

Exhibit No. 13  
Case No(s) EC-2006-0332  
Date 3-06-06 Rptr XF

**AFFIDAVIT OF CUSTODIAN OF BUSINESS RECORDS**  
(490.692 RSMo)

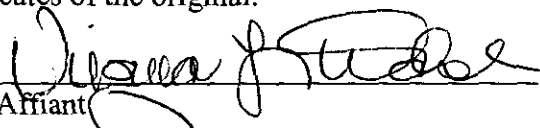
**FILED<sup>2</sup>**  
MAR 14 2006  
Missouri Public  
Service Commission

STATE OF JACKSON     )  
                                      ) ss  
COUNTY OF MISSOURI   )

Before me, the undersigned notary public, personally appeared Virginia Walsh, who,  
being by me duly sworn, deposed as follows:


My name is Virginia Walsh. I am of sound mind, capable of making this affidavit, and  
personally acquainted with the facts herein stated:

I am the custodian of the records of the Development Management Division of the City  
Development Department of Kansas City, Missouri. Attached hereto are the following records:  
Final Development Plan (8 pages), Traffic Impact Study (84 pages) and General Development  
Plan and Blight Study (140 pages) relating to the Boulevard Brewing Company. These records  
are kept in the regular course of business. It was the regular course of business for an employee  
or representative, with knowledge of the act, event, condition, opinion, or diagnosis recorded to  
make the record or to transmit information thereof to be included in such record. The records  
attached hereto are the original or exact duplicates of the original.

  
Affiant

In witness whereof, I have hereunto subscribed my name and affixed my official seal this  
2 day of March, 2006.

MARY ALICE NELSON  
Notary Public - Notary Seal  
STATE OF MISSOURI  
Clay County  
Commission #04410015  
My Commission Expires: September 25, 2008  
My commission expires: \_\_\_\_\_

  
Notary Public

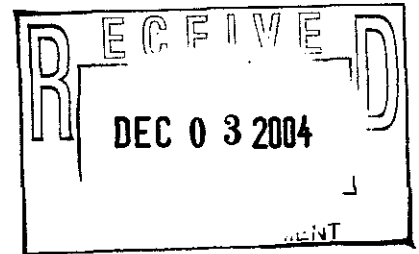


**BOULEVARD BREWING COMPANY EXPANSION**  
**25<sup>TH</sup> STREET AND SOUTHWEST BOULEVARD**  
**KANSAS CITY, MISSOURI**

**TRAFFIC IMPACT STUDY**

**DECEMBER 2004**

**OA Project No. 2003-1280**



**OLSSON ASSOCIATES**  
ENGINEERS • PLANNERS • SCIENTISTS • SURVEYORS

7301 WEST 133<sup>RD</sup> STREET, SUITE 200 • OVERLAND PARK, KANSAS 66213 • (913) 381-1170 • FAX (913) 381-1174

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## 1.0 INTRODUCTION & OBJECTIVE

This report studies the traffic impacts regarding the proposed Boulevard Brewing Company Expansion development located in Kansas City, Missouri. A vicinity map illustrates the approximate location of the development in Figure 1.

The objective of this study is to evaluate the existing traffic and roadway conditions and the traffic impacts expected from the proposed development, and the future traffic impacts. The appropriate intersection geometrics and traffic control improvements necessary to accommodate the increased traffic on the study area roadways were identified. For the purpose of this study the existing, existing + development and future year 2024 scenarios were evaluated based on discussion with City staff. The study area intersections include the following:

- Southwest Blvd and 25<sup>th</sup> Street
- Southwest Blvd and 26<sup>th</sup> Street
- 26<sup>th</sup> Street and Jarboe Street
- 26<sup>th</sup> Street and Belleview Avenue
- 25<sup>th</sup> Street and Belleview Avenue

## 2.0 DESCRIPTION OF PROPOSED DEVELOPMENT

The proposed development is bound by Southwest Blvd to the West of the site, 26<sup>th</sup> Street on the South, Belleview Avenue on the East, and 25<sup>th</sup> Street on the North. The existing Brewery currently totals 48,150 SF. The site development includes expansion of the existing Boulevard Brewing Company in three phases:

- Phase I includes development of 'Brewhouse and Packaging', totaling 68,500 SF of floor area, with an estimated completion in 2006.
- Phase II includes development of 'Fermentation Cellars and Brewery Support Systems', totaling 16,000 SF of floor area with an estimated completion by 2017. Phase II includes demolition of 23,250 SF of existing floor area. Thus the net loss of floor area in Phase II is 7,250 SF.
- Phase III includes development of 'New Warehouse' totaling 45,000 SF of floor area, with an estimated completion by 2020.

Proposed access to the site is from two locations. The first entrance is at 25<sup>th</sup> Street onto the proposed vacated right of way that was previously Belleview Avenue. The second is an entrance only for truck traffic on Southwest Blvd, located between 25<sup>th</sup> Street and 26<sup>th</sup> Street, which is proposed to be provided during Phase II. There are also proposed to be two egress locations. The first is at 26<sup>th</sup> and Belleview Avenue, and the other for the limited exiting truck traffic only at 26<sup>th</sup> Street, near Jarboe Street. A site plan for the proposed development is illustrated in Figure 2.

# Boulevard Brewing Company Expansion Kansas City, Missouri

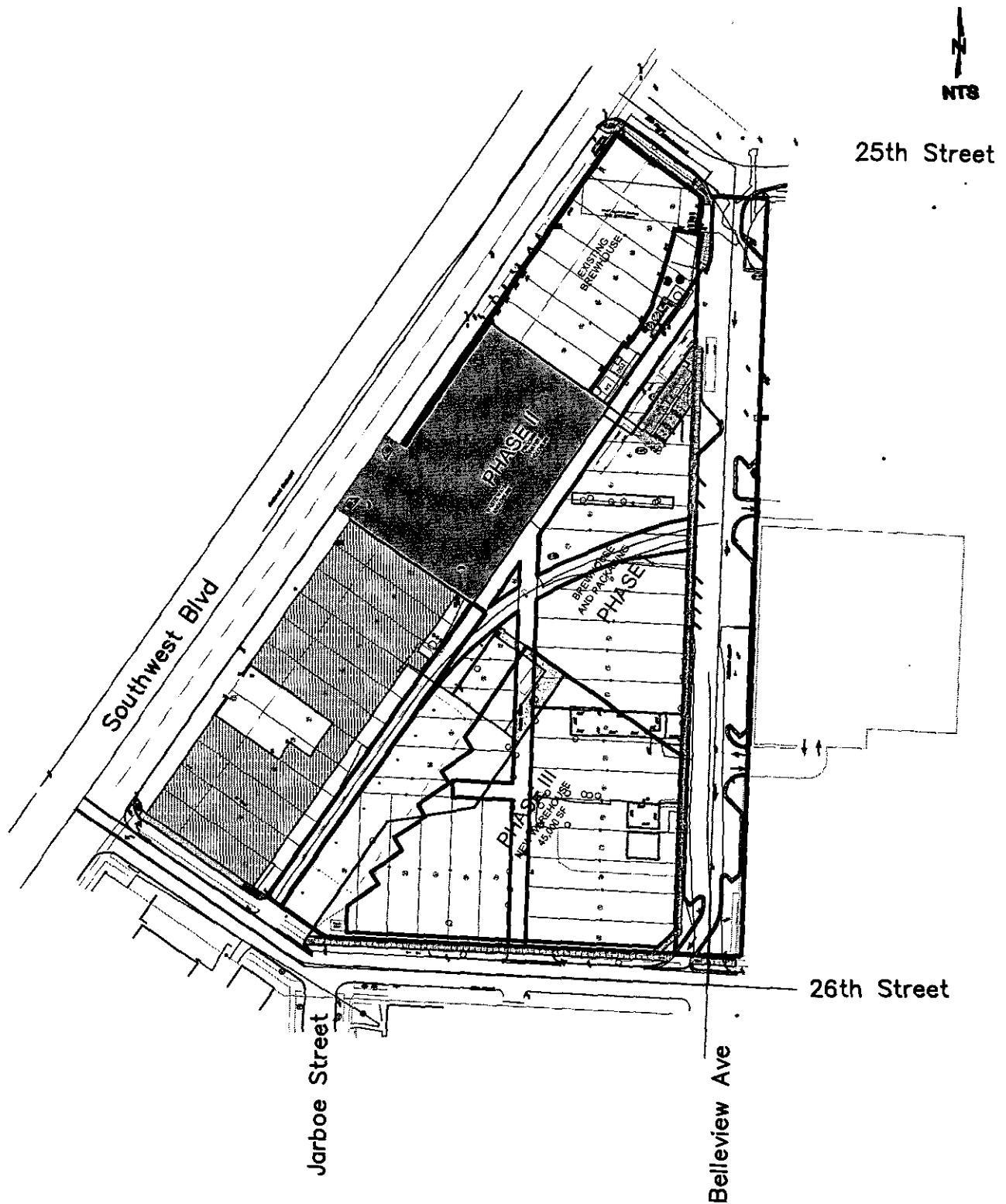


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Vicinity Map

FIGURE

Boulevard Brewing Company Expansion  
Kansas City, Missouri



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### 3.0 DATA COLLECTION

Existing traffic volume turning movement counts were collected on Wednesday August 18<sup>th</sup>, 2004 from 7:00 to 9:00am and 4:00 to 6:00pm, at the following intersections:

- Southwest Blvd and 25<sup>th</sup> Street
- Southwest Blvd and 26<sup>th</sup> Street
- 26<sup>th</sup> Street and Jarboe Street
- 26<sup>th</sup> Street and Bellevue Avenue
- 25<sup>th</sup> Street and Bellevue Avenue

These existing traffic volumes are illustrated in Figure 3. Additionally, a 24-hour count was conducted on Southwest Blvd, on August 31, 2004, to determine the peak hour of adjacent street traffic. The peak hour of traffic was determined to be between 4:45 – 5:45 PM. The traffic count data reports are attached in the appendix of this report.



## 4.0 EXISTING TRAFFIC CONDITIONS

Southwest Blvd is currently a four-lane arterial roadway, with two traveling lanes in each direction, in the vicinity of the site development. The posted speed limit on Southwest Blvd is 35 mph near the proposed development. 25<sup>th</sup> Street is a two-lane roadway with one lane in each direction of travel, with a posted speed limit of 30 mph in the eastbound direction, and a posted speed limit of 20 mph westbound. 26<sup>th</sup> Street is a two-lane roadway with one lane in each direction of travel and a posted speed limit of 25 mph. Belleview Avenue is a one-way street southbound south of the intersection of 26<sup>th</sup> Street, whereas it is a two-way street with one lane in each direction between 25<sup>th</sup> and 26<sup>th</sup> Street. The existing traffic conditions were obtained by field data collection that Olsson Associates conducted. Currently the Average Daily Traffic (ADT) on Southwest Blvd is 15,414 vehicles per day. The existing peak hour turning movement volumes are illustrated in Figure 3. The intersections of Southwest Blvd with 25<sup>th</sup> Street and 26<sup>th</sup> Street are currently unsignalized with Stop control on 25<sup>th</sup> Street and 26<sup>th</sup> Street. Currently the westbound left turning movement at the intersection of Southwest Blvd with 25<sup>th</sup> Street is restricted. Thus vehicles on 25<sup>th</sup> Street destined south on Southwest Blvd are routed via Madison Avenue to make left turns at the intersection of Southwest Blvd with 26<sup>th</sup> Street. The existing intersection geometrics and traffic control for the study area intersections are illustrated in Figure 4.

### 4.1 Capacity Analysis

Unsignalized capacity analyses were performed in accordance with chapter 17 of the HCM using the Highway Capacity Software (HCS2000), version 4.1b. Signalized intersection capacity analyses were performed using SYNCHRO, version 6.0, based on the Highway Capacity Manual (HCM) delay methodology. For simplicity, the amount of delay is equated to a grade or Level of Service (LOS) based on thresholds of driver acceptance. A letter grade between A and F is assigned, where LOS A represents the best operation. Table 1 represents the LOS associated with intersection control delay, in seconds per vehicle (sec/veh), for signalized and unsignalized intersections.

Table 1: Intersection Level of Service Summary

| LOS | INTERSECTION DELAY (sec/veh) |              |
|-----|------------------------------|--------------|
|     | SIGNALIZED                   | UNSIGNALIZED |
| A   | 0-10                         | 0-10         |
| B   | 10.1-20                      | 10.1-15      |
| C   | 20.1-35                      | 15.1-25      |
| D   | 35.1-55                      | 25.1-35      |
| E   | 55.1-80                      | 35.1-50      |
| F   | >80                          | >50          |

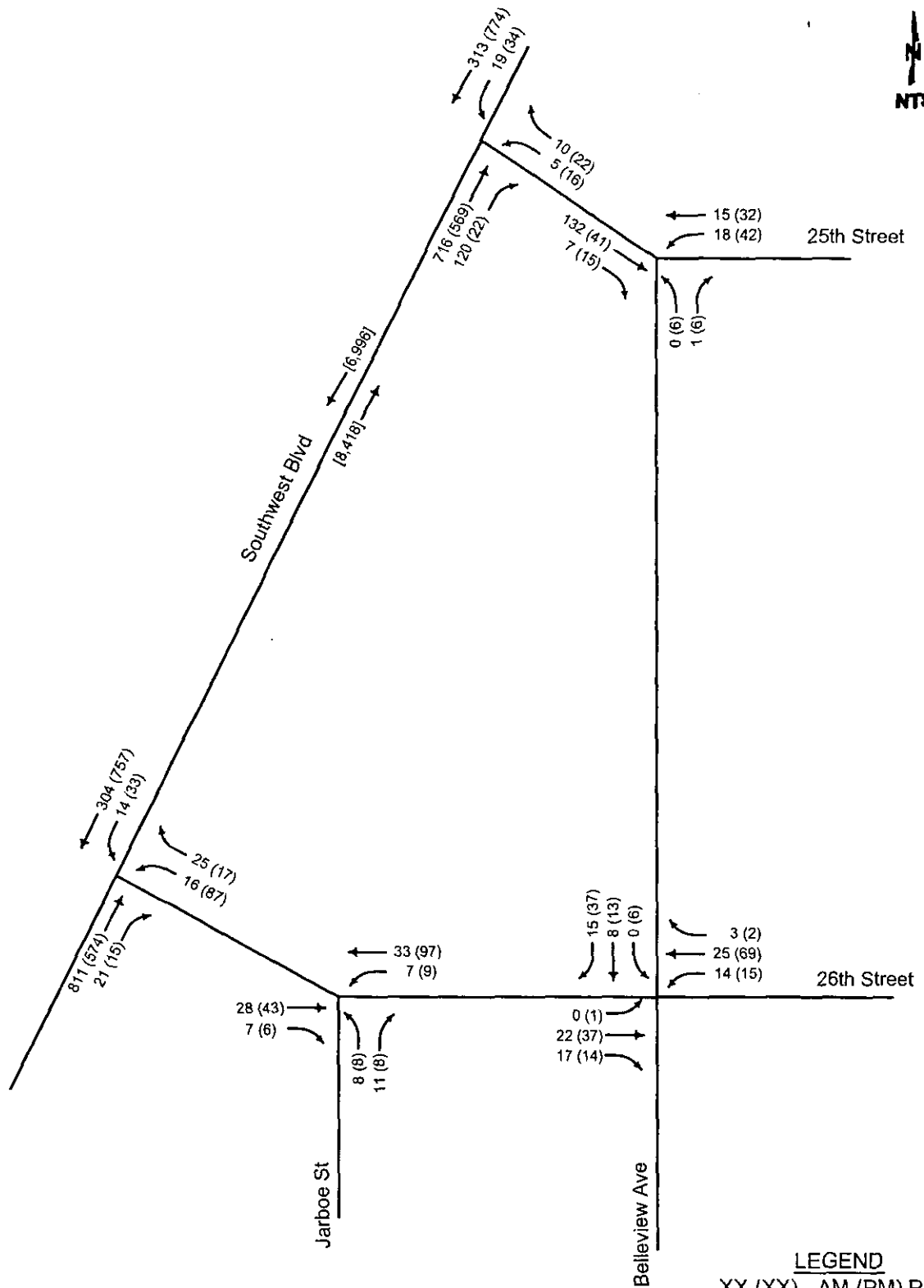
Unsignalized intersection capacity results at the intersection of Southwest Blvd and 25<sup>th</sup> Street indicate that the westbound movement, from 25<sup>th</sup> Street onto Southwest Blvd, is

currently operating at LOS C during both the AM and PM peak periods. Although it is posted to restrict left turns at the intersection, it was observed that 5 and 16 vehicles were making left turns during the AM and PM peak hour, respectively. The southbound left turn movement from Southwest Blvd onto 26<sup>th</sup> Street is currently operating at LOS B and A during the AM and PM peak periods, respectively.

Unsignalized intersection capacity results at the intersection of Southwest Blvd and 26<sup>th</sup> Street indicate that overall the westbound movement from 26<sup>th</sup> Street onto Southwest Blvd is currently operating at LOS C and LOS E during the AM and PM peak periods, respectively. The southbound left turn movement from Southwest Blvd onto 26<sup>th</sup> Street is currently operating at LOS A during both the AM and PM peak periods.

Unsignalized capacity analyses results indicate that all of the unsignalized movements at the intersections of 25<sup>th</sup> Street and Belleview Ave, 26<sup>th</sup> Street and Belleview Ave, and 26<sup>th</sup> Street and Jarboe Street are currently operating at LOS A during both the AM and PM peak periods. Complete capacity analyses results for the existing conditions are illustrated in Figure 5.

*Boulevard Brewing Company Expansion  
Kansas City, Missouri*



**LEGEND**  
XX (XX) - AM (PM) Peak  
Hour Volumes  
[XX] - ADT

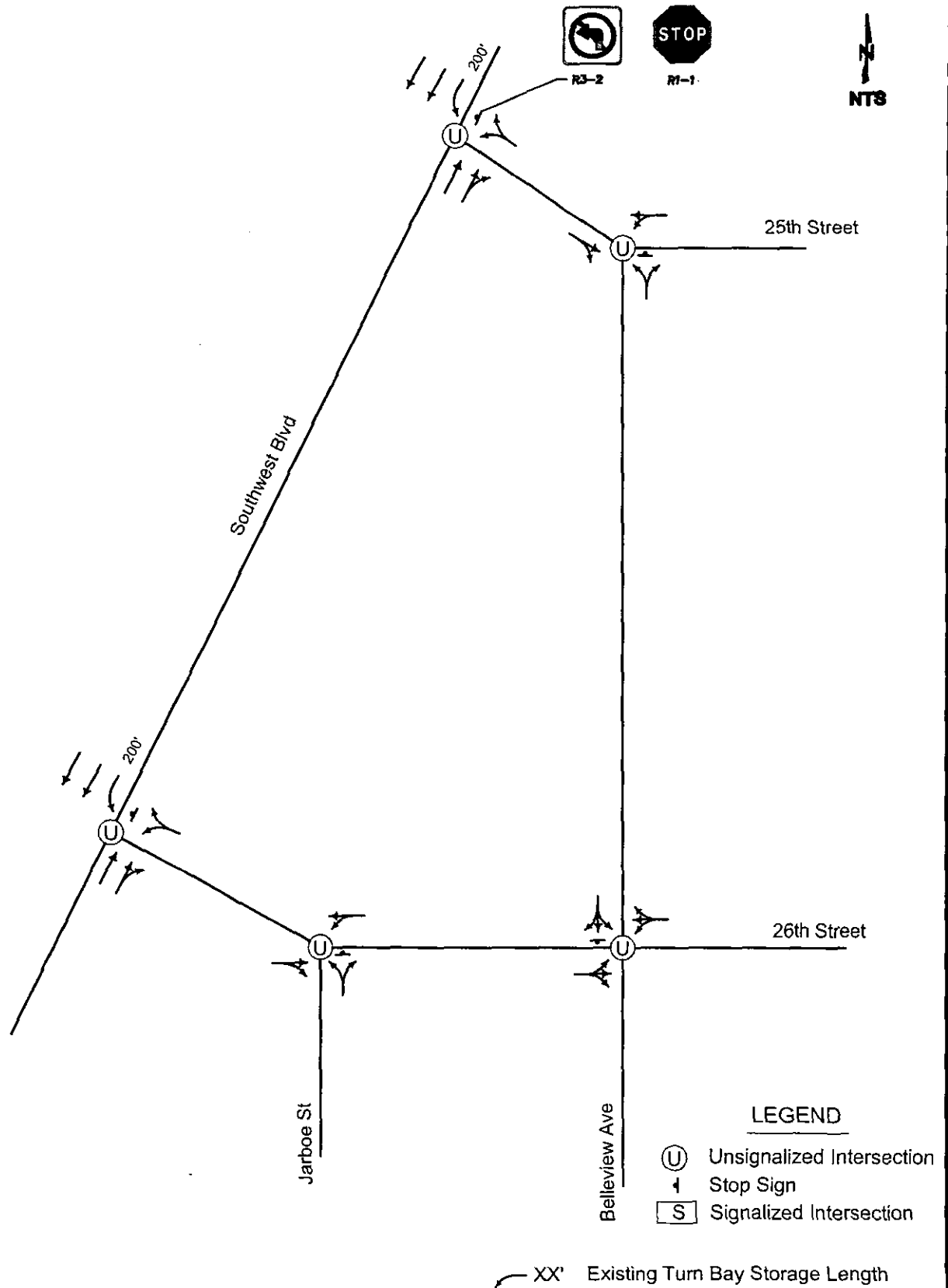


**Existing Peak Hour Volumes**

**FIGURE  
3**

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*Boulevard Brewing Company Expansion  
Kansas City, Missouri*



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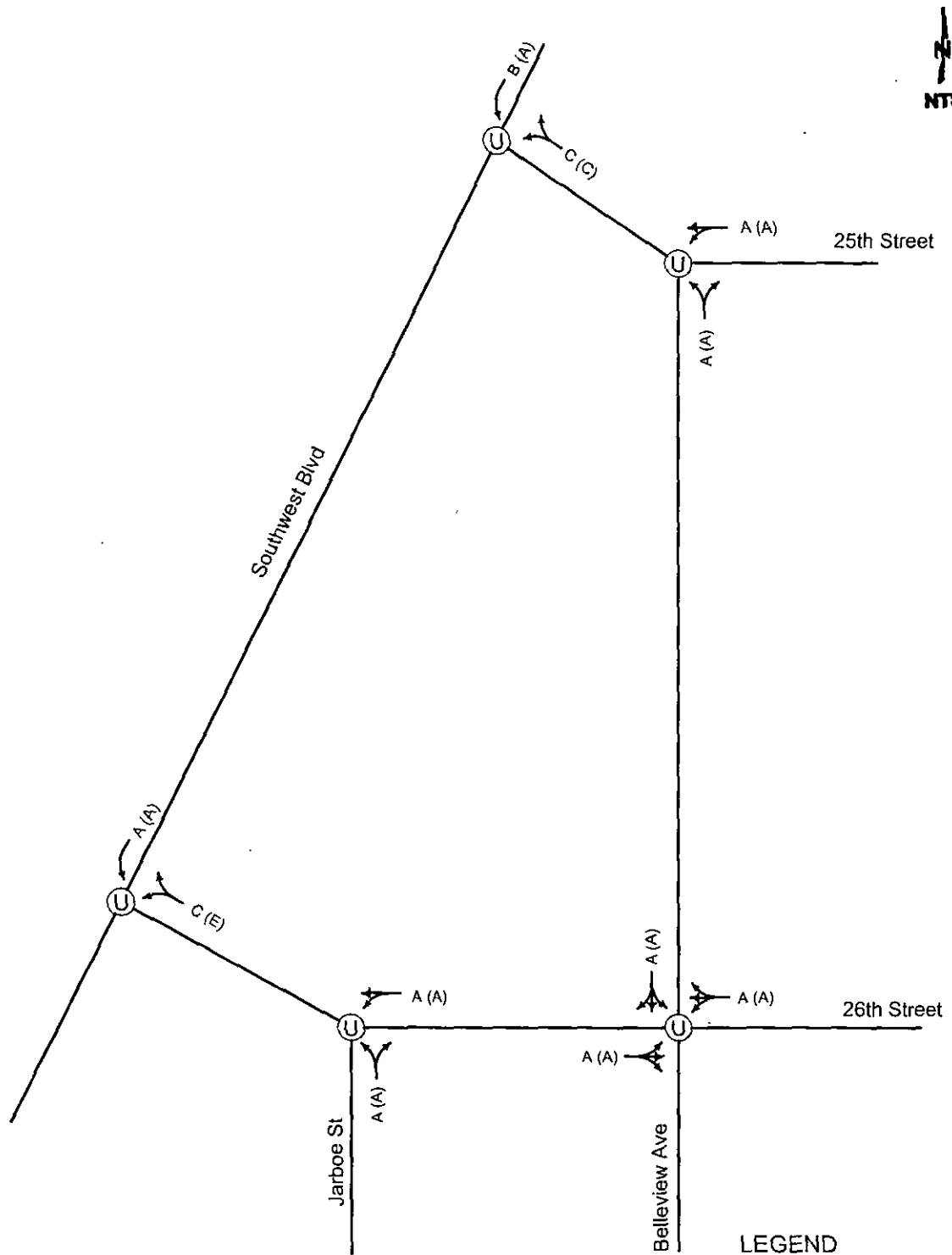


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Existing Lane Configuration & Traffic Control

FIGURE  
4

*Boulevard Brewing Company Expansion  
Kansas City, Missouri*



**LEGEND**

XX (XX) - AM (PM)-Level of Service

Ⓢ Unsignalized Intersection

ⓧ Intersection LOS



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CONSULTING ENGINEERS**

**Existing Peak Hour Level of Service Summary**

**FIGURE  
5**

## 5.0 EXISTING + PHASE I DEVELOPMENT TRAFFIC CONDITIONS

Phase I includes development of 'Brewhouse and Packaging', totaling 68,500 SF of floor area, in addition to the existing facility. In this scenario the trips from the proposed development were added to the existing traffic volumes. Capacity analysis was completed based on these traffic volumes. Additionally, sight distance, pedestrian, and geometric issues were studied.

### 5.1 Trip Generation and Distribution

Trip generation characteristics expected for the site are shown in Table 2. These characteristics are based on trip generation data included in the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (7<sup>th</sup> Edition). For trip generation determination the site was classified as Manufacturing as described in the trip generation manual. The site is expected to generate 245 additional daily trips on an average weekday. The site is expected to generate 28 of those trips during the AM peak hour and 41 during the PM peak hour. Complete trip generation data is illustrated in Table 2.

**Table 2: Trip Generation for Phase I of the Site Development**

| Daily Trip Generation        |               |        |    |                            |                       |                   |      |                    |      |                |
|------------------------------|---------------|--------|----|----------------------------|-----------------------|-------------------|------|--------------------|------|----------------|
| ITE<br>Code/Page             | Land Use      | Size   |    | Trip Gen.<br>Avg. Rate/Eq. | Daily<br>Trips        | Trip Distribution |      | Daily Trips        |      | Total<br>Trips |
|                              |               |        |    |                            |                       | Enter             | Exit | Enter              | Exit |                |
| 140/160                      | Manufacturing | 68,500 | SF | Equation                   | 245                   | 50%               | 50%  | 123                | 122  | 245            |
| Total                        |               |        |    |                            |                       |                   |      | 123                | 122  | 245            |
| AM Peak Hour Trip Generation |               |        |    |                            |                       |                   |      |                    |      |                |
| ITE<br>Code/Page             | Land Use      | Size   |    | Trip Gen.<br>Avg. Rate/Eq. | AM Peak<br>Hour Trips | Trip Distribution |      | AM Peak Hour Trips |      | Total<br>Trips |
|                              |               |        |    |                            |                       | Enter             | Exit | Enter              | Exit |                |
| 140/160                      | Manufacturing | 68,500 | SF | Equation                   | 28                    | 77%               | 23%  | 22                 | 6    | 28             |
| Total                        |               |        |    |                            |                       |                   |      | 22                 | 6    | 28             |
| PM Peak Hour Trip Generation |               |        |    |                            |                       |                   |      |                    |      |                |
| ITE<br>Code/Page             | Land Use      | Size   |    | Trip Gen.<br>Avg. Rate/Eq. | PM Peak<br>Hour Trips | Trip Distribution |      | PM Peak Hour Trips |      | Total<br>Trips |
|                              |               |        |    |                            |                       | Enter             | Exit | Enter              | Exit |                |
| 140/160                      | Manufacturing | 68,500 | SF | Equation                   | 41                    | 36%               | 64%  | 15                 | 26   | 41             |
| Total                        |               |        |    |                            |                       |                   |      | 15                 | 26   | 41             |

During phase I it is anticipated that there could be up to 2 and 3 trucks destined to or from the site during the AM and PM peak hours, respectively. This equates to

approximately 7% of trips destined to the site are truck traffic. This will not increase the existing overall truck percentage on Southwest Blvd. The existing 3% truck traffic on Southwest Blvd was used in the analysis along with the 7% truck traffic destined to the site.

A traffic distribution was developed for the development site based on review of the area and existing traffic volumes. The distribution of the trips generated from the site is as follows:

- 48% North on Southwest Blvd
- 48% South on Southwest Blvd
- 4% East on 25<sup>th</sup> Street

The additional peak hour trips for the development, following distribution and assignment to the roadway network are illustrated in Figure 6. These development site trips were added to the existing traffic volumes. The resulting existing + development peak hour traffic volumes are illustrated in Figure 7. The existing + development intersection geometrics and traffic control, for the study area intersections, are illustrated in Figure 8.

## **5.2 Signal Warrant Analysis**

The *Manual on Uniform Traffic Control Devices* (MUTCD-2003 Edition) provides eight signal warrants for evaluation of signalization at intersections. Typically, traffic signalization is warranted based on a complete review of traffic information including volumes, pedestrians, accident experience, and traffic progression. The preliminary need for signalization at study area intersections was evaluated based on the Peak Hour Warrant (Warrant 3) contained in the MUTCD. Because this study does not estimate the other criteria for signalization warrants, only Warrant 3 dealing with peak hour traffic volumes was used to evaluate the need for signalization.

Both the intersections of Southwest Blvd with 25<sup>th</sup> Street and 26<sup>th</sup> Street were evaluated for signal warrants based on existing + development traffic conditions. Based on the existing + development traffic volumes neither intersection is expected to meet the warrant for signalization and thus were analyzed as unsignalized intersections.

Recently, however, traffic has been rerouted to 26<sup>th</sup> Street from 25<sup>th</sup> Street via Madison Avenue by the addition of advanced signing and a 'No Left Turn' sign restriction on 25<sup>th</sup> Street at Southwest Blvd. The turning restriction was put in place due to the limited sight distance for left turning traffic from 25<sup>th</sup> Street onto Southwest Blvd. In addition, the Post Office Redevelopment is expected to add a number of trips to 25<sup>th</sup> Street. Based on the traffic study completed for this development by TranSystems Corporation in February 2003, an additional 125 and 170 peak hour trips are expected to be added to 25<sup>th</sup> Street, to the West of Summit Street, during the early AM and PM peak hour, respectively. The study also states that while not a study intersection, with the additional traffic added to 25<sup>th</sup> Street, a traffic signal may be warranted at 25<sup>th</sup> Street

and Southwest Blvd. At the time the Post Office Redevelopment is complete, and considering any rerouted traffic from 26<sup>th</sup> Street, it is anticipated that a signal would be warranted. 25<sup>th</sup> Street, as opposed to 26<sup>th</sup> Street, is likely the most logical option due to the better connectivity of 25<sup>th</sup> Street with the adjacent roadway network.

### **5.3 Capacity Analysis**

Unsignalized intersection capacity results at the intersection of Southwest Blvd and 25<sup>th</sup> Street indicate that the westbound movement from 25<sup>th</sup> Street turning onto Southwest Blvd is expected to operate at LOS C during both the AM and PM peak periods. Even with the turning restriction posted a similar proportion of motorists are expected to still make a left turn, which is reducing the level of service for this movement. The southbound left turn movement from Southwest Blvd onto 25<sup>th</sup> Street is expected to operate at LOS B and LOS A during the AM and PM peak periods, respectively.

Unsignalized intersection capacity results at the intersection of Southwest Blvd and 26<sup>th</sup> Street indicate that the westbound left turn movement from 26<sup>th</sup> Street onto Southwest Blvd is expected to operate at LOS C and LOS E during the AM and PM peak periods, respectively. A westbound right turn lane on 26<sup>th</sup> Street was recommended to reduce delay for vehicles turning right onto Southwest Blvd. The westbound right turn movement from 26<sup>th</sup> Street onto Southwest Blvd is expected to operate at LOS B during both the AM and PM peak periods. The southbound left turn movement from Southwest Blvd onto 26<sup>th</sup> Street is expected to operate at LOS A during both the AM and PM peak periods.

