordinated
Natural Cycle	40

Splits and Phases: 36: 39th St & Ave. E



Timing Report, Sorted By Phase

37: 39th St & 6th Ave.

10/27/2005

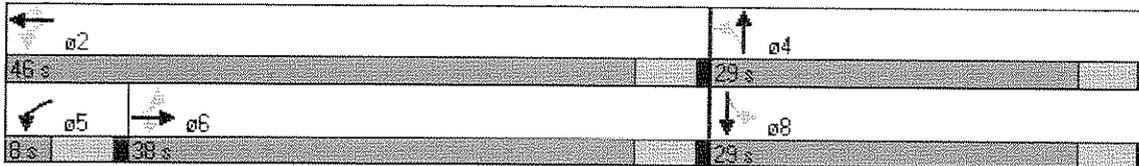


Phase Number	2	4	5	6	8
Movement	WBTL	NBTL	WBL	EBTL	SBTL
Lead/Lag			Lead	Lag	
Lead-Lag Optimize			Yes	Yes	
Recall Mode	C-Min	None	None	C-Min	None
Maximum Split (s)	46	29	8	38	29
Maximum Split (%)	61.3%	38.7%	10.7%	50.7%	38.7%
Minimum Split (s)	22	27	7	22	27
Yellow Time (s)	4	4	4	4	4
All-Red Time (s)	1	1	1	1	1
Minimum Initial (s)	14	10	2	14	10
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)	7	7		7	7
Flash Dont Walk (s)	10	15		10	15
Dual Entry	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	58	29	58	66	29
End Time (s)	29	58	66	29	58
Yield/Force Off (s)	24	53	61	24	53
Yield/Force Off 170(s)	14	38	61	14	38
Local Start Time (s)	34	5	34	42	5
Local Yield (s)	0	29	37	0	29
Local Yield 170(s)	65	14	37	65	14

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 24 (32%), Referenced to phase 2:WBTL and 6:EBTL, Start of FDW or yellow	

Splits and Phases: 37: 39th St & 6th Ave.



Timing Report, Sorted By Phase

38: 44th St. & 2nd Ave.

10/27/2005



Phase Number	2	4	6	8
Movement	SBTL	WBTL	NBTL	EBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	49	26	49	26
Maximum Split (%)	65.3%	34.7%	65.3%	34.7%
Minimum Split (s)	19	26	19	26
Yellow Time (s)	4.5	4	4.5	4
All-Red Time (s)	0.5	1	0.5	1
Minimum Initial (s)	13	15	13	15
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	16	9	16
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	16	65	16	65
End Time (s)	65	16	65	16
Yield/Force Off (s)	60	11	60	11
Yield/Force Off 170(s)	51	70	51	70
Local Start Time (s)	40	14	40	14
Local Yield (s)	9	35	9	35
Local Yield 170(s)	0	19	0	19

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 51 (68%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 38: 44th St. & 2nd Ave.

ø2	ø4
49 s	26 s
ø6	ø8
49 s	26 s

Timing Report, Sorted By Phase

41: 48th St. & 2nd Ave.

10/27/2005



Phase Number	2	4	6	8
Movement	SBTL	WBTL	NBTL	EBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	49	26	49	26
Maximum Split (%)	65.3%	34.7%	65.3%	34.7%
Minimum Split (s)	19	26	19	26
Yellow Time (s)	4.5	4	4.5	4
All-Red Time (s)	0.5	1	0.5	1
Minimum Initial (s)	13	15	13	15
Vehicle Extension (s)	3	2	3	2
Minimum Gap (s)	3	2	3	2
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	16	9	16
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	30	4	30	4
End Time (s)	4	30	4	30
Yield/Force Off (s)	74	25	74	25
Yield/Force Off 170(s)	65	9	65	9
Local Start Time (s)	40	14	40	14
Local Yield (s)	9	35	9	35
Local Yield 170(s)	0	19	0	19

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	50
Offset: 65 (87%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 41: 48th St. & 2nd Ave.

 49 s	 26 s
 49 s	 26 s

Timing Report, Sorted By Phase

44: 56th St. & 2nd Ave.

10/27/2005



Phase Number	2	4	6	8
Movement	NBTL	EBTL	SBTL	WBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	49	26	49	26
Maximum Split (%)	65.3%	34.7%	65.3%	34.7%
Minimum Split (s)	26	26	26	26
Yellow Time (s)	4.5	4	4.5	4
All-Red Time (s)	0.5	1	0.5	1
Minimum Initial (s)	15	15	15	15
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	2	2	2	2
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	16	16	16	16
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	48	22	48	22
End Time (s)	22	48	22	48
Yield/Force Off (s)	17	43	17	43
Yield/Force Off 170(s)	1	27	1	27
Local Start Time (s)	47	21	47	21
Local Yield (s)	16	42	16	42
Local Yield 170(s)	0	26	0	26

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 1 (1%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 44: 56th St. & 2nd Ave.

 49 s	 26 s
 49 s	 26 s

Timing Report, Sorted By Phase

50: 24th St. & 30th Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	SBL	NBTL	EBTL	NBL	SBTL	WBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	Max	None	None	Max	None
Maximum Split (s)	12	24	24	12	24	24
Maximum Split (%)	20.0%	40.0%	40.0%	20.0%	40.0%	40.0%
Minimum Split (s)	8	20	20	8	20	20
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Minimum Initial (s)	4	4	4	4	4	4
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		11	11		11	11
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	12	36	0	12	36
End Time (s)	12	36	0	12	36	0
Yield/Force Off (s)	8	32	56	8	32	56
Yield/Force Off 170(s)	8	21	45	8	21	45
Local Start Time (s)	39	51	15	39	51	15
Local Yield (s)	47	11	35	47	11	35
Local Yield 170(s)	47	0	24	47	0	24

Intersection Summary

Cycle Length	60
Control Type	Actuated-Uncoordinated
Natural Cycle	50

Splits and Phases: 50: 24th St. & 30th Ave.

01	02	04
12 s	24 s	24 s
05	06	08
12 s	24 s	24 s

Timing Report, Sorted By Phase

58: 25th St. & Ave. A

10/27/2005



Phase Number	2	4	6	8
Movement	EBTL	SBTL	WBTL	NBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	49	26	49	26
Maximum Split (%)	65.3%	34.7%	65.3%	34.7%
Minimum Split (s)	22	26	22	26
Yellow Time (s)	4.5	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Minimum Initial (s)	15	12	7	12
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	12	16	12	16
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	24	73	24	73
End Time (s)	73	24	73	24
Yield/Force Off (s)	68	19	68	19
Yield/Force Off 170(s)	56	3	56	3
Local Start Time (s)	43	17	43	17
Local Yield (s)	12	38	12	38
Local Yield 170(s)	0	22	0	22

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 56 (75%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 58: 25th St. & Ave. A

→ ø2	↓ ø4
49 s	26 s
← ø6	↑ ø8
49 s	26 s

Timing Report, Sorted By Phase

61: 25th St. & Ave. E

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes		Yes			
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	41	26	8	41	26
Maximum Split (%)	10.7%	54.7%	34.7%	10.7%	54.7%	34.7%
Minimum Split (s)	8	22	26	8	22	26
Yellow Time (s)	3	4.5	4.5	3	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0.5
Minimum Initial (s)	4	16	9	4	16	9
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		12	16		12	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	53	61	27	53	61	27
End Time (s)	61	27	53	61	27	53
Yield/Force Off (s)	58	22	48	58	22	48
Yield/Force Off 170(s)	58	10	32	58	10	32
Local Start Time (s)	43	51	17	43	51	17
Local Yield (s)	48	12	38	48	12	38
Local Yield 170(s)	48	0	22	48	0	22

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 10 (13%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 61: 25th St. & Ave. E

ø1	ø2	ø4
8 s	41 s	26 s
ø5	ø6	ø8
8 s	41 s	26 s

Timing Report, Sorted By Phase

64: 25th St. & Ave. G

10/27/2005

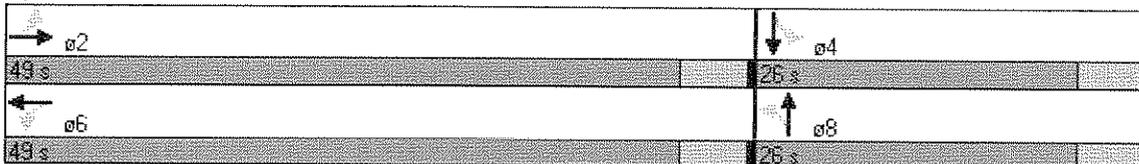


Phase Number	2	4	6	8
Movement	EBTL	SBTL	WBTL	NBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	49	26	49	26
Maximum Split (%)	65.3%	34.7%	65.3%	34.7%
Minimum Split (s)	22	26	22	26
Yellow Time (s)	4.5	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Minimum Initial (s)	15	10	15	10
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	12	16	12	16
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	3	52	3	52
End Time (s)	52	3	52	3
Yield/Force Off (s)	47	73	47	73
Yield/Force Off 170(s)	35	57	35	57
Local Start Time (s)	43	17	43	17
Local Yield (s)	12	38	12	38
Local Yield 170(s)	0	22	0	22

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	50
Offset: 35 (47%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 64: 25th St. & Ave. G



Timing Report, Sorted By Phase
67: 25th St. & Ave. M

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	10	40	25	10	40	25
Maximum Split (%)	13.3%	53.3%	33.3%	13.3%	53.3%	33.3%
Minimum Split (s)	8	21	15	8	21	15
Yellow Time (s)	3	4.5	4.5	3	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0.5
Minimum Initial (s)	5	15	10	5	15	10
Vehicle Extension (s)	3	2	2	3	2	2
Minimum Gap (s)	3	2	2	3	2	2
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5			5	
Flash Dont Walk (s)		11			11	
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	58	68	33	58	68	33
End Time (s)	68	33	58	68	33	58
Yield/Force Off (s)	65	28	53	65	28	53
Yield/Force Off 170(s)	65	17	53	65	17	53
Local Start Time (s)	41	51	16	41	51	16
Local Yield (s)	48	11	36	48	11	36
Local Yield 170(s)	48	0	36	48	0	36

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 17 (23%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 67: 25th St. & Ave. M

01	02	04
10 s	40 s	25 s
05	06	08
10 s	40 s	25 s

Timing Report, Sorted By Phase

72: 39th St & 17th Ave

10/27/2005

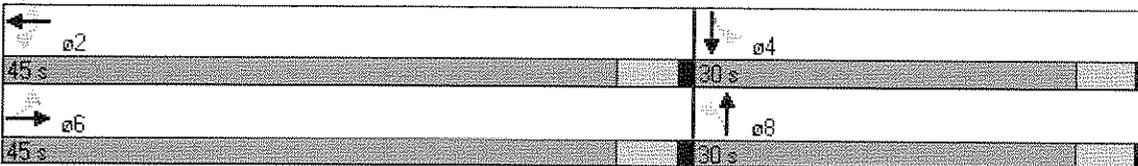


Phase Number	2	4	6	8
Movement	WBTL	SBTL	EBTL	NBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	Max	C-Max	Max
Maximum Split (s)	45	30	45	30
Maximum Split (%)	60.0%	40.0%	60.0%	40.0%
Minimum Split (s)	19	22	19	22
Yellow Time (s)	4	4	4	4
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	13	10	13	10
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	12	9	12
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	68	38	68	38
End Time (s)	38	68	38	68
Yield/Force Off (s)	33	63	33	63
Yield/Force Off 170(s)	24	51	24	51
Local Start Time (s)	44	14	44	14
Local Yield (s)	9	39	9	39
Local Yield 170(s)	0	27	0	27

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 24 (32%), Referenced to phase 2:WBTL and 6:EBTL, Start of FDW or yellow	

Splits and Phases: 72: 39th St & 17th Ave



Timing Report, Sorted By Phase

78: 39th St & Ave. N

10/27/2005

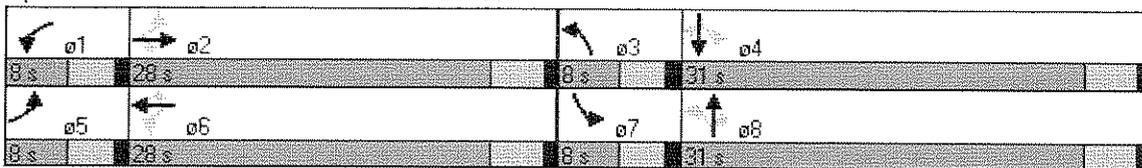


Phase Number	1	2	3	4	5	6	7	8
Movement	WBL	EBTL	NBL	SBTL	EBL	WBTL	SBL	NBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	None	None	Max	None	None	None	Max
Maximum Split (s)	8	28	8	31	8	28	8	31
Maximum Split (%)	10.7%	37.3%	10.7%	41.3%	10.7%	37.3%	10.7%	41.3%
Minimum Split (s)	7	24.5	7	25	7	24.5	7	25
Yellow Time (s)	3	3.5	3	3.5	3	3.5	3	3.5
All-Red Time (s)	1	1	1	1	1	1	1	1
Minimum Initial (s)	3	15	3	10	3	15	3	10
Vehicle Extension (s)	5	3	5	3	5	3	5	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		5		5		5		5
Flash Dont Walk (s)		15		15		15		15
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	0	8	36	44	0	8	36	44
End Time (s)	8	36	44	0	8	36	44	0
Yield/Force Off (s)	4	31.5	40	70.5	4	31.5	40	70.5
Yield/Force Off 170(s)	4	16.5	40	55.5	4	16.5	40	55.5
Local Start Time (s)	58.5	66.5	19.5	27.5	58.5	66.5	19.5	27.5
Local Yield (s)	62.5	15	23.5	54	62.5	15	23.5	54
Local Yield 170(s)	62.5	0	23.5	39	62.5	0	23.5	39

Intersection Summary

Cycle Length	75
Control Type	Actuated-Uncoordinated
Natural Cycle	65

Splits and Phases: 78: 39th St & Ave. N



Timing Report, Sorted By Phase

83: 33rd St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	SBL	NBTL	WBTL	NBL	SBTL	EBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	38	29	8	38	29
Maximum Split (%)	10.7%	50.7%	38.7%	10.7%	50.7%	38.7%
Minimum Split (s)	8	22	29	8	22	29
Yellow Time (s)	3	4.5	4	3	4.5	4
All-Red Time (s)	0	0.5	1	0	0.5	1
Minimum Initial (s)	5	15	10	5	15	10
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		12	19		12	19
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	26	34	72	26	34	72
End Time (s)	34	72	26	34	72	26
Yield/Force Off (s)	31	67	21	31	67	21
Yield/Force Off 170(s)	31	55	2	31	55	2
Local Start Time (s)	46	54	17	46	54	17
Local Yield (s)	51	12	41	51	12	41
Local Yield 170(s)	51	0	22	51	0	22

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 55 (73%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 83: 33rd St. & 2nd Ave.

ø1	ø2	ø4
8 s	38 s	29 s
ø5	ø6	ø8
8 s	38 s	29 s

Timing Report, Sorted By Phase

91: 39th St & 11th St.

10/27/2005

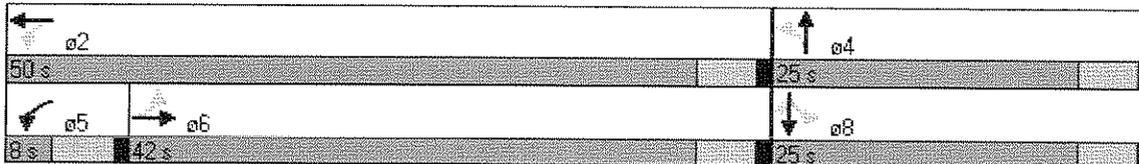


Phase Number	2	4	5	6	8
Movement	WBTL	NBTL	WBL	EBTL	SBTL
Lead/Lag			Lead	Lag	
Lead-Lag Optimize			Yes	Yes	
Recall Mode	C-Max	None	None	C-Max	None
Maximum Split (s)	50	25	8	42	25
Maximum Split (%)	66.7%	33.3%	10.7%	56.0%	33.3%
Minimum Split (s)	22	25	8	22	25
Yellow Time (s)	4	4	4	4	4
All-Red Time (s)	1	1	1	1	1
Minimum Initial (s)	15	7	3	15	7
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)	5	5		5	5
Flash Dont Walk (s)	12	15		12	15
Dual Entry	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	33	8	33	41	8
End Time (s)	8	33	41	8	33
Yield/Force Off (s)	3	28	36	3	28
Yield/Force Off 170(s)	66	13	36	66	13
Local Start Time (s)	42	17	42	50	17
Local Yield (s)	12	37	45	12	37
Local Yield 170(s)	0	22	45	0	22

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 66 (88%), Referenced to phase 2:WBTL and 6:EBTL, Start of FDW or yellow	

Splits and Phases: 91: 39th St & 11th St.



Timing Report, Sorted By Phase

94: 52nd St & 2nd Ave.