Unsignalized capacity analyses results indicate that all of the unsignalized movements at the intersections of 25<sup>th</sup> Street and Bellevue Ave, 26<sup>th</sup> Street and Bellevue Ave, and 26<sup>th</sup> Street and Jarboe Street are expected to operate at LOS A during both the AM and PM peak periods. Complete capacity analyses results for the existing + Phase I development conditions are illustrated in Figure 9.

### **5.4 Intersection Sight Distance**

Intersection sight distance was measured at all of the proposed driveways and intersections at Southwest Boulevard. The sight distance measurements are illustrated in Figure 10. All of the proposed driveways have adequate sight distance. Bellevue Avenue is proposed to be a one-way street southbound and thus there would not be a northbound movement or a sight distance concern. The intersection of 25<sup>th</sup> Street and Southwest Boulevard has poor sight distance on 25<sup>th</sup> Street looking to the North. Thus, this was the reason for the recent posted restriction of left turns from 25<sup>th</sup> Street onto Southwest Boulevard. The sight distance measured on 26<sup>th</sup> Street looking north on Southwest Boulevard was the same as the sight distance required for this movement. The sight restriction in this direction was the on street parked vehicles. Thus, it is recommended to restrict parking for northbound Southwest Boulevard traffic a minimum of 60' North of the intersection with 26<sup>th</sup> Street.



## **5.5 Vacation of Belleview Avenue**

Currently Madison Avenue is providing the primary connectivity between 25th Street and 26th Street. The very limited traffic on Belleview Avenue is predominately from the local properties. In analyzing the existing data and study of the area it seems appropriate to vacate the public street. Additionally, it is recommended that Belleview Avenue become a one-way street southbound, which is consistent with Belleview Avenue South of 26<sup>th</sup> Street. It is recommended that Belleview should be maintained and left open at all times and not 'gated'.

## **5.6 Walkability**

The City of Kansas City, Missouri, has recently adopted a Walkability Plan and is requiring new developments to analyze the pedestrian accommodations in the area. This section of the study documents the pedestrian level of service analysis based on the methodologies outlined in Appendix C of the Kansas City Walkability Plan.

### ***Existing Condition:***

A 10' or wider sidewalk exists for the majority of the Boulevard Brewing Company frontage along Southwest Boulevard. Additionally, a newly reconstructed sidewalk is in place on the west side of Southwest Boulevard. Pedestrian crossings are provided under the railroad bridge North of 25<sup>th</sup> Street on both sides of Southwest Boulevard. The pedestrian crosswalks are currently not striped across both 25<sup>th</sup> Street and 26<sup>th</sup> Street at the intersection with Southwest Boulevard. A sidewalk exists along 26<sup>th</sup> Street between Southwest Boulevard and Belleview Avenue. However, portions of the sidewalk are in poor condition.

Sidewalk connectivity is currently provided from Southwest Boulevard to Belleview Avenue along 25<sup>th</sup> Street. In addition, a new sidewalk is proposed to be provided along the entire length of Belleview Avenue adjacent to the site. This new sidewalk will enhance the existing conditions and provide pedestrians an area where there are currently no accommodations.

### **Walkability Analysis:**

For the purposes of this study, the 'Pedestrian Level of Service Requirements by Pedestrian Area Type' was classified as 'Walking To/From Transit Stops. This classification defines the LOS requirement for the following five criteria:

- Directness
- Continuity
- Street Crossings
- Visual Interest & Amenity
- Security

The following destination areas, within the walkability boundary, were determined based on input from City staff and are illustrated below:

- A: Southwest Boulevard & Summit Street (Commercial Area)
- B: 25<sup>th</sup> Street & Summit (Bus Stop)
- C: 26<sup>th</sup> Street & Southwest Boulevard (Bus Stop)



The LOS for each criteria was determined for the above destination areas as follows. The complete LOS worksheet is shown in Table 4.

***Directness:***

Directness analyzes if the pedestrian network is providing the shortest possible route. The proposed site is not expected to have any internal destinations. Thus, only on-site to edge and edge to the three destinations listed above were analyzed. The level of service worksheet included in the Walkability Plan provides criteria for calculating a directness ratio. This ratio takes the actual distance divided by the minimum distance assuming a right angle grid overlay. Table 3 shows the actual and measured distances to the three locations and the calculated ratio (A/M) and corresponding LOS. The distances are the same for both the current and proposed development.

**Table 3: Walkability Directness Calculation:**

|   | Origin                         | Destination                         | Actual Dist. (Ft.) | Measured Dist. (Ft.) | A/M  | LOS |
|---|--------------------------------|-------------------------------------|--------------------|----------------------|------|-----|
| 1 | General Access Door to Brewery | Southwest Boulevard & Summit Street | 1289               | 1622                 | 0.79 | A   |
| 2 | General Access Door to Brewery | 25th Street & Summit Street         | 612                | 621                  | 0.99 | A   |
| 3 | General Access Door to Brewery | 26th Street & Southwest Boulevard   | 900                | 1089                 | 0.83 | A   |

Level of Service A is defined by all A/M values <1.2. All current and proposed directness calculations were determined to be LOS A.

***Continuity:***

Continuity analyzes if the sidewalk network is free from gaps and barriers. Based on the Kansas City Pedestrian Levels of Service analysis contained in Appendix C. *The study area contains mainly continuous stretches of sidewalks that may have variable widths, with and without landscaped parkways; maintenance problems occur in less than 20% of sidewalks.* This description is consistent with the existing and proposed condition of the study area sidewalk and represents LOS C.

***Street Crossings:***

Pedestrian level of service analysis was completed for the following intersections and are included in the appendix of this report:

- 25<sup>th</sup> Street & Southwest Boulevard
- 26<sup>th</sup> Street & Southwest Boulevard
- 25<sup>th</sup> Street & Bellevue

The analysis indicates that the street crossings are currently operating at LOS C. However, evaluating existing conditions it is recommended that the crosswalks be striped and a new ADA compliant pedestrian ramp be installed in the NE quadrant of 26<sup>th</sup> Street and Southwest Boulevard. With these associated improvements the LOS is expected to be at LOS B for the proposed edge to destination. The LOS criteria was determined from the description given in Kansas City Pedestrian Levels of Service for *Street Crossings: Unsignalized, Crossing the Minor Street.*

***Visual Interest & Amenity:***

Visual Interest & Amenity evaluates if the environment is attractive and comfortable, offering protection from harsh conditions. Based on the definition given in Appendix C of the Walkability study the study area most closely follows the description for LOS C: *Functionally operational with less importance to visual interest or amenity. Protection from elements available over 25% of block on average. Seating or resting places averages once every 3 to 4 blocks.*

### Security:

Security evaluates if the environment is secure, well lighted with good line of sight to see the pedestrian, and far away enough from vehicular traffic to provide a feeling of safety. *Good, if uneven, lighting levels on pedestrian routes and unobstructed lines of sight. Street edge of sidewalk separated from the street/traffic by at least 5 feet.* This description is similar to that defined by LOS B. The overall pedestrian level of service worksheet is illustrated in Table 4.

**Table 4: Pedestrian Level of Service Worksheet**

|   | Description of applicable destination area within 1,320 feet of proposed development edge | Destination Area Classification (see text) --Internal or External to Site | Minimum level of service based on project location classification |            |            |                  |                           |          |
|---|---|---|---|------------|------------|------------------|---------------------------|----------|
|   |   |   | Minimum LOS ---->   | Directness | Continuity | Street Crossings | Visual Interest & Amenity | Security |
|   |   |   |   | B          | C          | C                | C                         | B        |
|   | Development Site  |   | Current On Site to Internal Destination                           | N/A        | N/A        | N/A              | N/A                       | N/A      |
|   |   |   | Proposed On Site to Internal Destination                          | N/A        | N/A        | N/A              | N/A                       | N/A      |
|   |   |   | Current On Site to Edge   | A          | A          | N/A              | B                         | B        |
|   |   |   | Proposed On Site to Edge  | A          | A          | N/A              | B                         | B        |
| 1 | Southwest Boulevard & Summit Street   | Commercial  | Current Edge to Destination                                       | A          | C          | C                | C                         | B        |
|   |   |   | Proposed Edge to Destination                                      | A          | C          | B                | C                         | B        |
| 2 | 25th Street & Summit Street   | Transit Stop  | Current Edge to Destination                                       | A          | C          | C                | C                         | B        |
|   |   |   | Proposed Edge to Destination                                      | A          | C          | B                | C                         | B        |
| 3 | 26th Street & Southwest Boulevard   | Transit Stop  | Current Edge to Destination                                       | A          | C          | C                | C                         | B        |
|   |   |   | Proposed Edge to Destination                                      | A          | C          | B                | C                         | B        |
|   | Summary   |   | Current On Site to Edge   | A          | A          | N/A              | B                         | B        |
|   |   |   | Current Edge to Destination                                       | A          | C          | C                | C                         | B        |
|   |   |   | Proposed Edge to Destination                                      | A          | C          | B                | C                         | B        |

### Walkability Recommendations:

The pedestrian crosswalks should be striped across both 25<sup>th</sup> Street and 26<sup>th</sup> Street at the intersection with Southwest Boulevard. It is recommended that a new ADA compliant pedestrian ramp be installed in the NE quadrant of 26<sup>th</sup> Street and Southwest Boulevard. New ADA compliant ramps should be installed at all new curb return locations. It is recommended that inadequate sections of the sidewalk be replaced or a new sidewalk be constructed on the north side of 26<sup>th</sup> Street between Bellevue Avenue and Southwest Boulevard when work is being completed in the south part of the development during phase 3.

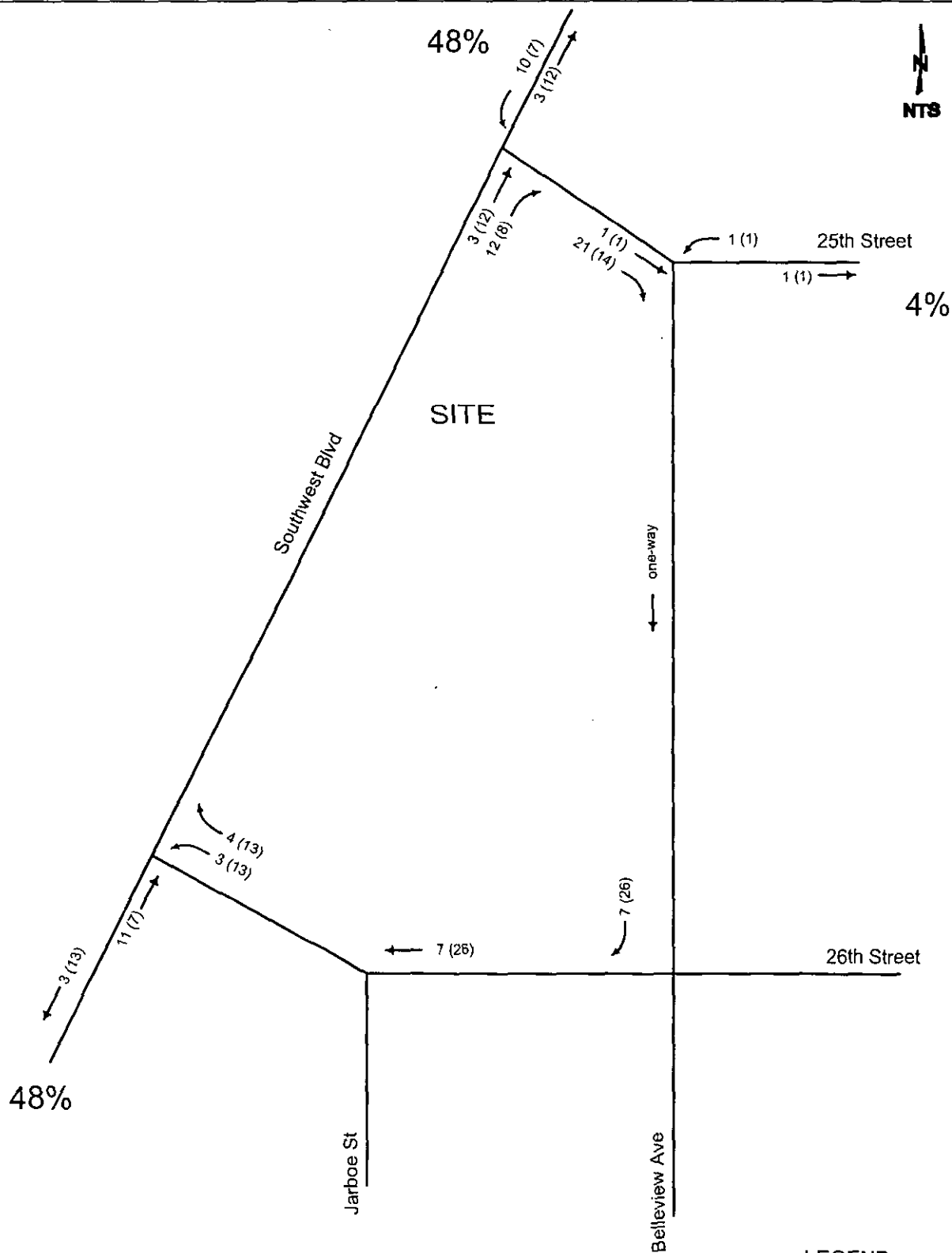
### 5.7 Bike Path

Based on our review of the existing sidewalk conditions along Southwest Boulevard it appears that in general there is adequate room for bike access. There are a couple of utility poles that should be relocated when this route is ultimately developed.

### **5.8 Driveway Geometrics**

The proposed entrance from the private alley to 26<sup>th</sup> Street is wider than the typical commercial driveway entrance. We have reviewed these geometrics and have determined that they do not pose a safety or capacity issue. The reason for the proposed width is simply to provide adequate room for the truck turning radius onto 26th street without causing vehicles to encroach into the oncoming lanes. In our opinion, the proposed geometrics will be an improvement from existing conditions.

*Boulevard Brewing Company Expansion  
Kansas City, Missouri*



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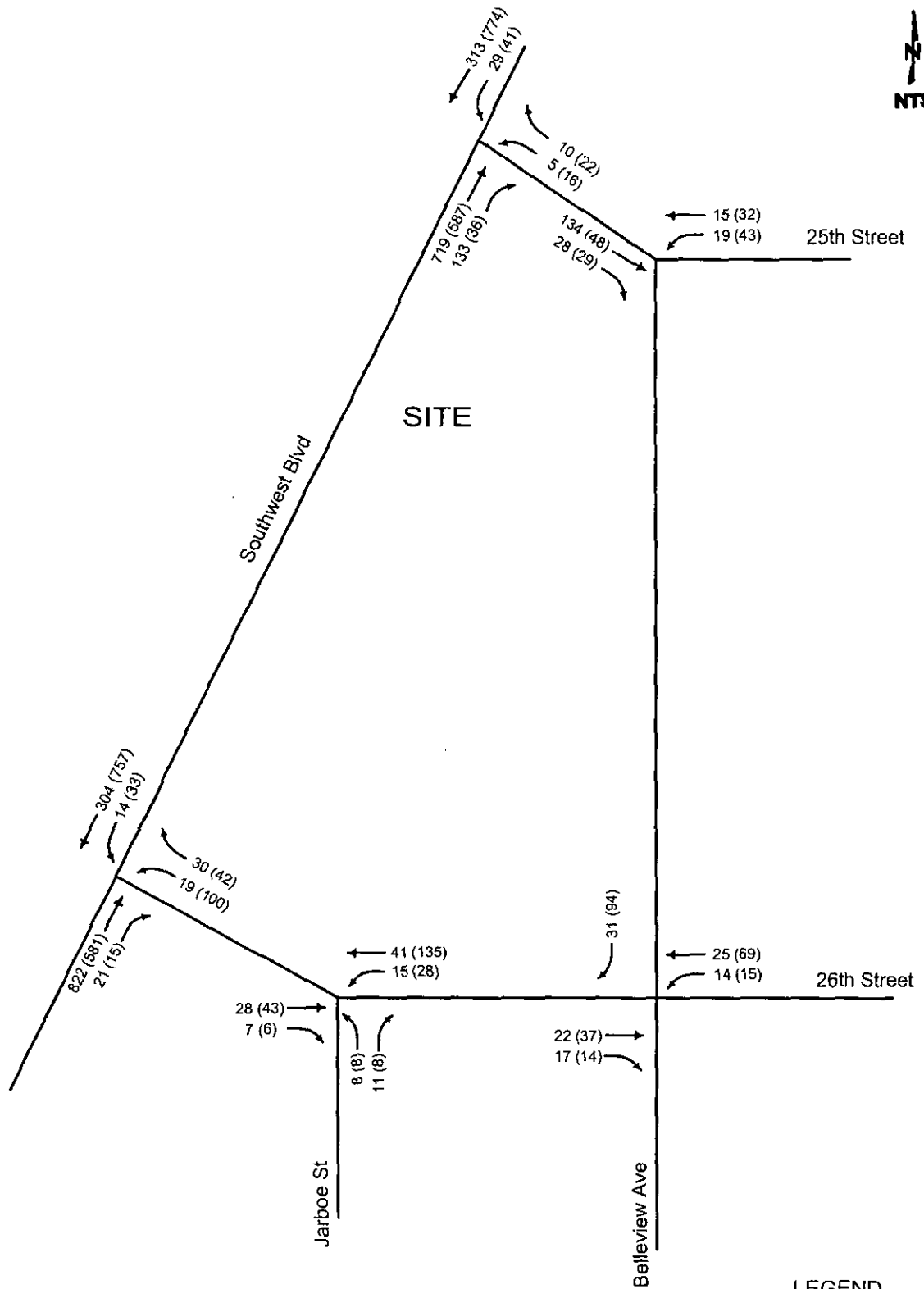


OLSSON  
ASSOCIATES  
CONSULTING ENGINEERS

Phase I Development Generated Trip Distribution

FIGURE  
6

*Boulevard Brewing Company Expansion  
Kansas City, Missouri*



**LEGEND**  
XX (XX) - AM (PM) Peak  
Hour Volumes



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CONSULTING ENGINEERS**

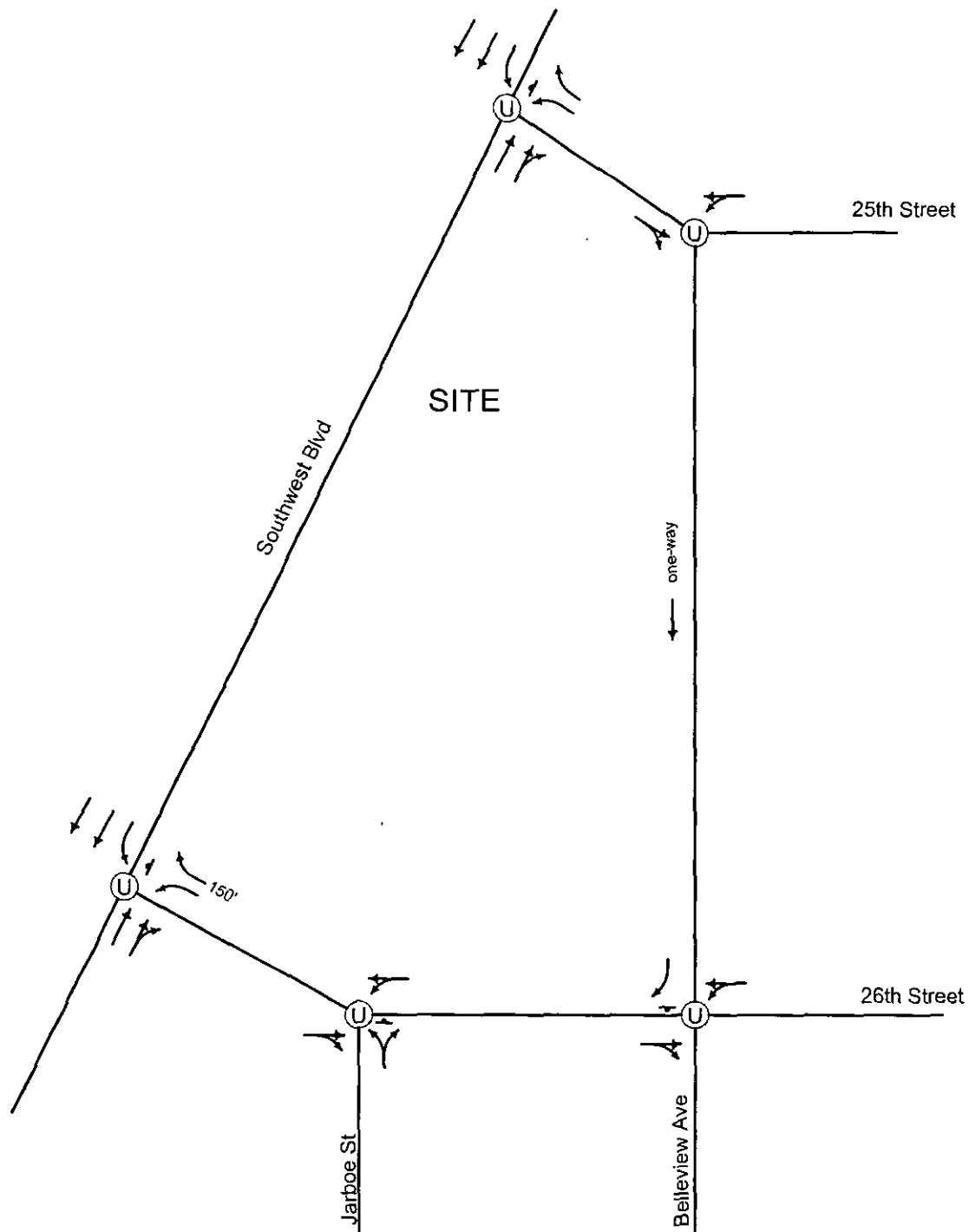
**Existing + Phase I Development  
Peak Hour Volumes**

**FIGURE**

**7**

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*Boulevard Brewing Company Expansion  
Kansas City, Missouri*



**LEGEND**

- Ⓢ Unsignalized Intersection
- Ⓣ Stop Sign
- Ⓢ Signalized Intersection
- xx' Recommended Turn Bay Storage Length



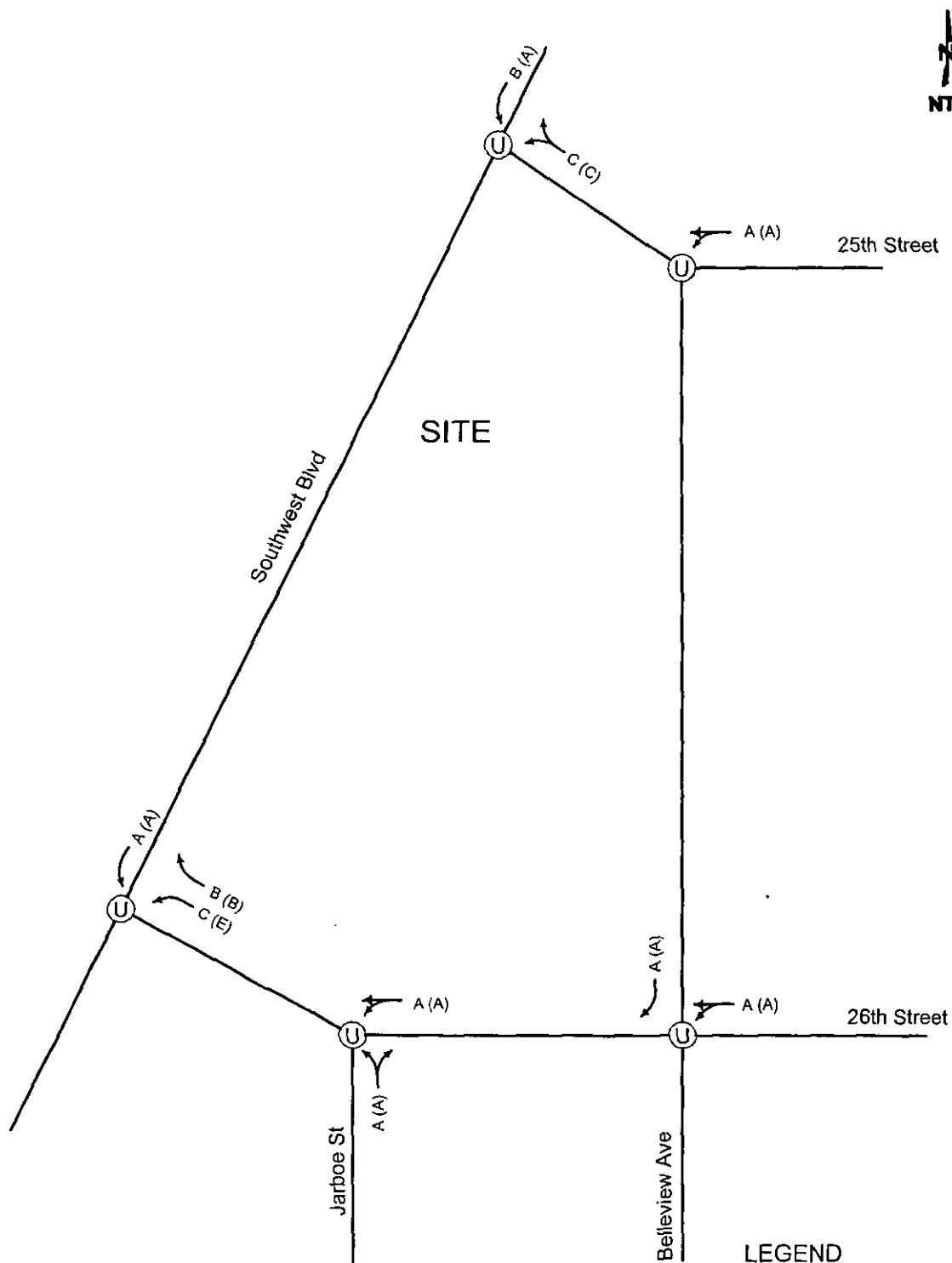
OLSSON  
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CONSULTING ENGINEERS

Existing + Phase I Development  
Lane Configuration & Traffic Control

FIGURE  
8



*Boulevard Brewing Company Expansion  
Kansas City, Missouri*



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Existing + Phase I Development  
Peak Hour Level of Service Summary

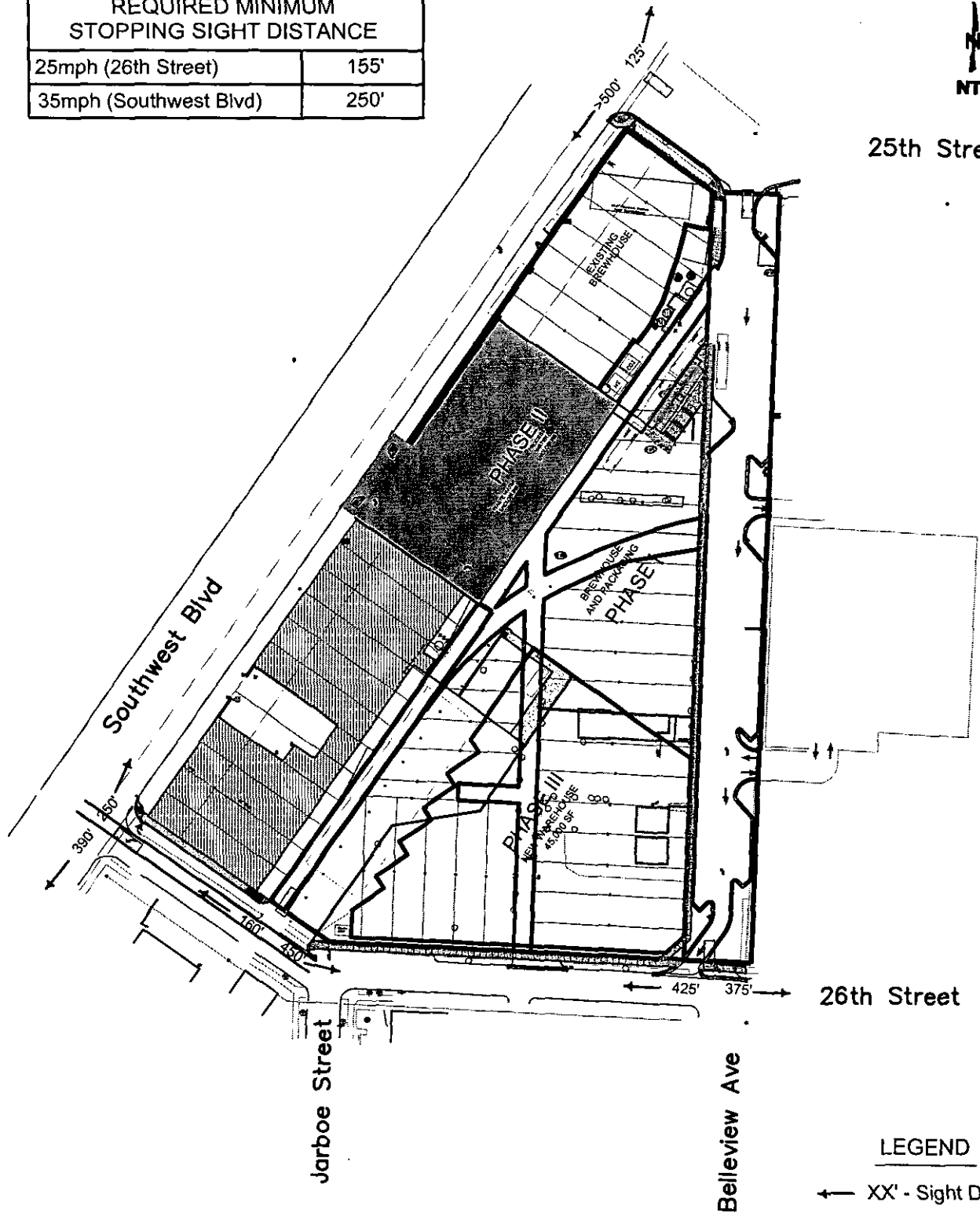
FIGURE  
9

Boulevard Brewing Company Expansion  
Kansas City, Missouri

| REQUIRED MINIMUM<br>STOPPING SIGHT DISTANCE |      |
|---|------|
| 25mph (26th Street)                         | 155' |
| 35mph (Southwest Blvd)                      | 250' |



25th Street



LEGEND

- ← XX' - Sight Distance
- ▭ Vehicle Position



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Sight Distance

FIGURE  
10

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## 6.0 YEAR 2024 TRAFFIC CONDITIONS

The future scenario was analyzed incorporating both Phase II and Phase III development, the Post Office redevelopment traffic, and the expected background traffic growth. The future year 2024 scenario includes both Phases II and III, since these phases of development are estimated to be completed in the year 2017 and 2020, respectively. Year 2024 background traffic volumes were developed using growth rates that were determined based on discussion with the City staff. A growth factor of 1.22 was applied to the existing traffic volumes and represents the background traffic growth over the next 20 years. The trip generation due to future phases of site development with the Post Office redevelopment traffic and the background traffic growth was added to the Existing +Phase I traffic volumes.

### 6.1 Trip Generation and Distribution

Future year scenario includes completion of all phases of site development. Trip generation characteristics expected for the future year scenario are determined from the trip generation data included in the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (7<sup>th</sup> Edition). The net growth of floor area for both Phases II and III is 37,750 SF. The site is expected to generate 147 additional daily trips on an average weekday. The site is expected to generate 31 of those trips during the AM peak hour and 29 during the PM peak hour. Complete trip generation data is illustrated in Table 3.

**Table 5: Trip Generation for Phases II & III of the Site Development**

| Daily Trip Generation |                  |               |         |    |                            |                |                   |      |             |      |
|-----------------------|------------------|---------------|---------|----|----------------------------|----------------|-------------------|------|-------------|------|
|                       | ITE<br>Code/Page | Land Use      | Size    |    | Trip Gen.<br>Avg. Rate/Eq. | Daily<br>Trips | Trip Distribution |      | Daily Trips |      |
|                       |                  |               |         |    |                            |                | Enter             | Exit | Enter       | Exit |
| Total                 | 140/160          | Manufacturing | 106,250 | SF | Equation                   | 392            | 50%               | 50%  | 196         | 196  |
| Phase I               | 140/160          | Manufacturing | 68,500  | SF | Equation                   | 245            | 50%               | 50%  | 123         | 122  |
| Phase II & III        |                  |               | 37,750  |    |                            | 147            |                   |      | 73          | 74   |

| AM Peak Hour Trip Generation |                  |               |         |    |                            |                       |                   |      |                    |      |
|------------------------------|------------------|---------------|---------|----|----------------------------|-----------------------|-------------------|------|--------------------|------|
|                              | ITE<br>Code/Page | Land Use      | Size    |    | Trip Gen.<br>Avg. Rate/Eq. | AM Peak<br>Hour Trips | Trip Distribution |      | AM Peak Hour Trips |      |
|                              |                  |               |         |    |                            |                       | Enter             | Exit | Enter              | Exit |
| Total                        | 140/160          | Manufacturing | 106,250 | SF | Equation                   | 59                    | 77%               | 23%  | 45                 | 14   |
| Phase I                      | 140/160          | Manufacturing | 68,500  | SF | Equation                   | 28                    | 77%               | 23%  | 22                 | 6    |
| Phase II & III               |                  |               | 37,750  |    |                            | 31                    |                   |      | 23                 | 8    |

| PM Peak Hour Trip Generation |                  |               |         |    |                            |                       |                   |      |                    |      |
|------------------------------|------------------|---------------|---------|----|----------------------------|-----------------------|-------------------|------|--------------------|------|
|                              | ITE<br>Code/Page | Land Use      | Size    |    | Trip Gen.<br>Avg. Rate/Eq. | PM Peak<br>Hour Trips | Trip Distribution |      | PM Peak Hour Trips |      |
|                              |                  |               |         |    |                            |                       | Enter             | Exit | Enter              | Exit |
| Total                        | 140/160          | Manufacturing | 106,250 | SF | Equation                   | 70                    | 36%               | 64%  | 25                 | 45   |
| Phase I                      | 140/160          | Manufacturing | 68,500  | SF | Equation                   | 41                    | 36%               | 64%  | 15                 | 26   |
| Phase II & III               |                  |               | 37,750  |    |                            | 29                    |                   |      | 10                 | 19   |

The additional peak hour trips for the development, following distribution and assignment to the roadway network are illustrated in Figure 11. These development site trips were added to the existing + Phase I development trips plus the Post Office redevelopment traffic and background traffic growth. The resulting year 2024 peak hour traffic volumes are illustrated in Figure 12. Phase II and Phase III development includes one-way truck entrance from Southwest Blvd, and a one-way Private Drive exiting vehicles onto 26<sup>th</sup> Street. Future year 2024 intersection geometrics and traffic control are illustrated in Figure 13.

## **6.2 Signal Warrant Analysis**

Considering the Post Office Redevelopment traffic the intersection of 25<sup>th</sup> Street and Southwest Blvd is expected to meet the warrant and be signalized and was analyzed as such.

Due to the signalization at 25<sup>th</sup> street a minor redistribution of traffic from 26<sup>th</sup> Street to 25<sup>th</sup> Street was evaluated. Based on the estimated redistribution a signal is not expected to be warranted at 26<sup>th</sup> Street and Southwest Blvd.

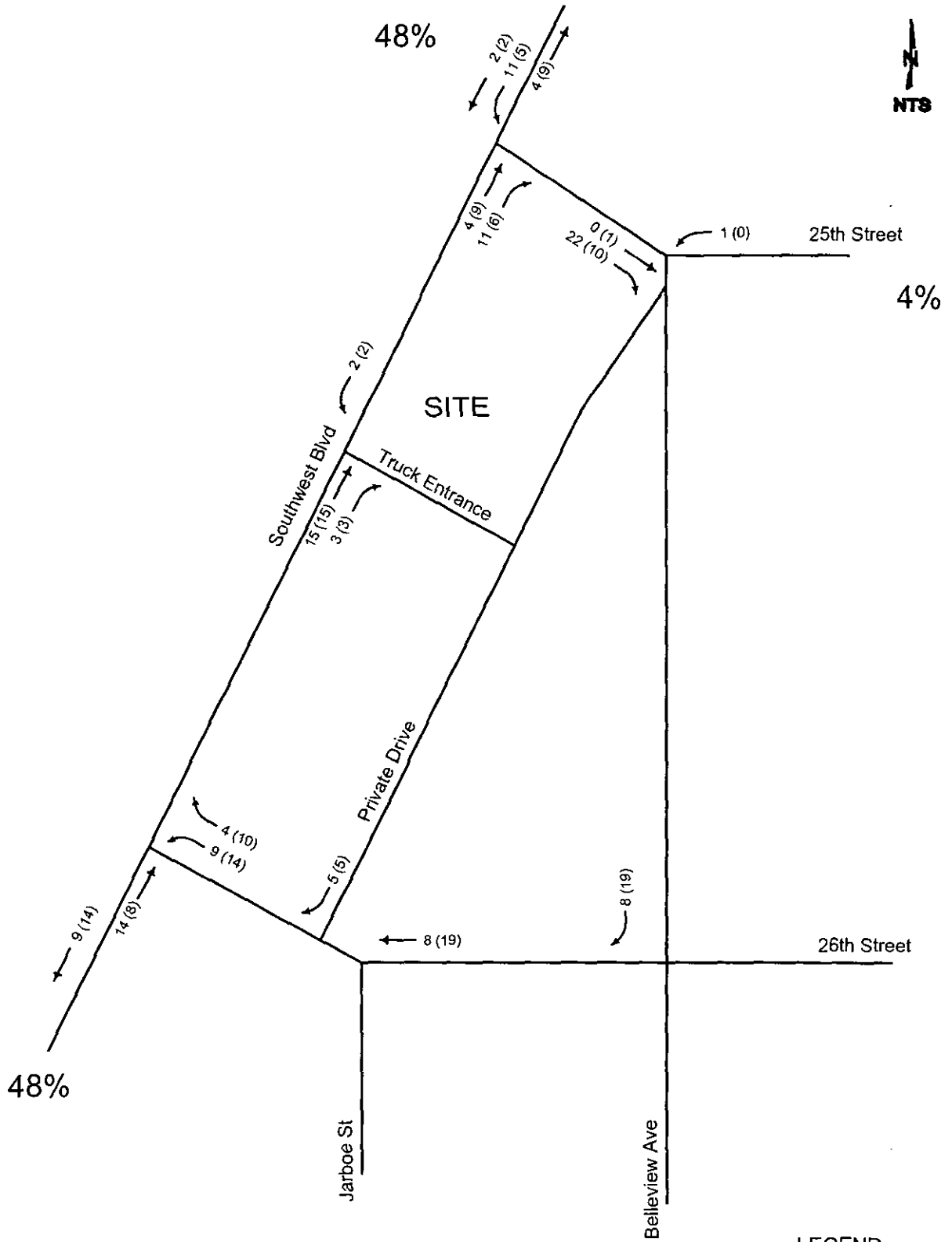
## **6.3 Capacity Analysis**

Signalized intersection capacity results at the intersection of Southwest Blvd and 25<sup>th</sup> Street indicate that the overall intersection is expected to operate at LOS A during both peak periods. All movements are expected to operate at LOS C or better during both peak periods.

Unsignalized intersection capacity results at the intersection of Southwest Blvd and 26<sup>th</sup> Street indicate that the westbound left turn movement from 26<sup>th</sup> Street onto Southwest Blvd is expected to operate at LOS E and LOS F during the AM and PM peak periods, respectively. The westbound right turn movement from 26<sup>th</sup> Street onto Southwest Blvd is expected to operate at LOS B during both the AM and PM peak periods. The southbound left turn movement from Southwest Blvd onto 26<sup>th</sup> Street is expected to operate at LOS B and LOS A during the AM and PM peak periods, respectively.

Unsignalized capacity analyses results indicate that all of the unsignalized movements at the intersections of 25<sup>th</sup> Street and Belleview Ave, 26<sup>th</sup> Street and Belleview Ave, 26<sup>th</sup> Street and Private Drive, and 26<sup>th</sup> Street and Jarboe Street are expected to operate at LOS A during both the AM and PM peak periods. Complete capacity analyses results for the future year 2024 conditions are illustrated in Figure 14.

*Boulevard Brewing Company Expansion  
Kansas City, Missouri*



**LEGEND**  
XX (XX) - AM (PM) Peak  
Hour Volumes

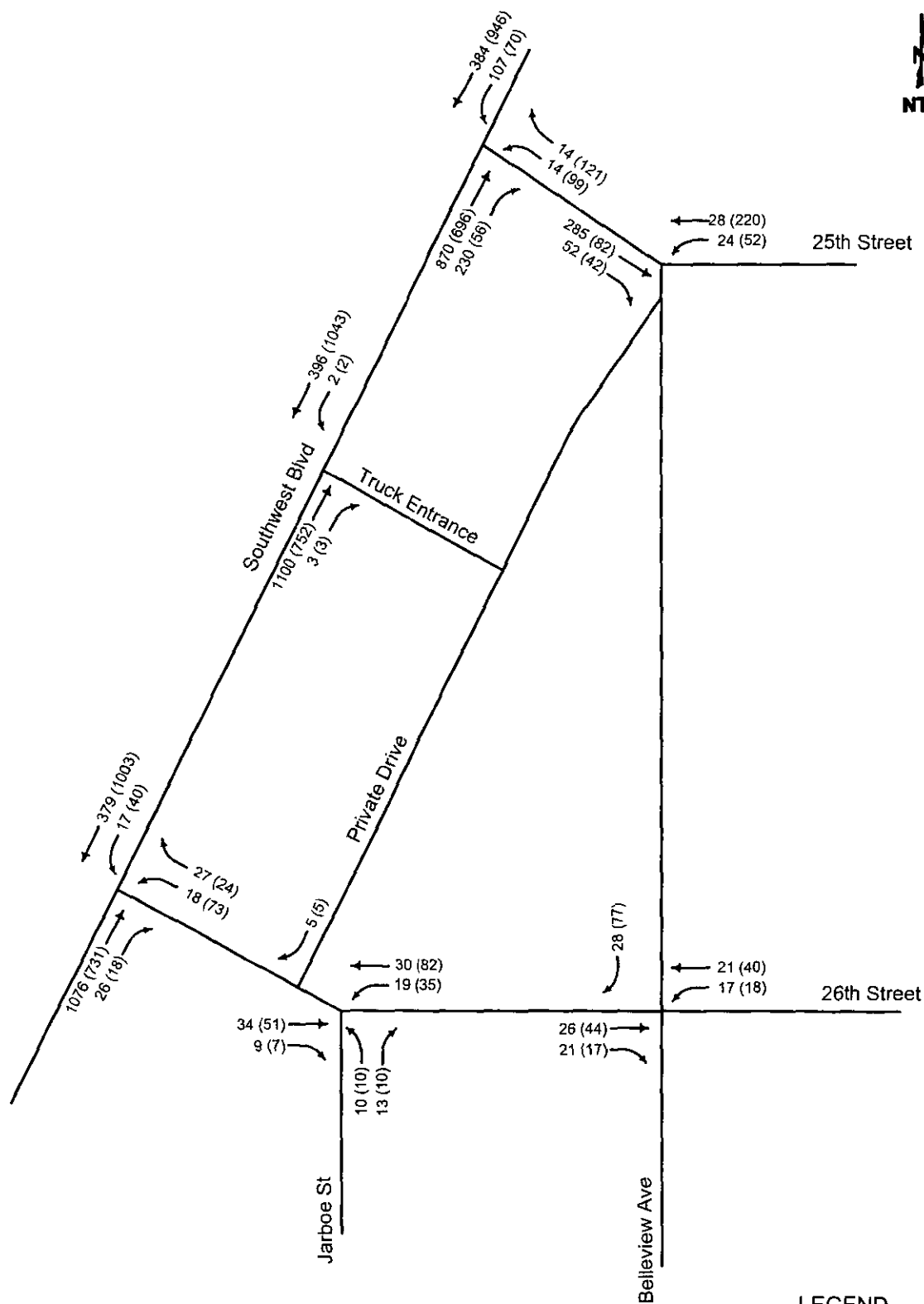


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CONSULTING ENGINEERS

Phase II & Phase III Development  
Generated Trip Distribution

FIGURE  
11

# Boulevard Brewing Company Expansion Kansas City, Missouri



**LEGEND**  
XX (XX) - AM (PM) Peak  
Hour Volumes

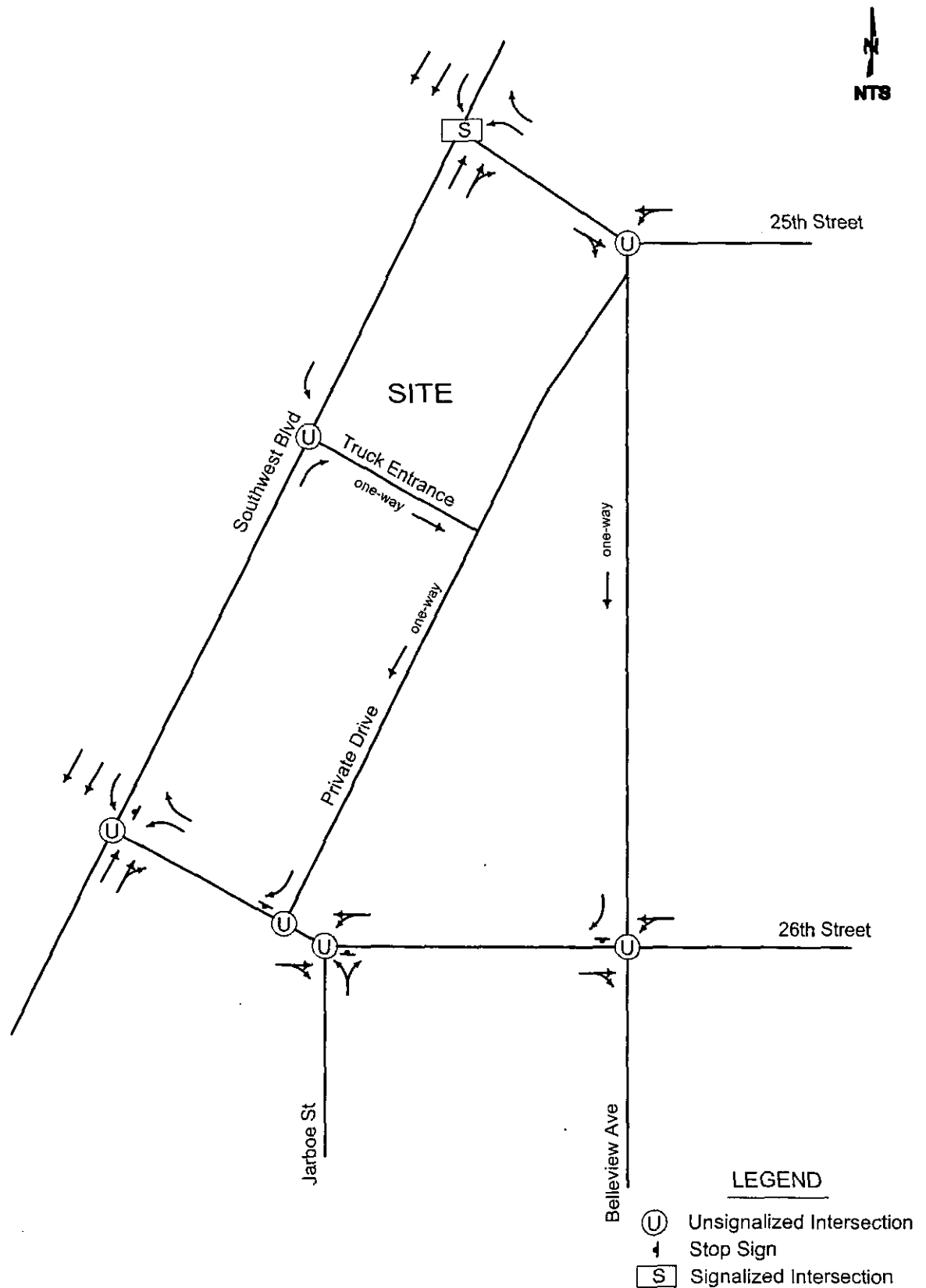


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Year 2024 Peak Hour Volumes

**FIGURE**  
12

*Boulevard Brewing Company Expansion  
Kansas City, Missouri*



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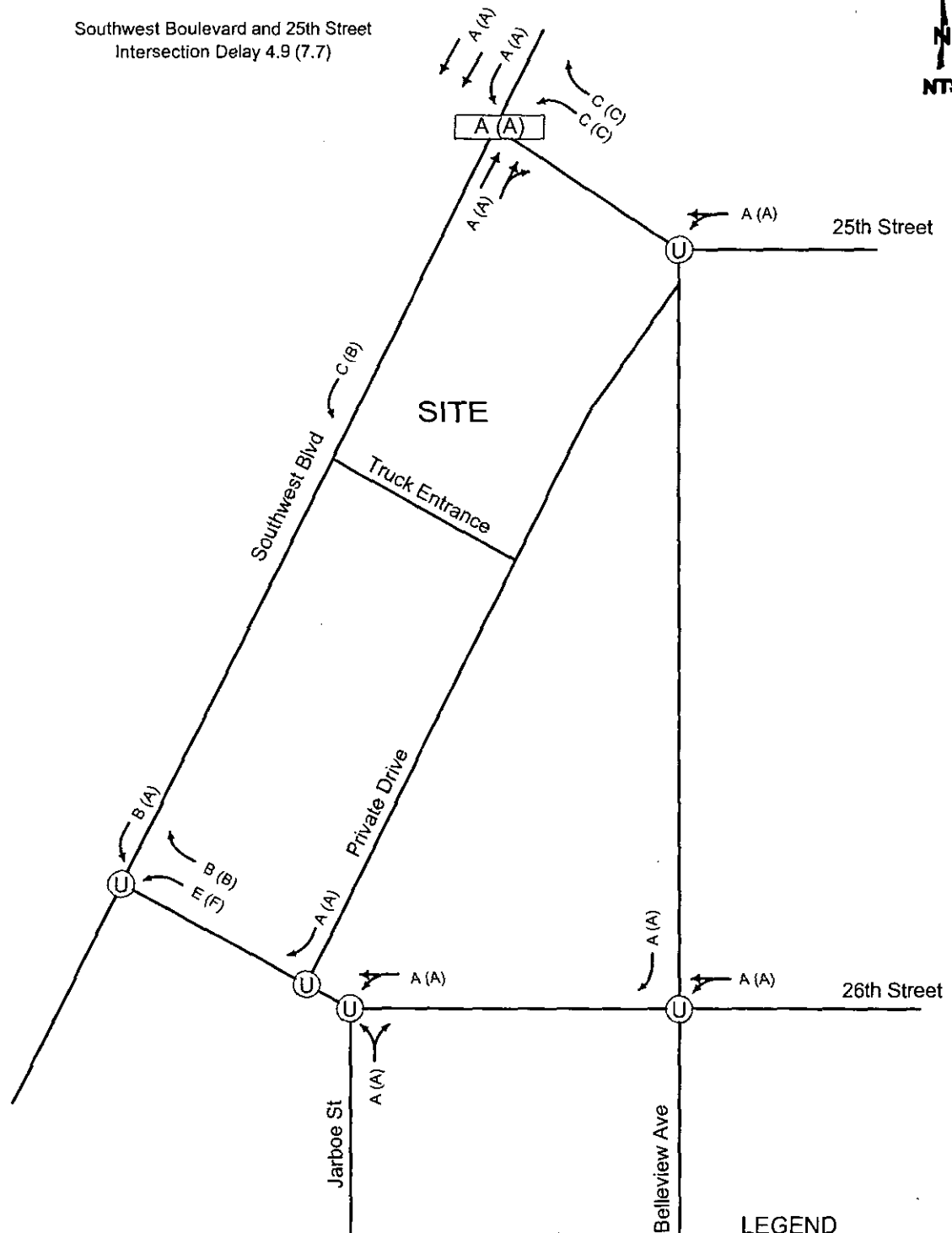


Year 2024 Lane Configuration & Traffic Control

FIGURE  
13

# Boulevard Brewing Company Expansion Kansas City, Missouri

Southwest Boulevard and 25th Street  
Intersection Delay 4.9 (7.7)



## LEGEND

XX (XX) - AM (PM)-Level of Service

U Unsignalized Intersection

X Intersection LOS

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Year 2024 Peak Hour Level of Service Summary

FIGURE

14



## 7.0 RECOMMENDATIONS & CONCLUSIONS

Based on the results of all the capacity analyses and field observations, the following conclusions and recommendations are made:

### RECOMMENDATIONS FOR EXISTING + PHASE I DEVELOPMENT CONDITIONS

- Provide a left and right turn lane for westbound 26<sup>th</sup> Street turning onto Southwest Boulevard to reduce delay for the turning vehicle traffic on 26<sup>th</sup> Street.
- Based on the additional traffic expected to be generated by the Post Office Redevelopment, a traffic signal is expected to be warranted at the intersection of 25<sup>th</sup> Street and Southwest Blvd. The intersections of Southwest Blvd with 25<sup>th</sup> Street and 26<sup>th</sup> Street and the associated traffic patterns should be monitored to determine at what time a traffic signal may be warranted. 25<sup>th</sup> Street, as opposed to 26<sup>th</sup> Street, is likely the most logical option due to the better connectivity of 25<sup>th</sup> Street with the adjacent roadway network. Another advantage of signalizing the intersection of Southwest Blvd and 25<sup>th</sup> Street is removing the restricted westbound left turn movement at this intersection. This restriction is currently re-directing all westbound traffic from a major collector street (25th Street), including truck traffic, onto a narrow minor collector/residential street (26th Street). However one disadvantage of signalization is overcoming design issues of signal indication placement, due to poor vertical line of sight for the vehicles approaching southbound on Southwest Blvd under the existing railroad overpass.
- The pedestrian crosswalks should be striped across both 25<sup>th</sup> Street and 26<sup>th</sup> Street at the intersection with Southwest Boulevard. It is recommended that a new ADA compliant pedestrian ramp be installed in the NE quadrant of 26<sup>th</sup> Street and Southwest Boulevard. New ADA compliant ramps should be installed at all new curb return locations.
- It is recommended that Bellevue Avenue be vacated but should be maintained and left open at all times and not 'gated'.
- A new sidewalk is recommended to be provided along the entire length of Bellevue Avenue adjacent to the site. This new sidewalk will enhance and provide an area where there are currently no pedestrian accommodations.

### RECOMMENDATIONS FOR YEAR 2024 CONDITIONS

- It is recommended that inadequate sections be replaced or a new sidewalk be constructed on the north side of 26<sup>th</sup> Street between Bellevue Avenue and Southwest Boulevard when work is being completed in the south part of the development during phase 3.

## **APPENDIX:**

- Raw Traffic Data
- Existing Signal Warrants
- Existing Reports
- Existing + Phase I Development Signal Warrants
- Existing + Phase I Development Reports
- Pedestrian LOS Analysis – Street Crossings
- 2024 Signal Warrants
- 2024 Reports

- Raw Traffic Data

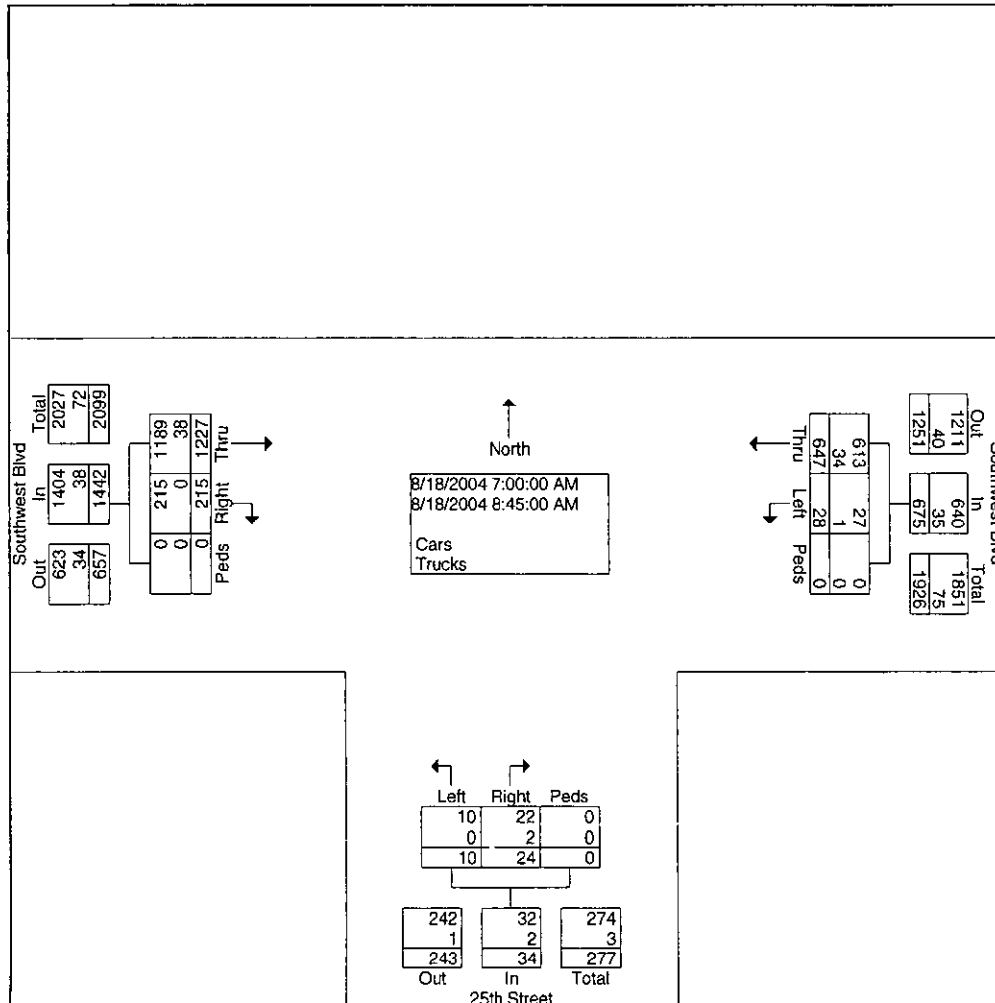
# Turning Movement Counts

Ison Associates  
 Southwest Blvd & 25th Street  
 City of Kansas City, MO  
 Data Collector: CP

File Name : SW\_Blv25th\_St\_AM  
 Site Code : 00000000  
 Start Date : 08/18/2004  
 Page No : 1

Groups Printed: Cars - Trucks

| Start Time  | 25th Street From North |      |      |      |            | Southwest Blvd From East |      |      |      |            | 25th Street From South |      |      |      |            | Southwest Blvd From West |      |      |      |            | Int. Total |
|-------------|------------------------|------|------|------|------------|--------------------------|------|------|------|------------|------------------------|------|------|------|------------|--------------------------|------|------|------|------------|------------|
|             | Right                  | Thru | Left | Peds | App. Total | Right                    | Thru | Left | Peds | App. Total | Right                  | Thru | Left | Peds | App. Total | Right                    | Thru | Left | Peds | App. Total |            |
| Factor      | 1.0                    | 1.0  | 1.0  | 1.0  |            | 1.0                      | 1.0  | 1.0  | 1.0  |            | 1.0                    | 1.0  | 1.0  | 1.0  |            | 1.0                      | 1.0  | 1.0  | 1.0  |            |            |
| 07:00 AM    | 0                      | 0    | 0    | 0    | 0          | 0                        | 81   | 1    | 0    | 82         | 1                      | 0    | 0    | 0    | 1          | 23                       | 115  | 0    | 0    | 138        | 221        |
| 07:15 AM    | 0                      | 0    | 0    | 0    | 0          | 0                        | 64   | 2    | 0    | 66         | 4                      | 0    | 2    | 0    | 6          | 22                       | 132  | 0    | 0    | 154        | 226        |
| 07:30 AM    | 0                      | 0    | 0    | 0    | 0          | 0                        | 91   | 4    | 0    | 95         | 3                      | 0    | 0    | 0    | 3          | 28                       | 147  | 3    | 0    | 178        | 276        |
| 07:45 AM    | 0                      | 0    | 0    | 0    | 0          | 0                        | 82   | 4    | 0    | 86         | 4                      | 0    | 2    | 0    | 6          | 25                       | 167  | 0    | 0    | 192        | 284        |
| Total       | 0                      | 0    | 0    | 0    | 0          | 0                        | 318  | 11   | 0    | 329        | 12                     | 0    | 4    | 0    | 16         | 98                       | 561  | 3    | 0    | 662        | 1007       |
| 08:00 AM    | 0                      | 0    | 0    | 0    | 0          | 0                        | 78   | 8    | 0    | 86         | 2                      | 0    | 0    | 0    | 2          | 32                       | 162  | 0    | 0    | 194        | 282        |
| 08:15 AM    | 0                      | 0    | 0    | 0    | 0          | 0                        | 84   | 4    | 0    | 88         | 1                      | 0    | 2    | 0    | 3          | 29                       | 175  | 0    | 0    | 204        | 295        |
| 08:30 AM    | 0                      | 0    | 0    | 0    | 0          | 0                        | 79   | 3    | 0    | 82         | 3                      | 0    | 1    | 0    | 4          | 34                       | 170  | 0    | 0    | 204        | 290        |
| 08:45 AM    | 0                      | 0    | 0    | 0    | 0          | 0                        | 88   | 2    | 0    | 90         | 6                      | 0    | 3    | 0    | 9          | 22                       | 159  | 0    | 0    | 181        | 280        |
| Total       | 0                      | 0    | 0    | 0    | 0          | 0                        | 329  | 17   | 0    | 346        | 12                     | 0    | 6    | 0    | 18         | 117                      | 666  | 0    | 0    | 783        | 1147       |
| Grand Total | 0                      | 0    | 0    | 0    | 0          | 0                        | 647  | 28   | 0    | 675        | 24                     | 0    | 10   | 0    | 34         | 215                      | 1227 | 3    | 0    | 1445       | 2154       |
| Approch %   | 0.0                    | 0.0  | 0.0  | 0.0  |            | 0.0                      | 95.9 | 4.1  | 0.0  |            | 70.6                   | 0.0  | 29.4 | 0.0  |            | 14.9                     | 84.9 | 0.2  | 0.0  |            |            |
| Total %     | 0.0                    | 0.0  | 0.0  | 0.0  | 0.0        | 0.0                      | 30.0 | 1.3  | 0.0  | 31.3       | 1.1                    | 0.0  | 0.5  | 0.0  | 1.6        | 10.0                     | 57.0 | 0.1  | 0.0  | 67.1       |            |

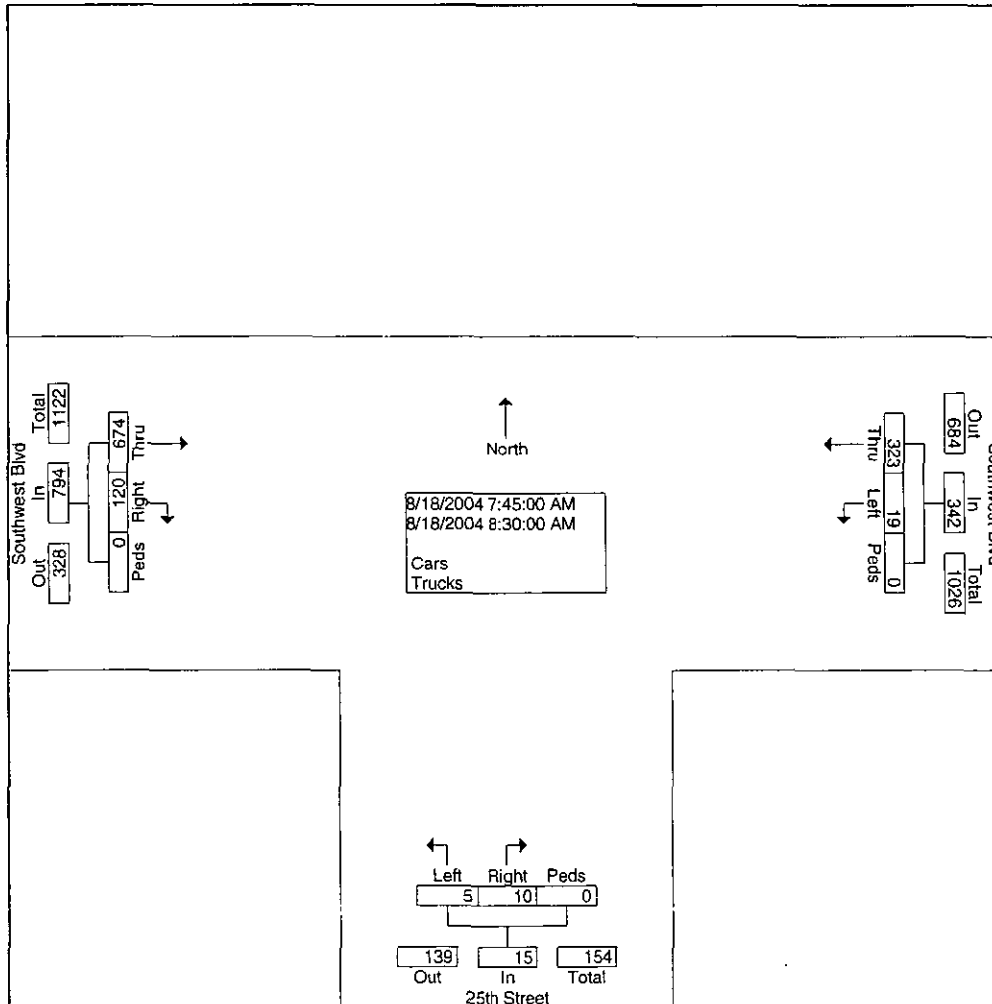


# Turning Movement Counts

Jsson Associates  
 Southwest Blvd & 25th Street  
 City of Kansas City, MO  
 Data Collector: CP