10/27/2005



Phase Number	2	4	6
Movement	SBTL	WBL	NBT
Lead/Lag			
Lead-Lag Optimize			
Recall Mode	C-Max	None	C-Max
Maximum Split (s)	50	25	50
Maximum Split (%)	66.7%	33.3%	66.7%
Minimum Split (s)	21	20	21
Yellow Time (s)	4.5	4	4.5
All-Red Time (s)	0.5	1	0.5
Minimum Initial (s)	15	15	15
Vehicle Extension (s)	3	3	3
Minimum Gap (s)	3	3	3
Time Before Reduce (s)	0	0	0
Time To Reduce (s)	0	0	0
Walk Time (s)	5		5
Flash Dont Walk (s)	11		11
Dual Entry	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes
Start Time (s)	36	11	36
End Time (s)	11	36	11
Yield/Force Off (s)	6	31	6
Yield/Force Off 170(s)	70	31	70
Local Start Time (s)	41	16	41
Local Yield (s)	11	36	11
Local Yield 170(s)	0	36	0

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 70 (93%), Referenced to phase 2:SBTL and 6:NBT, Start of FDW or yellow	

Splits and Phases: 94: 52nd St & 2nd Ave.

↓ a2 50 s	↙ a4 25 s
↑ a6 50 s	



APPENDIX N

ALTERNATIVE NETWORK PM TIMING PLANS

Alternative Network PM Timing Plans

Timing Report, Sorted By Phase
1: 25th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	3	4	5	6	7	8
Movement	WBL	EBTL	NBL	SBTL	EBL	WBTL	SBL	NBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	None	None	C-Max	None	None	None	C-Max
Maximum Split (s)	8	27	9	31	8	27	11	29
Maximum Split (%)	10.7%	36.0%	12.0%	41.3%	10.7%	36.0%	14.7%	38.7%
Minimum Split (s)	8	26	8	29	8	26	8	29
Yellow Time (s)	3.5	4	3	4	3	4	3	4
All-Red Time (s)	0.5	1	0	1	0	1	0	1
Minimum Initial (s)	4	15	5	15	5	15	5	15
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		5		5		5		5
Flash Dont Walk (s)		16		19		16		19
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	24	32	59	68	24	32	59	70
End Time (s)	32	59	68	24	32	59	70	24
Yield/Force Off (s)	28	54	65	19	29	54	67	19
Yield/Force Off 170(s)	28	38	65	0	29	38	67	0
Local Start Time (s)	24	32	59	68	24	32	59	70
Local Yield (s)	28	54	65	19	29	54	67	19
Local Yield 170(s)	28	38	65	0	29	38	67	0

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	75
Offset: 0 (0%), Referenced to phase 4:SBTL and 8:NBTL, Start of FDW or yellow, Master Intersection	

Splits and Phases: 1: 25th St. & 2nd Ave.

01	02	03	04
8 s	27 s	9 s	31 s
05	06	07	08
8 s	27 s	11 s	29 s

Timing Report, Sorted By Phase
2: 29th St. & 2nd Ave.

10/27/2005

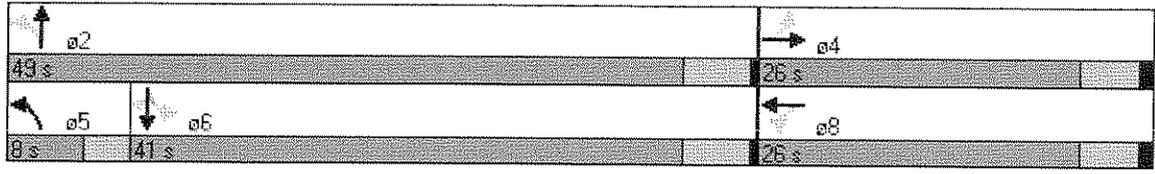


Phase Number	2	4	5	6	8
Movement	NBTL	EBTL	NBL	SBTL	WBTL
Lead/Lag			Lead	Lag	
Lead-Lag Optimize					
Recall Mode	C-Max	None	None	C-Max	None
Maximum Split (s)	49	26	8	41	26
Maximum Split (%)	65.3%	34.7%	10.7%	54.7%	34.7%
Minimum Split (s)	19	26	8	19	26
Yellow Time (s)	4.5	4	3	4.5	4
All-Red Time (s)	0.5	1	0	0.5	1
Minimum Initial (s)	13	15	5	13	15
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)	5	5		5	5
Flash Dont Walk (s)	9	16		9	16
Dual Entry	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	18	67	18	26	67
End Time (s)	67	18	26	67	18
Yield/Force Off (s)	62	13	23	62	13
Yield/Force Off 170(s)	53	72	23	53	72
Local Start Time (s)	40	14	40	48	14
Local Yield (s)	9	35	45	9	35
Local Yield 170(s)	0	19	45	0	19

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 53 (71%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 2: 29th St. & 2nd Ave.



Timing Report, Sorted By Phase
 3: SW Ramp & 2nd Ave.

10/27/2005



Phase Number	1	2	3	6	8
Movement	SBL	NBT	EBL	SBTL	EBR
Lead/Lag	Lead	Lag			
Lead-Lag Optimize	Yes	Yes			
Recall Mode	None	C-Max	None	C-Max	None
Maximum Split (s)	15	34	26	49	26
Maximum Split (%)	20.0%	45.3%	34.7%	65.3%	34.7%
Minimum Split (s)	15	19	20	19	26
Yellow Time (s)	3	4.5	4.5	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0.5	0.5
Minimum Initial (s)	10	13	15	13	15
Vehicle Extension (s)	3	2	3	2	3
Minimum Gap (s)	3	2	3	2	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)		5		5	5
Flash Dont Walk (s)		9		9	16
Dual Entry	No	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	59	74	33	59	33
End Time (s)	74	33	59	33	59
Yield/Force Off (s)	71	28	54	28	54
Yield/Force Off 170(s)	71	19	54	19	38
Local Start Time (s)	40	55	14	40	14
Local Yield (s)	52	9	35	9	35
Local Yield 170(s)	52	0	35	0	19

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 19 (25%), Referenced to phase 2:NBT and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 3: SW Ramp & 2nd Ave.

01	02	03
15 s	34 s	26 s
06		08
49 s		26 s

Timing Report, Sorted By Phase
7: NW Ramp & 2nd Ave.

10/27/2005



Phase Number	2	4	6
Movement	NBTL	WBTL	SBT
Lead/Lag			
Lead-Lag Optimize			
Recall Mode	C-Max	None	C-Max
Maximum Split (s)	50	25	50
Maximum Split (%)	66.7%	33.3%	66.7%
Minimum Split (s)	19	25	19
Yellow Time (s)	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5
Minimum Initial (s)	13	15	13
Vehicle Extension (s)	2	3	2
Minimum Gap (s)	2	3	2
Time Before Reduce (s)	0	0	0
Time To Reduce (s)	0	0	0
Walk Time (s)	5		5
Flash Dont Walk (s)	9		9
Dual Entry	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes
Start Time (s)	34	9	34
End Time (s)	9	34	9
Yield/Force Off (s)	4	29	4
Yield/Force Off 170(s)	70	29	70
Local Start Time (s)	39	14	39
Local Yield (s)	9	34	9
Local Yield 170(s)	0	34	0

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 70 (93%), Referenced to phase 2:NBTL and 6:SBT, Start of FDW or yellow	

Splits and Phases: 7: NW Ramp & 2nd Ave.



Timing Report, Sorted By Phase
 10: Talmadge St. & 2nd Ave.

10/27/2005



Phase Number	2	4	6	8
Movement	NBTL	WBTL	SBTL	EBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	46	29	46	29
Maximum Split (%)	61.3%	38.7%	61.3%	38.7%
Minimum Split (s)	19	29	19	29
Yellow Time (s)	4.5	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Minimum Initial (s)	13	10	13	10
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	19	9	19
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	30	1	30	1
End Time (s)	1	30	1	30
Yield/Force Off (s)	71	25	71	25
Yield/Force Off 170(s)	62	6	62	6
Local Start Time (s)	43	14	43	14
Local Yield (s)	9	38	9	38
Local Yield 170(s)	0	19	0	19

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	50
Offset: 62 (83%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 10: Talmadge St. & 2nd Ave.

↑ φ2 46 s	← φ4 29 s
↓ φ6 46 s	→ φ8 29 s

Timing Report, Sorted By Phase
13: 4th St. & 2nd Ave.

10/27/2005



Phase Number	2	4	5	6	8
Movement	SBTL	EBTL	SBL	NBTL	WBTL
Lead/Lag			Lead	Lag	
Lead-Lag Optimize			Yes	Yes	
Recall Mode	C-Max	None	None	C-Max	None
Maximum Split (s)	53	22	8	45	22
Maximum Split (%)	70.7%	29.3%	10.7%	60.0%	29.3%
Minimum Split (s)	19	15	8	19	15
Yellow Time (s)	4.5	4	3	4.5	4
All-Red Time (s)	0.5	1	0	0.5	1
Minimum Initial (s)	10	10	5	10	10
Vehicle Extension (s)	2	3	3	2	3
Minimum Gap (s)	2	3	3	2	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)	5			5	
Flash Dont Walk (s)	9			9	
Dual Entry	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	62	40	62	70	40
End Time (s)	40	62	70	40	62
Yield/Force Off (s)	35	57	67	35	57
Yield/Force Off 170(s)	26	57	67	26	57
Local Start Time (s)	36	14	36	44	14
Local Yield (s)	9	31	41	9	31
Local Yield 170(s)	0	31	41	0	31

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 26 (35%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 13: 4th St. & 2nd Ave.



Timing Report, Sorted By Phase
 16: 8th St. & 2nd Ave.

10/27/2005



Phase Number	2	4	6	8
Movement	SBTL	EBTL	NBTL	WBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	53	22	53	22
Maximum Split (%)	70.7%	29.3%	70.7%	29.3%
Minimum Split (s)	19	15	19	15
Yellow Time (s)	4.5	4	4.5	4
All-Red Time (s)	0.5	1	0.5	1
Minimum Initial (s)	10	10	10	10
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	2	3	2	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5		5	
Flash Dont Walk (s)	9		9	
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	50	28	50	28
End Time (s)	28	50	28	50
Yield/Force Off (s)	23	45	23	45
Yield/Force Off 170(s)	14	45	14	45
Local Start Time (s)	36	14	36	14
Local Yield (s)	9	31	9	31
Local Yield 170(s)	0	31	0	31

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	40
Offset: 14 (19%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 16: 8th St. & 2nd Ave.

a2 53 s	a4 22 s
a6 53 s	a8 22 s

Timing Report, Sorted By Phase
 19: 11th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	3	4	5	6	7	8
Movement	NBL	SBTL	EBL	WBTL	SBL	NBTL	WBL	EBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	C-Max	None	None	None	C-Max	None	None
Maximum Split (s)	8	33	8	26	8	33	8	26
Maximum Split (%)	10.7%	44.0%	10.7%	34.7%	10.7%	44.0%	10.7%	34.7%
Minimum Split (s)	8	20	8	15	8	20	8	26
Yellow Time (s)	3	4.5	3	4.5	3	4.5	3	4.5
All-Red Time (s)	0	0.5	0	0.5	0	0.5	0	0.5
Minimum Initial (s)	5	15	5	10	5	15	5	10
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	2	3	2	3	2	3	2
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)								5
Flash Dght Walk (s)								16
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	34	42	0	8	34	42	0	8
End Time (s)	42	0	8	34	42	0	8	34
Yield/Force Off (s)	39	70	5	29	39	70	5	29
Yield/Force Off 170(s)	39	70	5	29	39	70	5	13
Local Start Time (s)	39	47	5	13	39	47	5	13
Local Yield (s)	44	0	10	34	44	0	10	34
Local Yield 170(s)	44	0	10	34	44	0	10	18

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	65
Offset: 70 (93%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 19: 11th St. & 2nd Ave.

ø1	ø2	ø3	ø4
8 s	33 s	8 s	26 s
ø5	ø6	ø7	ø8
8 s	33 s	8 s	26 s

Timing Report, Sorted By Phase
 22: 16th St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	6	8
Movement	SBL	NBTL	WBTL	SBTL	EBTL
Lead/Lag	Lead	Lag			
Lead-Lag Optimize	Yes	Yes			
Recall Mode	None	C-Max	None	C-Max	None
Maximum Split (s)	8	39	28	47	28
Maximum Split (%)	10.7%	52.0%	37.3%	62.7%	37.3%
Minimum Split (s)	8	19	26	19	26
Yellow Time (s)	3	4.5	4.5	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0.5	0.5
Minimum Initial (s)	5	11	10	11	10
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	2	2	2	2
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)		5	5	5	5
Flash Dont Walk (s)		9	16	9	16
Dual Entry	No	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	66	74	38	66	38
End Time (s)	74	38	66	38	66
Yield/Force Off (s)	71	33	61	33	61
Yield/Force Off 170(s)	71	24	45	24	45
Local Start Time (s)	42	50	14	42	14
Local Yield (s)	47	9	37	9	37
Local Yield 170(s)	47	0	21	0	21

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 24 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 22: 16th St. & 2nd Ave.

a1	a2	a4
8 s	39 s	28 s
a6	a8	
47 s	28 s	

Timing Report, Sorted By Phase
 25: 22nd St. & 2nd Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	NBL	SBTL	WBTL	SBL	NBTL	EBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min	None	None	C-Min	None
Maximum Split (s)	10	39	26	9	40	26
Maximum Split (%)	13.3%	52.0%	34.7%	12.0%	53.3%	34.7%
Minimum Split (s)	8	20	26	8	20	26
Yellow Time (s)	3	4.5	4.5	3	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0.5
Minimum Initial (s)	5	14	7	5	14	7
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		10	16		10	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	22	32	71	22	31	71
End Time (s)	32	71	22	31	71	22
Yield/Force Off (s)	29	66	17	28	66	17
Yield/Force Off 170(s)	29	56	1	28	56	1
Local Start Time (s)	31	41	5	31	40	5
Local Yield (s)	38	0	26	37	0	26
Local Yield 170(s)	38	65	10	37	65	10

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 66 (88%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 25: 22nd St. & 2nd Ave.

01	02	04
10 s	39 s	26 s
05	06	08
9 s	40 s	26 s

Timing Report, Sorted By Phase

28: 25th St. & 5th Ave.

10/27/2005

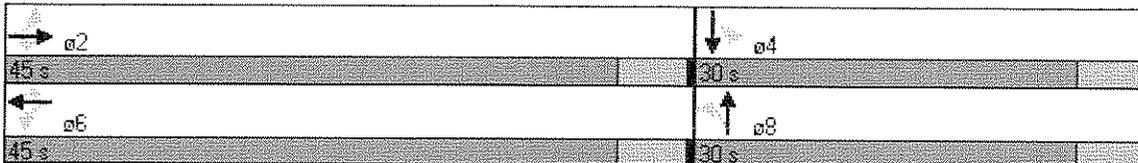


Phase Number	2	4	6	8
Movement	EBTL	SBTL	WBTL	NBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	Max	C-Max	Max
Maximum Split (s)	45	30	45	30
Maximum Split (%)	60.0%	40.0%	60.0%	40.0%
Minimum Split (s)	28	29	28	29
Yellow Time (s)	4.5	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Minimum Initial (s)	23	10	23	10
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	2	3	2	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	19	9	19
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	67	37	67	37
End Time (s)	37	67	37	67
Yield/Force Off (s)	32	62	32	62
Yield/Force Off 170(s)	23	43	23	43
Local Start Time (s)	44	14	44	14
Local Yield (s)	9	39	9	39
Local Yield 170(s)	0	20	0	20

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 23 (31%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 28: 25th St. & 5th Ave.



Timing Report, Sorted By Phase
 29: 25th St. & Central Ave.

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	41	26	8	41	26
Maximum Split (%)	10.7%	54.7%	34.7%	10.7%	54.7%	34.7%
Minimum Split (s)	8	22	26	8	22	26
Yellow Time (s)	3	4.5	4.5	3	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0.5
Minimum Initial (s)	5	12	12	5	12	12
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		12	16		12	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	15	23	64	15	23	64
End Time (s)	23	64	15	23	64	15
Yield/Force Off (s)	20	59	10	20	59	10
Yield/Force Off 170(s)	20	47	69	20	47	69
Local Start Time (s)	43	51	17	43	51	17
Local Yield (s)	48	12	38	48	12	38
Local Yield 170(s)	48	0	22	48	0	22

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 47 (63%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 29: 25th St. & Central Ave.

φ1	φ2	φ4
8 s	41 s	26 s
φ5	φ6	φ8
8 s	41 s	26 s

Timing Report, Sorted By Phase

32: 31st St. & 2nd Ave.

10/27/2005

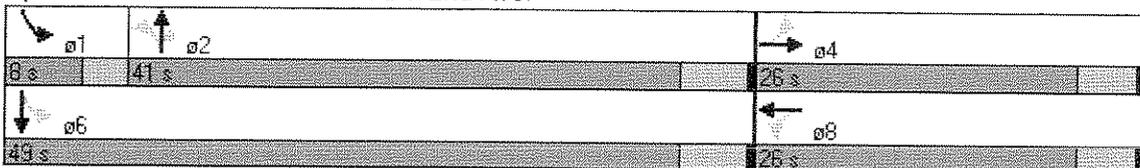


Phase Number	1	2	4	6	8
Movement	SBL	NBTL	EBTL	SBTL	WBTL
Lead/Lag	Lead	Lag			
Lead-Lag Optimize					
Recall Mode	None	C-Max	None	C-Max	None
Maximum Split (s)	8	41	26	49	26
Maximum Split (%)	10.7%	54.7%	34.7%	65.3%	34.7%
Minimum Split (s)	8	19	26	19	26
Yellow Time (s)	3	4.5	4	4.5	4
All-Red Time (s)	0	0.5	1	0.5	1
Minimum Initial (s)	5	13	15	13	15
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)		5	5	5	5
Flash Dont Walk (s)		9	16	9	16
Dual Entry	No	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	17	25	66	17	66
End Time (s)	25	66	17	66	17
Yield/Force Off (s)	22	61	12	61	12
Yield/Force Off 170(s)	22	52	71	52	71
Local Start Time (s)	40	48	14	40	14
Local Yield (s)	45	9	35	9	35
Local Yield 170(s)	45	0	19	0	19

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 52 (69%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 32: 31st St. & 2nd Ave.