File Name : SW\_Bldv\_25th\_St\_AM  
 Site Code : 00000000  
 Start Date : 08/18/2004  
 Page No : 2

|   | 25th Street<br>From North |      |      |          |               | Southwest Blvd<br>From East |      |      |          |               | 25th Street<br>From South |      |      |          |               | Southwest Blvd<br>From West |      |      |          |               |               |
|---|---------------------------|------|------|----------|---------------|-----------------------------|------|------|----------|---------------|---------------------------|------|------|----------|---------------|-----------------------------|------|------|----------|---------------|---------------|
| Start Time  | Rig<br>ht                 | Thru | Left | Ped<br>s | App.<br>Total | Rig<br>ht                   | Thru | Left | Ped<br>s | App.<br>Total | Rig<br>ht                 | Thru | Left | Ped<br>s | App.<br>Total | Rig<br>ht                   | Thru | Left | Ped<br>s | App.<br>Total | Int.<br>Total |
| Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1 |                           |      |      |          |               |                             |      |      |          |               |                           |      |      |          |               |                             |      |      |          |               |               |
| Intersecti<br>on                                  | 07:45 AM                  |      |      |          |               |                             |      |      |          |               |                           |      |      |          |               |                             |      |      |          |               |               |
| Volume  | 0                         | 0    | 0    | 0        | 0             | 0                           | 323  | 19   | 0        | 342           | 10                        | 0    | 5    | 0        | 15            | 120                         | 674  | 0    | 0        | 794           | 1151          |
| Percent   | 0.0                       | 0.0  | 0.0  | 0.0      |               | 0.0                         | 94.4 | 5.6  | 0.0      |               | 66.7                      | 0.0  | 33.3 | 0.0      |               | 15.1                        | 84.9 | 0.0  | 0.0      |               |               |
| 08:15   |                           |      |      |          |               |                             |      |      |          |               |                           |      |      |          |               |                             |      |      |          |               |               |
| Volume  | 0                         | 0    | 0    | 0        | 0             | 0                           | 84   | 4    | 0        | 88            | 1                         | 0    | 2    | 0        | 3             | 29                          | 175  | 0    | 0        | 204           | 295           |
| Peak<br>Factor                                    |                           |      |      |          |               |                             |      |      |          |               |                           |      |      |          |               |                             |      |      |          |               | 0.975         |
| High Int.   | 6:45:00 AM                |      |      |          |               | 08:15 AM                    |      |      |          |               | 07:45 AM                  |      |      |          |               | 08:15 AM                    |      |      |          |               |               |
| Volume  | 0                         | 0    | 0    | 0        | 0             | 0                           | 84   | 4    | 0        | 88            | 4                         | 0    | 2    | 0        | 6             | 29                          | 175  | 0    | 0        | 204           |               |
| Peak<br>Factor                                    |                           |      |      |          |               | 0.972                       |      |      |          |               | 0.625                     |      |      |          |               | 0.973                       |      |      |          |               |               |



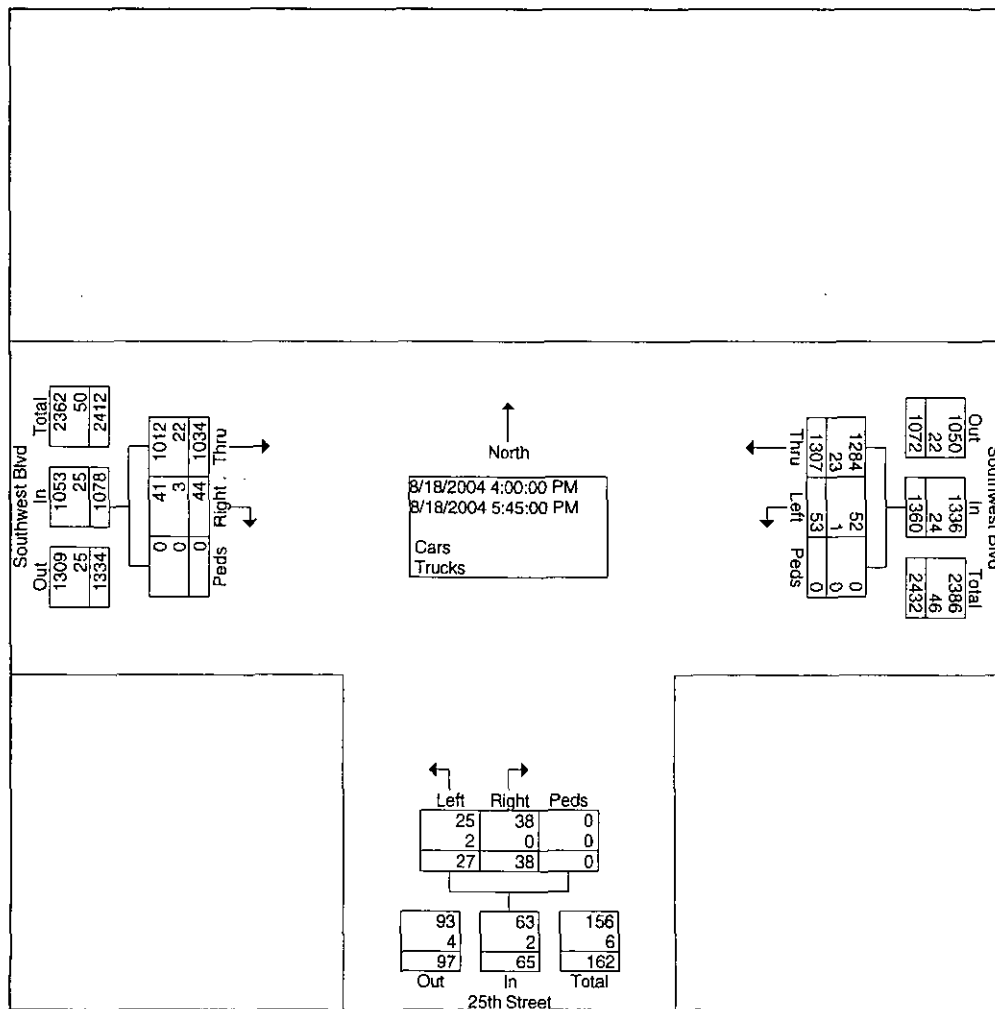
# Turning Movement Counts

Olsson Associates  
Southwest Blvd & 25th Street  
City of Kansas City, MO  
Data Collector: CP

File Name : SW\_Bldv\_25th\_St\_PM  
Site Code : 00000000  
Start Date : 08/18/2004  
Page No : 1

Groups Printed- Cars - Trucks

|                | 25th Street<br>From North |          |      |          |               | Southwest Blvd<br>From East |          |      |          |               | 25th Street<br>From South |          |      |          |               | Southwest Blvd<br>From West |          |      |          |               |               |
|----------------|---------------------------|----------|------|----------|---------------|-----------------------------|----------|------|----------|---------------|---------------------------|----------|------|----------|---------------|-----------------------------|----------|------|----------|---------------|---------------|
| Start<br>Time  | Rig<br>ht                 | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                   | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                 | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                   | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Int.<br>Total |
| Factor         | 1.0                       | 1.0      | 1.0  | 1.0      |               | 1.0                         | 1.0      | 1.0  | 1.0      |               | 1.0                       | 1.0      | 1.0  | 1.0      |               | 1.0                         | 1.0      | 1.0  | 1.0      |               |               |
| 04:00 PM       | 0                         | 0        | 0    | 0        | 0             | 0                           | 151      | 5    | 0        | 156           | 4                         | 0        | 3    | 0        | 7             | 7                           | 152      | 0    | 0        | 159           | 322           |
| 04:15 PM       | 0                         | 0        | 0    | 0        | 0             | 0                           | 150      | 7    | 0        | 157           | 8                         | 0        | 5    | 0        | 13            | 7                           | 131      | 0    | 0        | 138           | 308           |
| 04:30 PM       | 0                         | 0        | 0    | 0        | 0             | 0                           | 166      | 7    | 0        | 173           | 6                         | 0        | 6    | 0        | 12            | 8                           | 147      | 0    | 0        | 155           | 340           |
| 04:45 PM       | 0                         | 0        | 0    | 0        | 0             | 0                           | 179      | 7    | 0        | 186           | 5                         | 0        | 5    | 0        | 10            | 3                           | 114      | 0    | 0        | 117           | 313           |
| Total          | 0                         | 0        | 0    | 0        | 0             | 0                           | 646      | 26   | 0        | 672           | 23                        | 0        | 19   | 0        | 42            | 25                          | 544      | 0    | 0        | 569           | 1283          |
| 05:00 PM       | 0                         | 0        | 0    | 0        | 0             | 0                           | 218      | 9    | 0        | 227           | 6                         | 0        | 4    | 0        | 10            | 6                           | 156      | 0    | 0        | 162           | 399           |
| 05:15 PM       | 0                         | 0        | 0    | 0        | 0             | 0                           | 209      | 11   | 0        | 220           | 5                         | 0        | 1    | 0        | 6             | 5                           | 139      | 0    | 0        | 144           | 370           |
| 05:30 PM       | 0                         | 0        | 0    | 0        | 0             | 0                           | 153      | 3    | 0        | 156           | 1                         | 0        | 2    | 0        | 3             | 3                           | 114      | 0    | 0        | 117           | 276           |
| 05:45 PM       | 0                         | 0        | 0    | 0        | 0             | 0                           | 81       | 4    | 0        | 85            | 3                         | 0        | 1    | 0        | 4             | 5                           | 81       | 0    | 0        | 86            | 175           |
| Total          | 0                         | 0        | 0    | 0        | 0             | 0                           | 661      | 27   | 0        | 688           | 15                        | 0        | 8    | 0        | 23            | 19                          | 490      | 0    | 0        | 509           | 1220          |
| Grand<br>Total | 0                         | 0        | 0    | 0        | 0             | 0                           | 1307     | 53   | 0        | 1360          | 38                        | 0        | 27   | 0        | 65            | 44                          | 1034     | 0    | 0        | 1078          | 2503          |
| Approch<br>%   | 0.0                       | 0.0      | 0.0  | 0.0      |               | 0.0                         | 96.1     | 3.9  | 0.0      |               | 58.5                      | 0.0      | 41.5 | 0.0      |               | 4.1                         | 95.9     | 0.0  | 0.0      |               |               |
| Total %        | 0.0                       | 0.0      | 0.0  | 0.0      | 0.0           | 0.0                         | 52.2     | 2.1  | 0.0      | 54.3          | 1.5                       | 0.0      | 1.1  | 0.0      | 2.6           | 1.8                         | 41.3     | 0.0  | 0.0      | 43.1          |               |

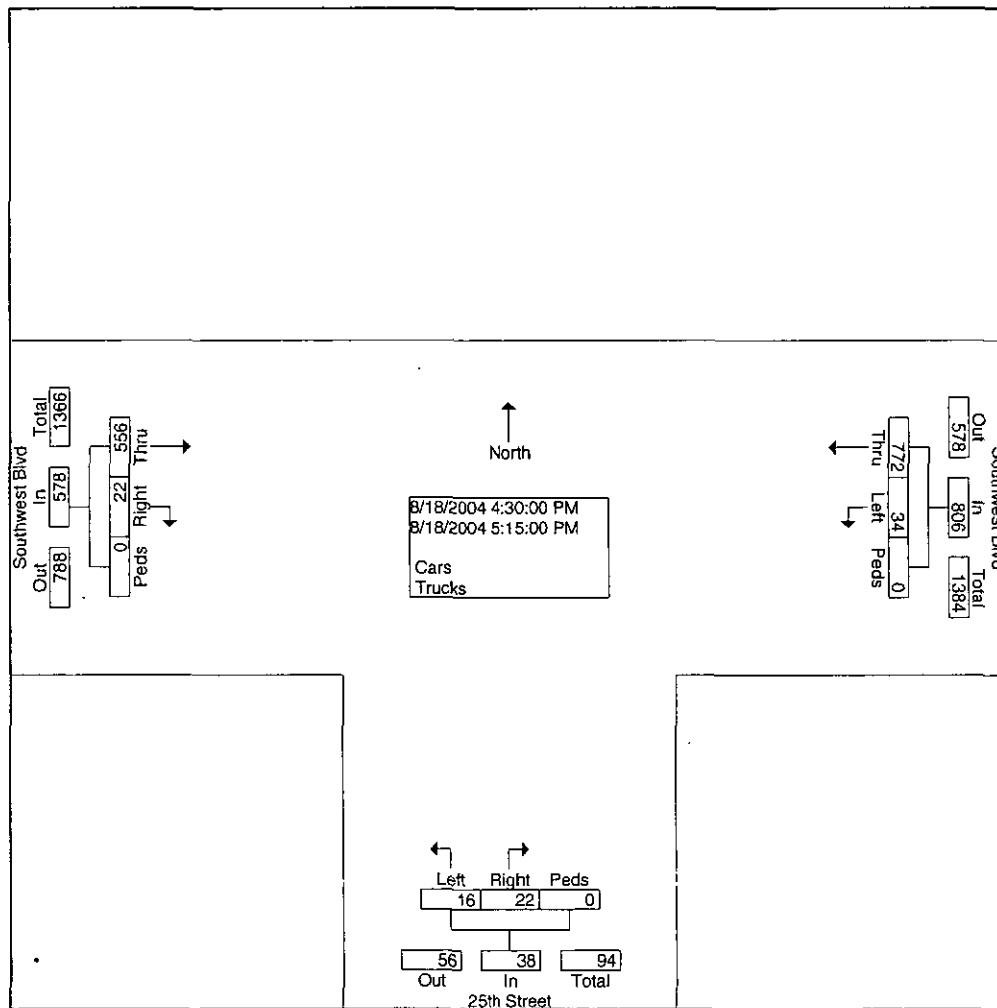


# Turning Movement Counts

Olsson Associates  
Southwest Blvd & 25th Street  
City of Kansas City, MO  
Data Collector: CP

File Name : SW\_Blvd\_25th\_St\_PM.  
Site Code : 00000000  
Start Date : 08/18/2004  
Page No : 2

|   | 25th Street<br>From North |          |      |          |               | Southwest Blvd<br>From East |          |      |          |               | 25th Street<br>From South |          |      |          |               | Southwest Blvd<br>From West |          |      |          |               |               |
|---|---------------------------|----------|------|----------|---------------|-----------------------------|----------|------|----------|---------------|---------------------------|----------|------|----------|---------------|-----------------------------|----------|------|----------|---------------|---------------|
| Start<br>Time                                     | Rig<br>ht                 | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                   | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                 | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                   | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Int.<br>Total |
| Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1 |                           |          |      |          |               |                             |          |      |          |               |                           |          |      |          |               |                             |          |      |          |               |               |
| Intersection                                      | 04:30 PM                  |          |      |          |               |                             |          |      |          |               |                           |          |      |          |               |                             |          |      |          |               |               |
| Volume  | 0                         | 0        | 0    | 0        | 0             | 0                           | 772      | 34   | 0        | 806           | 22                        | 0        | 16   | 0        | 38            | 22                          | 556      | 0    | 0        | 578           | 1422          |
| Percent   | 0.0                       | 0.0      | 0.0  | 0.0      |               | 0.0                         | 95.8     | 4.2  | 0.0      |               | 57.9                      | 0.0      | 42.1 | 0.0      |               | 3.8                         | 96.2     | 0.0  | 0.0      |               |               |
| 05:00<br>Volume                                   | 0                         | 0        | 0    | 0        | 0             | 0                           | 218      | 9    | 0        | 227           | 6                         | 0        | 4    | 0        | 10            | 6                           | 156      | 0    | 0        | 162           | 399           |
| Peak<br>Factor                                    |                           |          |      |          |               |                             |          |      |          |               |                           |          |      |          |               |                             |          |      |          |               | 0.891         |
| High Int.   | 3:45:00 PM                |          |      |          |               | 05:00 PM                    |          |      |          |               | 04:30 PM                  |          |      |          |               | 05:00 PM                    |          |      |          |               |               |
| Volume  | 0                         | 0        | 0    | 0        | 0             | 0                           | 218      | 9    | 0        | 227           | 6                         | 0        | 6    | 0        | 12            | 6                           | 156      | 0    | 0        | 162           |               |
| Peak<br>Factor                                    |                           |          |      |          |               |                             |          |      |          |               | 0.88                      |          |      |          |               | 0.79                        |          |      |          |               | 0.89          |
|   |                           |          |      |          |               |                             |          |      |          |               | 8                         |          |      |          |               | 2                           |          |      |          |               | 2             |



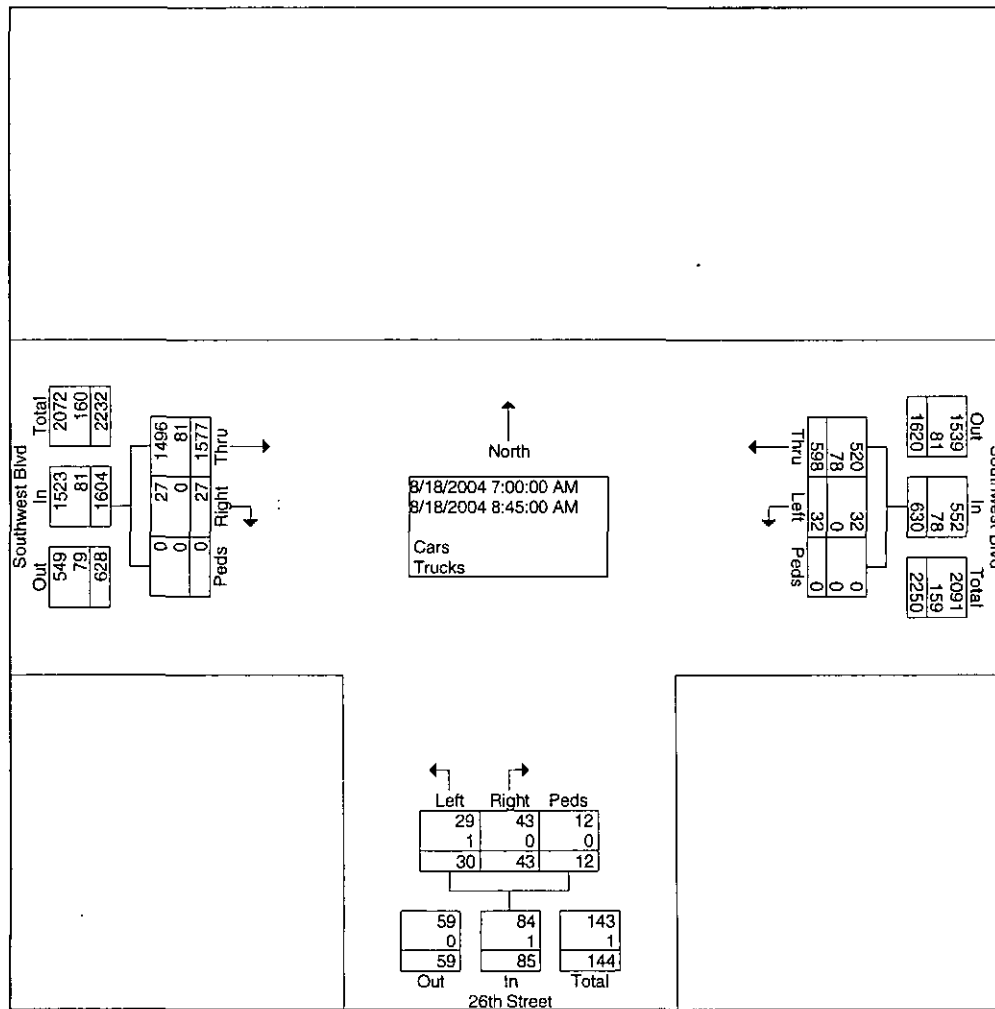
# Turning Movement Counts

Olsson Associates  
Southwest Blvd & 26th Street  
City of Kansas City, MO  
Data Collector: JC

File Name : SW\_Bldv\_26th\_St\_AM  
Site Code : 00000000  
Start Date : 08/18/2004  
Page No : 1

Groups Printed- Cars - Trucks

|                | 26th Street<br>From North |          |      |          |               | Southwest Blvd<br>From East |          |      |          |               | 26th Street<br>From South |          |          |          |               | Southwest Blvd<br>From West |          |      |          |               |               |
|----------------|---------------------------|----------|------|----------|---------------|-----------------------------|----------|------|----------|---------------|---------------------------|----------|----------|----------|---------------|-----------------------------|----------|------|----------|---------------|---------------|
| Start<br>Time  | Rig<br>ht                 | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                   | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                 | Thr<br>u | Left     | Pe<br>ds | App.<br>Total | Rig<br>ht                   | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Int.<br>Total |
| Factor         | 1.0                       | 1.0      | 1.0  | 1.0      |               | 1.0                         | 1.0      | 1.0  | 1.0      |               | 1.0                       | 1.0      | 1.0      | 1.0      |               | 1.0                         | 1.0      | 1.0  | 1.0      |               |               |
| 07:00 AM       | 0                         | 0        | 0    | 0        | 0             | 0                           | 71       | 10   | 0        | 81            | 7                         | 0        | 3        | 5        | 15            | 1                           | 158      | 0    | 0        | 159           | 255           |
| 07:15 AM       | 0                         | 0        | 0    | 0        | 0             | 0                           | 77       | 3    | 0        | 80            | 2                         | 0        | 2        | 1        | 5             | 2                           | 175      | 0    | 0        | 177           | 262           |
| 07:30 AM       | 0                         | 0        | 0    | 0        | 0             | 0                           | 82       | 3    | 0        | 85            | 4                         | 0        | 2        | 1        | 7             | 5                           | 215      | 0    | 0        | 220           | 312           |
| 07:45 AM       | 0                         | 0        | 0    | 0        | 0             | 0                           | 86       | 3    | 0        | 89            | 8                         | 0        | 7        | 2        | 17            | 4                           | 208      | 0    | 0        | 212           | 318           |
| Total          | 0                         | 0        | 0    | 0        | 0             | 0                           | 316      | 19   | 0        | 335           | 21                        | 0        | 14       | 9        | 44            | 12                          | 756      | 0    | 0        | 768           | 1147          |
| 08:00 AM       | 0                         | 0        | 0    | 0        | 0             | 0                           | 59       | 4    | 0        | 63            | 6                         | 0        | 1        | 2        | 9             | 9                           | 196      | 0    | 0        | 205           | 277           |
| 08:15 AM       | 0                         | 0        | 0    | 0        | 0             | 0                           | 67       | 4    | 0        | 71            | 7                         | 0        | 6        | 1        | 14            | 3                           | 235      | 0    | 0        | 238           | 323           |
| 08:30 AM       | 0                         | 0        | 0    | 0        | 0             | 0                           | 74       | 2    | 0        | 76            | 2                         | 0        | 5        | 0        | 7             | 2                           | 222      | 0    | 0        | 224           | 307           |
| 08:45 AM       | 0                         | 0        | 0    | 0        | 0             | 0                           | 82       | 3    | 0        | 85            | 7                         | 0        | 4        | 0        | 11            | 1                           | 168      | 0    | 0        | 169           | 265           |
| Total          | 0                         | 0        | 0    | 0        | 0             | 0                           | 282      | 13   | 0        | 295           | 22                        | 0        | 16       | 3        | 41            | 15                          | 821      | 0    | 0        | 836           | 1172          |
| Grand<br>Total | 0                         | 0        | 0    | 0        | 0             | 0                           | 598      | 32   | 0        | 630           | 43                        | 0        | 30       | 12       | 85            | 27                          | 1577     | 0    | 0        | 1604          | 2319          |
| Apprch<br>%    | 0.0                       | 0.0      | 0.0  | 0.0      |               | 0.0                         | 94.<br>9 | 5.1  | 0.0      |               | 50.<br>6                  | 0.0      | 35.<br>3 | 14.<br>1 |               | 1.7                         | 98.<br>3 | 0.0  | 0.0      |               |               |
| Total %        | 0.0                       | 0.0      | 0.0  | 0.0      | 0.0           | 0.0                         | 25.<br>8 | 1.4  | 0.0      | 27.2          | 1.9                       | 0.0      | 1.3      | 0.5      | 3.7           | 1.2                         | 68.<br>0 | 0.0  | 0.0      | 69.2          |               |





# Turning Movement Counts

Olsson Associates  
Southwest Blvd & 26th Street  
City of Kansas City, MO  
Data Collector: JC

File Name : SW\_Blvd\_26th\_St\_AM  
Site Code : 00000000  
Start Date : 08/18/2004  
Page No : 2

|   | 26th Street<br>From North |          |      |          |               | Southwest Blvd<br>From East |          |      |          |               | 26th Street<br>From South |          |          |          |               | Southwest Blvd<br>From West |          |      |          |               |               |
|---|---------------------------|----------|------|----------|---------------|-----------------------------|----------|------|----------|---------------|---------------------------|----------|----------|----------|---------------|-----------------------------|----------|------|----------|---------------|---------------|
| Start<br>Time                                     | Rig<br>ht                 | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                   | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                 | Thr<br>u | Left     | Pe<br>ds | App.<br>Total | Rig<br>ht                   | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Int.<br>Total |
| Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1 |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
| Intersection<br>on                                | 07:30 AM                  |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
| Volume  | 0                         | 0        | 0    | 0        | 0             | 0                           | 294      | 14   | 0        | 308           | 25                        | 0        | 16       | 6        | 47            | 21                          | 854      | 0    | 0        | 875           | 1230          |
| Percent   | 0.0                       | 0.0      | 0.0  | 0.0      |               | 0.0                         | 95.<br>5 | 4.5  | 0.0      |               | 53.<br>2                  | 0.0      | 34.<br>0 | 12.<br>8 |               | 2.4                         | 97.<br>6 | 0.0  | 0.0      |               |               |
| 08:15<br>Volume                                   | 0                         | 0        | 0    | 0        | 0             | 0                           | 67       | 4    | 0        | 71            | 7                         | 0        | 6        | 1        | 14            | 3                           | 235      | 0    | 0        | 238           | 323           |
| Peak<br>Factor                                    |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               | 0.952         |
| High Int.   | 6:45:00 AM                |          |      |          |               | 07:45 AM                    |          |      |          |               | 07:45 AM                  |          |          |          |               | 08:15 AM                    |          |      |          |               |               |
| Volume  | 0                         | 0        | 0    | 0        | 0             | 0                           | 86       | 3    | 0        | 89            | 8                         | 0        | 7        | 2        | 17            | 3                           | 235      | 0    | 0        | 238           |               |
| Peak<br>Factor                                    |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |
|   |                           |          |      |          |               |                             |          |      |          |               |                           |          |          |          |               |                             |          |      |          |               |               |

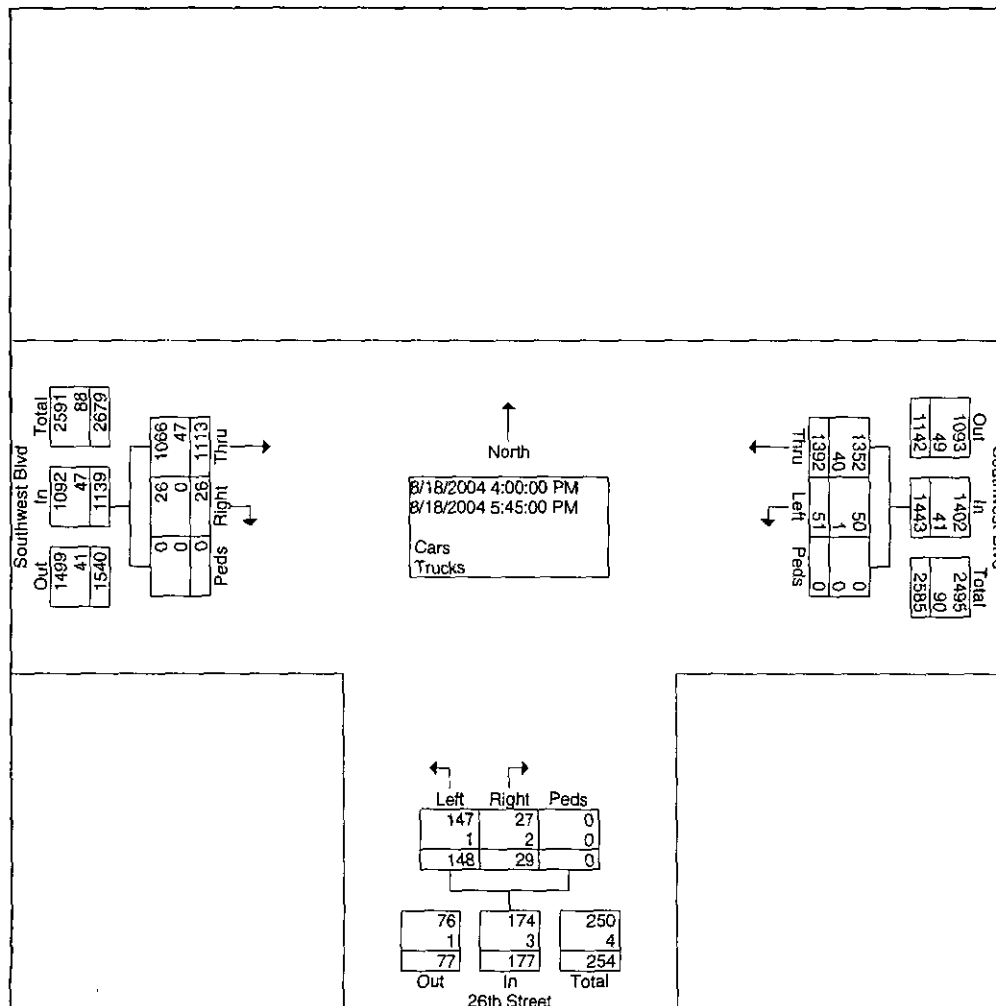
# Turning Movement Counts

Olsson Associates  
Southwest Blvd & 26th Street  
City of Kansas City, MO  
Data Collector: JC

File Name : SW\_Bldv\_26th\_St\_PMI  
Site Code : 00000000  
Start Date : 08/18/2004  
Page No : 1