Timing Report, Sorted By Phase

35: 39th St & 2nd Ave.

10/27/2005



Phase Number	1	2	3	4	5	6	7	8
Movement	NBL	SBTL	EBL	WBTL	SBL	NBTL	WBL	EBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize								
Recall Mode	None	C-Max	None	None	None	C-Max	None	None
Maximum Split (s)	15	26	8	26	11	30	8	26
Maximum Split (%)	20.0%	34.7%	10.7%	34.7%	14.7%	40.0%	10.7%	34.7%
Minimum Split (s)	8	26	8	26	8	26	8	26
Yellow Time (s)	3	4.5	3	4.5	3	4.5	3	4.5
All-Red Time (s)	0	0.5	0	0.5	0	0.5	0	0.5
Minimum Initial (s)	5	15	5	10	5	10	5	10
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		5		5		5		5
Flash Dont Walk (s)		16		16		16		16
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	26	41	67	0	26	37	67	0
End Time (s)	41	67	0	26	37	67	0	26
Yield/Force Off (s)	38	62	72	21	34	62	72	21
Yield/Force Off 170(s)	38	46	72	5	34	46	72	5
Local Start Time (s)	55	70	21	29	55	66	21	29
Local Yield (s)	67	16	26	50	63	16	26	50
Local Yield 170(s)	67	0	26	34	63	0	26	34

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	75
Offset: 46 (61%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 35: 39th St & 2nd Ave.

φ1	φ2	φ3	φ4
15 s	26 s	8 s	26 s
φ5	φ6	φ7	φ8
11 s	30 s	8 s	26 s

Timing Report, Sorted By Phase

36: 39th St & Ave. E

10/27/2005

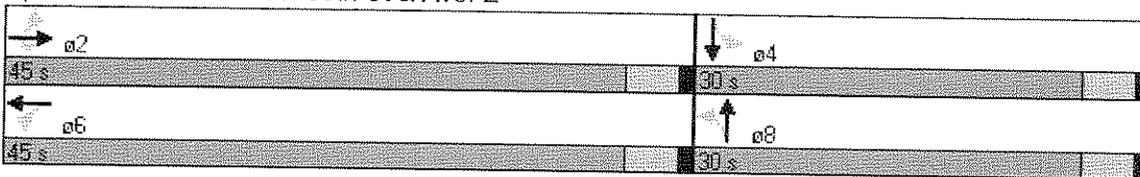


Phase Number	2	4	6	8
Movement	EBTL	SBTL	WBTL	NBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	None	Max	None	Max
Maximum Split (s)	45	30	45	30
Maximum Split (%)	60.0%	40.0%	60.0%	40.0%
Minimum Split (s)	18.5	21.5	18.5	21.5
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	13.5	10	13.5	10
Vehicle Extension (s)	4	4	4	4
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	12	9	12
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	45	0	45
End Time (s)	45	0	45	0
Yield/Force Off (s)	40.5	70.5	40.5	70.5
Yield/Force Off 170(s)	31.5	58.5	31.5	58.5
Local Start Time (s)	43.5	13.5	43.5	13.5
Local Yield (s)	9	39	9	39
Local Yield 170(s)	0	27	0	27

Intersection Summary

Cycle Length	75
Control Type	Actuated-Uncoordinated
Natural Cycle	40

Splits and Phases: 36: 39th St & Ave. E



Timing Report, Sorted By Phase

37: 39th St & 6th Ave.

10/27/2005

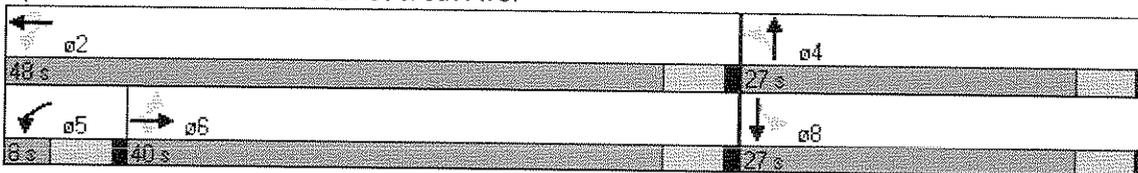


Phase Number	2	4	5	6	8
Movement	WBTL	NBTL	WBL	EBTL	SBTL
Lead/Lag			Lead	Lag	
Lead-Lag Optimize			Yes	Yes	
Recall Mode	C-Min	None	None	C-Min	None
Maximum Split (s)	48	27	8	40	27
Maximum Split (%)	64.0%	36.0%	10.7%	53.3%	36.0%
Minimum Split (s)	22	27	8	22	27
Yellow Time (s)	4	4	4	4	4
All-Red Time (s)	1	1	1	1	1
Minimum Initial (s)	15	20	3	15	20
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)	7	7		7	7
Flash Dohrt Walk (s)	10	15		10	15
Dual Entry	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	33	6	33	41	6
End Time (s)	6	33	41	6	33
Yield/Force Off (s)	1	28	36	1	28
Yield/Force Off 170(s)	66	13	36	66	13
Local Start Time (s)	32	5	32	40	5
Local Yield (s)	0	27	35	0	27
Local Yield 170(s)	65	12	35	65	12

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 1 (1%), Referenced to phase 2:WBTL and 6:EBTL, Start of FDW or yellow	

Splits and Phases: 37: 39th St & 6th Ave.



Timing Report, Sorted By Phase

38: 44th St. & 2nd Ave.

10/27/2005



Phase Number	2	4	6	8
Movement	SBTL	WBTL	NBTL	EBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	49	26	49	26
Maximum Split (%)	65.3%	34.7%	65.3%	34.7%
Minimum Split (s)	19	26	19	26
Yellow Time (s)	4.5	4	4.5	4
All-Red Time (s)	0.5	1	0.5	1
Minimum Initial (s)	13	15	13	15
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	16	9	16
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	60	34	60	34
End Time (s)	34	60	34	60
Yield/Force Off (s)	29	55	29	55
Yield/Force Off 170(s)	20	39	20	39
Local Start Time (s)	40	14	40	14
Local Yield (s)	9	35	9	35
Local Yield 170(s)	0	19	0	19

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	50
Offset: 20 (27%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 38: 44th St. & 2nd Ave.

 49 s	 26 s
 49 s	 26 s

Timing Report, Sorted By Phase

41: 48th St. & 2nd Ave.

10/27/2005

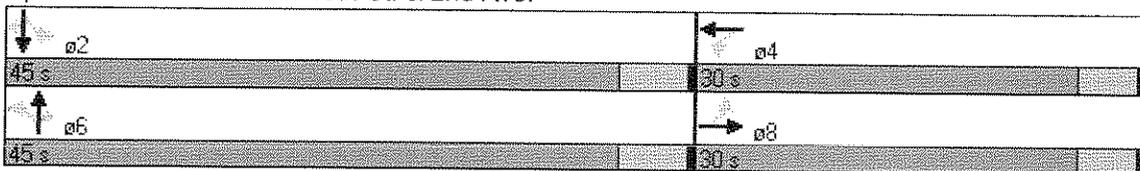


Phase Number	2	4	6	8
Movement	SBTL	WBTL	NBTL	EBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	45	30	45	30
Maximum Split (%)	60.0%	40.0%	60.0%	40.0%
Minimum Split (s)	19	26	19	26
Yellow Time (s)	4.5	4	4.5	4
All-Red Time (s)	0.5	1	0.5	1
Minimum Initial (s)	13	15	13	15
Vehicle Extension (s)	3	2	3	2
Minimum Gap (s)	3	2	3	2
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	16	9	16
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	3	48	3	48
End Time (s)	48	3	48	3
Yield/Force Off (s)	43	73	43	73
Yield/Force Off 170(s)	34	57	34	57
Local Start Time (s)	44	14	44	14
Local Yield (s)	9	39	9	39
Local Yield 170(s)	0	23	0	23

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 34 (45%), Referenced to phase 2:SBTL and 6:NBTL, Start of FDW or yellow	

Splits and Phases: 41: 48th St. & 2nd Ave.



Timing Report, Sorted By Phase

44: 56th St. & 2nd Ave.

10/27/2005

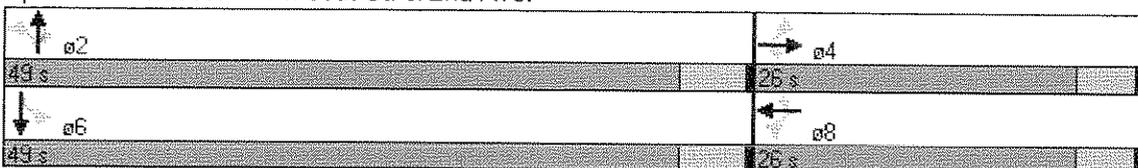


Phase Number	2	4	6	8
Movement	NBTL	EBTL	SBTL	WBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	49	26	49	26
Maximum Split (%)	65.3%	34.7%	65.3%	34.7%
Minimum Split (s)	26	26	26	26
Yellow Time (s)	4.5	4	4.5	4
All-Red Time (s)	0.5	1	0.5	1
Minimum Initial (s)	15	15	15	15
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	2	2	2	2
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	16	16	16	16
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	22	71	22	71
End Time (s)	71	22	71	22
Yield/Force Off (s)	66	17	66	17
Yield/Force Off 170(s)	50	1	50	1
Local Start Time (s)	47	21	47	21
Local Yield (s)	16	42	16	42
Local Yield 170(s)	0	26	0	26

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 50 (67%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 44: 56th St. & 2nd Ave.



Timing Report, Sorted By Phase

50: 24th St. & 30th Ave.

10/27/2005

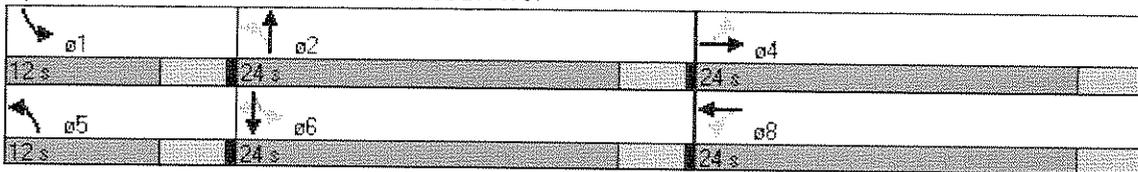


Phase Number	1	2	4	5	6	8
Movement	SBL	NBTL	EBTL	NBL	SBTL	WBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes	Yes		Yes	Yes	
Recall Mode	None	Max	None	None	Max	None
Maximum Split (s)	12	24	24	12	24	24
Maximum Split (%)	20.0%	40.0%	40.0%	20.0%	40.0%	40.0%
Minimum Split (s)	8	20	20	8	20	20
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Minimum Initial (s)	4	4	4	4	4	4
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		11	11		11	11
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	12	36	0	12	36
End Time (s)	12	36	0	12	36	0
Yield/Force Off (s)	8	32	56	8	32	56
Yield/Force Off 170(s)	8	21	45	8	21	45
Local Start Time (s)	39	51	15	39	51	15
Local Yield (s)	47	11	35	47	11	35
Local Yield 170(s)	47	0	24	47	0	24

Intersection Summary

Cycle Length	60
Control Type	Actuated-Uncoordinated
Natural Cycle	50

Splits and Phases: 50: 24th St. & 30th Ave.



Timing Report, Sorted By Phase

58: 25th St. & Ave. A

10/27/2005

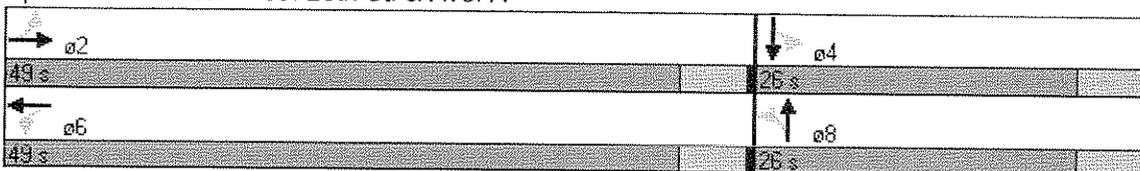


Phase Number	2	4	6	8
Movement	EBTL	SBTL	WBTL	NBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	49	26	49	26
Maximum Split (%)	65.3%	34.7%	65.3%	34.7%
Minimum Split (s)	22	26	22	26
Yellow Time (s)	4.5	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Minimum Initial (s)	15	12	7	12
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	12	16	12	16
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	23	72	23	72
End Time (s)	72	23	72	23
Yield/Force Off (s)	67	18	67	18
Yield/Force Off 170(s)	55	2	55	2
Local Start Time (s)	43	17	43	17
Local Yield (s)	12	38	12	38
Local Yield 170(s)	0	22	0	22

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	50
Offset: 55 (73%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 58: 25th St. & Ave. A



Timing Report, Sorted By Phase

61: 25th St. & Ave. E

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize	Yes			Yes		
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	8	40	27	8	40	27
Maximum Split (%)	10.7%	53.3%	36.0%	10.7%	53.3%	36.0%
Minimum Split (s)	8	22	26	8	22	26
Yellow Time (s)	3	4.5	4.5	3	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0.5
Minimum Initial (s)	4	16	9	4	16	9
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5	5		5	5
Flash Dont Walk (s)		12	16		12	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	54	62	27	54	62	27
End Time (s)	62	27	54	62	27	54
Yield/Force Off (s)	59	22	49	59	22	49
Yield/Force Off 170(s)	59	10	33	59	10	33
Local Start Time (s)	44	52	17	44	52	17
Local Yield (s)	49	12	39	49	12	39
Local Yield 170(s)	49	0	23	49	0	23

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 10 (13%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 61: 25th St. & Ave. E

01	02	04
8 s	40 s	27 s
05	06	08
8 s	40 s	27 s

Timing Report, Sorted By Phase

64: 25th St. & Ave. G

10/27/2005

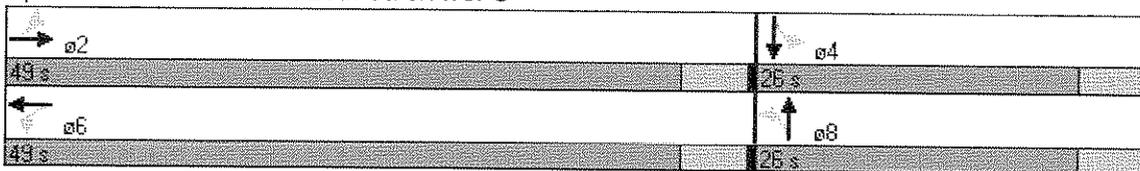


Phase Number	2	4	6	8
Movement	EBTL	SBTL	WBTL	NBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	None	C-Max	None
Maximum Split (s)	49	26	49	26
Maximum Split (%)	65.3%	34.7%	65.3%	34.7%
Minimum Split (s)	22	26	22	26
Yellow Time (s)	4.5	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Minimum Initial (s)	15	10	15	10
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	12	16	12	16
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	7	56	7	56
End Time (s)	56	7	56	7
Yield/Force Off (s)	51	2	51	2
Yield/Force Off 170(s)	39	61	39	61
Local Start Time (s)	43	17	43	17
Local Yield (s)	12	38	12	38
Local Yield 170(s)	0	22	0	22

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	50
Offset: 39 (52%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 64: 25th St. & Ave. G



Timing Report, Sorted By Phase

67: 25th St. & Ave. M

10/27/2005



Phase Number	1	2	4	5	6	8
Movement	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	12	38	25	12	38	25
Maximum Split (%)	16.0%	50.7%	33.3%	16.0%	50.7%	33.3%
Minimum Split (s)	8	21	15	8	21	15
Yellow Time (s)	3	4.5	4.5	3	4.5	4.5
All-Red Time (s)	0	0.5	0.5	0	0.5	0.5
Minimum Initial (s)	5	15	10	5	15	10
Vehicle Extension (s)	3	2	2	3	2	2
Minimum Gap (s)	3	2	2	3	2	2
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		5			5	
Flash Dont Walk (s)		11			11	
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	56	68	31	56	68	31
End Time (s)	68	31	56	68	31	56
Yield/Force Off (s)	65	26	51	65	26	51
Yield/Force Off 170(s)	65	15	51	65	15	51
Local Start Time (s)	41	53	16	41	53	16
Local Yield (s)	50	11	36	50	11	36
Local Yield 170(s)	50	0	36	50	0	36

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 15 (20%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	

Splits and Phases: 67: 25th St. & Ave. M

a1	a2	a4
12 s	38 s	25 s
a5	a6	a8
12 s	38 s	25 s

Timing Report, Sorted By Phase

72: 39th St & 17th Ave

10/27/2005



Phase Number	2	4	6	8
Movement	WBTL	SBTL	EBTL	NBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	Max	C-Max	Max
Maximum Split (s)	50	25	50	25
Maximum Split (%)	66.7%	33.3%	66.7%	33.3%
Minimum Split (s)	19	22	19	22
Yellow Time (s)	4	4	4	4
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	13	16	13	16
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	5	5	5	5
Flash Dont Walk (s)	9	12	9	12
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	60	35	60	35
End Time (s)	35	60	35	60
Yield/Force Off (s)	30	55	30	55
Yield/Force Off 170(s)	21	43	21	43
Local Start Time (s)	39	14	39	14
Local Yield (s)	9	34	9	34
Local Yield 170(s)	0	22	0	22