Groups Printed- Cars - Trucks

| Start Time  | 26th Street From North |      |      |       |            | Southwest Blvd From East |      |      |       |            | 26th Street From South |      |      |       |            | Southwest Blvd From West |      |      |       |            | Int. Total |
|-------------|------------------------|------|------|-------|------------|--------------------------|------|------|-------|------------|------------------------|------|------|-------|------------|--------------------------|------|------|-------|------------|------------|
|             | Rig ht                 | Thru | Left | Pe ds | App. Total | Rig ht                   | Thru | Left | Pe ds | App. Total | Rig ht                 | Thru | Left | Pe ds | App. Total | Rig ht                   | Thru | Left | Pe ds | App. Total |            |
| Factor      | 1.0                    | 1.0  | 1.0  | 1.0   |            | 1.0                      | 1.0  | 1.0  | 1.0   |            | 1.0                    | 1.0  | 1.0  | 1.0   |            | 1.0                      | 1.0  | 1.0  | 1.0   |            |            |
| 04:00 PM    | 0                      | 0    | 0    | 0     | 0          | 0                        | 169  | 6    | 0     | 175        | 1                      | 0    | 15   | 0     | 16         | 0                        | 168  | 0    | 0     | 168        | 359        |
| 04:15 PM    | 0                      | 0    | 0    | 0     | 0          | 0                        | 161  | 7    | 0     | 168        | 2                      | 0    | 15   | 0     | 17         | 5                        | 139  | 0    | 0     | 144        | 329        |
| 04:30 PM    | 0                      | 0    | 0    | 0     | 0          | 0                        | 188  | 15   | 0     | 203        | 3                      | 0    | 19   | 0     | 22         | 5                        | 160  | 0    | 0     | 165        | 390        |
| 04:45 PM    | 0                      | 0    | 0    | 0     | 0          | 0                        | 169  | 5    | 0     | 174        | 6                      | 0    | 21   | 0     | 27         | 4                        | 122  | 0    | 0     | 126        | 327        |
| Total       | 0                      | 0    | 0    | 0     | 0          | 0                        | 687  | 33   | 0     | 720        | 12                     | 0    | 70   | 0     | 82         | 14                       | 589  | 0    | 0     | 603        | 1405       |
| 05:00 PM    | 0                      | 0    | 0    | 0     | 0          | 0                        | 204  | 9    | 0     | 213        | 6                      | 0    | 24   | 0     | 30         | 3                        | 152  | 0    | 0     | 155        | 398        |
| 05:15 PM    | 0                      | 0    | 0    | 0     | 0          | 0                        | 196  | 4    | 0     | 200        | 2                      | 0    | 23   | 0     | 25         | 3                        | 154  | 0    | 0     | 157        | 382        |
| 05:30 PM    | 0                      | 0    | 0    | 0     | 0          | 0                        | 190  | 2    | 0     | 192        | 3                      | 0    | 18   | 0     | 21         | 3                        | 121  | 0    | 0     | 124        | 337        |
| 05:45 PM    | 0                      | 0    | 0    | 0     | 0          | 0                        | 115  | 3    | 0     | 118        | 6                      | 0    | 13   | 0     | 19         | 3                        | 97   | 0    | 0     | 100        | 237        |
| Total       | 0                      | 0    | 0    | 0     | 0          | 0                        | 705  | 18   | 0     | 723        | 17                     | 0    | 78   | 0     | 95         | 12                       | 524  | 0    | 0     | 536        | 1354       |
| Grand Total | 0                      | 0    | 0    | 0     | 0          | 0                        | 1392 | 51   | 0     | 1443       | 29                     | 0    | 148  | 0     | 177        | 26                       | 1113 | 0    | 0     | 1139       | 2759       |
| Approch %   | 0.0                    | 0.0  | 0.0  | 0.0   |            | 0.0                      | 96.5 | 3.5  | 0.0   |            | 16.4                   | 0.0  | 83.6 | 0.0   |            | 2.3                      | 97.7 | 0.0  | 0.0   |            |            |
| Total %     | 0.0                    | 0.0  | 0.0  | 0.0   | 0.0        | 0.0                      | 50.5 | 1.8  | 0.0   | 52.3       | 1.1                    | 0.0  | 5.4  | 0.0   | 6.4        | 0.9                      | 40.3 | 0.0  | 0.0   | 41.3       |            |



# Turning Movement Counts

Olsson Associates  
Southwest Blvd & 26th Street  
City of Kansas City, MO  
Data Collector: JC

File Name : SW\_Blvd\_26th\_St\_PM  
Site Code : 00000000  
Start Date : 08/18/2004  
Page No : 2

|   | 26th Street From North |       |      |       |            | Southwest Blvd From East |       |      |       |            | 26th Street From South |       |      |       |            | Southwest Blvd From West |       |      |       |            |            |
|---|------------------------|-------|------|-------|------------|--------------------------|-------|------|-------|------------|------------------------|-------|------|-------|------------|--------------------------|-------|------|-------|------------|------------|
| Start Time  | Rig ht                 | Thr u | Left | Pe ds | App. Total | Rig ht                   | Thr u | Left | Pe ds | App. Total | Rig ht                 | Thr u | Left | Pe ds | App. Total | Rig ht                   | Thr u | Left | Pe ds | App. Total | Int. Total |
| Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1 |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
| Intersection                                      | 04:30 PM               |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
| Volume  | 0                      | 0     | 0    | 0     | 0          | 0                        | 757   | 33   | 0     | 790        | 17                     | 0     | 87   | 0     | 104        | 15                       | 588   | 0    | 0     | 603        | 1497       |
| Percent   | 0.0                    | 0.0   | 0.0  | 0.0   |            | 0.0                      | 95.8  | 4.2  | 0.0   |            | 16.3                   | 0.0   | 83.7 | 0.0   |            | 2.5                      | 97.5  | 0.0  | 0.0   |            |            |
| 05:00 Volume                                      | 0                      | 0     | 0    | 0     | 0          | 0                        | 204   | 9    | 0     | 213        | 6                      | 0     | 24   | 0     | 30         | 3                        | 152   | 0    | 0     | 155        | 398        |
| Peak Factor                                       |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            | 0.940      |
| High Int. Volume                                  | 3:45:00 PM             |       |      |       |            | 05:00 PM                 |       |      |       |            | 05:00 PM               |       |      |       |            | 04:30 PM                 |       |      |       |            |            |
| Peak Volume                                       | 0                      | 0     | 0    | 0     | 0          | 0                        | 204   | 9    | 0     | 213        | 6                      | 0     | 24   | 0     | 30         | 5                        | 160   | 0    | 0     | 165        |            |
| Peak Factor                                       |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            |            |
|   |                        |       |      |       |            |                          |       |      |       |            |                        |       |      |       |            |                          |       |      |       |            | </         |

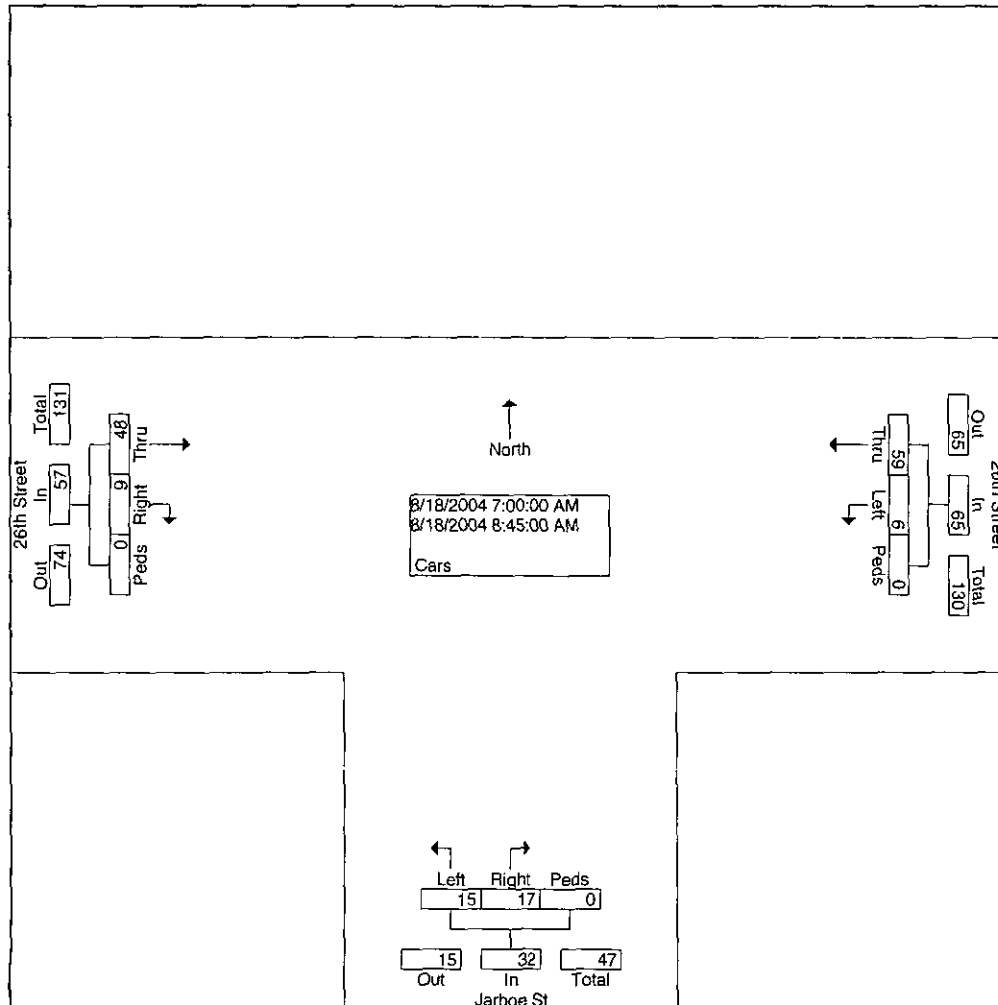
# Turning Movement Counts

Olsson Associates  
Jarboe St & 26th St  
City of Kansas City  
Data Collector: SJ

File Name : 26th\_St\_Jarboe\_AM  
Site Code : 00000000  
Start Date : 08/18/2004  
Page No : 1

Groups Printed- Cars

|                | Jarboe St<br>From North |          |      |          |               | 26th Street<br>From East |          |      |          |               | Jarboe St<br>From South |          |          |          |               | 26th Street<br>From West |          |      |          |               |               |
|----------------|-------------------------|----------|------|----------|---------------|--------------------------|----------|------|----------|---------------|-------------------------|----------|----------|----------|---------------|--------------------------|----------|------|----------|---------------|---------------|
| Start<br>Time  | Rig<br>ht               | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht               | Thr<br>u | Left     | Pe<br>ds | App.<br>Total | Rig<br>ht                | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Int.<br>Total |
| Factor         | 1.0                     | 1.0      | 1.0  | 1.0      |               | 1.0                      | 1.0      | 1.0  | 1.0      |               | 1.0                     | 1.0      | 1.0      | 1.0      |               | 1.0                      | 1.0      | 1.0  | 1.0      |               |               |
| 07:00 AM       | 0                       | 0        | 0    | 0        | 0             | 0                        | 8        | 0    | 0        | 8             | 0                       | 0        | 3        | 0        | 3             | 2                        | 10       | 0    | 0        | 12            | 23            |
| 07:15 AM       | 0                       | 0        | 0    | 0        | 0             | 0                        | 7        | 2    | 0        | 9             | 2                       | 0        | 1        | 0        | 3             | 0                        | 2        | 0    | 0        | 2             | 14            |
| 07:30 AM       | 0                       | 0        | 0    | 0        | 0             | 0                        | 4        | 0    | 0        | 4             | 2                       | 0        | 1        | 0        | 3             | 2                        | 9        | 0    | 0        | 11            | 18            |
| 07:45 AM       | 0                       | 0        | 0    | 0        | 0             | 0                        | 7        | 0    | 0        | 7             | 3                       | 0        | 2        | 0        | 5             | 3                        | 4        | 0    | 0        | 7             | 19            |
| Total          | 0                       | 0        | 0    | 0        | 0             | 0                        | 26       | 2    | 0        | 28            | 7                       | 0        | 7        | 0        | 14            | 7                        | 25       | 0    | 0        | 32            | 74            |
| 08:00 AM       | 0                       | 0        | 0    | 0        | 0             | 0                        | 10       | 0    | 0        | 10            | 4                       | 0        | 3        | 0        | 7             | 0                        | 10       | 0    | 0        | 10            | 27            |
| 08:15 AM       | 0                       | 0        | 0    | 0        | 0             | 0                        | 8        | 1    | 0        | 9             | 2                       | 0        | 2        | 0        | 4             | 2                        | 8        | 0    | 0        | 10            | 23            |
| 08:30 AM       | 0                       | 0        | 0    | 0        | 0             | 0                        | 6        | 3    | 0        | 9             | 2                       | 0        | 2        | 0        | 4             | 0                        | 2        | 0    | 0        | 2             | 15            |
| 08:45 AM       | 0                       | 0        | 0    | 0        | 0             | 0                        | 9        | 0    | 0        | 9             | 2                       | 0        | 1        | 0        | 3             | 0                        | 3        | 0    | 0        | 3             | 15            |
| Total          | 0                       | 0        | 0    | 0        | 0             | 0                        | 33       | 4    | 0        | 37            | 10                      | 0        | 8        | 0        | 18            | 2                        | 23       | 0    | 0        | 25            | 80            |
| Grand<br>Total | 0                       | 0        | 0    | 0        | 0             | 0                        | 59       | 6    | 0        | 65            | 17                      | 0        | 15       | 0        | 32            | 9                        | 48       | 0    | 0        | 57            | 154           |
| Apprch<br>%    | 0.0                     | 0.0      | 0.0  | 0.0      |               | 0.0                      | 90.<br>8 | 9.2  | 0.0      |               | 53.<br>1                | 0.0      | 46.<br>9 | 0.0      |               | 15.<br>8                 | 84.<br>2 | 0.0  | 0.0      |               |               |
| Total %        | 0.0                     | 0.0      | 0.0  | 0.0      | 0.0           | 0.0                      | 38.<br>3 | 3.9  | 0.0      | 42.2          | 11.<br>0                | 0.0      | 9.7      | 0.0      | 20.8          | 5.8                      | 31.<br>2 | 0.0  | 0.0      | 37.0          |               |



# Turning Movement Counts

Olsson Associates  
Jarboe St & 26th St  
City of Kansas City  
Data Collector: SJ

File Name : 26th\_St\_Jarboe\_AM  
Site Code : 00000000  
Start Date : 08/18/2004  
Page No : 2

|   | Jarboe St<br>From North |          |      |          |               | 26th Street<br>From East |          |      |          |               | Jarboe St<br>From South |          |          |          |               | 26th Street<br>From West |          |      |          |               |               |
|---|-------------------------|----------|------|----------|---------------|--------------------------|----------|------|----------|---------------|-------------------------|----------|----------|----------|---------------|--------------------------|----------|------|----------|---------------|---------------|
| Start<br>Time                                     | Rig<br>ht               | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht               | Thr<br>u | Left     | Pe<br>ds | App.<br>Total | Rig<br>ht                | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Int.<br>Total |
| Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1 |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
| Intersecti<br>on                                  | 07:30 AM                |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
| Volume  | 0                       | 0        | 0    | 0        | 0             | 0                        | 29       | 1    | 0        | 30            | 11                      | 0        | 8        | 0        | 19            | 7                        | 31       | 0    | 0        | 38            | 87            |
| Percent   | 0.0                     | 0.0      | 0.0  | 0.0      |               | 0.0                      | 96.<br>7 | 3.3  | 0.0      |               | 57.<br>9                | 0.0      | 42.<br>1 | 0.0      |               | 18.<br>4                 | 81.<br>6 | 0.0  | 0.0      |               |               |
| 08:00<br>Volume                                   | 0                       | 0        | 0    | 0        | 0             | 0                        | 10       | 0    | 0        | 10            | 4                       | 0        | 3        | 0        | 7             | 0                        | 10       | 0    | 0        | 10            | 27            |
| Peak<br>Factor                                    |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               | 0.806         |
| High Int.   | 6:45:00 AM              |          |      |          |               | 08:00 AM                 |          |      |          |               | 08:00 AM                |          |          |          |               | 07:30 AM                 |          |      |          |               |               |
| Volume  | 0                       | 0        | 0    | 0        | 0             | 0                        | 10       | 0    | 0        | 10            | 4                       | 0        | 3        | 0        | 7             | 2                        | 9        | 0    | 0        | 11            |               |
| Peak<br>Factor                                    |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |
|   |                         |          |      |          |               |                          |          |      |          |               |                         |          |          |          |               |                          |          |      |          |               |               |

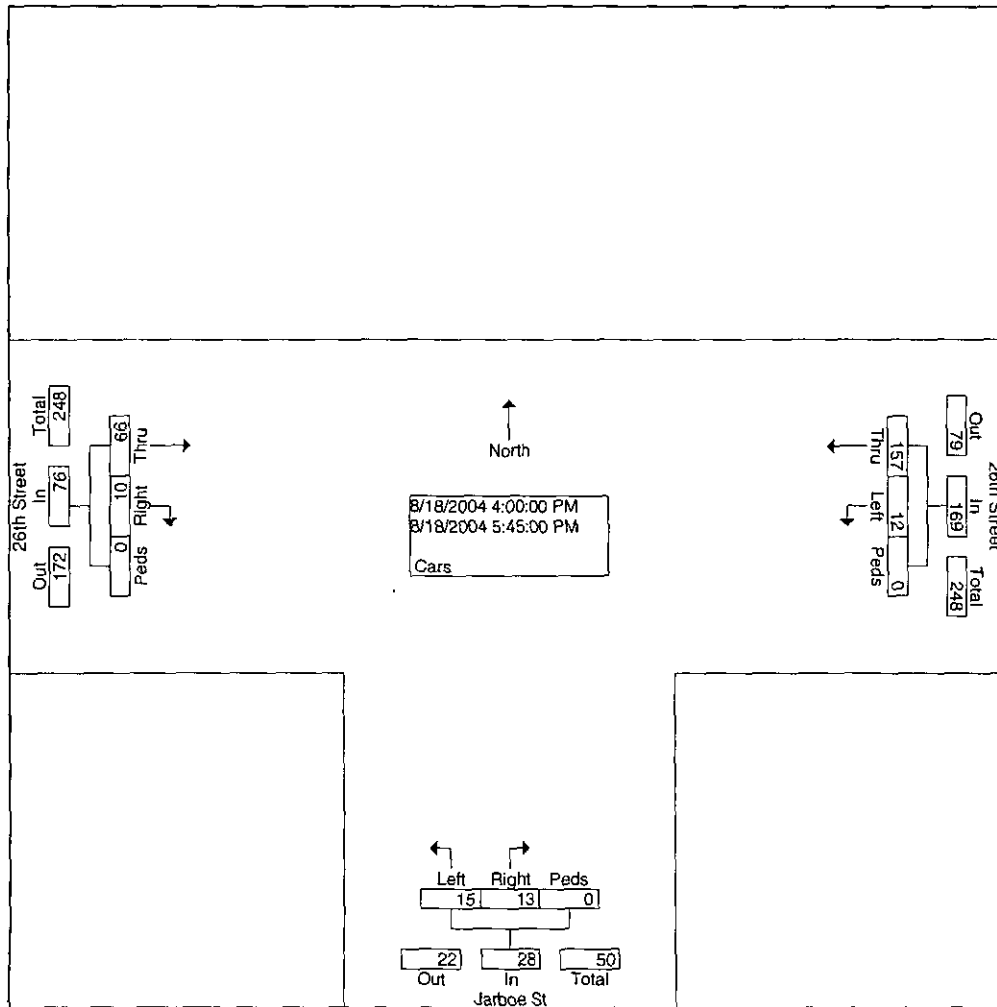
# Turning Movement Counts

Olsson Associates  
Jarboe St & 26th St  
City of Kansas City  
Data Collector: SJ

File Name : 26th\_St\_Jarboe\_PM  
Site Code : 00000000  
Start Date : 08/18/2004  
Page No : 1

Groups Printed- Cars

|                | Jarboe St<br>From North |          |      |          |               | 26th Street<br>From East |          |      |          |               | Jarboe St<br>From South |          |          |          |               | 26th Street<br>From West |          |      |          |               |               |
|----------------|-------------------------|----------|------|----------|---------------|--------------------------|----------|------|----------|---------------|-------------------------|----------|----------|----------|---------------|--------------------------|----------|------|----------|---------------|---------------|
| Start<br>Time  | Rig<br>ht               | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht               | Thr<br>u | Left     | Pe<br>ds | App.<br>Total | Rig<br>ht                | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Int.<br>Total |
| Factor         | 1.0                     | 1.0      | 1.0  | 1.0      |               | 1.0                      | 1.0      | 1.0  | 1.0      |               | 1.0                     | 1.0      | 1.0      | 1.0      |               | 1.0                      | 1.0      | 1.0  | 1.0      |               |               |
| 04:00 PM       | 0                       | 0        | 0    | 0        | 0             | 0                        | 14       | 0    | 0        | 14            | 2                       | 0        | 3        | 0        | 5             | 0                        | 7        | 0    | 0        | 7             | 26            |
| 04:15 PM       | 0                       | 0        | 0    | 0        | 0             | 0                        | 12       | 0    | 0        | 12            | 1                       | 0        | 1        | 0        | 2             | 2                        | 6        | 0    | 0        | 8             | 22            |
| 04:30 PM       | 0                       | 0        | 0    | 0        | 0             | 0                        | 19       | 2    | 0        | 21            | 2                       | 0        | 2        | 0        | 4             | 2                        | 16       | 0    | 0        | 18            | 43            |
| 04:45 PM       | 0                       | 0        | 0    | 0        | 0             | 0                        | 24       | 3    | 0        | 27            | 4                       | 0        | 2        | 0        | 6             | 2                        | 9        | 0    | 0        | 11            | 44            |
| Total          | 0                       | 0        | 0    | 0        | 0             | 0                        | 69       | 5    | 0        | 74            | 9                       | 0        | 8        | 0        | 17            | 6                        | 38       | 0    | 0        | 44            | 135           |
| 05:00 PM       | 0                       | 0        | 0    | 0        | 0             | 0                        | 29       | 1    | 0        | 30            | 0                       | 0        | 2        | 0        | 2             | 1                        | 10       | 0    | 0        | 11            | 43            |
| 05:15 PM       | 0                       | 0        | 0    | 0        | 0             | 0                        | 24       | 2    | 0        | 26            | 2                       | 0        | 2        | 0        | 4             | 1                        | 8        | 0    | 0        | 9             | 39            |
| 05:30 PM       | 0                       | 0        | 0    | 0        | 0             | 0                        | 18       | 3    | 0        | 21            | 1                       | 0        | 2        | 0        | 3             | 0                        | 4        | 0    | 0        | 4             | 28            |
| 05:45 PM       | 0                       | 0        | 0    | 0        | 0             | 0                        | 17       | 1    | 0        | 18            | 1                       | 0        | 1        | 0        | 2             | 2                        | 6        | 0    | 0        | 8             | 28            |
| Total          | 0                       | 0        | 0    | 0        | 0             | 0                        | 88       | 7    | 0        | 95            | 4                       | 0        | 7        | 0        | 11            | 4                        | 28       | 0    | 0        | 32            | 138           |
| Grand<br>Total | 0                       | 0        | 0    | 0        | 0             | 0                        | 157      | 12   | 0        | 169           | 13                      | 0        | 15       | 0        | 28            | 10                       | 66       | 0    | 0        | 76            | 273           |
| Approch<br>%   | 0.0                     | 0.0      | 0.0  | 0.0      |               | 0.0                      | 92.<br>9 | 7.1  | 0.0      |               | 46.<br>4                | 0.0      | 53.<br>6 | 0.0      |               | 13.<br>2                 | 86.<br>8 | 0.0  | 0.0      |               |               |
| Total %        | 0.0                     | 0.0      | 0.0  | 0.0      | 0.0           | 0.0                      | 57.<br>5 | 4.4  | 0.0      | 61.9          | 4.8                     | 0.0      | 5.5      | 0.0      | 10.3          | 3.7                      | 24.<br>2 | 0.0  | 0.0      | 27.8          |               |

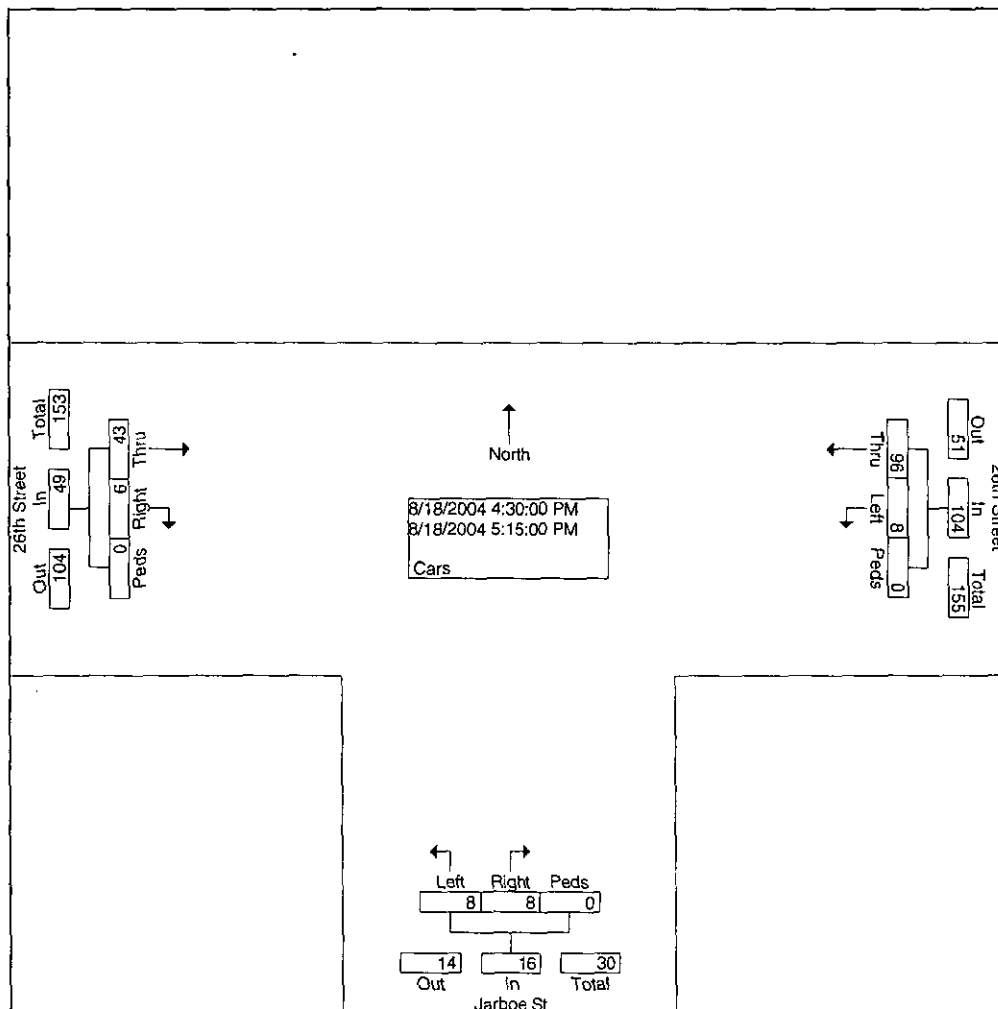


# Turning Movement Counts

Olsson Associates  
Jarboe St & 26th St  
City of Kansas City  
Data Collector: SJ

File Name : 26th\_St\_Jarboe\_PM  
Site Code : 00000000  
Start Date : 08/18/2004  
Page No : 2

|   | Jarboe St<br>From North |          |      |          |               | 26th Street<br>From East |          |      |          |               | Jarboe St<br>From South |          |      |          |               | 26th Street<br>From West |          |      |          |               |               |
|---|-------------------------|----------|------|----------|---------------|--------------------------|----------|------|----------|---------------|-------------------------|----------|------|----------|---------------|--------------------------|----------|------|----------|---------------|---------------|
| Start<br>Time                                     | Rig<br>ht               | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht               | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Int.<br>Total |
| Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1 |                         |          |      |          |               |                          |          |      |          |               |                         |          |      |          |               |                          |          |      |          |               |               |
| Intersection                                      | 04:30 PM                |          |      |          |               |                          |          |      |          |               |                         |          |      |          |               |                          |          |      |          |               |               |
| Volume  | 0                       | 0        | 0    | 0        | 0             | 0                        | 96       | 8    | 0        | 104           | 8                       | 0        | 8    | 0        | 16            | 6                        | 43       | 0    | 0        | 49            | 169           |
| Percent   | 0.0                     | 0.0      | 0.0  | 0.0      |               | 0.0                      | 92.3     | 7.7  | 0.0      |               | 50.0                    | 0.0      | 50.0 | 0.0      |               | 12.2                     | 87.8     | 0.0  | 0.0      |               |               |
| 04:45<br>Volume                                   | 0                       | 0        | 0    | 0        | 0             | 0                        | 24       | 3    | 0        | 27            | 4                       | 0        | 2    | 0        | 6             | 2                        | 9        | 0    | 0        | 11            | 44            |
| Peak<br>Factor                                    |                         |          |      |          |               |                          |          |      |          |               |                         |          |      |          |               |                          |          |      |          |               | 0.960         |
| High Int.   | 3:45:00 PM              |          |      |          |               | 05:00 PM                 |          |      |          |               | 04:45 PM                |          |      |          |               | 04:30 PM                 |          |      |          |               |               |
| Volume  | 0                       | 0        | 0    | 0        | 0             | 0                        | 29       | 1    | 0        | 30            | 4                       | 0        | 2    | 0        | 6             | 2                        | 16       | 0    | 0        | 18            |               |
| Peak<br>Factor                                    |                         |          |      |          |               |                          |          |      |          |               | 0.86                    |          |      |          |               | 0.66                     |          |      |          |               | 0.68          |
|   |                         |          |      |          |               |                          |          |      |          |               | 7                       |          |      |          |               | 7                        |          |      |          |               | 1             |



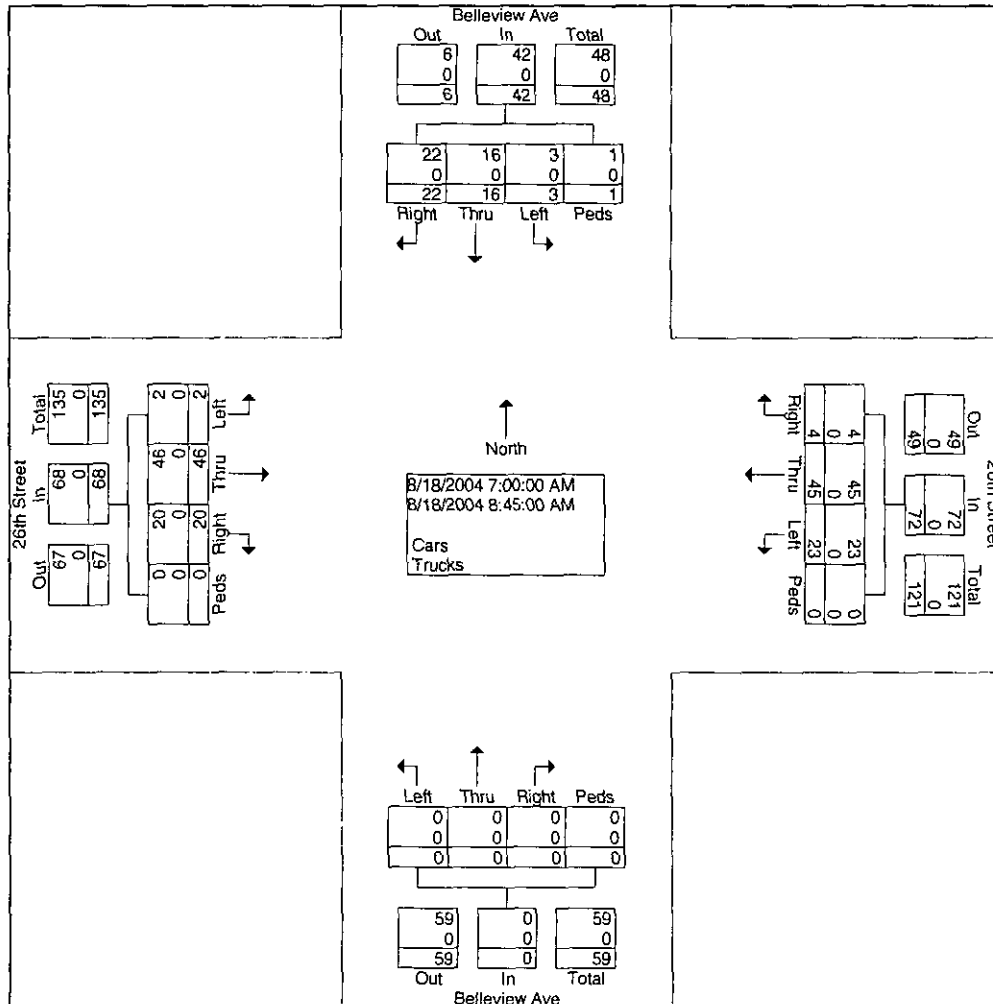
# Turning Movement Counts

Olsson Associates  
Bellevue Ave & 26th St  
City of Kansas City  
Data Collector: SJ

File Name : 26th\_St\_Bellevue\_AM  
Site Code : 00000000  
Start Date : 08/18/2004  
Page No : 1