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 21 (28%), Referenced to phase 2:WBTL and 6:EBTL, Start of FDW or yellow	

Splits and Phases: 72: 39th St & 17th Ave

← 2 50 s	↓ 4 25 s
→ 6 50 s	↑ 8 25 s

Timing Report, Sorted By Phase

78: 39th St & Ave. N

10/27/2005

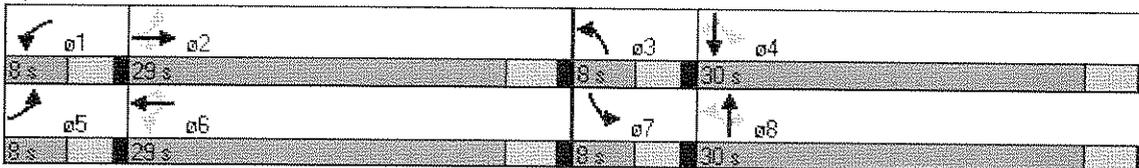


Phase Number	1	2	3	4	5	6	7	8
Movement	WBL	EBTL	NBL	SBTL	EBL	WBTL	SBL	NBTL
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes							
Recall Mode	None	None	None	Max	None	None	None	Max
Maximum Split (s)	8	29	8	30	8	29	8	30
Maximum Split (%)	10.7%	38.7%	10.7%	40.0%	10.7%	38.7%	10.7%	40.0%
Minimum Split (s)	7	24.5	7	25	7	24.5	7	25
Yellow Time (s)	3	3.5	3	3.5	3	3.5	3	3.5
All-Red Time (s)	1	1	1	1	1	1	1	1
Minimum Initial (s)	3	15	3	10	3	15	3	10
Vehicle Extension (s)	5	3	5	3	5	3	5	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		5		5		5		5
Flash Dont Walk (s)		15		15		15		15
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes							
Start Time (s)	0	8	37	45	0	8	37	45
End Time (s)	8	37	45	0	8	37	45	0
Yield/Force Off (s)	4	32.5	41	70.5	4	32.5	41	70.5
Yield/Force Off 170(s)	4	17.5	41	55.5	4	17.5	41	55.5
Local Start Time (s)	57.5	65.5	19.5	27.5	57.5	65.5	19.5	27.5
Local Yield (s)	61.5	15	23.5	53	61.5	15	23.5	53
Local Yield 170(s)	61.5	0	23.5	38	61.5	0	23.5	38

Intersection Summary

Cycle Length	75
Control Type	Actuated-Uncoordinated
Natural Cycle	65

Splits and Phases: 78: 39th St & Ave. N



Timing Report, Sorted By Phase

83: 33rd St. & 2nd Ave.

10/27/2005

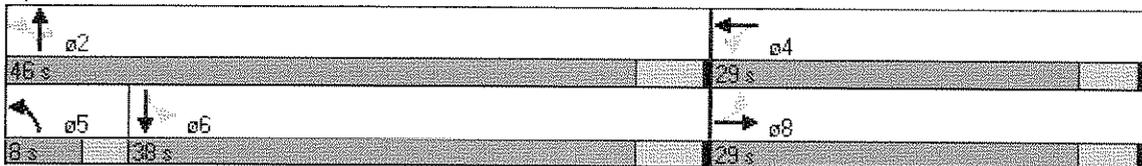


Phase Number	2	4	5	6	8
Movement	NBTL	WBTL	NBL	SBTL	EBTL
Lead/Lag			Lead	Lag	
Lead-Lag Optimize			Yes	Yes	
Recall Mode	C-Max	None	None	C-Max	None
Maximum Split (s)	46	29	8	38	29
Maximum Split (%)	61.3%	38.7%	10.7%	50.7%	38.7%
Minimum Split (s)	22	29	8	22	29
Yellow Time (s)	4.5	4	3	4.5	4
All-Red Time (s)	0.5	1	0	0.5	1
Minimum Initial (s)	15	10	5	15	10
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)	5	5		5	5
Flash Dont Walk (s)	12	19		12	19
Dual Entry	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	74	45	74	7	45
End Time (s)	45	74	7	45	74
Yield/Force Off (s)	40	69	4	40	69
Yield/Force Off 170(s)	28	50	4	28	50
Local Start Time (s)	46	17	46	54	17
Local Yield (s)	12	41	51	12	41
Local Yield 170(s)	0	22	51	0	22

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 28 (37%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow	

Splits and Phases: 83: 33rd St. & 2nd Ave.



Timing Report, Sorted By Phase

91: 39th St & 11th St.

10/27/2005

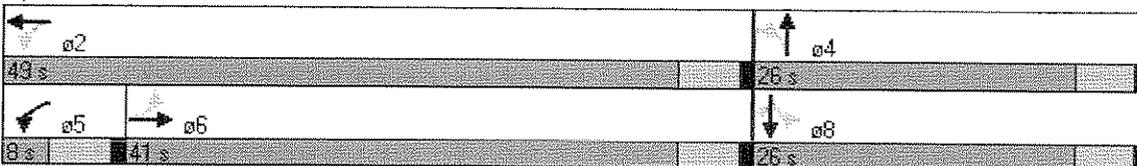


Phase Number	2	4	5	6	8
Movement	WBTL	NBTL	WBL	EBTL	SBTL
Lead/Lag			Lead	Lag	
Lead-Lag Optimize			Yes	Yes	
Recall Mode	C-Max	None	None	C-Max	None
Maximum Split (s)	49	26	8	41	26
Maximum Split (%)	65.3%	34.7%	10.7%	54.7%	34.7%
Minimum Split (s)	23	26	7	23	26
Yellow Time (s)	4	4	4	4	4
All-Red Time (s)	1	1	1	1	1
Minimum Initial (s)	15	7	2	15	7
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)	5	5		5	5
Flash Dont Walk (s)	12	15		12	15
Dual Entry	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	67	41	67	0	41
End Time (s)	41	67	0	41	67
Yield/Force Off (s)	36	62	70	36	62
Yield/Force Off 170(s)	24	47	70	24	47
Local Start Time (s)	43	17	43	51	17
Local Yield (s)	12	38	46	12	38
Local Yield 170(s)	0	23	46	0	23

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 24 (32%), Referenced to phase 2:WBTL and 6:EBTL, Start of FDW or yellow	

Splits and Phases: 91: 39th St & 11th St.



Timing Report, Sorted By Phase

94: 52nd St & 2nd Ave.

10/27/2005



Phase Number	2	4	6
Movement	SBTL	WBL	NBT
Lead/Lag			
Lead-Lag Optimize			
Recall Mode	C-Max	None	C-Max
Maximum Split (s)	50	25	50
Maximum Split (%)	66.7%	33.3%	66.7%
Minimum Split (s)	21	20	21
Yellow Time (s)	4.5	4	4.5
All-Red Time (s)	0.5	1	0.5
Minimum Initial (s)	15	15	15
Vehicle Extension (s)	3	3	3
Minimum Gap (s)	3	3	3
Time Before Reduce (s)	0	0	0
Time To Reduce (s)	0	0	0
Walk Time (s)	5		5
Flash Dont Walk (s)	11		11
Dual Entry	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes
Start Time (s)	1	51	1
End Time (s)	51	1	51
Yield/Force Off (s)	46	71	46
Yield/Force Off 170(s)	35	71	35
Local Start Time (s)	41	16	41
Local Yield (s)	11	36	11
Local Yield 170(s)	0	36	0

Intersection Summary

Cycle Length	75
Control Type	Actuated-Coordinated
Natural Cycle	45
Offset: 35 (47%), Referenced to phase 2:SBTL and 6:NBT, Start of FDW or yellow	

Splits and Phases: 94: 52nd St & 2nd Ave.

a2 50 s	a4 25 s
a6 50 s	



APPENDIX O

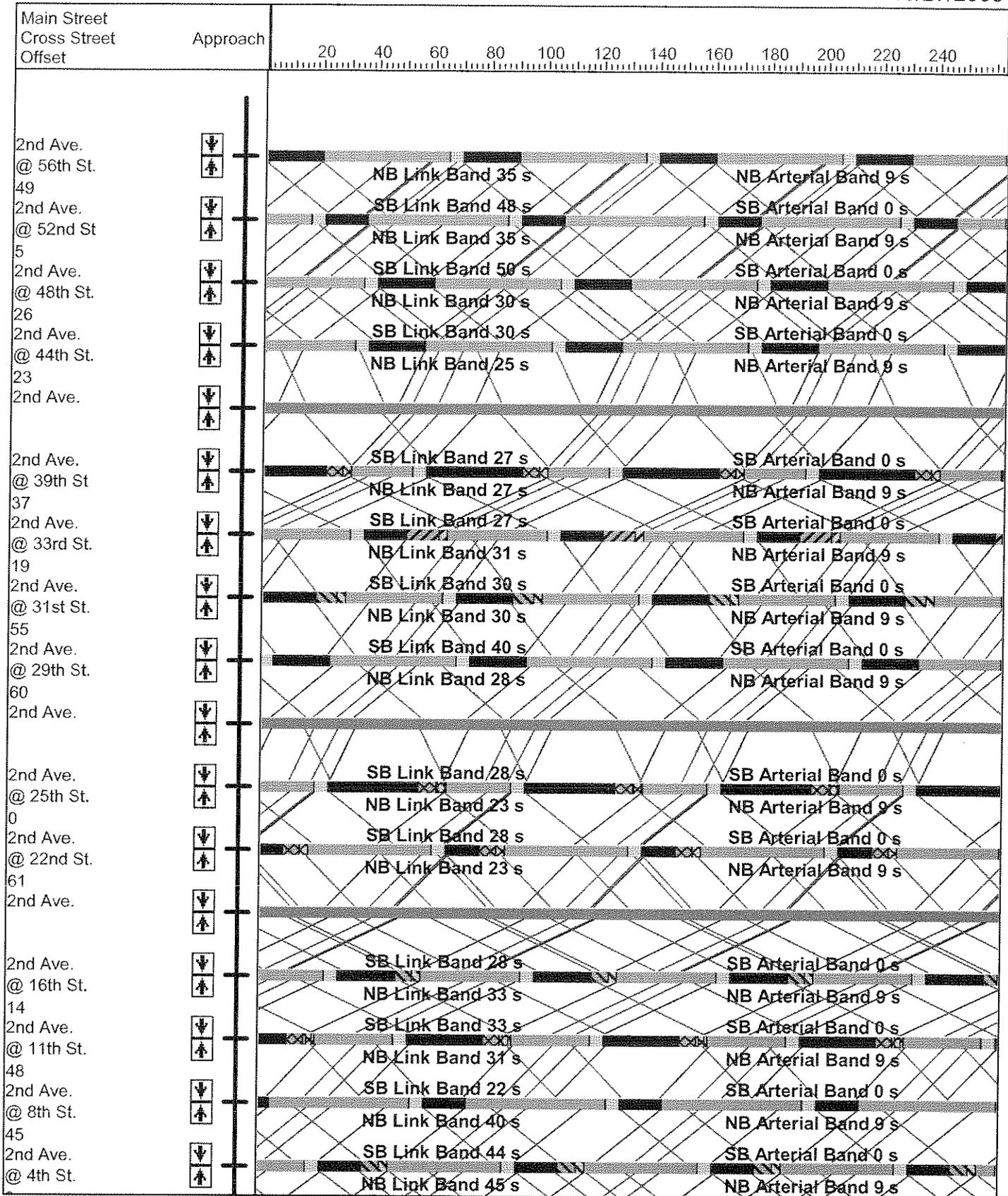
ALTERNATIVE NETWORK TIME-SPACE DIAGRAMS

2nd Avenue - AM
25th Street - AM
39th Street - AM
2nd Avenue - NOON
25th Street - NOON
39th Street - NOON
2nd Avenue - PM
25th Street - PM
39th Street - PM

Time-Space Diagram - 2nd Ave.

Arterial and Link-Link Bandwidths, 50th Percentile Green Times

10/27/2005



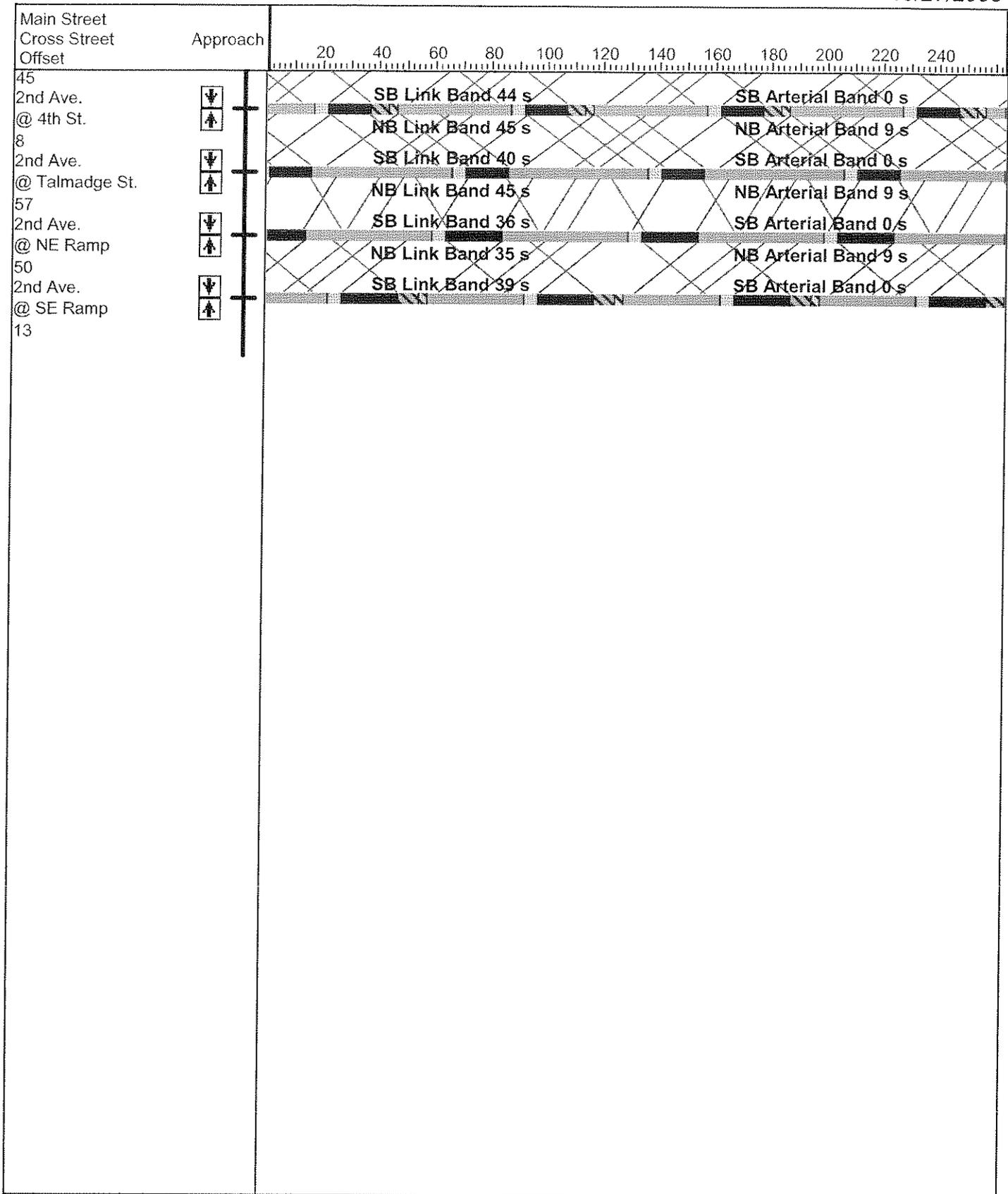
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Olsson Associates

Time-Space Diagram - 2nd Ave.

Arterial and Link-Link Bandwidths, 50th Percentile Green Times

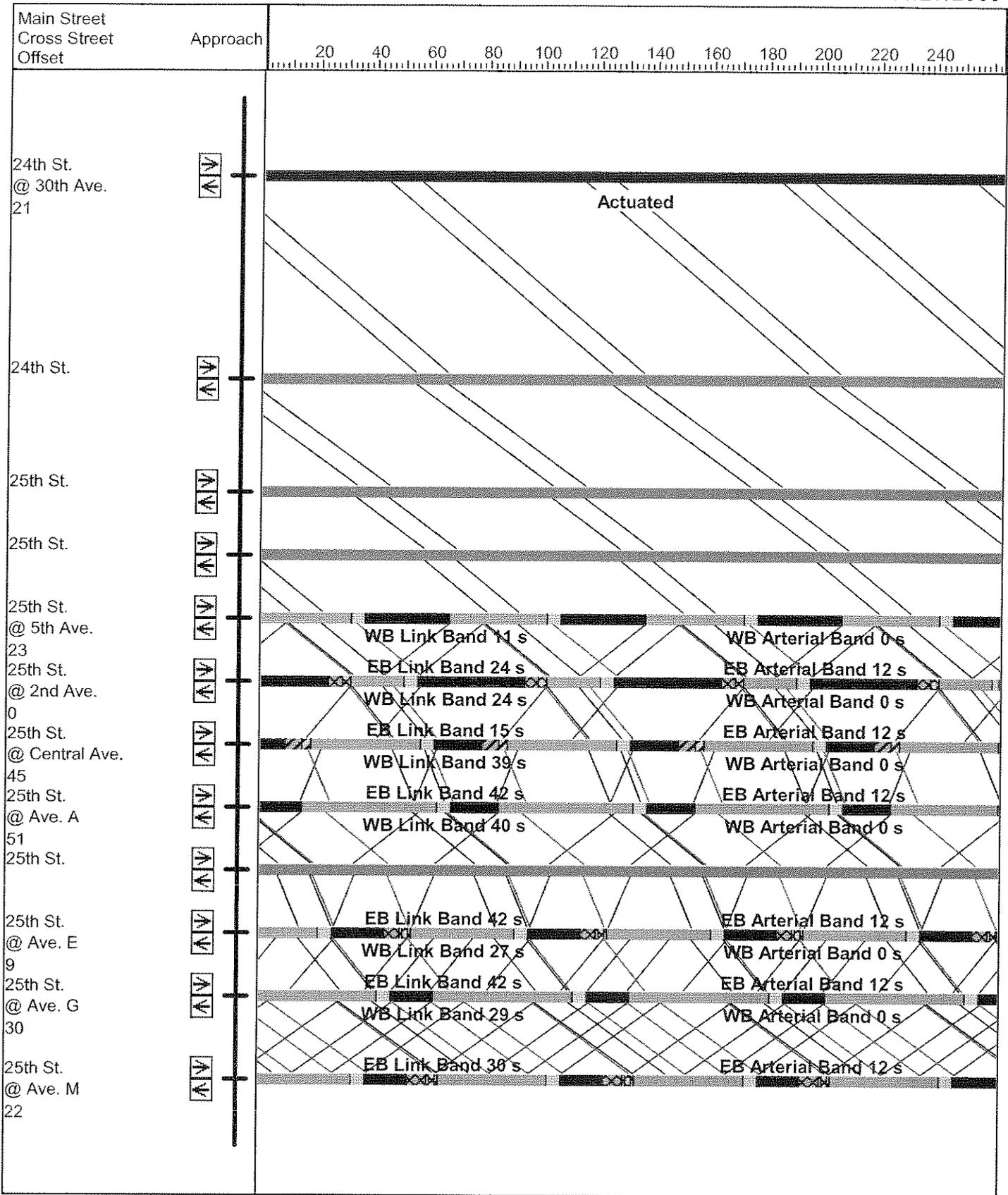
10/27/2005



Time-Space Diagram - 25th St.

Arterial and Link-Link Bandwidths, 50th Percentile Green Times

10/27/2005

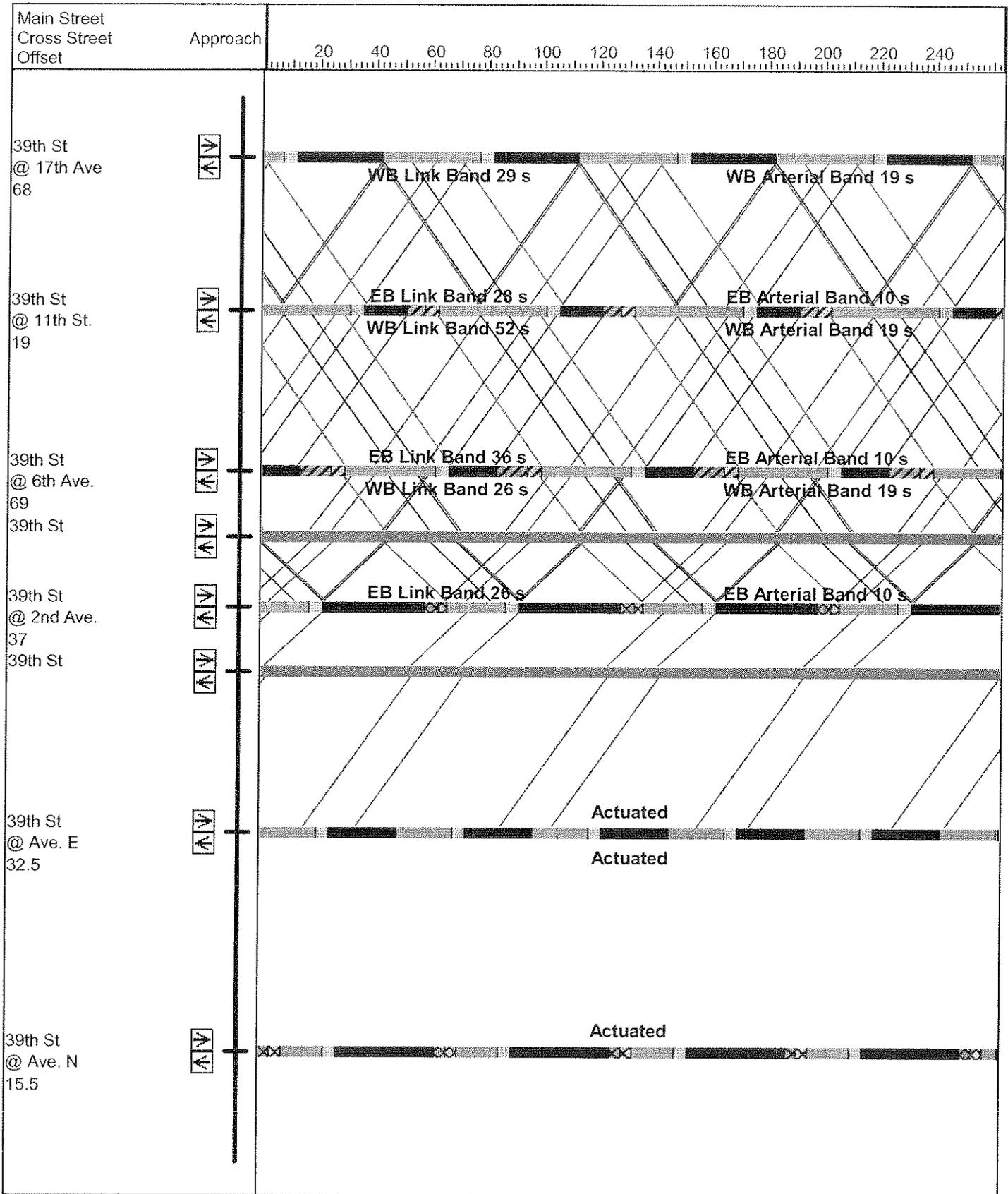


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Olsson Associates

Time-Space Diagram - 39th St
 Arterial and Link-Link Bandwidths, 50th Percentile Green Times

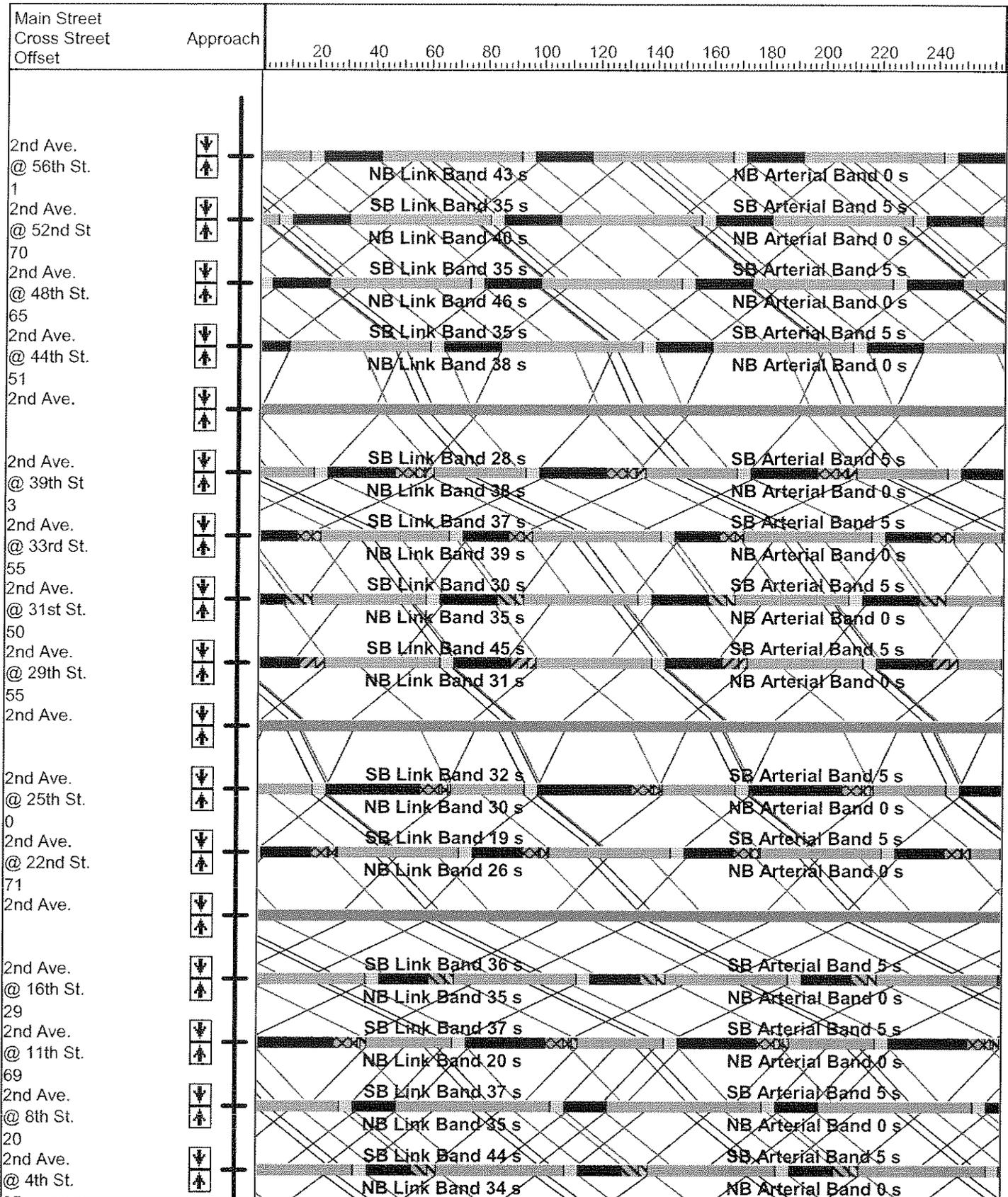
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Time-Space Diagram - 2nd Ave.

Arterial and Link-Link Bandwidths, 50th Percentile Green Times

10/27/2005



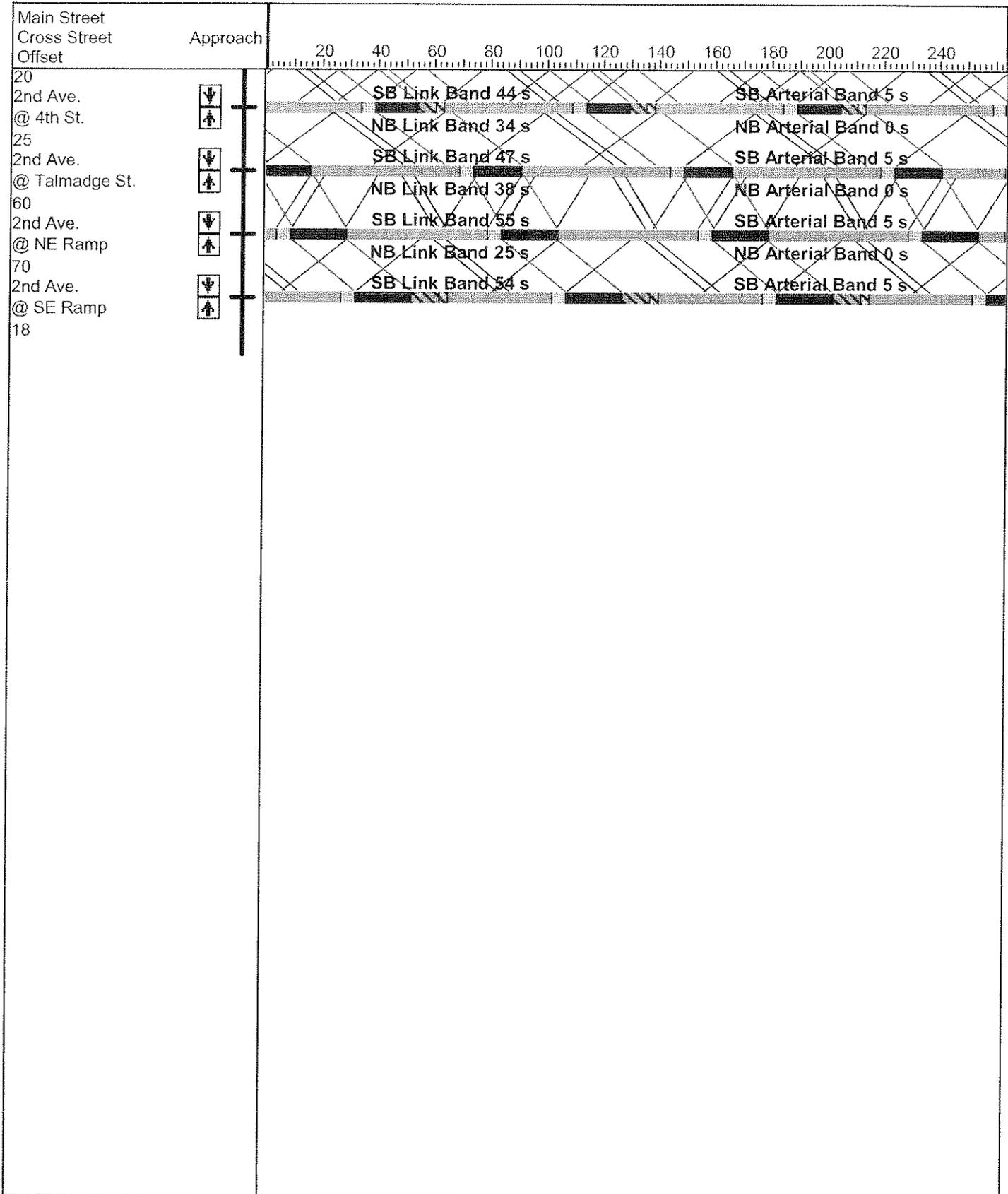
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Olsson Associates

Time-Space Diagram - 2nd Ave.

Arterial and Link-Link Bandwidths, 50th Percentile Green Times

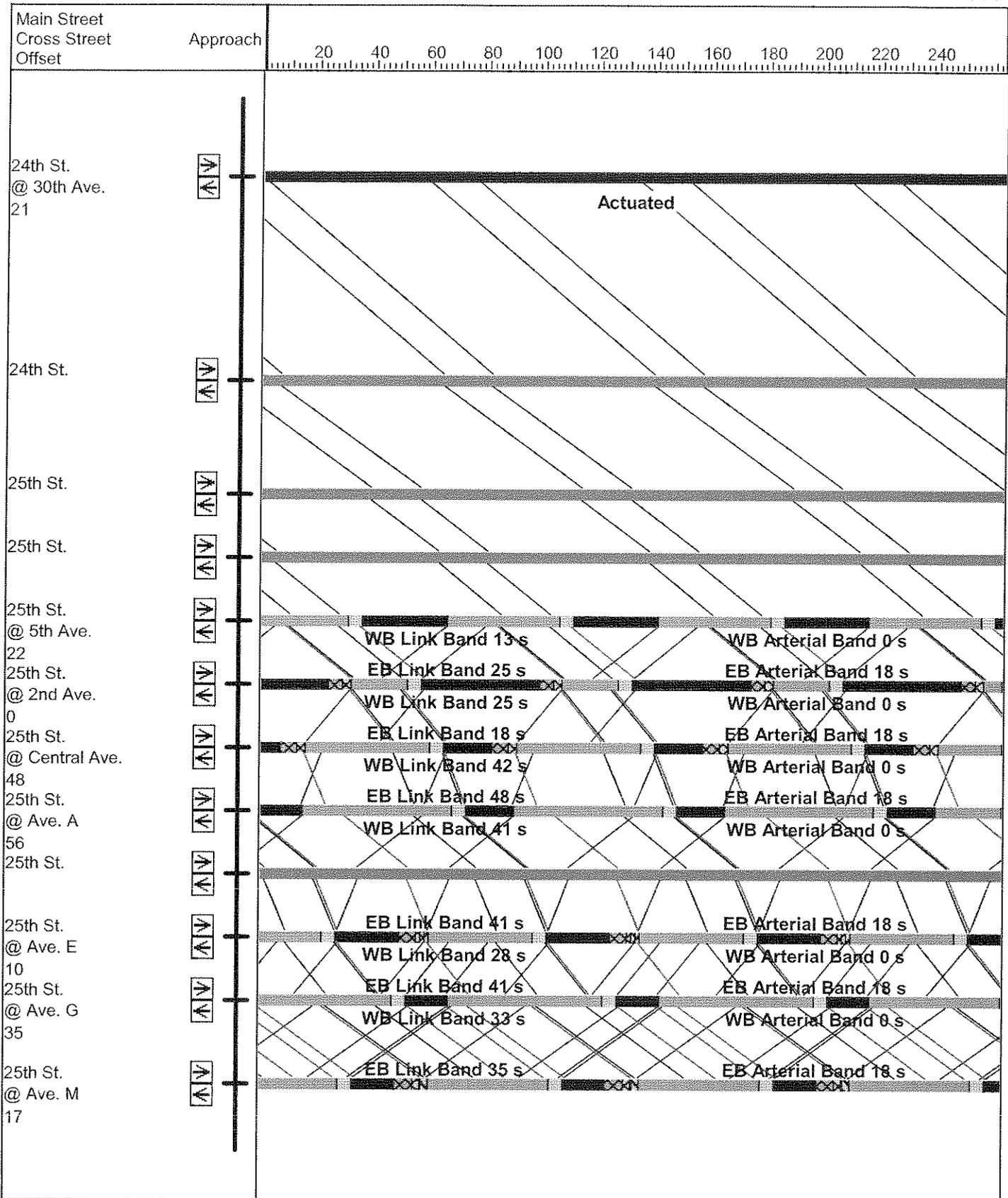
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Time-Space Diagram - 25th St.