Groups Printed- Cars - Trucks

| Start Time  | Bellevue Ave From North |      |      |       |            | 26th Street From East |      |      |       |            | Bellevue Ave From South |      |      |       |            | 26th Street From West |      |      |       |            | Int. Total |
|-------------|-------------------------|------|------|-------|------------|-----------------------|------|------|-------|------------|-------------------------|------|------|-------|------------|-----------------------|------|------|-------|------------|------------|
|             | Rig ht                  | Thru | Left | Ped s | App. Total | Rig ht                | Thru | Left | Ped s | App. Total | Rig ht                  | Thru | Left | Ped s | App. Total | Rig ht                | Thru | Left | Ped s | App. Total |            |
| Factor      | 1.0                     | 1.0  | 1.0  | 1.0   |            | 1.0                   | 1.0  | 1.0  | 1.0   |            | 1.0                     | 1.0  | 1.0  | 1.0   |            | 1.0                   | 1.0  | 1.0  | 1.0   |            |            |
| 07:00 AM    | 2                       | 0    | 1    | 1     | 4          | 0                     | 6    | 2    | 0     | 8          | 0                       | 0    | 0    | 0     | 0          | 0                     | 10   | 0    | 0     | 10         | 22         |
| 07:15 AM    | 3                       | 1    | 1    | 0     | 5          | 0                     | 6    | 2    | 0     | 8          | 0                       | 0    | 0    | 0     | 0          | 2                     | 1    | 0    | 0     | 3          | 16         |
| 07:30 AM    | 1                       | 3    | 0    | 0     | 4          | 1                     | 2    | 3    | 0     | 6          | 0                       | 0    | 0    | 0     | 0          | 1                     | 8    | 2    | 0     | 11         | 21         |
| 07:45 AM    | 1                       | 4    | 1    | 0     | 6          | 0                     | 6    | 2    | 0     | 8          | 0                       | 0    | 0    | 0     | 0          | 1                     | 6    | 0    | 0     | 7          | 21         |
| Total       | 7                       | 8    | 3    | 1     | 19         | 1                     | 20   | 9    | 0     | 30         | 0                       | 0    | 0    | 0     | 0          | 4                     | 25   | 2    | 0     | 31         | 80         |
| 08:00 AM    | 2                       | 3    | 0    | 0     | 5          | 0                     | 9    | 1    | 0     | 10         | 0                       | 0    | 0    | 0     | 0          | 8                     | 7    | 0    | 0     | 15         | 30         |
| 08:15 AM    | 3                       | 3    | 0    | 0     | 6          | 2                     | 6    | 4    | 0     | 12         | 0                       | 0    | 0    | 0     | 0          | 4                     | 7    | 0    | 0     | 11         | 29         |
| 08:30 AM    | 5                       | 0    | 0    | 0     | 5          | 1                     | 5    | 3    | 0     | 9          | 0                       | 0    | 0    | 0     | 0          | 1                     | 5    | 0    | 0     | 6          | 20         |
| 08:45 AM    | 5                       | 2    | 0    | 0     | 7          | 0                     | 5    | 6    | 0     | 11         | 0                       | 0    | 0    | 0     | 0          | 3                     | 2    | 0    | 0     | 5          | 23         |
| Total       | 15                      | 8    | 0    | 0     | 23         | 3                     | 25   | 14   | 0     | 42         | 0                       | 0    | 0    | 0     | 0          | 16                    | 21   | 0    | 0     | 37         | 102        |
| Grand Total | 22                      | 16   | 3    | 1     | 42         | 4                     | 45   | 23   | 0     | 72         | 0                       | 0    | 0    | 0     | 0          | 20                    | 46   | 2    | 0     | 68         | 182        |
| Apprch %    | 52.4                    | 38.1 | 7.1  | 2.4   |            | 5.6                   | 62.5 | 31.9 | 0.0   |            | 0.0                     | 0.0  | 0.0  | 0.0   |            | 29.4                  | 67.6 | 2.9  | 0.0   |            |            |
| Total %     | 12.1                    | 8.8  | 1.6  | 0.5   | 23.1       | 2.2                   | 24.7 | 12.6 | 0.0   | 39.6       | 0.0                     | 0.0  | 0.0  | 0.0   | 0.0        | 11.0                  | 25.3 | 1.1  | 0.0   | 37.4       |            |



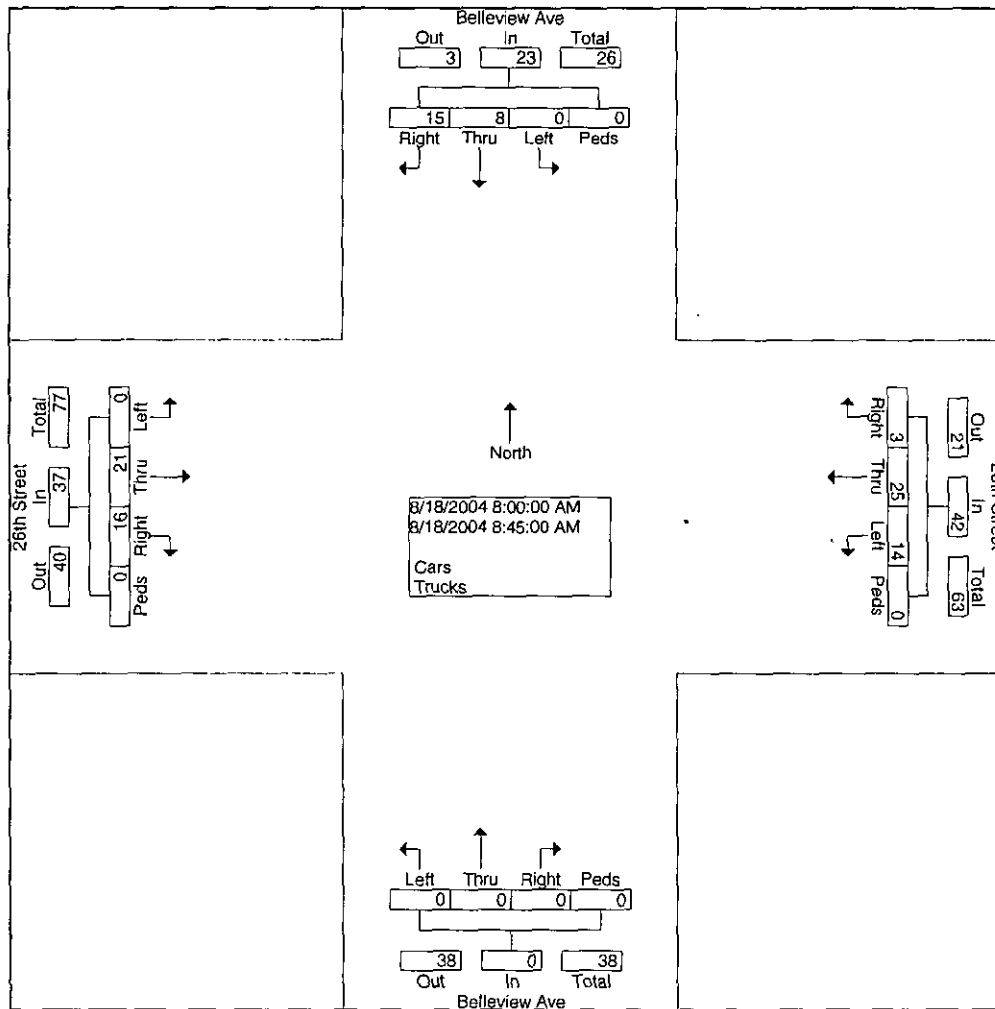


# Turning Movement Counts

Olsson Associates  
Bellevue Ave & 26th St  
City of Kansas City  
Data Collector: SJ

File Name : 26th\_St\_Bellevue\_AM  
Site Code : 00000000  
Start Date : 08/18/2004  
Page No : 2

|   | Bellevue Ave<br>From North |      |      |          |               | 26th Street<br>From East |      |      |          |               | Bellevue Ave<br>From South |      |      |          |               | 26th Street<br>From West |      |      |          |               |               |
|---|----------------------------|------|------|----------|---------------|--------------------------|------|------|----------|---------------|----------------------------|------|------|----------|---------------|--------------------------|------|------|----------|---------------|---------------|
| Start Time  | Rig<br>ht                  | Thru | Left | Ped<br>s | App.<br>Total | Rig<br>ht                | Thru | Left | Ped<br>s | App.<br>Total | Rig<br>ht                  | Thru | Left | Ped<br>s | App.<br>Total | Rig<br>ht                | Thru | Left | Ped<br>s | App.<br>Total | Int.<br>Total |
| Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1 |                            |      |      |          |               |                          |      |      |          |               |                            |      |      |          |               |                          |      |      |          |               |               |
| Intersection                                      | 08:00 AM                   |      |      |          |               |                          |      |      |          |               |                            |      |      |          |               |                          |      |      |          |               |               |
| Volume  | 15                         | 8    | 0    | 0        | 23            | 3                        | 25   | 14   | 0        | 42            | 0                          | 0    | 0    | 0        | 0             | 16                       | 21   | 0    | 0        | 37            | 102           |
| Percent   | 65.2                       | 34.8 | 0.0  | 0.0      |               | 7.1                      | 59.5 | 33.3 | 0.0      |               | 0.0                        | 0.0  | 0.0  | 0.0      |               | 43.2                     | 56.8 | 0.0  | 0.0      |               |               |
| 08:00   |                            |      |      |          |               |                          |      |      |          |               |                            |      |      |          |               |                          |      |      |          |               |               |
| Volume  | 2                          | 3    | 0    | 0        | 5             | 0                        | 9    | 1    | 0        | 10            | 0                          | 0    | 0    | 0        | 0             | 8                        | 7    | 0    | 0        | 15            | 30            |
| Peak Factor                                       |                            |      |      |          |               |                          |      |      |          |               |                            |      |      |          |               |                          |      |      |          |               | 0.850         |
| High Int.   | 08:45 AM                   |      |      |          |               | 08:15 AM                 |      |      |          |               | 6:45:00 AM                 |      |      |          |               | 08:00 AM                 |      |      |          |               |               |
| Volume  | 5                          | 2    | 0    | 0        | 7             | 2                        | 6    | 4    | 0        | 12            | 0                          | 0    | 0    | 0        | 0             | 8                        | 7    | 0    | 0        | 15            |               |
| Peak Factor                                       | 0.821                      |      |      |          |               | 0.875                    |      |      |          |               |                            |      |      |          |               | 0.617                    |      |      |          |               |               |



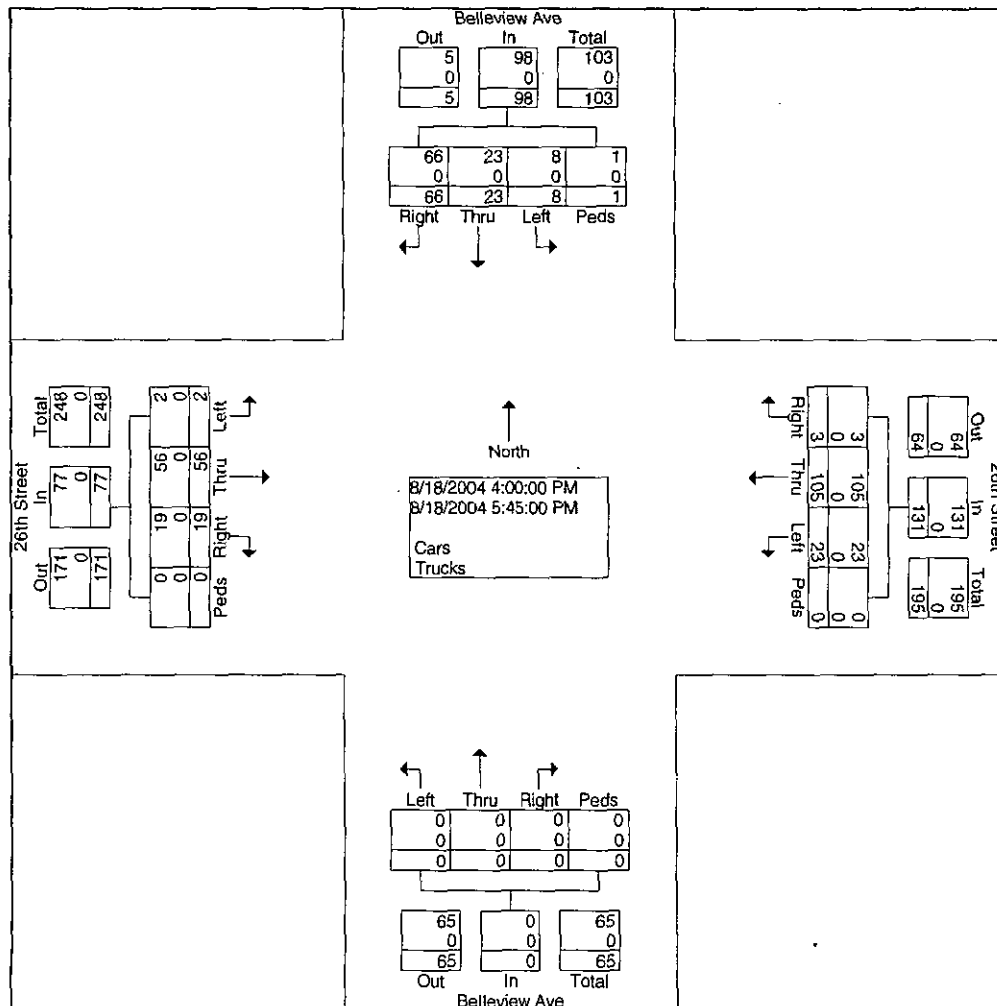
# Turning Movement Counts

Olsson Associates  
Bellevue Ave & 26th St  
City of Kansas City  
Data Collector: SJ

File Name : 26th\_St\_Bellevue\_PM  
Site Code : 00000000  
Start Date : 08/18/2004  
Page No : 1

Groups Printed- Cars - Trucks

|             | Bellevue Ave<br>From North |      |      |       |            | 26th Street<br>From East |      |      |       |            | Bellevue Ave<br>From South |      |      |       |            | 26th Street<br>From West |      |      |       |            |            |
|-------------|----------------------------|------|------|-------|------------|--------------------------|------|------|-------|------------|----------------------------|------|------|-------|------------|--------------------------|------|------|-------|------------|------------|
| Start Time  | Rig ht                     | Thru | Left | Pe ds | App. Total | Rig ht                   | Thru | Left | Pe ds | App. Total | Rig ht                     | Thru | Left | Pe ds | App. Total | Rig ht                   | Thru | Left | Pe ds | App. Total | int. Total |
| Factor      | 1.0                        | 1.0  | 1.0  | 1.0   |            | 1.0                      | 1.0  | 1.0  | 1.0   |            | 1.0                        | 1.0  | 1.0  | 1.0   |            | 1.0                      | 1.0  | 1.0  | 1.0   |            |            |
| 04:00 PM    | 5                          | 2    | 1    | 1     | 9          | 0                        | 9    | 0    | 0     | 9          | 0                          | 0    | 0    | 0     | 0          | 2                        | 6    | 0    | 0     | 8          | 26         |
| 04:15 PM    | 5                          | 3    | 0    | 0     | 8          | 1                        | 6    | 4    | 0     | 11         | 0                          | 0    | 0    | 0     | 0          | 1                        | 5    | 0    | 0     | 6          | 25         |
| 04:30 PM    | 8                          | 2    | 0    | 0     | 10         | 1                        | 11   | 6    | 0     | 18         | 0                          | 0    | 0    | 0     | 0          | 4                        | 15   | 0    | 0     | 19         | 47         |
| 04:45 PM    | 8                          | 3    | 0    | 0     | 11         | 0                        | 22   | 4    | 0     | 26         | 0                          | 0    | 0    | 0     | 0          | 3                        | 7    | 0    | 0     | 10         | 47         |
| Total       | 26                         | 10   | 1    | 1     | 38         | 2                        | 48   | 14   | 0     | 64         | 0                          | 0    | 0    | 0     | 0          | 10                       | 33   | 0    | 0     | 43         | 145        |
| 05:00 PM    | 11                         | 4    | 3    | 0     | 18         | 1                        | 19   | 5    | 0     | 25         | 0                          | 0    | 0    | 0     | 0          | 3                        | 10   | 0    | 0     | 13         | 56         |
| 05:15 PM    | 10                         | 4    | 3    | 0     | 17         | 0                        | 17   | 0    | 0     | 17         | 0                          | 0    | 0    | 0     | 0          | 3                        | 4    | 1    | 0     | 8          | 42         |
| 05:30 PM    | 13                         | 2    | 0    | 0     | 15         | 0                        | 9    | 4    | 0     | 13         | 0                          | 0    | 0    | 0     | 0          | 1                        | 4    | 0    | 0     | 5          | 33         |
| 05:45 PM    | 6                          | 3    | 1    | 0     | 10         | 0                        | 12   | 0    | 0     | 12         | 0                          | 0    | 0    | 0     | 0          | 2                        | 5    | 1    | 0     | 8          | 30         |
| Total       | 40                         | 13   | 7    | 0     | 60         | 1                        | 57   | 9    | 0     | 67         | 0                          | 0    | 0    | 0     | 0          | 9                        | 23   | 2    | 0     | 34         | 161        |
| Grand Total | 66                         | 23   | 8    | 1     | 98         | 3                        | 105  | 23   | 0     | 131        | 0                          | 0    | 0    | 0     | 0          | 19                       | 56   | 2    | 0     | 77         | 306        |
| Apprch %    | 67.3                       | 23.5 | 8.2  | 1.0   |            | 2.3                      | 80.2 | 17.6 | 0.0   |            | 0.0                        | 0.0  | 0.0  | 0.0   |            | 24.7                     | 72.7 | 2.6  | 0.0   |            |            |
| Total %     | 21.6                       | 7.5  | 2.6  | 0.3   | 32.0       | 1.0                      | 34.3 | 7.5  | 0.0   | 42.8       | 0.0                        | 0.0  | 0.0  | 0.0   | 0.0        | 6.2                      | 18.3 | 0.7  | 0.0   | 25.2       |            |

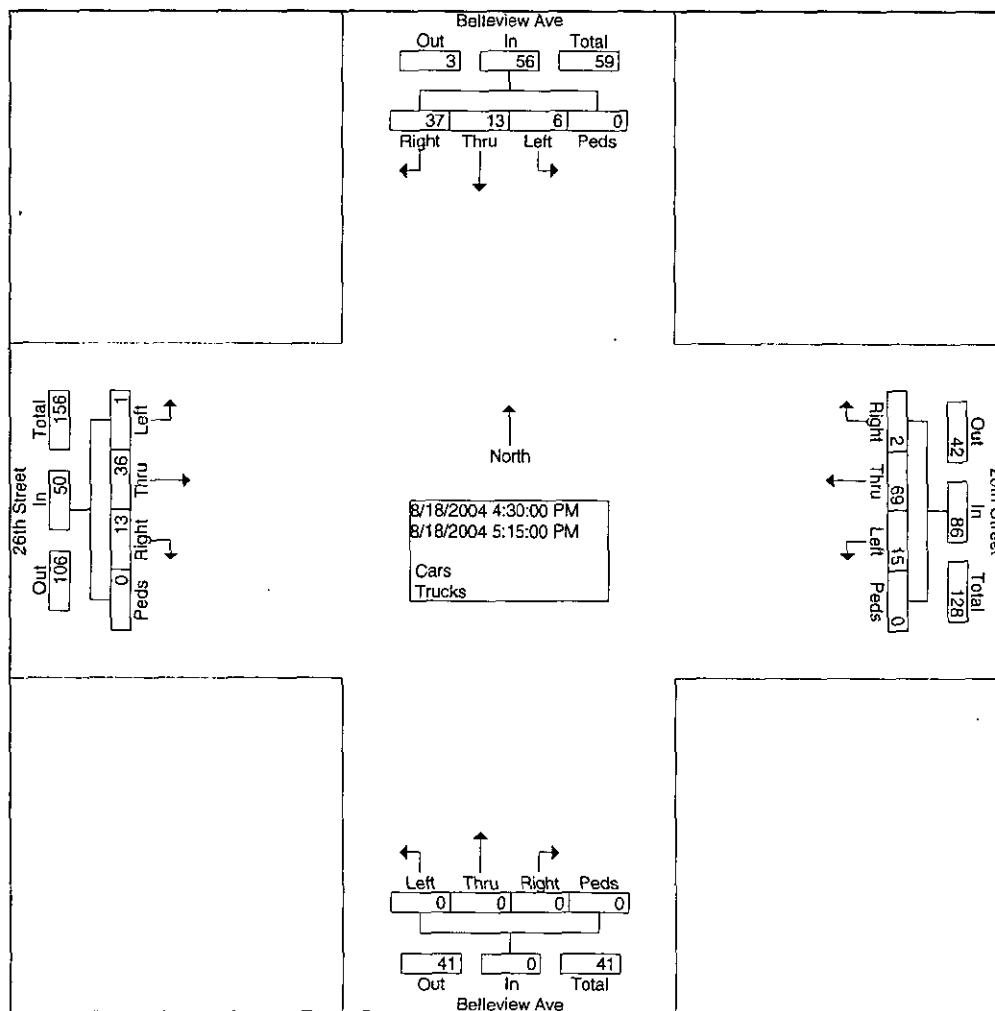


# Turning Movement Counts

Olsson Associates  
Bellevue Ave & 26th St  
City of Kansas City  
Data Collector: SJ

File Name : 26th\_St\_Bellevue\_PM  
Site Code : 00000000  
Start Date : 08/18/2004  
Page No : 2

|   | Bellevue Ave<br>From North |          |      |          |               | 26th Street<br>From East |          |      |          |               | Bellevue Ave<br>From South |          |      |          |               | 26th Street<br>From West |          |      |          |               |               |
|---|----------------------------|----------|------|----------|---------------|--------------------------|----------|------|----------|---------------|----------------------------|----------|------|----------|---------------|--------------------------|----------|------|----------|---------------|---------------|
| Start<br>Time                                     | Rig<br>ht                  | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                  | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Int.<br>Total |
| Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1 |                            |          |      |          |               |                          |          |      |          |               |                            |          |      |          |               |                          |          |      |          |               |               |
| Intersection                                      | 04:30 PM                   |          |      |          |               |                          |          |      |          |               |                            |          |      |          |               |                          |          |      |          |               |               |
| Volume  | 37                         | 13       | 6    | 0        | 56            | 2                        | 69       | 15   | 0        | 86            | 0                          | 0        | 0    | 0        | 0             | 13                       | 36       | 1    | 0        | 50            | 192           |
| Percent   | 66.                        | 23.      | 10.  | 0.0      |               | 2.3                      | 80.      | 17.  | 0.0      |               | 0.0                        | 0.0      | 0.0  | 0.0      |               | 26.                      | 72.      | 2.0  | 0.0      |               |               |
|   | 1                          | 2        | 7    |          |               |                          | 2        | 4    |          |               |                            |          |      |          |               | 0                        | 0        |      |          |               |               |
| 05:00   |                            |          |      |          |               |                          |          |      |          |               |                            |          |      |          |               |                          |          |      |          |               |               |
| Volume  | 11                         | 4        | 3    | 0        | 18            | 1                        | 19       | 5    | 0        | 25            | 0                          | 0        | 0    | 0        | 0             | 3                        | 10       | 0    | 0        | 13            | 56            |
| Peak<br>Factor                                    |                            |          |      |          |               |                          |          |      |          |               |                            |          |      |          |               |                          |          |      |          |               | 0.857         |
| High Int.   | 05:00 PM                   |          |      |          |               | 04:45 PM                 |          |      |          |               | 3:45:00 PM                 |          |      |          |               | 04:30 PM                 |          |      |          |               |               |
| Volume  | 11                         | 4        | 3    | 0        | 18            | 0                        | 22       | 4    | 0        | 26            | 0                          | 0        | 0    | 0        | 0             | 4                        | 15       | 0    | 0        | 19            |               |
| Peak<br>Factor                                    | 0.77                       |          |      |          |               | 0.82                     |          |      |          |               |                            |          |      |          |               | 0.65                     |          |      |          |               |               |
|   | 8                          |          |      |          |               | 7                        |          |      |          |               |                            |          |      |          |               | 8                        |          |      |          |               |               |



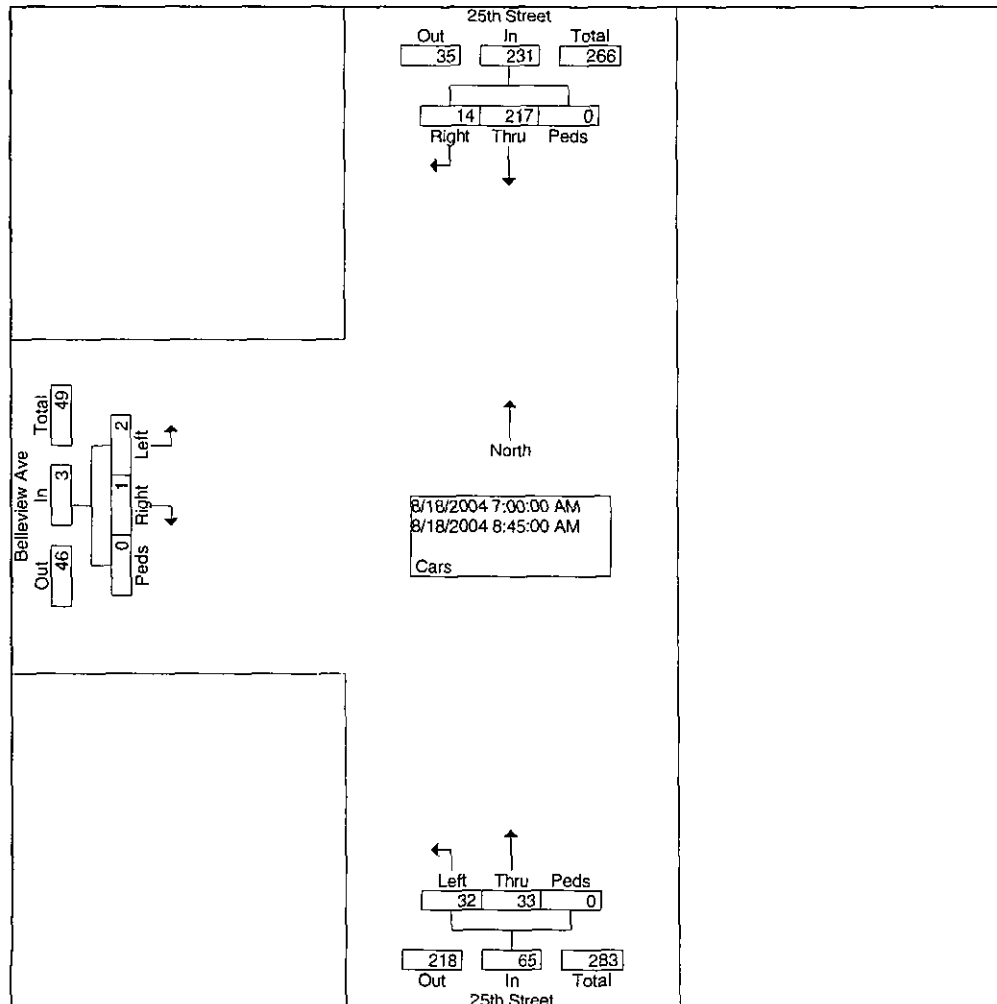
# Turning Movement Counts

Olsson Associates  
25th Street & Bellevue Ave  
City of Kansas City, MO  
Data Collector: DF

File Name : 25th\_St\_Bellevue\_AM  
Site Code : 00000000  
Start Date : 08/18/2004  
Page No : 1

Groups Printed- Cars

|                | 25th Street<br>From North |          |      |          |               | Bellevue Ave<br>From East |          |      |          |               | 25th Street<br>From South |          |          |          |               | Bellevue Ave<br>From West |          |          |          |               |               |
|----------------|---------------------------|----------|------|----------|---------------|---------------------------|----------|------|----------|---------------|---------------------------|----------|----------|----------|---------------|---------------------------|----------|----------|----------|---------------|---------------|
| Start<br>Time  | Rig<br>ht                 | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                 | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                 | Thr<br>u | Left     | Pe<br>ds | App.<br>Total | Rig<br>ht                 | Thr<br>u | Left     | Pe<br>ds | App.<br>Total | Int.<br>Total |
| Factor         | 1.0                       | 1.0      | 1.0  | 1.0      |               | 1.0                       | 1.0      | 1.0  | 1.0      |               | 1.0                       | 1.0      | 1.0      | 1.0      |               | 1.0                       | 1.0      | 1.0      | 1.0      |               |               |
| 07:00 AM       | 0                         | 24       | 0    | 0        | 24            | 0                         | 0        | 0    | 0        | 0             | 0                         | 4        | 2        | 0        | 6             | 0                         | 0        | 0        | 0        | 0             | 30            |
| 07:15 AM       | 3                         | 20       | 0    | 0        | 23            | 0                         | 0        | 0    | 0        | 0             | 0                         | 5        | 2        | 0        | 7             | 0                         | 0        | 1        | 0        | 1             | 31            |
| 07:30 AM       | 2                         | 29       | 0    | 0        | 31            | 0                         | 0        | 0    | 0        | 0             | 0                         | 3        | 1        | 0        | 4             | 0                         | 0        | 0        | 0        | 0             | 35            |
| 07:45 AM       | 1                         | 29       | 0    | 0        | 30            | 0                         | 0        | 0    | 0        | 0             | 0                         | 4        | 10       | 0        | 14            | 0                         | 0        | 0        | 0        | 0             | 44            |
| Total          | 6                         | 102      | 0    | 0        | 108           | 0                         | 0        | 0    | 0        | 0             | 0                         | 16       | 15       | 0        | 31            | 0                         | 0        | 1        | 0        | 1             | 140           |
| 08:00 AM       | 3                         | 35       | 0    | 0        | 38            | 0                         | 0        | 0    | 0        | 0             | 0                         | 3        | 3        | 0        | 6             | 1                         | 0        | 0        | 0        | 1             | 45            |
| 08:15 AM       | 1                         | 32       | 0    | 0        | 33            | 0                         | 0        | 0    | 0        | 0             | 0                         | 2        | 4        | 0        | 6             | 0                         | 0        | 0        | 0        | 0             | 39            |
| 08:30 AM       | 2                         | 23       | 0    | 0        | 25            | 0                         | 0        | 0    | 0        | 0             | 0                         | 4        | 3        | 0        | 7             | 0                         | 0        | 0        | 0        | 0             | 32            |
| 08:45 AM       | 2                         | 25       | 0    | 0        | 27            | 0                         | 0        | 0    | 0        | 0             | 0                         | 8        | 7        | 0        | 15            | 0                         | 0        | 1        | 0        | 1             | 43            |
| Total          | 8                         | 115      | 0    | 0        | 123           | 0                         | 0        | 0    | 0        | 0             | 0                         | 17       | 17       | 0        | 34            | 1                         | 0        | 1        | 0        | 2             | 159           |
| Grand<br>Total | 14                        | 217      | 0    | 0        | 231           | 0                         | 0        | 0    | 0        | 0             | 0                         | 33       | 32       | 0        | 65            | 1                         | 0        | 2        | 0        | 3             | 299           |
| Approch<br>%   | 6.1                       | 93.<br>9 | 0.0  | 0.0      |               | 0.0                       | 0.0      | 0.0  | 0.0      |               | 0.0                       | 50.<br>8 | 49.<br>2 | 0.0      |               | 33.<br>3                  | 0.0      | 66.<br>7 | 0.0      |               |               |
| Total %        | 4.7                       | 72.<br>6 | 0.0  | 0.0      | 77.3          | 0.0                       | 0.0      | 0.0  | 0.0      | 0.0           | 0.0                       | 11.<br>0 | 10.<br>7 | 0.0      | 21.7          | 0.3                       | 0.0      | 0.7      | 0.0      | 1.0           |               |