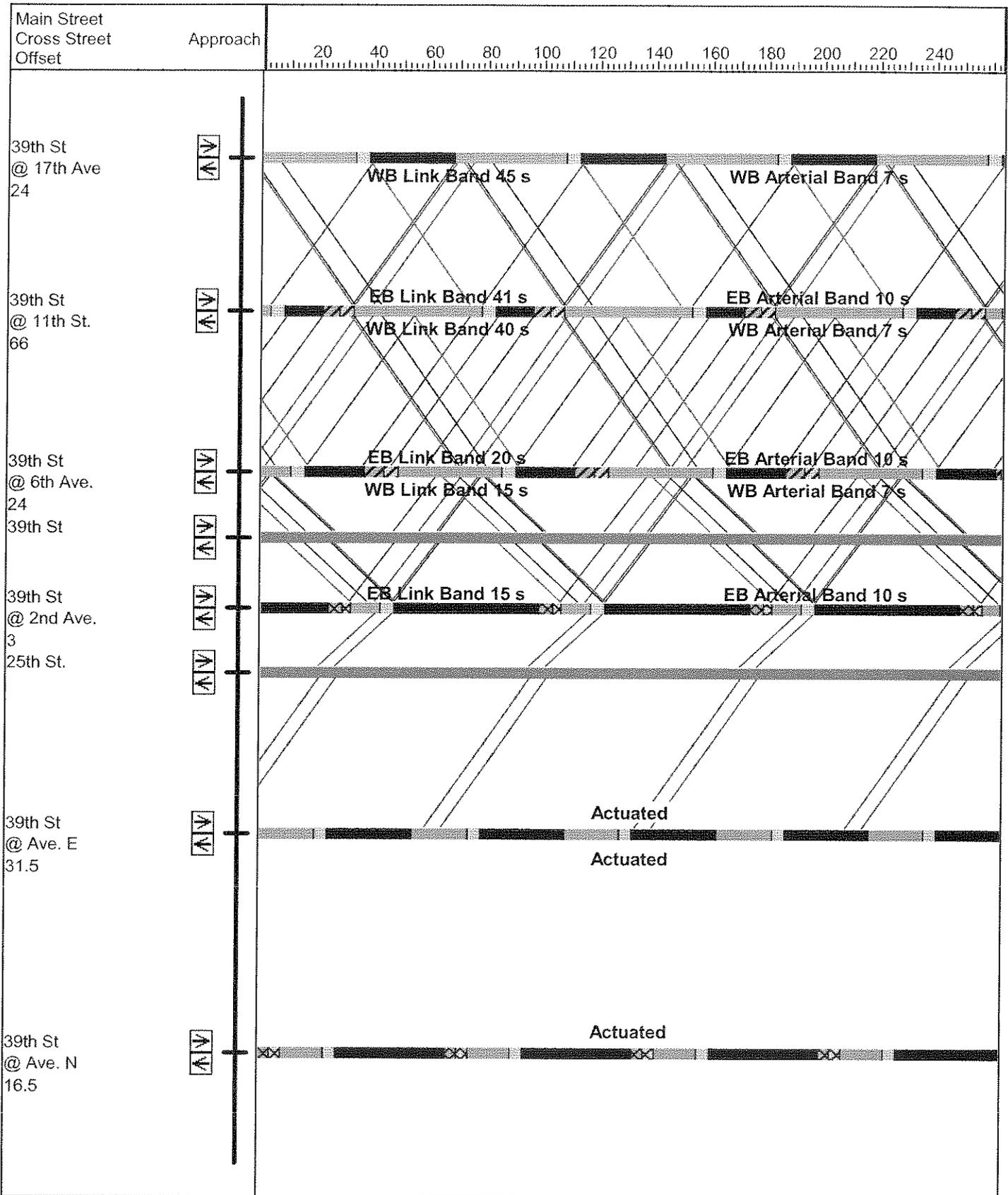
Arterial and Link-Link Bandwidths, 50th Percentile Green Times

10/27/2005



Time-Space Diagram - 39th St
 Arterial and Link-Link Bandwidths, 50th Percentile Green Times

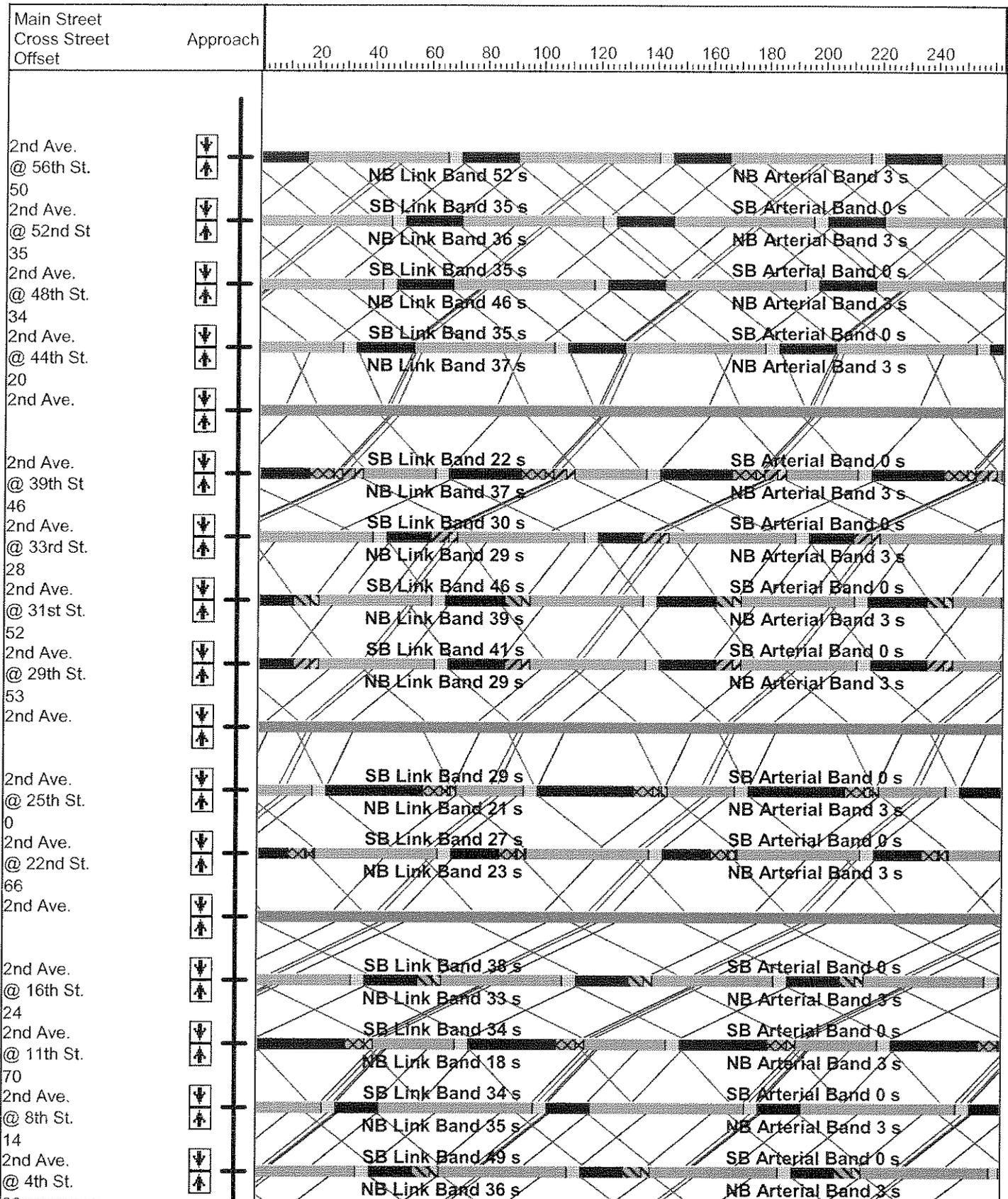
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Time-Space Diagram - 2nd Ave.

Arterial and Link-Link Bandwidths, 50th Percentile Green Times

10/27/2005



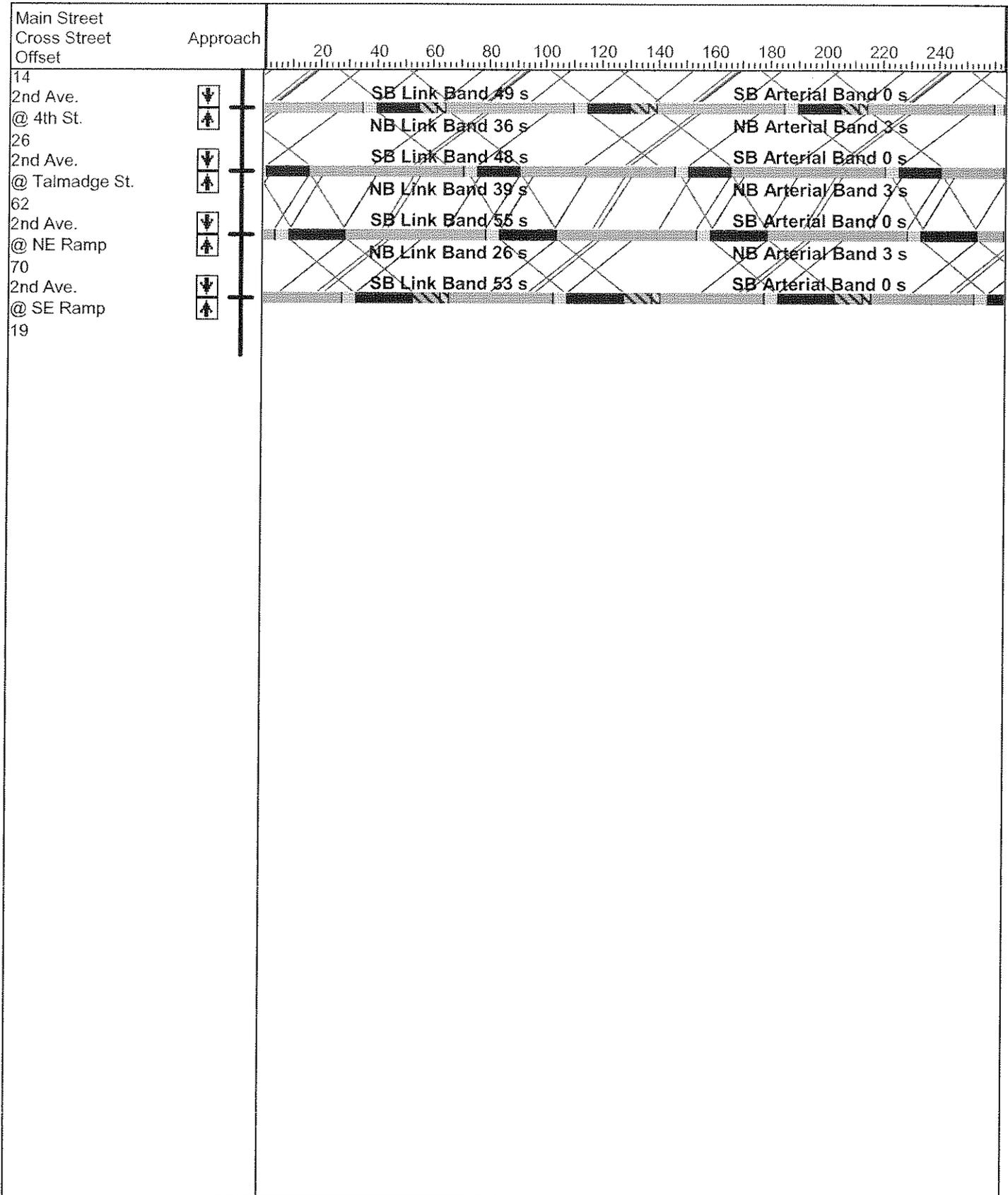
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Olsson Associates

Time-Space Diagram - 2nd Ave.

Arterial and Link-Link Bandwidths, 50th Percentile Green Times

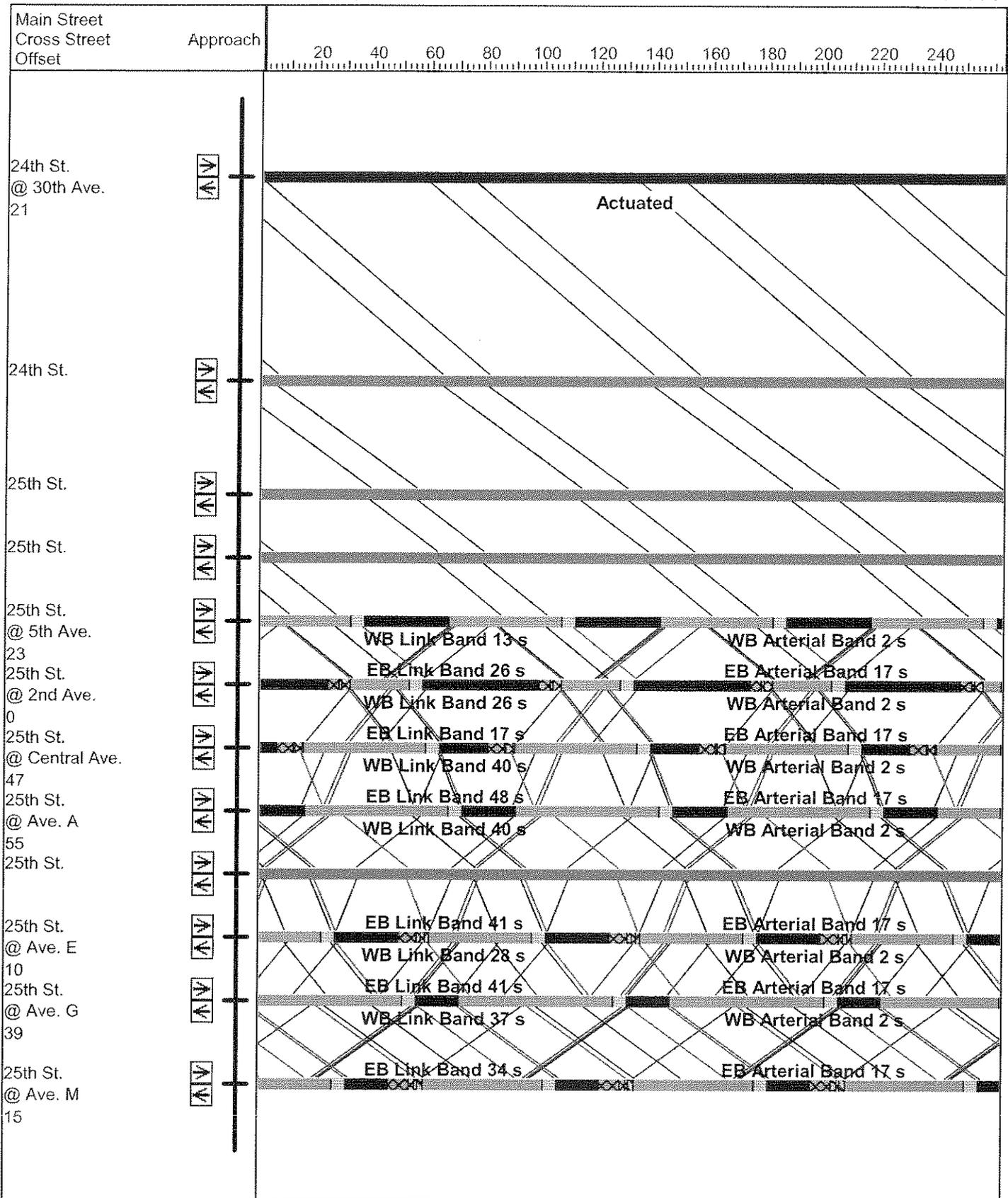
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Time-Space Diagram - 25th St.