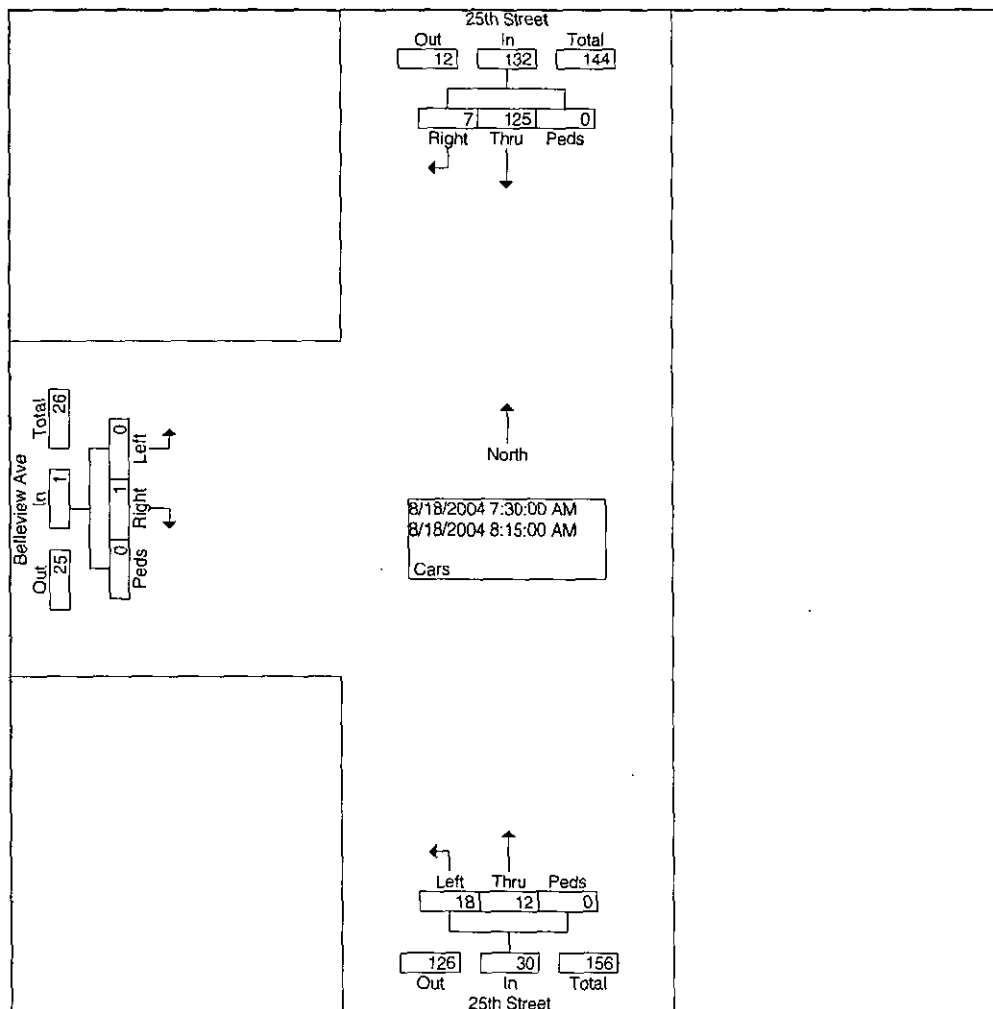


# Turning Movement Counts

Olsson Associates  
25th Street & Bellevue Ave  
City of Kansas City, MO  
Data Collector: DF

File Name : 25th\_St\_Bellevuev\_AM  
Site Code : 00000000  
Start Date : 08/18/2004  
Page No : 2

|   | 25th Street<br>From North |          |      |          |               | Bellevue Ave<br>From East |          |      |          |               | 25th Street<br>From South |          |          |          |               | Bellevue Ave<br>From West |          |      |          |               |               |
|---|---------------------------|----------|------|----------|---------------|---------------------------|----------|------|----------|---------------|---------------------------|----------|----------|----------|---------------|---------------------------|----------|------|----------|---------------|---------------|
| Start<br>Time                                     | Rig<br>ht                 | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                 | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                 | Thr<br>u | Left     | Pe<br>ds | App.<br>Total | Rig<br>ht                 | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Int.<br>Total |
| Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1 |                           |          |      |          |               |                           |          |      |          |               |                           |          |          |          |               |                           |          |      |          |               |               |
| Intersecti<br>on                                  | 07:30 AM                  |          |      |          |               |                           |          |      |          |               |                           |          |          |          |               |                           |          |      |          |               |               |
| Volume  | 7                         | 125      | 0    | 0        | 132           | 0                         | 0        | 0    | 0        | 0             | 0                         | 12       | 18       | 0        | 30            | 1                         | 0        | 0    | 0        | 1             | 163           |
| Percent   | 5.3                       | 94.<br>7 | 0.0  | 0.0      |               | 0.0                       | 0.0      | 0.0  | 0.0      |               | 0.0                       | 40.<br>0 | 60.<br>0 | 0.0      |               | 100.<br>0                 | 0.0      | 0.0  | 0.0      |               |               |
| 08:00<br>Volume                                   | 3                         | 35       | 0    | 0        | 38            | 0                         | 0        | 0    | 0        | 0             | 0                         | 3        | 3        | 0        | 6             | 1                         | 0        | 0    | 0        | 1             | 45            |
| Peak<br>Factor                                    |                           |          |      |          |               |                           |          |      |          |               |                           |          |          |          |               |                           |          |      |          |               | 0.906         |
| High Int.   | 08:00 AM                  |          |      |          |               | 6:45:00 AM                |          |      |          |               | 07:45 AM                  |          |          |          |               | 08:00 AM                  |          |      |          |               |               |
| Volume  | 3                         | 35       | 0    | 0        | 38            | 0                         | 0        | 0    | 0        | 0             | 0                         | 4        | 10       | 0        | 14            | 1                         | 0        | 0    | 0        | 1             |               |
| Peak<br>Factor                                    | 0.86                      |          |      |          |               |                           |          |      |          |               | 0.53                      |          |          |          |               | 0.25                      |          |      |          |               |               |
|   | 8                         |          |      |          |               |                           |          |      |          |               | 6                         |          |          |          |               | 0                         |          |      |          |               |               |



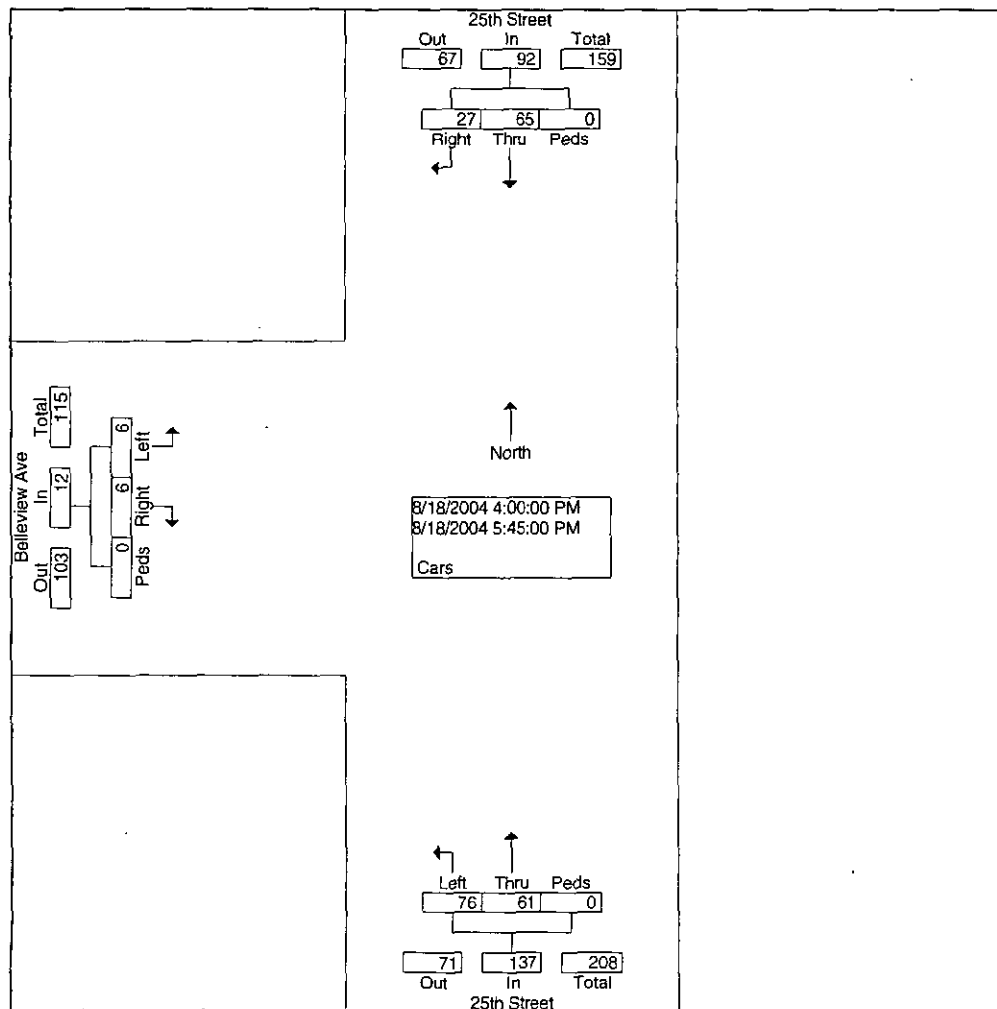
# Turning Movement Counts

Olsson Associates  
25th Street & Bellevue Ave  
City of Kansas City, MO  
Data Collector: DF

File Name : 25th\_St\_Bellevuev\_PM  
Site Code : 00000000  
Start Date : 08/18/2004  
Page No : 1

Groups Printed- Cars

|                | 25th Street<br>From North |          |      |          |               | Bellevue Ave<br>From East |          |      |          |               | 25th Street<br>From South |          |          |          |               | Bellevue Ave<br>From West |          |          |          |               |               |
|----------------|---------------------------|----------|------|----------|---------------|---------------------------|----------|------|----------|---------------|---------------------------|----------|----------|----------|---------------|---------------------------|----------|----------|----------|---------------|---------------|
| Start<br>Time  | Rig<br>ht                 | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                 | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                 | Thr<br>u | Left     | Pe<br>ds | App.<br>Total | Rig<br>ht                 | Thr<br>u | Left     | Pe<br>ds | App.<br>Total | Int.<br>Total |
| Factor         | 1.0                       | 1.0      | 1.0  | 1.0      |               | 1.0                       | 1.0      | 1.0  | 1.0      |               | 1.0                       | 1.0      | 1.0      | 1.0      |               | 1.0                       | 1.0      | 1.0      | 1.0      |               |               |
| 04:00 PM       | 2                         | 12       | 0    | 0        | 14            | 0                         | 0        | 0    | 0        | 0             | 0                         | 5        | 10       | 0        | 15            | 0                         | 0        | 0        | 0        | 0             | 29            |
| 04:15 PM       | 3                         | 11       | 0    | 0        | 14            | 0                         | 0        | 0    | 0        | 0             | 0                         | 11       | 8        | 0        | 19            | 2                         | 0        | 1        | 0        | 3             | 36            |
| 04:30 PM       | 6                         | 8        | 0    | 0        | 14            | 0                         | 0        | 0    | 0        | 0             | 0                         | 11       | 11       | 0        | 22            | 1                         | 0        | 0        | 0        | 1             | 37            |
| 04:45 PM       | 1                         | 8        | 0    | 0        | 9             | 0                         | 0        | 0    | 0        | 0             | 0                         | 10       | 13       | 0        | 23            | 1                         | 0        | 2        | 0        | 3             | 35            |
| Total          | 12                        | 39       | 0    | 0        | 51            | 0                         | 0        | 0    | 0        | 0             | 0                         | 37       | 42       | 0        | 79            | 4                         | 0        | 3        | 0        | 7             | 137           |
| 05:00 PM       | 5                         | 8        | 0    | 0        | 13            | 0                         | 0        | 0    | 0        | 0             | 0                         | 7        | 10       | 0        | 17            | 2                         | 0        | 3        | 0        | 5             | 35            |
| 05:15 PM       | 5                         | 8        | 0    | 0        | 13            | 0                         | 0        | 0    | 0        | 0             | 0                         | 6        | 9        | 0        | 15            | 0                         | 0        | 0        | 0        | 0             | 28            |
| 05:30 PM       | 3                         | 4        | 0    | 0        | 7             | 0                         | 0        | 0    | 0        | 0             | 0                         | 6        | 8        | 0        | 14            | 0                         | 0        | 0        | 0        | 0             | 21            |
| 05:45 PM       | 2                         | 6        | 0    | 0        | 8             | 0                         | 0        | 0    | 0        | 0             | 0                         | 5        | 7        | 0        | 12            | 0                         | 0        | 0        | 0        | 0             | 20            |
| Total          | 15                        | 26       | 0    | 0        | 41            | 0                         | 0        | 0    | 0        | 0             | 0                         | 24       | 34       | 0        | 58            | 2                         | 0        | 3        | 0        | 5             | 104           |
| Grand<br>Total | 27                        | 65       | 0    | 0        | 92            | 0                         | 0        | 0    | 0        | 0             | 0                         | 61       | 76       | 0        | 137           | 6                         | 0        | 6        | 0        | 12            | 241           |
| Apprch<br>%    | 29.<br>3                  | 70.<br>7 | 0.0  | 0.0      |               | 0.0                       | 0.0      | 0.0  | 0.0      |               | 0.0                       | 44.<br>5 | 55.<br>5 | 0.0      |               | 50.<br>0                  | 0.0      | 50.<br>0 | 0.0      |               |               |
| Total %        | 11.<br>2                  | 27.<br>0 | 0.0  | 0.0      | 38.2          | 0.0                       | 0.0      | 0.0  | 0.0      | 0.0           | 0.0                       | 25.<br>3 | 31.<br>5 | 0.0      | 56.8          | 2.5                       | 0.0      | 2.5      | 0.0      | 5.0           |               |

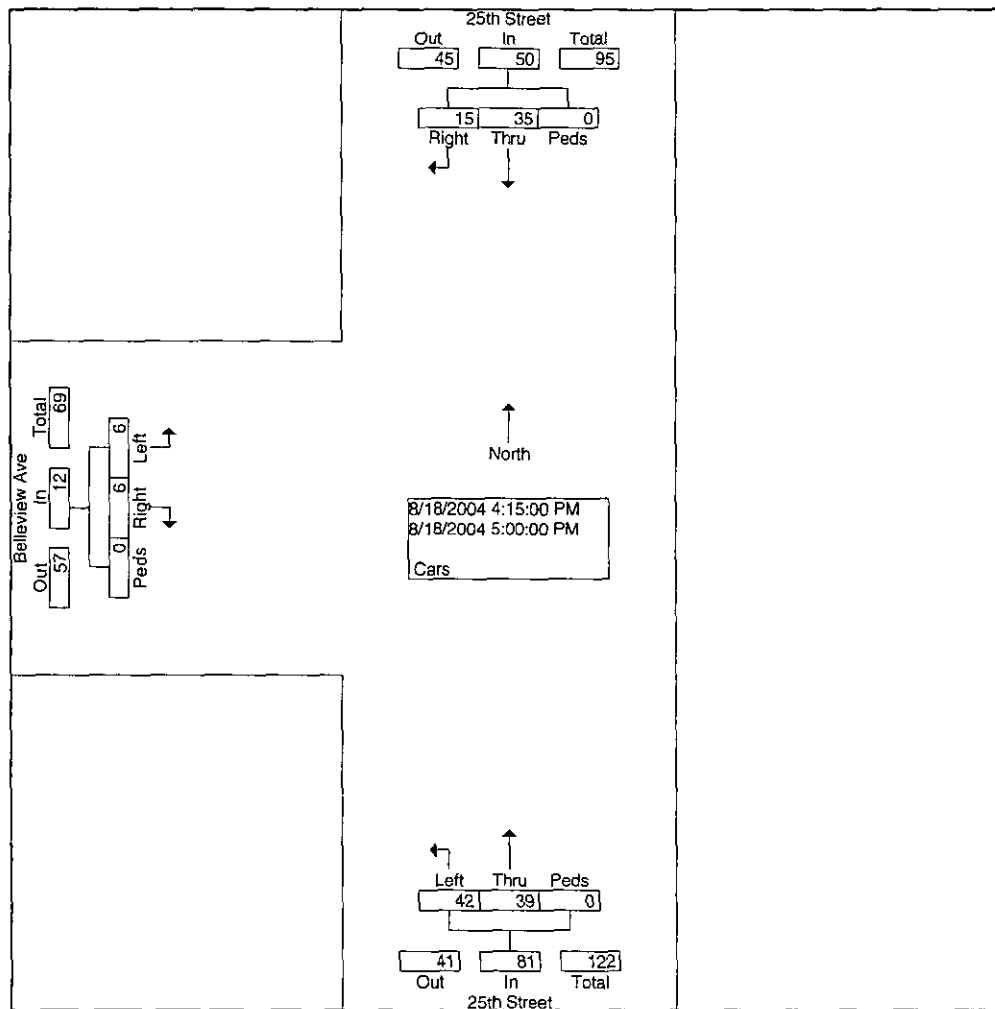


# Turning Movement Counts

Olsson Associates  
25th Street & Bellevue Ave  
City of Kansas City, MO  
Data Collector: DF

File Name : 25th\_St\_Bellevue\_PM  
Site Code : 00000000  
Start Date : 08/18/2004  
Page No : 2

|   | 25th Street<br>From North |          |      |          |               | Bellevue Ave<br>From East |          |      |          |               | 25th Street<br>From South |          |      |          |               | Bellevue Ave<br>From West |          |      |          |               |               |
|---|---------------------------|----------|------|----------|---------------|---------------------------|----------|------|----------|---------------|---------------------------|----------|------|----------|---------------|---------------------------|----------|------|----------|---------------|---------------|
| Start<br>Time                                     | Rig<br>ht                 | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                 | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                 | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Rig<br>ht                 | Thr<br>u | Left | Pe<br>ds | App.<br>Total | Int.<br>Total |
| Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1 |                           |          |      |          |               |                           |          |      |          |               |                           |          |      |          |               |                           |          |      |          |               |               |
| Intersecti<br>on                                  | 04:15 PM                  |          |      |          |               |                           |          |      |          |               |                           |          |      |          |               |                           |          |      |          |               |               |
| Volume  | 15                        | 35       | 0    | 0        | 50            | 0                         | 0        | 0    | 0        | 0             | 0                         | 39       | 42   | 0        | 81            | 6                         | 0        | 6    | 0        | 12            | 143           |
| Percent   | 30.                       | 70.      | 0.0  | 0.0      |               | 0.0                       | 0.0      | 0.0  | 0.0      |               | 0.0                       | 48.      | 51.  | 0.0      |               | 50.                       | 0.0      | 50.  | 0.0      |               |               |
|   | 0                         | 0        |      |          |               |                           |          |      |          |               |                           | 1        | 9    |          |               | 0                         |          | 0    |          |               |               |
| 04:30<br>Volume                                   | 6                         | 8        | 0    | 0        | 14            | 0                         | 0        | 0    | 0        | 0             | 0                         | 11       | 11   | 0        | 22            | 1                         | 0        | 0    | 0        | 1             | 37            |
| Peak<br>Factor                                    |                           |          |      |          |               |                           |          |      |          |               |                           |          |      |          |               |                           |          |      |          |               | 0.966         |
| High Int.   | 04:15 PM                  |          |      |          |               | 3:45:00 PM                |          |      |          |               | 04:45 PM                  |          |      |          |               | 05:00 PM                  |          |      |          |               |               |
| Volume  | 3                         | 11       | 0    | 0        | 14            | 0                         | 0        | 0    | 0        | 0             | 0                         | 10       | 13   | 0        | 23            | 2                         | 0        | 3    | 0        | 5             |               |
| Peak<br>Factor                                    | 0.89                      |          |      |          |               |                           |          |      |          |               | 0.88                      |          |      |          |               | 0.60                      |          |      |          |               |               |
|   | 3                         |          |      |          |               |                           |          |      |          |               | 0                         |          |      |          |               | 0                         |          |      |          |               |               |



**Nu-Metrics Traffic Analyzer Study**  
**Computer Generated Summary Report**  
**City: Kansas City**  
**Street: Southwest Blvd**

A study of vehicle traffic was conducted with HI-STAR unit number 6432. The study was done in the NB lane on Southwest Blvd in Kansas City, MO in Jackson county. The study began on 08/30/2004 at 04:30 PM and concluded on 08/31/2004 at 04:30 PM, lasting a total of 24 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 3,535 vehicles passed through the location with a peak volume of 135 on 08/31/2004 at 09:00 AM and a minimum volume of 0 on 08/31/2004 at 02:00 AM. The AADT Count for this study was 3,535.

**SPEED**

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

**Chart 1**

|              |                |                |                |                |                |                |                |                |                |                |                |                |                |         |
|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------|
| 0<br>to<br>9 | 10<br>to<br>14 | 15<br>to<br>19 | 20<br>to<br>24 | 25<br>to<br>29 | 30<br>to<br>34 | 35<br>to<br>39 | 40<br>to<br>44 | 45<br>to<br>49 | 50<br>to<br>54 | 55<br>to<br>59 | 60<br>to<br>64 | 65<br>to<br>69 | 70<br>to<br>74 | 75<br>> |
| 0            | 20             | 59             | 113            | 332            | 1037           | 1132           | 600            | 158            | 53             | 14             | 4              | 4              | 3              | 4       |

At least half of the vehicles were traveling in the 35 - 39 mph range or a lower speed. The average speed for all classified vehicles was 36 mph with 55.8 percent exceeding the posted speed of 35 mph. The HI-STAR found 0.82 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 35 mph and the 85th percentile was 42.58 mph.

**CLASSIFICATION**

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

**Chart 2**

|               |                |                |                |                |                |                |         |
|---------------|----------------|----------------|----------------|----------------|----------------|----------------|---------|
| 0<br>to<br>20 | 21<br>to<br>27 | 28<br>to<br>39 | 40<br>to<br>49 | 50<br>to<br>59 | 60<br>to<br>69 | 70<br>to<br>79 | 80<br>> |
| 3350          | 96             | 62             | 15             | 9              | 0              | 1              | 0       |

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 3,446 which represents 97.50 percent of the total classified vehicles. The number of Small Trucks in the study was 62 which represents 1.80 percent of the total classified vehicles. The number of Trucks/Buses in the study was 15 which represents 0.40 percent of the total classified vehicles. The number of Tractor Trailers in the study was 10 which represents 0.30 percent of the total classified vehicles.

**HEADWAY**

During the peak time period, on 08/31/2004 at 09:00 AM the average headway between the vehicles was 6.62 seconds. The slowest traffic period was on 08/31/2004 at 02:00 AM. During this slowest period, the average headway was 900.0 seconds.

**WEATHER**

The roadway surface temperature over the period of the study varied between 80 and 115 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.



# Date/Time/Volume/Average Speed/Temperature Report

|                        |                            |                          |
|------------------------|----------------------------|--------------------------|
| HI-Star ID: 6432       | Begin: 08/30/2004 04:30 PM | End: 08/31/2004 04:30 PM |
| Street: Southwest Blvd | Lane: NB                   | Hours: 24:00             |
| State: MO              | Oper: SJ                   | Period: 15               |
| City: Kansas City      | Posted: 35                 | Raw Count: 3535          |
| County: Jackson        | AADT Factor: 1             | AADT Count: 3535         |

|                   |       |           |      |         |
|-------------------|-------|-----------|------|---------|
| NC97              |       |           |      |         |
| Date & Time Range | Count | Avg Speed | Temp | Wet/Dry |

## 08/30/2004

|                     |    |        |       |     |
|---------------------|----|--------|-------|-----|
| [04:30 PM-04:45 PM] | 43 | 37 mph | 115 F | Dry |
| [04:45 PM-05:00 PM] | 50 | 39 mph | 115 F | Dry |
| [05:00 PM-05:15 PM] | 60 | 38 mph | 113 F | Dry |
| [05:15 PM-05:30 PM] | 60 | 38 mph | 113 F | Dry |
| [05:30 PM-05:45 PM] | 47 | 36 mph | 111 F | Dry |
| [05:45 PM-06:00 PM] | 46 | 38 mph | 111 F | Dry |
| [06:00 PM-06:15 PM] | 44 | 39 mph | 107 F | Dry |
| [06:15 PM-06:30 PM] | 31 | 37 mph | 107 F | Dry |
| [06:30 PM-06:45 PM] | 45 | 39 mph | 105 F | Dry |
| [06:45 PM-07:00 PM] | 27 | 36 mph | 103 F | Dry |
| [07:00 PM-07:15 PM] | 28 | 38 mph | 101 F | Dry |
| [07:15 PM-07:30 PM] | 23 | 35 mph | 99 F  | Dry |
| [07:30 PM-07:45 PM] | 20 | 38 mph | 97 F  | Dry |
| [07:45 PM-08:00 PM] | 22 | 38 mph | 97 F  | Dry |
| [08:00 PM-08:15 PM] | 23 | 38 mph | 97 F  | Dry |
| [08:15 PM-08:30 PM] | 21 | 36 mph | 95 F  | Dry |
| [08:30 PM-08:45 PM] | 19 | 36 mph | 95 F  | Dry |
| [08:45 PM-09:00 PM] | 23 | 35 mph | 95 F  | Dry |
| [09:00 PM-09:15 PM] | 12 | 35 mph | 93 F  | Dry |
| [09:15 PM-09:30 PM] | 20 | 37 mph | 91 F  | Dry |
| [09:30 PM-09:45 PM] | 9  | 40 mph | 91 F  | Dry |
| [09:45 PM-10:00 PM] | 15 | 39 mph | 91 F  | Dry |
| [10:00 PM-10:15 PM] | 8  | 34 mph | 89 F  | Dry |
| [10:15 PM-10:30 PM] | 7  | 33 mph | 89 F  | Dry |
| [10:30 PM-10:45 PM] | 5  | 34 mph | 89 F  | Dry |
| [10:45 PM-11:00 PM] | 9  | 35 mph | 89 F  | Dry |
| [11:00 PM-11:15 PM] | 6  | 41 mph | 87 F  | Dry |
| [11:15 PM-11:30 PM] | 3  | 38 mph | 87 F  | Dry |
| [11:30 PM-11:45 PM] | 13 | 32 mph | 87 F  | Dry |
| [11:45 PM-12:00 AM] | 3  | 28 mph | 85 F  | Dry |

## 08/31/2004

|                     |    |        |      |     |
|---------------------|----|--------|------|-----|
| [12:00 AM-12:15 AM] | 6  | 34 mph | 85 F | Dry |
| [12:15 AM-12:30 AM] | 7  | 31 mph | 85 F | Dry |
| [12:30 AM-12:45 AM] | 10 | 36 mph | 85 F | Dry |
| [12:45 AM-01:00 AM] | 2  | 32 mph | 83 F | Dry |
| [01:00 AM-01:15 AM] | 4  | 40 mph | 83 F | Dry |
| [01:15 AM-01:30 AM] | 4  | 39 mph | 83 F | Dry |
| [01:30 AM-01:45 AM] | 7  | 34 mph | 83 F | Dry |
| [01:45 AM-02:00 AM] | 2  | 32 mph | 83 F | Dry |
| [02:00 AM-02:15 AM] | 0  | 0 mph  | 82 F | Dry |

# Date/Time/Volume/Average Speed/Temperature Report

| NC97                |       |           |       |         |
|---------------------|-------|-----------|-------|---------|
| Date & Time Range   | Count | Avg Speed | Temp  | Wet/Dry |
| 08/31/2004          |       |           |       |         |
| [02:15 AM-02:30 AM] | 0     | 0 mph     | 82 F  | Dry     |
| [02:30 AM-02:45 AM] | 4     | 29 mph    | 82 F  | Dry     |
| [02:45 AM-03:00 AM] | 2     | 28 mph    | 82 F  | Dry     |
| [03:00 AM-03:15 AM] | 0     | 0 mph     | 82 F  | Dry     |
| [03:15 AM-03:30 AM] | 1     | 38 mph    | 82 F  | Dry     |
| [03:30 AM-03:45 AM] | 2     | 32 mph    | 80 F  | Dry     |
| [03:45 AM-04:00 AM] | 3     | 28 mph    | 80 F  | Dry     |
| [04:00 AM-04:15 AM] | 1     | 33 mph    | 80 F  | Dry     |
| [04:15 AM-04:30 AM] | 3     | 31 mph    | 80 F  | Dry     |
| [04:30 AM-04:45 AM] | 4     | 34 mph    | 80 F  | Dry     |
| [04:45 AM-05:00 AM] | 2     | 30 mph    | 80 F  | Dry     |
| [05:00 AM-05:15 AM] | 1     | 38 mph    | 80 F  | Dry     |
| [05:15 AM-05:30 AM] | 6     | 36 mph    | 80 F  | Dry     |
| [05:30 AM-05:45 AM] | 10    | 34 mph    | 80 F  | Dry     |
| [05:45 AM-06:00 AM] | 12    | 38 mph    | 80 F  | Dry     |
| [06:00 AM-06:15 AM] | 18    | 34 mph    | 80 F  | Dry     |
| [06:15 AM-06:30 AM] | 5     | 34 mph    | 80 F  | Dry     |
| [06:30 AM-06:45 AM] | 3     | 19 mph    | 80 F  | Dry     |
| [06:45 AM-07:00 AM] | 8     | 19 mph    | 80 F  | Dry     |
| [07:00 AM-07:15 AM] | 43    | 32 mph    | 80 F  | Dry     |
| [07:15 AM-07:30 AM] | 71    | 37 mph    | 80 F  | Dry     |
| [07:30 AM-07:45 AM] | 89    | 35 mph    | 80 F  | Dry     |
| [07:45 AM-08:00 AM] | 74    | 36 mph    | 80 F  | Dry     |
| [08:00 AM-08:15 AM] | 8     | 36 mph    | 80 F  | Dry     |
| [08:15 AM-08:30 AM] | 94    | 35 mph    | 80 F  | Dry     |
| [08:30 AM-08:45 AM] | 37    | 36 mph    | 82 F  | Dry     |
| [08:45 AM-09:00 AM] | 102   | 32 mph    | 82 F  | Dry     |
| [09:00 AM-09:15 AM] | 135   | 37 mph    | 82 F  | Dry     |
| [09:15 AM-09:30 AM] | 120   | 37 mph    | 83 F  | Dry     |
| [09:30 AM-09:45 AM] | 105   | 38 mph    | 83 F  | Dry     |
| [09:45 AM-10:00 AM] | 106   | 38 mph    | 85 F  | Dry     |
| [10:00 AM-10:15 AM] | 52    | 37 mph    | 85 F  | Dry     |
| [10:15 AM-10:30 AM] | 28    | 35 mph    | 89 F  | Dry     |
| [10:30 AM-10:45 AM] | 36    | 34 mph    | 91 F  | Dry     |
| [10:45 AM-11:00 AM] | 50    | 35 mph    | 93 F  | Dry     |
| [11:00 AM-11:15 AM] | 57    | 36 mph    | 97 F  | Dry     |
| [11:15 AM-11:30 AM] | 62    | 36 mph    | 97 F  | Dry     |
| [11:30 AM-11:45 AM] | 69    | 36 mph    | 97 F  | Dry     |
| [11:45 AM-12:00 PM] | 58    | 33 mph    | 99 F  | Dry     |
| [12:00 PM-12:15 PM] | 95    | 36 mph    | 99 F  | Dry     |
| [12:15 PM-12:30 PM] | 101   | 35 mph    | 99 F  | Dry     |
| [12:30 PM-12:45 PM] | 75    | 32 mph    | 101 F | Dry     |
| [12:45 PM-01:00 PM] | 95    | 34 mph    | 103 F | Dry     |
| [01:00 PM-01:15 PM] | 84    | 37 mph    | 105 F | Dry     |
| [01:15 PM-01:30 PM] | 78    | 35 mph    | 107 F | Dry     |
| [01:30 PM-01:45 PM] | 74    | 36 mph    | 107 F | Dry     |
| [01:45 PM-02:00 PM] | 62    | 37 mph    | 107 F | Dry     |

# Date/Time/Volume/Average Speed/Temperature Report

| NC97                |       |           |       |         |  |
|---------------------|-------|-----------|-------|---------|--|
| Date & Time Range   | Count | Avg Speed | Temp  | Wet/Dry |  |
| 08/31/2004          |       |           |       |         |  |
| [02:00 PM-02:15 PM] | 69    | 35 mph    | 109 F | Dry     |  |
| [02:15 PM-02:30 PM] | 68    | 33 mph    | 111 F | Dry     |  |
| [02:30 PM-02:45 PM] | 66    | 36 mph    | 109 F | Dry     |  |
| [02:45 PM-03:00 PM] | 63    | 36 mph    | 111 F | Dry     |  |
| [03:00 PM-03:15 PM] | 50    | 37 mph    | 109 F | Dry     |  |
| [03:15 PM-03:30 PM] | 51    | 36 mph    | 111 F | Dry     |  |
| [03:30 PM-03:45 PM] | 72    | 37 mph    | 111 F | Dry     |  |
| [03:45 PM-04:00 PM] | 59    | 35 mph    | 113 F | Dry     |  |
| [04:00 PM-04:15 PM] | 59    | 38 mph    | 113 F | Dry     |  |
| [04:15 PM-04:30 PM] | 49    | 36 mph    | 111 F | Dry     |  |

**Nu-Metrics Traffic Analyzer Study  
Computer Generated Summary Report  
City: Kansas City  
Street: Southwest Blvd**

A study of vehicle traffic was conducted with HI-STAR unit number 6655. The study was done in the NB lane on Southwest Blvd in Kansas City, MO in Jackson county. The study began on 08/30/2004 at 04:30 PM and concluded on 08/31/2004 at 04:30 PM, lasting a total of 24 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 4,883 vehicles passed through the location with a peak volume of 168 on 08/31/2004 at 08:00 AM and a minimum volume of 0 on 08/31/2004 at 04:00 AM. The AADT Count for this study was 4,883.