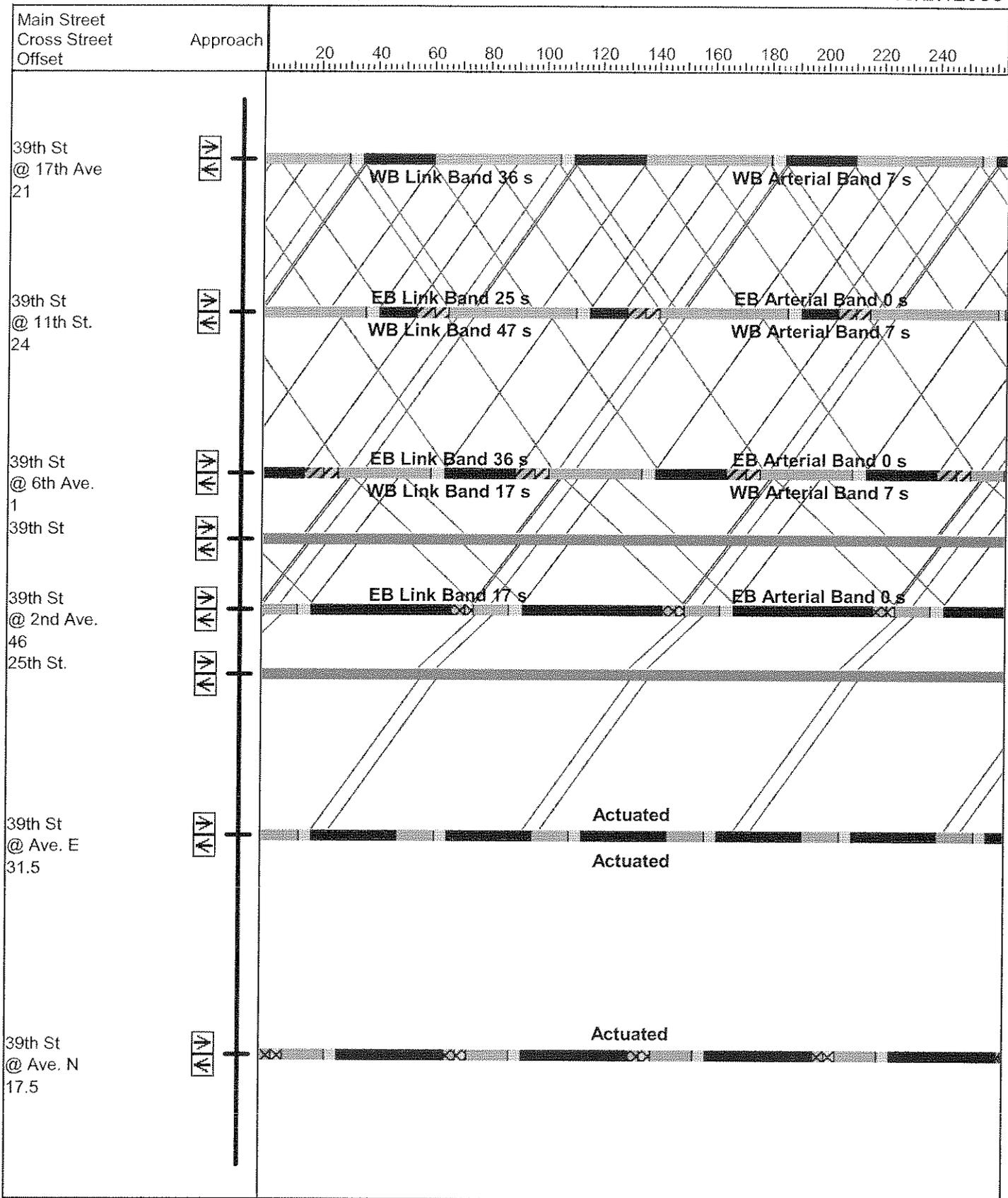
Arterial and Link-Link Bandwidths, 50th Percentile Green Times

10/27/2005



Time-Space Diagram - 39th St
 Arterial and Link-Link Bandwidths, 50th Percentile Green Times

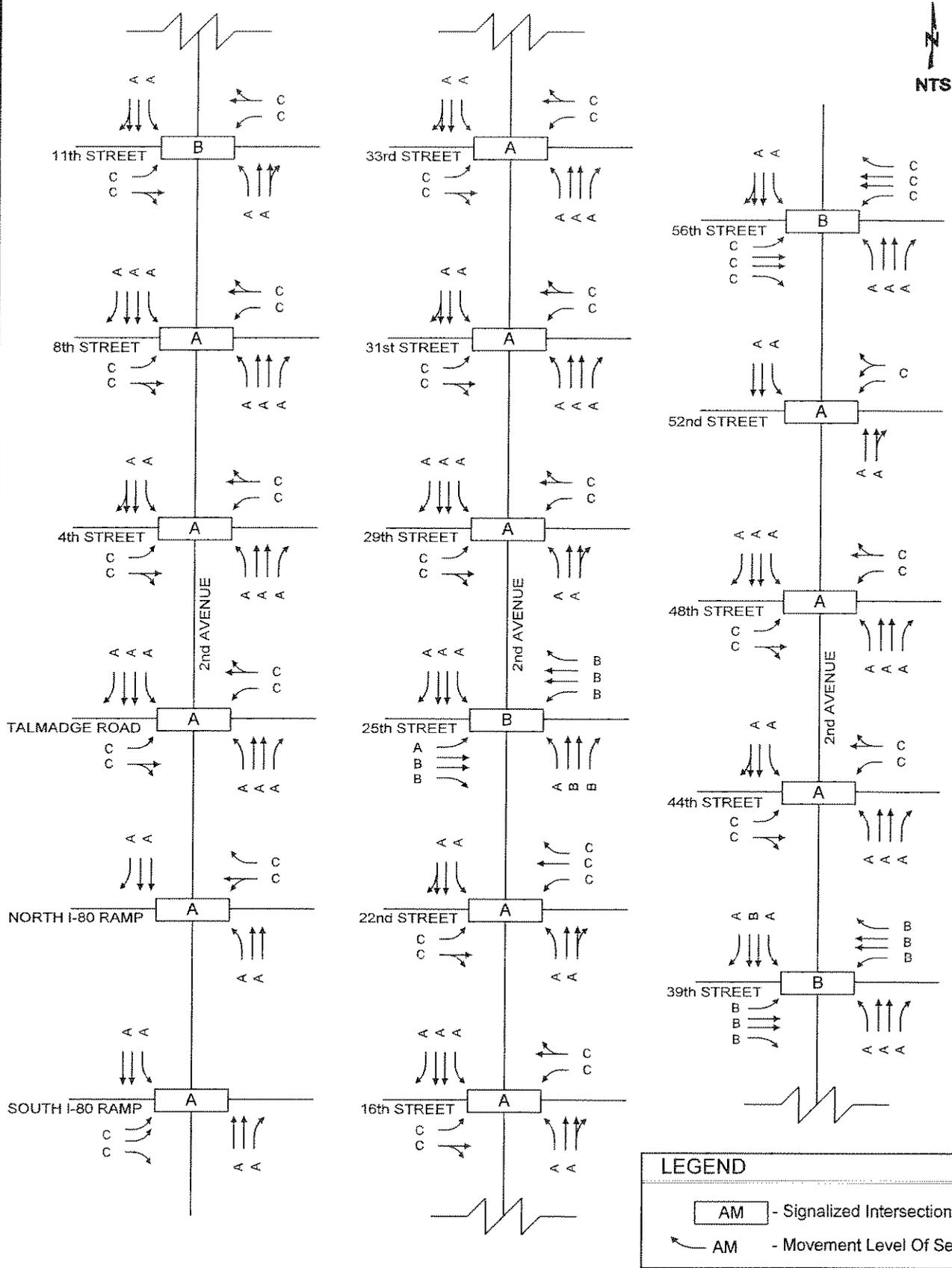
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APPENDIX P

ALTERNATIVE NETWORK CAPACITY ANALYSIS SUMMARIES

- Figure P-1 2nd Avenue Alternative Network AM Capacity Analysis Summary
- Figure P-2 25th Street Alternative Network AM Capacity Analysis Summary
- Figure P-3 39th Street Alternative Network AM Capacity Analysis Summary
- Figure P-4 2nd Avenue Alternative Network NOON Capacity Analysis Summary
- Figure P-5 25th Street Alternative Network NOON Capacity Analysis Summary
- Figure P-6 39th Street Alternative Network NOON Capacity Analysis Summary
- Figure P-7 2nd Avenue Alternative Network PM Capacity Analysis Summary
- Figure P-8 25th Street Alternative Network PM Capacity Analysis Summary
- Figure P-9 39th Street Alternative Network PM Capacity Analysis Summary

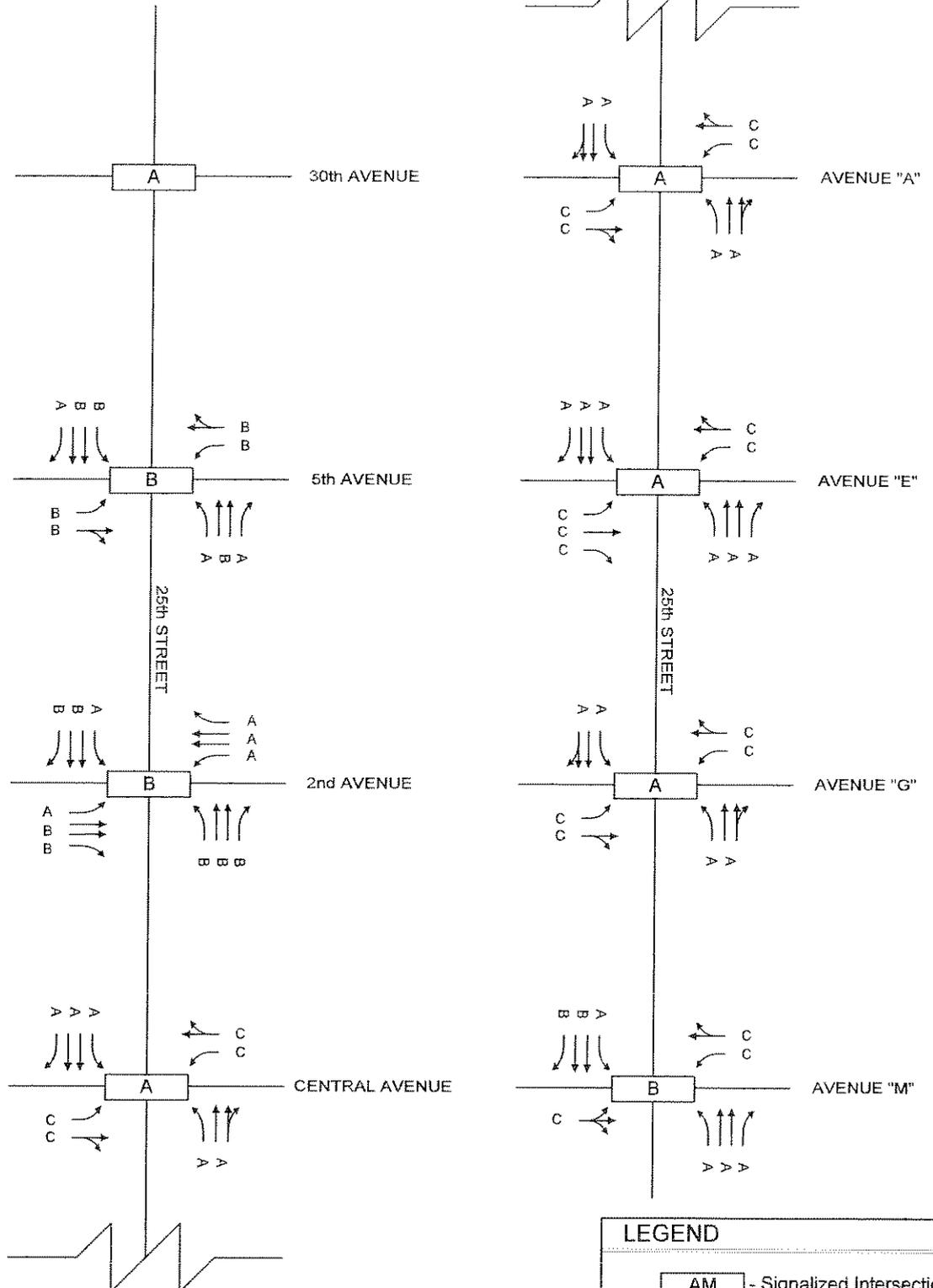


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**2nd Avenue Alternative Network
AM Capacity Analysis Summary**

**FIGURE
P-1**



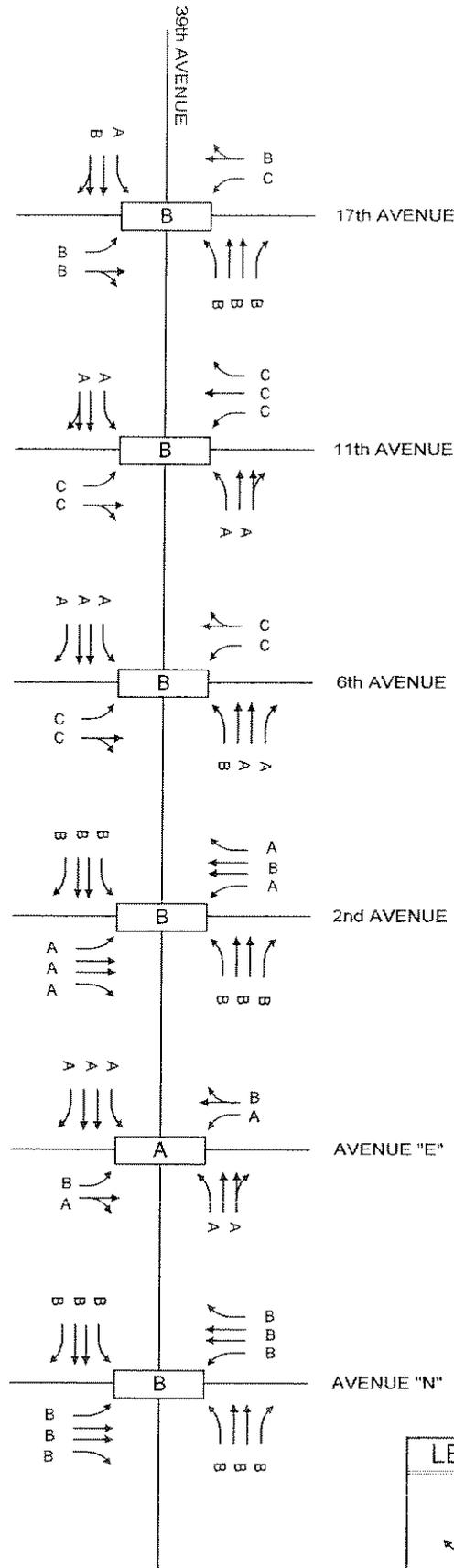
LEGEND	
	- Signalized Intersection LOS
	- Movement Level Of Service

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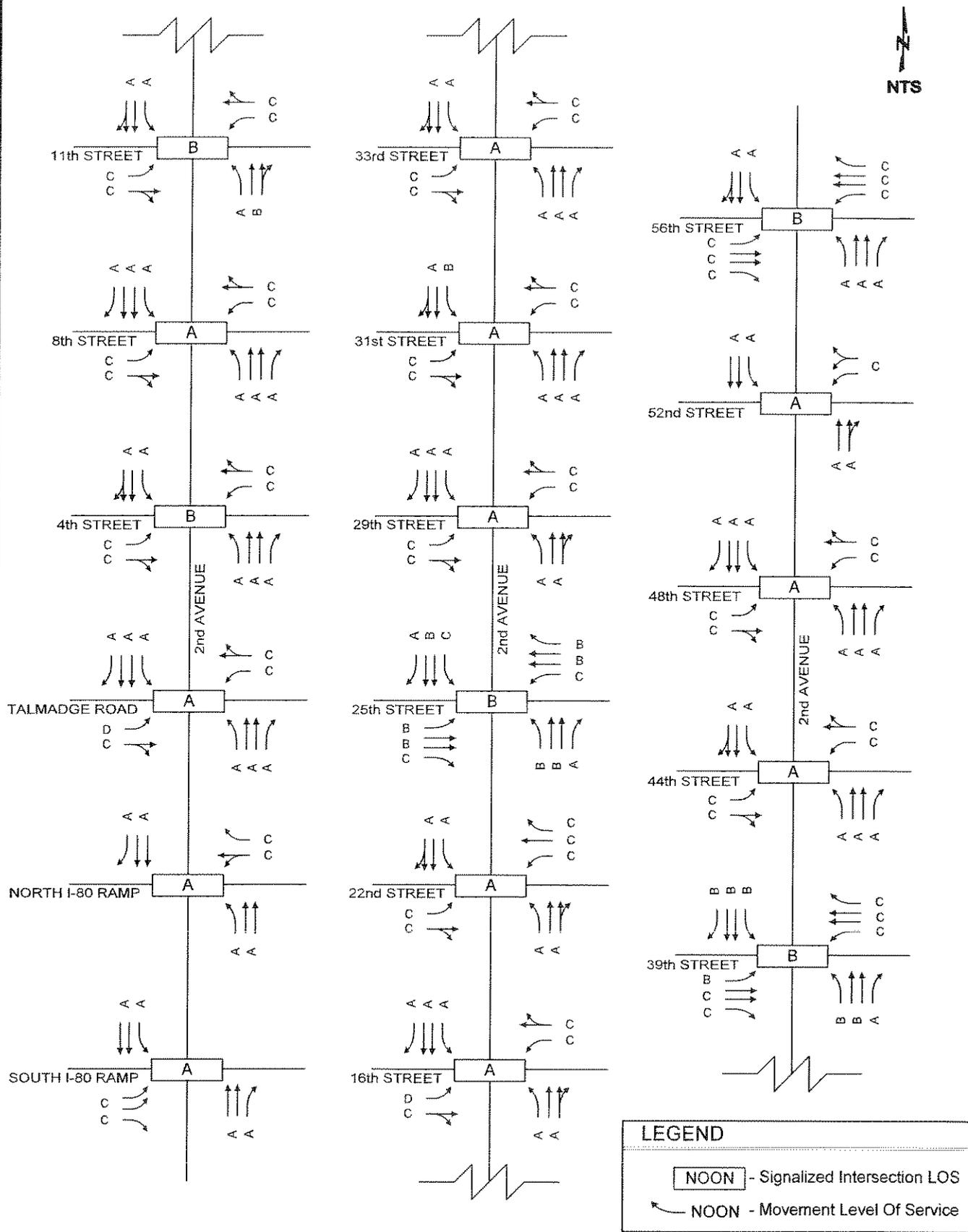
25th Street Alternative Network AM Capacity Analysis Summary

**FIGURE
P-2**



LEGEND	
	- Signalized Intersection LOS
	- Movement Level Of Service

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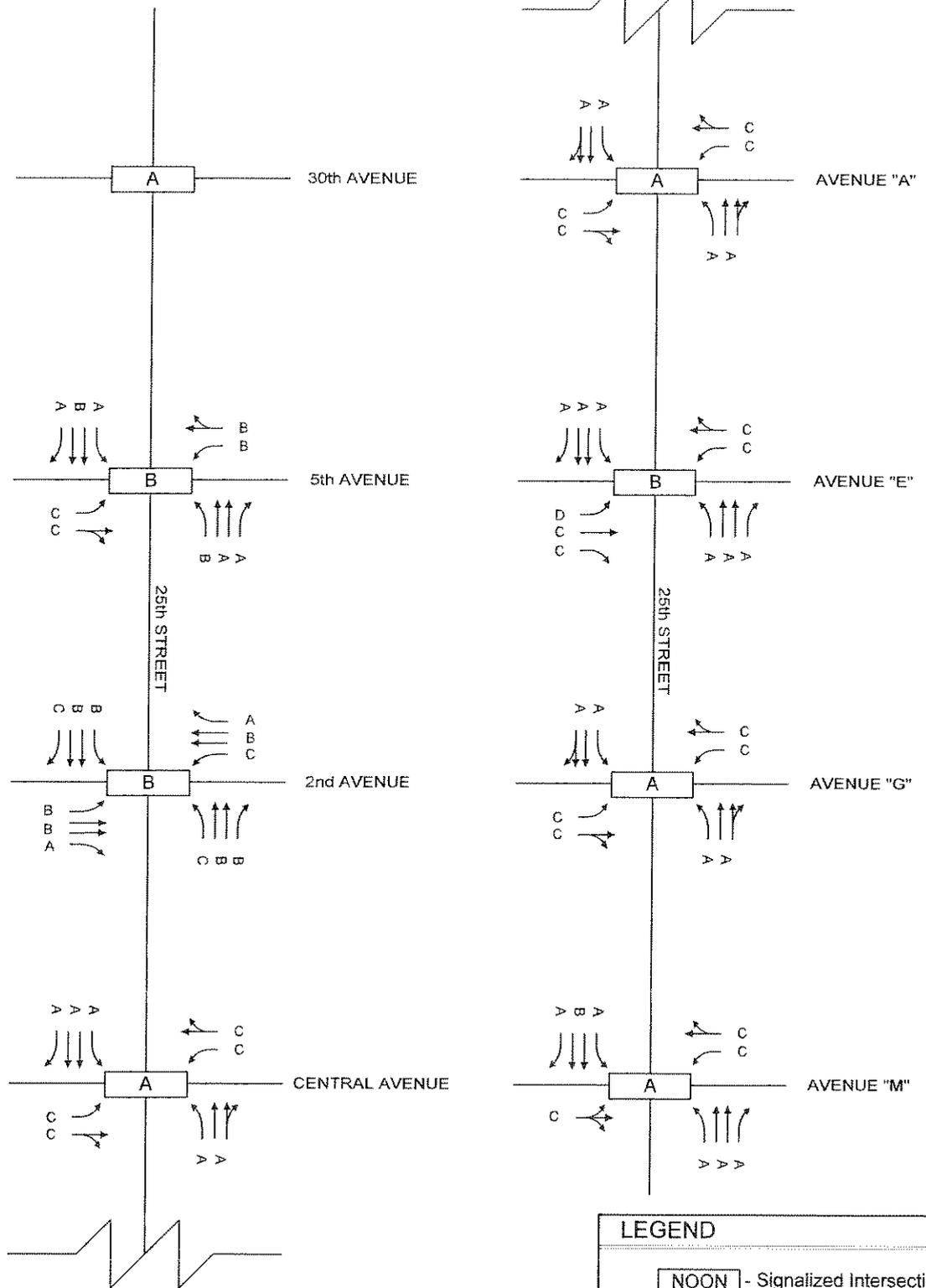


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**2nd Avenue Alternative Network
NOON Capacity Analysis Summary**

**FIGURE
P-4**



LEGEND

NOON - Signalized Intersection LOS

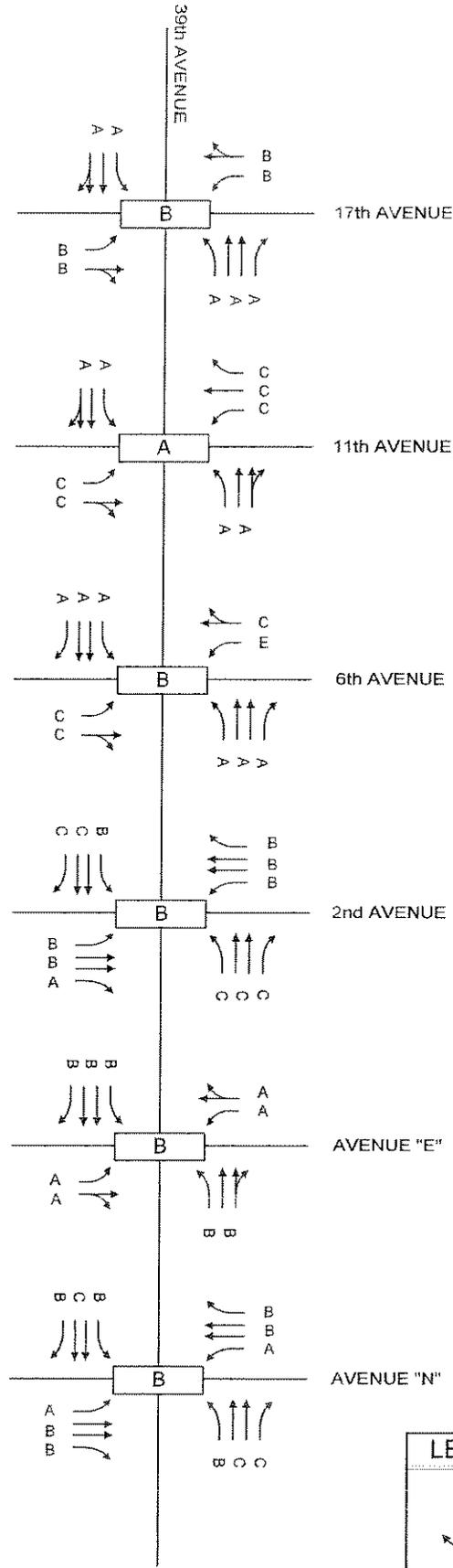
NOON - Movement Level Of Service

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25th Street Alternative Network
NOON Capacity Analysis Summary

FIGURE
P-5



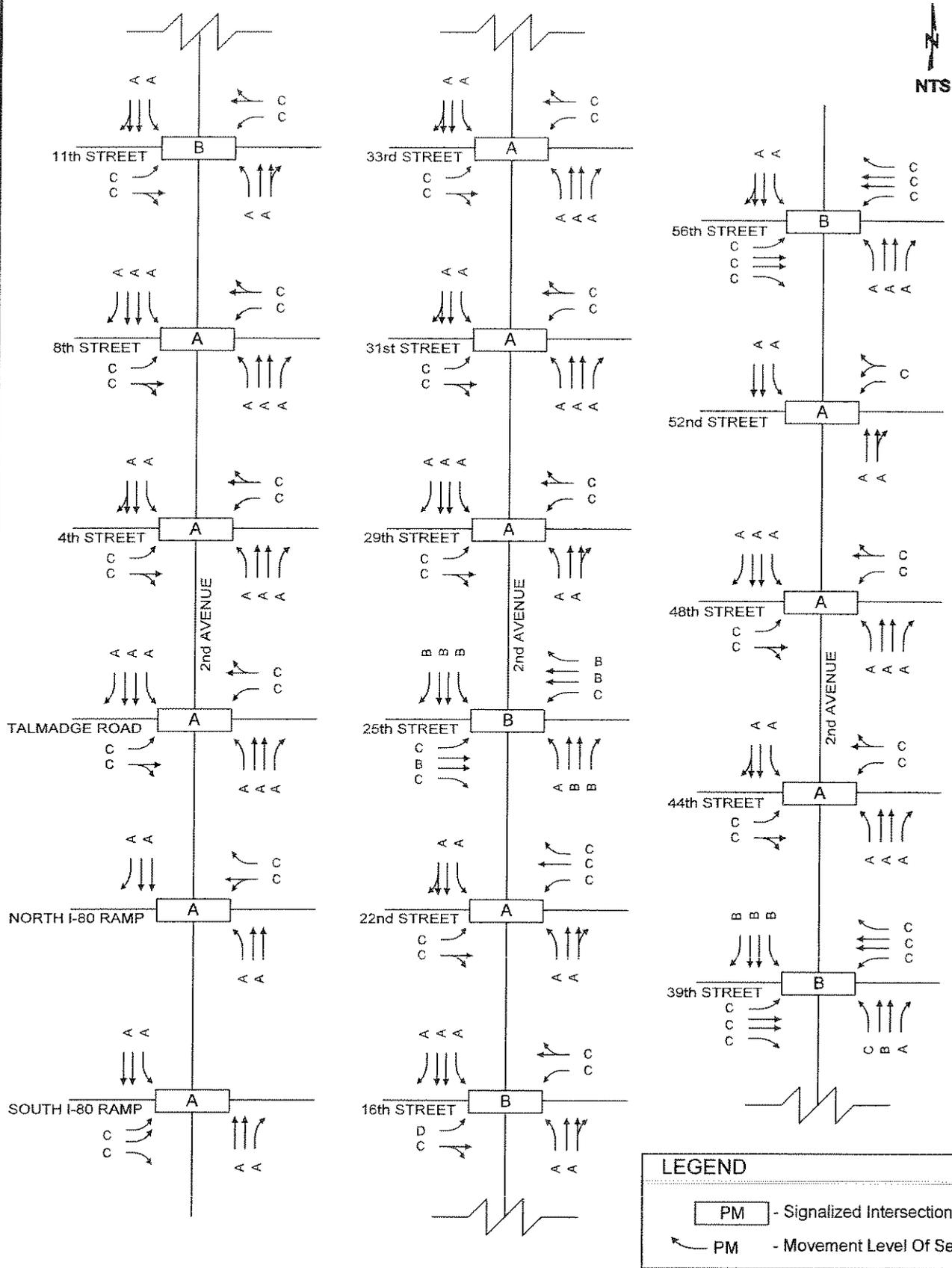
LEGEND	
NOON	- Signalized Intersection LOS
	- NOON - Movement Level Of Service

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39th Street Alternative Network NOON Capacity Analysis Summary

**FIGURE
P-6**

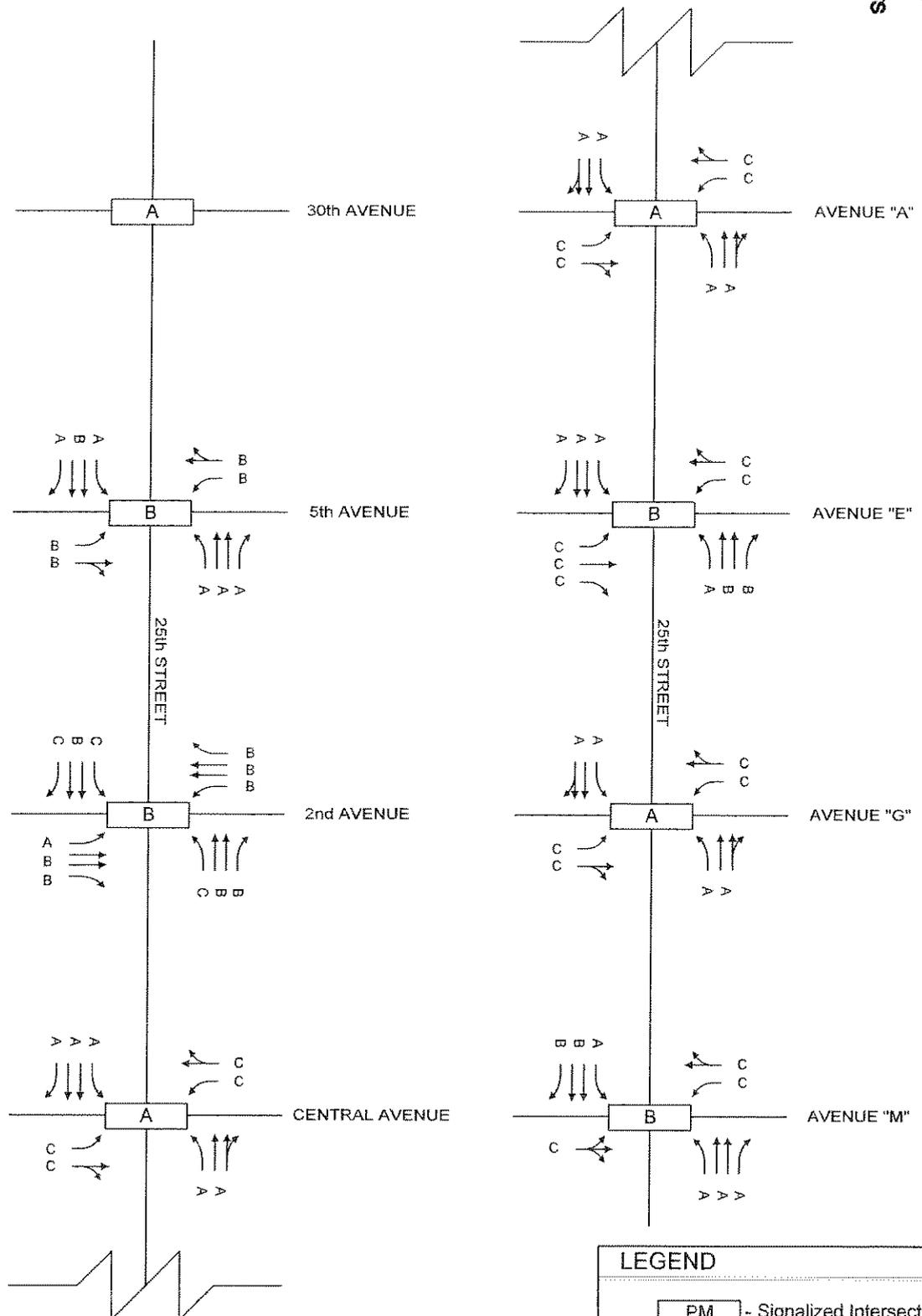


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2nd Avenue Alternative Network
PM Capacity Analysis Summary

FIGURE
P-7



LEGEND

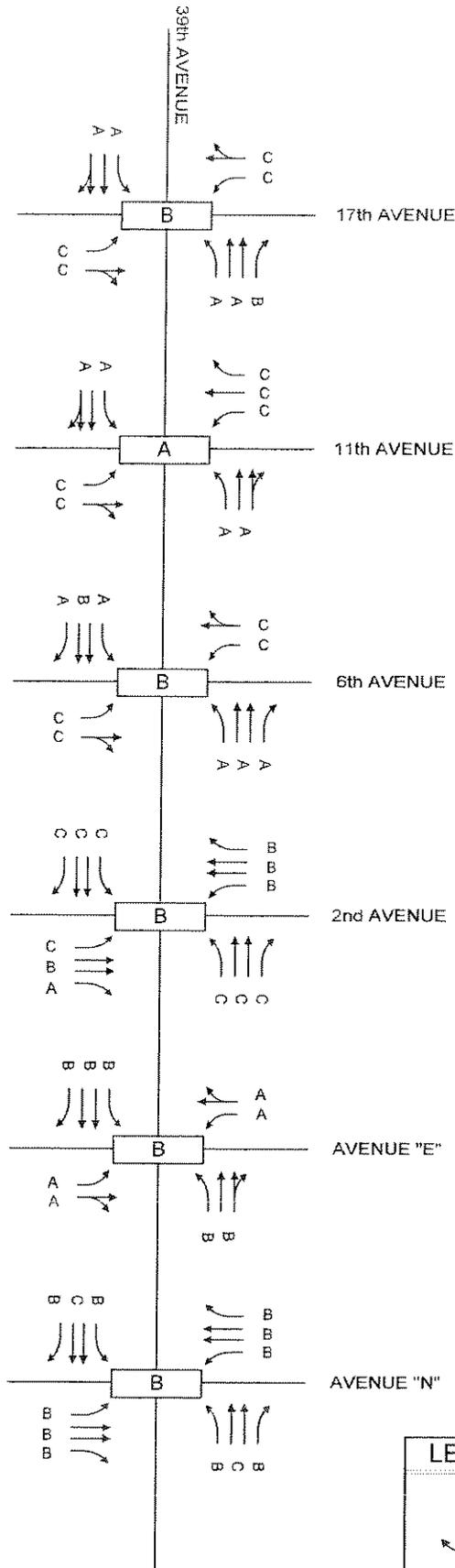
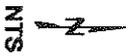
- PM - Signalized Intersection LOS
- PM - Movement Level Of Service

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25th Street Alternative Network
PM Capacity Analysis Summary

FIGURE
P-8



LEGEND	
	- Signalized Intersection LOS
	- Movement Level Of Service

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39th Street Alternative Network PM Capacity Analysis Summary

FIGURE
P-9