**SPEED**

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

**Chart 1**

|              |                |                |                |                |                |                |                |                |                |                |                |                |                |         |
|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------|
| 0<br>to<br>9 | 10<br>to<br>14 | 15<br>to<br>19 | 20<br>to<br>24 | 25<br>to<br>29 | 30<br>to<br>34 | 35<br>to<br>39 | 40<br>to<br>44 | 45<br>to<br>49 | 50<br>to<br>54 | 55<br>to<br>59 | 60<br>to<br>64 | 65<br>to<br>69 | 70<br>to<br>74 | 75<br>> |
| 0            | 29             | 66             | 102            | 214            | 921            | 1797           | 1238           | 421            | 116            | 32             | 25             | 6              | 6              | 2       |

At least half of the vehicles were traveling in the 35 - 39 mph range or a lower speed. The average speed for all classified vehicles was 38 mph with 73.2 percent exceeding the posted speed of 35 mph. The HI-STAR found 1.43 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 35 mph and the 85th percentile was 44.44 mph.

**CLASSIFICATION**

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

**Chart 2**

|               |                |                |                |                |                |                |         |
|---------------|----------------|----------------|----------------|----------------|----------------|----------------|---------|
| 0<br>to<br>20 | 21<br>to<br>27 | 28<br>to<br>39 | 40<br>to<br>49 | 50<br>to<br>59 | 60<br>to<br>69 | 70<br>to<br>79 | 80<br>> |
| 4710          | 140            | 91             | 13             | 13             | 7              | 1              | 0       |

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 4,850 which represents 97.50 percent of the total classified vehicles. The number of Small Trucks in the study was 91 which represents 1.80 percent of the total classified vehicles. The number of Trucks/Buses in the study was 13 which represents 0.30 percent of the total classified vehicles. The number of Tractor Trailers in the study was 21 which represents 0.40 percent of the total classified vehicles.

**HEADWAY**

During the peak time period, on 08/31/2004 at 08:00 AM the average headway between the vehicles was 5.33 seconds. The slowest traffic period was on 08/31/2004 at 04:00 AM. During this slowest period, the average headway was 900.0 seconds.

**WEATHER**

The roadway surface temperature over the period of the study varied between 78 and 115 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

## Date/Time/Volume/Average Speed/Temperature Report

|                        |                            |                          |
|------------------------|----------------------------|--------------------------|
| HI-Star ID: 6655       | Begin: 08/30/2004 04:30 PM | End: 08/31/2004 04:30 PM |
| Street: Southwest Blvd | Lane: NB                   | Hours: 24:00             |
| State: MO              | Oper: SJ                   | Period: 15               |
| City: Kansas City      | Posted: 35                 | Raw Count: 4883          |
| County: Jackson        | AADT Factor: 1             | AADT Count: 4883         |

|                   |       |           |      |         |
|-------------------|-------|-----------|------|---------|
| NC97              |       |           |      |         |
| Date & Time Range | Count | Avg Speed | Temp | Wet/Dry |

### 08/30/2004

|                     |     |        |       |     |
|---------------------|-----|--------|-------|-----|
| [04:30 PM-04:45 PM] | 10  | 40 mph | 115 F | Dry |
| [04:45 PM-05:00 PM] | 73  | 42 mph | 113 F | Dry |
| [05:00 PM-05:15 PM] | 106 | 41 mph | 111 F | Dry |
| [05:15 PM-05:30 PM] | 86  | 39 mph | 111 F | Dry |
| [05:30 PM-05:45 PM] | 74  | 40 mph | 109 F | Dry |
| [05:45 PM-06:00 PM] | 57  | 41 mph | 109 F | Dry |
| [06:00 PM-06:15 PM] | 53  | 39 mph | 107 F | Dry |
| [06:15 PM-06:30 PM] | 52  | 40 mph | 103 F | Dry |
| [06:30 PM-06:45 PM] | 43  | 41 mph | 103 F | Dry |
| [06:45 PM-07:00 PM] | 49  | 41 mph | 101 F | Dry |
| [07:00 PM-07:15 PM] | 31  | 39 mph | 99 F  | Dry |
| [07:15 PM-07:30 PM] | 31  | 39 mph | 97 F  | Dry |
| [07:30 PM-07:45 PM] | 37  | 41 mph | 97 F  | Dry |
| [07:45 PM-08:00 PM] | 33  | 39 mph | 95 F  | Dry |
| [08:00 PM-08:15 PM] | 33  | 39 mph | 95 F  | Dry |
| [08:15 PM-08:30 PM] | 21  | 40 mph | 93 F  | Dry |
| [08:30 PM-08:45 PM] | 18  | 36 mph | 91 F  | Dry |
| [08:45 PM-09:00 PM] | 18  | 37 mph | 91 F  | Dry |
| [09:00 PM-09:15 PM] | 31  | 39 mph | 91 F  | Dry |
| [09:15 PM-09:30 PM] | 19  | 38 mph | 89 F  | Dry |
| [09:30 PM-09:45 PM] | 13  | 37 mph | 89 F  | Dry |
| [09:45 PM-10:00 PM] | 19  | 36 mph | 89 F  | Dry |
| [10:00 PM-10:15 PM] | 13  | 39 mph | 87 F  | Dry |
| [10:15 PM-10:30 PM] | 12  | 38 mph | 87 F  | Dry |
| [10:30 PM-10:45 PM] | 22  | 37 mph | 87 F  | Dry |
| [10:45 PM-11:00 PM] | 15  | 38 mph | 85 F  | Dry |
| [11:00 PM-11:15 PM] | 15  | 38 mph | 85 F  | Dry |
| [11:15 PM-11:30 PM] | 12  | 36 mph | 85 F  | Dry |
| [11:30 PM-11:45 PM] | 17  | 36 mph | 85 F  | Dry |
| [11:45 PM-12:00 AM] | 6   | 35 mph | 83 F  | Dry |

### 08/31/2004

|                     |    |        |      |     |
|---------------------|----|--------|------|-----|
| [12:00 AM-12:15 AM] | 10 | 39 mph | 83 F | Dry |
| [12:15 AM-12:30 AM] | 7  | 38 mph | 83 F | Dry |
| [12:30 AM-12:45 AM] | 9  | 38 mph | 83 F | Dry |
| [12:45 AM-01:00 AM] | 1  | 43 mph | 83 F | Dry |
| [01:00 AM-01:15 AM] | 5  | 46 mph | 82 F | Dry |
| [01:15 AM-01:30 AM] | 4  | 39 mph | 82 F | Dry |
| [01:30 AM-01:45 AM] | 8  | 36 mph | 82 F | Dry |
| [01:45 AM-02:00 AM] | 1  | 38 mph | 82 F | Dry |
| [02:00 AM-02:15 AM] | 1  | 33 mph | 80 F | Dry |

# Date/Time/Volume/Average Speed/Temperature Report

| NC97                |       |           |       |         |  |
|---------------------|-------|-----------|-------|---------|--|
| Date & Time Range   | Count | Avg Speed | Temp  | Wet/Dry |  |
| 08/31/2004          |       |           |       |         |  |
| [02:15 AM-02:30 AM] | 4     | 38 mph    | 80 F  | Dry     |  |
| [02:30 AM-02:45 AM] | 2     | 38 mph    | 80 F  | Dry     |  |
| [02:45 AM-03:00 AM] | 4     | 36 mph    | 80 F  | Dry     |  |
| [03:00 AM-03:15 AM] | 4     | 38 mph    | 80 F  | Dry     |  |
| [03:15 AM-03:30 AM] | 1     | 43 mph    | 80 F  | Dry     |  |
| [03:30 AM-03:45 AM] | 3     | 38 mph    | 80 F  | Dry     |  |
| [03:45 AM-04:00 AM] | 5     | 45 mph    | 80 F  | Dry     |  |
| [04:00 AM-04:15 AM] | 0     | 0 mph     | 80 F  | Dry     |  |
| [04:15 AM-04:30 AM] | 4     | 39 mph    | 78 F  | Dry     |  |
| [04:30 AM-04:45 AM] | 3     | 39 mph    | 78 F  | Dry     |  |
| [04:45 AM-05:00 AM] | 6     | 37 mph    | 78 F  | Dry     |  |
| [05:00 AM-05:15 AM] | 5     | 45 mph    | 78 F  | Dry     |  |
| [05:15 AM-05:30 AM] | 4     | 44 mph    | 78 F  | Dry     |  |
| [05:30 AM-05:45 AM] | 13    | 40 mph    | 78 F  | Dry     |  |
| [05:45 AM-06:00 AM] | 15    | 37 mph    | 78 F  | Dry     |  |
| [06:00 AM-06:15 AM] | 16    | 36 mph    | 78 F  | Dry     |  |
| [06:15 AM-06:30 AM] | 24    | 26 mph    | 78 F  | Dry     |  |
| [06:30 AM-06:45 AM] | 70    | 37 mph    | 78 F  | Dry     |  |
| [06:45 AM-07:00 AM] | 79    | 39 mph    | 78 F  | Dry     |  |
| [07:00 AM-07:15 AM] | 104   | 35 mph    | 78 F  | Dry     |  |
| [07:15 AM-07:30 AM] | 67    | 39 mph    | 78 F  | Dry     |  |
| [07:30 AM-07:45 AM] | 93    | 40 mph    | 80 F  | Dry     |  |
| [07:45 AM-08:00 AM] | 117   | 38 mph    | 80 F  | Dry     |  |
| [08:00 AM-08:15 AM] | 168   | 35 mph    | 80 F  | Dry     |  |
| [08:15 AM-08:30 AM] | 114   | 39 mph    | 80 F  | Dry     |  |
| [08:30 AM-08:45 AM] | 139   | 33 mph    | 80 F  | Dry     |  |
| [08:45 AM-09:00 AM] | 139   | 36 mph    | 82 F  | Dry     |  |
| [09:00 AM-09:15 AM] | 120   | 40 mph    | 82 F  | Dry     |  |
| [09:15 AM-09:30 AM] | 123   | 41 mph    | 83 F  | Dry     |  |
| [09:30 AM-09:45 AM] | 121   | 41 mph    | 87 F  | Dry     |  |
| [09:45 AM-10:00 AM] | 127   | 40 mph    | 89 F  | Dry     |  |
| [10:00 AM-10:15 AM] | 58    | 39 mph    | 91 F  | Dry     |  |
| [10:15 AM-10:30 AM] | 66    | 38 mph    | 91 F  | Dry     |  |
| [10:30 AM-10:45 AM] | 62    | 36 mph    | 93 F  | Dry     |  |
| [10:45 AM-11:00 AM] | 67    | 38 mph    | 97 F  | Dry     |  |
| [11:00 AM-11:15 AM] | 76    | 39 mph    | 97 F  | Dry     |  |
| [11:15 AM-11:30 AM] | 63    | 39 mph    | 99 F  | Dry     |  |
| [11:30 AM-11:45 AM] | 78    | 37 mph    | 99 F  | Dry     |  |
| [11:45 AM-12:00 PM] | 90    | 37 mph    | 101 F | Dry     |  |
| [12:00 PM-12:15 PM] | 93    | 39 mph    | 101 F | Dry     |  |
| [12:15 PM-12:30 PM] | 99    | 37 mph    | 101 F | Dry     |  |
| [12:30 PM-12:45 PM] | 106   | 38 mph    | 101 F | Dry     |  |
| [12:45 PM-01:00 PM] | 118   | 36 mph    | 105 F | Dry     |  |
| [01:00 PM-01:15 PM] | 95    | 38 mph    | 107 F | Dry     |  |
| [01:15 PM-01:30 PM] | 74    | 38 mph    | 107 F | Dry     |  |
| [01:30 PM-01:45 PM] | 81    | 36 mph    | 107 F | Dry     |  |
| [01:45 PM-02:00 PM] | 76    | 39 mph    | 107 F | Dry     |  |

# **Date/Time/Volume/Average Speed/Temperature Report**

|                     |       |           |  |       |         |
|---------------------|-------|-----------|--|-------|---------|
| NC97                |       |           |  |       |         |
| Date & Time Range   | Count | Avg Speed |  | Temp  | Wet/Dry |
| 08/31/2004          |       |           |  |       |         |
| {02:00 PM-02:15 PM} | 67    | 38 mph    |  | 109 F | Dry     |
| {02:15 PM-02:30 PM} | 68    | 37 mph    |  | 111 F | Dry     |
| {02:30 PM-02:45 PM} | 77    | 34 mph    |  | 111 F | Dry     |
| {02:45 PM-03:00 PM} | 71    | 39 mph    |  | 111 F | Dry     |
| {03:00 PM-03:15 PM} | 92    | 38 mph    |  | 111 F | Dry     |
| {03:15 PM-03:30 PM} | 90    | 40 mph    |  | 113 F | Dry     |
| {03:30 PM-03:45 PM} | 117   | 37 mph    |  | 111 F | Dry     |
| {03:45 PM-04:00 PM} | 76    | 40 mph    |  | 113 F | Dry     |
| {04:00 PM-04:15 PM} | 86    | 39 mph    |  | 113 F | Dry     |
| {04:15 PM-04:30 PM} | 78    | 39 mph    |  | 111 F | Dry     |

**Nu-Metrics Traffic Analyzer Study**  
**Computer Generated Summary Report**  
**City: Kansas City**  
**Street: Southwest Blvd**

A study of vehicle traffic was conducted with HI-STAR unit number 6437. The study was done in the SB lane on Southwest Blvd in Kansas City, MO in Jackson county. The study began on 08/30/2004 at 04:30 PM and concluded on 08/31/2004 at 04:30 PM, lasting a total of 24 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 1,261 vehicles passed through the location with a peak volume of 54 on 08/30/2004 at 05:00 PM and a minimum volume of 0 on 08/30/2004 at 07:45 PM. The AADT Count for this study was 1,261.

**SPEED**

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

**Chart 1**

|              |                |                |                |                |                |                |                |                |                |                |                |                |                |         |
|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------|
| 0<br>to<br>9 | 10<br>to<br>14 | 15<br>to<br>19 | 20<br>to<br>24 | 25<br>to<br>29 | 30<br>to<br>34 | 35<br>to<br>39 | 40<br>to<br>44 | 45<br>to<br>49 | 50<br>to<br>54 | 55<br>to<br>59 | 60<br>to<br>64 | 65<br>to<br>69 | 70<br>to<br>74 | 75<br>> |
| 0            | 4              | 57             | 102            | 215            | 349            | 286            | 141            | 63             | 22             | 9              | 6              | 2              | 4              | 1       |

At least half of the vehicles were traveling in the 30 - 34 mph range or a lower speed. The average speed for all classified vehicles was 34 mph with 42.3 percent exceeding the posted speed of 35 mph. The HI-STAR found 1.74 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 30 mph and the 85th percentile was 42.09 mph.

**CLASSIFICATION**

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

**Chart 2**

|               |                |                |                |                |                |                |         |
|---------------|----------------|----------------|----------------|----------------|----------------|----------------|---------|
| 0<br>to<br>20 | 21<br>to<br>27 | 28<br>to<br>39 | 40<br>to<br>49 | 50<br>to<br>59 | 60<br>to<br>69 | 70<br>to<br>79 | 80<br>> |
| 1150          | 65             | 34             | 8              | 4              | 0              | 0              | 0       |

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 1,215 which represents 96.40 percent of the total classified vehicles. The number of Small Trucks in the study was 34 which represents 2.70 percent of the total classified vehicles. The number of Trucks/Buses in the study was 8 which represents 0.60 percent of the total classified vehicles. The number of Tractor Trailers in the study was 4 which represents 0.30 percent of the total classified vehicles.

**HEADWAY**

During the peak time period, on 08/30/2004 at 05:00 PM the average headway between the vehicles was 16.36 seconds. The slowest traffic period was on 08/30/2004 at 07:45 PM. During this slowest period, the average headway was 900.0 seconds.

**WEATHER**

The roadway surface temperature over the period of the study varied between 78 and 117 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.



# Date/Time/Volume/Average Speed/Temperature Report

|                        |                            |                          |
|------------------------|----------------------------|--------------------------|
| Hi-Star ID: 6437       | Begin: 08/30/2004 04:30 PM | End: 08/31/2004 04:30 PM |
| Street: Southwest Blvd | Lane: SB                   | Hours: 24:00             |
| State: MO              | Oper: SJ                   | Period: 15               |
| City: Kansas City      | Posted: 35                 | Raw Count: 1261          |
| County: Jackson        | AADT Factor: 1             | AADT Count: 1261         |

| NC97                |       |           |       |         |
|---------------------|-------|-----------|-------|---------|
| Date & Time Range   | Count | Avg Speed | Temp  | Wet/Dry |
| <b>08/30/2004</b>   |       |           |       |         |
| [04:30 PM-04:45 PM] | 18    | 30 mph    | 117 F | Dry     |
| [04:45 PM-05:00 PM] | 23    | 26 mph    | 117 F | Dry     |
| [05:00 PM-05:15 PM] | 54    | 28 mph    | 115 F | Dry     |
| [05:15 PM-05:30 PM] | 48    | 28 mph    | 113 F | Dry     |
| [05:30 PM-05:45 PM] | 47    | 36 mph    | 113 F | Dry     |
| [05:45 PM-06:00 PM] | 30    | 35 mph    | 111 F | Dry     |
| [06:00 PM-06:15 PM] | 15    | 35 mph    | 107 F | Dry     |
| [06:15 PM-06:30 PM] | 8     | 39 mph    | 105 F | Dry     |
| [06:30 PM-06:45 PM] | 10    | 39 mph    | 103 F | Dry     |
| [06:45 PM-07:00 PM] | 4     | 32 mph    | 101 F | Dry     |
| [07:00 PM-07:15 PM] | 1     | 38 mph    | 99 F  | Dry     |
| [07:15 PM-07:30 PM] | 3     | 40 mph    | 97 F  | Dry     |
| [07:30 PM-07:45 PM] | 2     | 28 mph    | 97 F  | Dry     |
| [07:45 PM-08:00 PM] | 0     | 0 mph     | 97 F  | Dry     |
| [08:00 PM-08:15 PM] | 3     | 31 mph    | 95 F  | Dry     |
| [08:15 PM-08:30 PM] | 1     | 53 mph    | 95 F  | Dry     |
| [08:30 PM-08:45 PM] | 0     | 0 mph     | 93 F  | Dry     |
| [08:45 PM-09:00 PM] | 2     | 36 mph    | 91 F  | Dry     |
| [09:00 PM-09:15 PM] | 2     | 22 mph    | 91 F  | Dry     |
| [09:15 PM-09:30 PM] | 3     | 35 mph    | 91 F  | Dry     |
| [09:30 PM-09:45 PM] | 2     | 28 mph    | 89 F  | Dry     |
| [09:45 PM-10:00 PM] | 0     | 0 mph     | 89 F  | Dry     |
| [10:00 PM-10:15 PM] | 5     | 36 mph    | 89 F  | Dry     |
| [10:15 PM-10:30 PM] | 6     | 31 mph    | 87 F  | Dry     |
| [10:30 PM-10:45 PM] | 4     | 36 mph    | 87 F  | Dry     |
| [10:45 PM-11:00 PM] | 5     | 34 mph    | 87 F  | Dry     |
| [11:00 PM-11:15 PM] | 3     | 36 mph    | 85 F  | Dry     |
| [11:15 PM-11:30 PM] | 3     | 46 mph    | 85 F  | Dry     |
| [11:30 PM-11:45 PM] | 2     | 36 mph    | 85 F  | Dry     |
| [11:45 PM-12:00 AM] | 2     | 30 mph    | 85 F  | Dry     |
| <b>08/31/2004</b>   |       |           |       |         |
| [12:00 AM-12:15 AM] | 1     | 23 mph    | 83 F  | Dry     |
| [12:15 AM-12:30 AM] | 3     | 26 mph    | 83 F  | Dry     |
| [12:30 AM-12:45 AM] | 0     | 0 mph     | 83 F  | Dry     |
| [12:45 AM-01:00 AM] | 1     | 33 mph    | 83 F  | Dry     |
| [01:00 AM-01:15 AM] | 1     | 33 mph    | 83 F  | Dry     |
| [01:15 AM-01:30 AM] | 3     | 33 mph    | 82 F  | Dry     |
| [01:30 AM-01:45 AM] | 0     | 0 mph     | 82 F  | Dry     |
| [01:45 AM-02:00 AM] | 0     | 0 mph     | 82 F  | Dry     |
| [02:00 AM-02:15 AM] | 1     | 33 mph    | 82 F  | Dry     |

# Date/Time/Volume/Average Speed/Temperature Report

| NC97                |       |           |       |         |  |
|---------------------|-------|-----------|-------|---------|--|
| Date & Time Range   | Count | Avg Speed | Temp  | Wet/Dry |  |
| 08/31/2004          |       |           |       |         |  |
| [02:15 AM-02:30 AM] | 1     | 28 mph    | 80 F  | Dry     |  |
| [02:30 AM-02:45 AM] | 0     | 0 mph     | 80 F  | Dry     |  |
| [02:45 AM-03:00 AM] | 1     | 33 mph    | 80 F  | Dry     |  |
| [03:00 AM-03:15 AM] | 0     | 0 mph     | 80 F  | Dry     |  |
| [03:15 AM-03:30 AM] | 1     | 43 mph    | 80 F  | Dry     |  |
| [03:30 AM-03:45 AM] | 1     | 13 mph    | 80 F  | Dry     |  |
| [03:45 AM-04:00 AM] | 0     | 0 mph     | 80 F  | Dry     |  |
| [04:00 AM-04:15 AM] | 0     | 0 mph     | 80 F  | Dry     |  |
| [04:15 AM-04:30 AM] | 2     | 22 mph    | 78 F  | Dry     |  |
| [04:30 AM-04:45 AM] | 2     | 30 mph    | 78 F  | Dry     |  |
| [04:45 AM-05:00 AM] | 0     | 0 mph     | 78 F  | Dry     |  |
| [05:00 AM-05:15 AM] | 2     | 36 mph    | 78 F  | Dry     |  |
| [05:15 AM-05:30 AM] | 1     | 33 mph    | 78 F  | Dry     |  |
| [05:30 AM-05:45 AM] | 1     | 23 mph    | 78 F  | Dry     |  |
| [05:45 AM-06:00 AM] | 1     | 38 mph    | 78 F  | Dry     |  |
| [06:00 AM-06:15 AM] | 9     | 30 mph    | 78 F  | Dry     |  |
| [06:15 AM-06:30 AM] | 13    | 31 mph    | 78 F  | Dry     |  |
| [06:30 AM-06:45 AM] | 32    | 30 mph    | 78 F  | Dry     |  |
| [06:45 AM-07:00 AM] | 36    | 36 mph    | 78 F  | Dry     |  |
| [07:00 AM-07:15 AM] | 22    | 33 mph    | 78 F  | Dry     |  |
| [07:15 AM-07:30 AM] | 18    | 33 mph    | 78 F  | Dry     |  |
| [07:30 AM-07:45 AM] | 29    | 34 mph    | 78 F  | Dry     |  |
| [07:45 AM-08:00 AM] | 32    | 33 mph    | 80 F  | Dry     |  |
| [08:00 AM-08:15 AM] | 29    | 35 mph    | 80 F  | Dry     |  |
| [08:15 AM-08:30 AM] | 16    | 34 mph    | 80 F  | Dry     |  |
| [08:30 AM-08:45 AM] | 18    | 36 mph    | 83 F  | Dry     |  |
| [08:45 AM-09:00 AM] | 15    | 37 mph    | 85 F  | Dry     |  |
| [09:00 AM-09:15 AM] | 15    | 33 mph    | 87 F  | Dry     |  |
| [09:15 AM-09:30 AM] | 11    | 36 mph    | 89 F  | Dry     |  |
| [09:30 AM-09:45 AM] | 9     | 30 mph    | 93 F  | Dry     |  |
| [09:45 AM-10:00 AM] | 14    | 36 mph    | 95 F  | Dry     |  |
| [10:00 AM-10:15 AM] | 9     | 32 mph    | 95 F  | Dry     |  |
| [10:15 AM-10:30 AM] | 17    | 34 mph    | 95 F  | Dry     |  |
| [10:30 AM-10:45 AM] | 28    | 36 mph    | 97 F  | Dry     |  |
| [10:45 AM-11:00 AM] | 25    | 37 mph    | 97 F  | Dry     |  |
| [11:00 AM-11:15 AM] | 15    | 38 mph    | 101 F | Dry     |  |
| [11:15 AM-11:30 AM] | 18    | 36 mph    | 103 F | Dry     |  |
| [11:30 AM-11:45 AM] | 22    | 35 mph    | 101 F | Dry     |  |
| [11:45 AM-12:00 PM] | 19    | 36 mph    | 103 F | Dry     |  |
| [12:00 PM-12:15 PM] | 36    | 37 mph    | 105 F | Dry     |  |
| [12:15 PM-12:30 PM] | 22    | 34 mph    | 105 F | Dry     |  |
| [12:30 PM-12:45 PM] | 24    | 33 mph    | 105 F | Dry     |  |
| [12:45 PM-01:00 PM] | 26    | 34 mph    | 109 F | Dry     |  |
| [01:00 PM-01:15 PM] | 25    | 38 mph    | 111 F | Dry     |  |
| [01:15 PM-01:30 PM] | 27    | 33 mph    | 111 F | Dry     |  |
| [01:30 PM-01:45 PM] | 20    | 36 mph    | 111 F | Dry     |  |
| [01:45 PM-02:00 PM] | 25    | 34 mph    | 111 F | Dry     |  |

# Date/Time/Volume/Average Speed/Temperature Report

| NC97                |       |           |       |         |  |
|---------------------|-------|-----------|-------|---------|--|
| Date & Time Range   | Count | Avg Speed | Temp  | Wet/Dry |  |
| 08/31/2004          |       |           |       |         |  |
| [02:00 PM-02:15 PM] | 24    | 38 mph    | 113 F | Dry     |  |
| [02:15 PM-02:30 PM] | 23    | 33 mph    | 117 F | Dry     |  |
| [02:30 PM-02:45 PM] | 39    | 33 mph    | 117 F | Dry     |  |
| [02:45 PM-03:00 PM] | 26    | 35 mph    | 115 F | Dry     |  |
| [03:00 PM-03:15 PM] | 20    | 37 mph    | 115 F | Dry     |  |
| [03:15 PM-03:30 PM] | 29    | 39 mph    | 117 F | Dry     |  |
| [03:30 PM-03:45 PM] | 25    | 35 mph    | 117 F | Dry     |  |
| [03:45 PM-04:00 PM] | 25    | 34 mph    | 117 F | Dry     |  |
| [04:00 PM-04:15 PM] | 24    | 40 mph    | 117 F | Dry     |  |
| [04:15 PM-04:30 PM] | 21    | 38 mph    | 115 F | Dry     |  |

**Nu-Metrics Traffic Analyzer Study  
Computer Generated Summary Report  
City: Kansas City  
Street: Southwest Blvd**

A study of vehicle traffic was conducted with HI-STAR unit number 6435. The study was done in the SB lane on Southwest Blvd in Kansas City, MO in Jackson county. The study began on 08/30/2004 at 04:30 PM and concluded on 08/31/2004 at 04:30 PM, lasting a total of 24 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 5,735 vehicles passed through the location with a peak volume of 244 on 08/30/2004 at 05:00 PM and a minimum volume of 1 on 08/31/2004 at 02:30 AM. The AADT Count for this study was 5,735.

**SPEED**

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

**Chart 1**

|              |                |                |                |                |                |                |                |                |                |                |                |                |                |         |
|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------|
| 0<br>to<br>9 | 10<br>to<br>14 | 15<br>to<br>19 | 20<br>to<br>24 | 25<br>to<br>29 | 30<br>to<br>34 | 35<br>to<br>39 | 40<br>to<br>44 | 45<br>to<br>49 | 50<br>to<br>54 | 55<br>to<br>59 | 60<br>to<br>64 | 65<br>to<br>69 | 70<br>to<br>74 | 75<br>> |
| 0            | 33             | 81             | 145            | 542            | 1605           | 2084           | 997            | 285            | 57             | 15             | 14             | 6              | 8              | 6       |

At least half of the vehicles were traveling in the 35 - 39 mph range or a lower speed. The average speed for all classified vehicles was 36 mph with 59.0 percent exceeding the posted speed of 35 mph. The HI-STAR found 0.83 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 35 mph and the 85th percentile was 42.54 mph.

**CLASSIFICATION**

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

**Chart 2**

|               |                |                |                |                |                |                |         |
|---------------|----------------|----------------|----------------|----------------|----------------|----------------|---------|
| 0<br>to<br>20 | 21<br>to<br>27 | 28<br>to<br>39 | 40<br>to<br>49 | 50<br>to<br>59 | 60<br>to<br>69 | 70<br>to<br>79 | 80<br>> |
| 5499          | 219            | 113            | 17             | 19             | 9              | 2              | 0       |

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 5,718 which represents 97.30 percent of the total classified vehicles. The number of Small Trucks in the study was 113 which represents 1.90 percent of the total classified vehicles. The number of Trucks/Buses in the study was 17 which represents 0.30 percent of the total classified vehicles. The number of Tractor Trailers in the study was 30 which represents 0.50 percent of the total classified vehicles.

**HEADWAY**

During the peak time period, on 08/30/2004 at 05:00 PM the average headway between the vehicles was 3.67 seconds. The slowest traffic period was on 08/31/2004 at 02:30 AM. During this slowest period, the average headway was 450.0 seconds.

**WEATHER**

The roadway surface temperature over the period of the study varied between 78 and 113 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

# Date/Time/Volume/Average Speed/Temperature Report

|                        |                            |                          |
|------------------------|----------------------------|--------------------------|
| HI-Star ID: 6435       | Begin: 08/30/2004 04:30 PM | End: 08/31/2004 04:30 PM |
| Street: Southwest Blvd | Lane: SB                   | Hours: 24:00             |
| State: MO              | Oper: SJ                   | Period: 15               |
| City: Kansas City      | Posted: 35                 | Raw Count: 5735          |
| County: Jackson        | AADT Factor: 1             | AADT Count: 5735         |

|                   |       |           |      |         |
|-------------------|-------|-----------|------|---------|
| NC97              |       |           |      |         |
| Date & Time Range | Count | Avg Speed | Temp | Wet/Dry |

## 08/30/2004

|                     |     |        |       |     |
|---------------------|-----|--------|-------|-----|
| [04:30 PM-04:45 PM] | 16  | 36 mph | 113 F | Dry |
| [04:45 PM-05:00 PM] | 215 | 37 mph | 111 F | Dry |
| [05:00 PM-05:15 PM] | 244 | 36 mph | 109 F | Dry |
| [05:15 PM-05:30 PM] | 239 | 36 mph | 109 F | Dry |
| [05:30 PM-05:45 PM] | 210 | 36 mph | 107 F | Dry |
| [05:45 PM-06:00 PM] | 187 | 38 mph | 107 F | Dry |
| [06:00 PM-06:15 PM] | 150 | 39 mph | 105 F | Dry |
| [06:15 PM-06:30 PM] | 104 | 38 mph | 103 F | Dry |
| [06:30 PM-06:45 PM] | 66  | 37 mph | 101 F | Dry |
| [06:45 PM-07:00 PM] | 68  | 37 mph | 101 F | Dry |
| [07:00 PM-07:15 PM] | 56  | 37 mph | 99 F  | Dry |
| [07:15 PM-07:30 PM] | 66  | 35 mph | 97 F  | Dry |
| [07:30 PM-07:45 PM] | 55  | 37 mph | 97 F  | Dry |
| [07:45 PM-08:00 PM] | 44  | 36 mph | 95 F  | Dry |
| [08:00 PM-08:15 PM] | 52  | 38 mph | 95 F  | Dry |
| [08:15 PM-08:30 PM] | 45  | 34 mph | 93 F  | Dry |
| [08:30 PM-08:45 PM] | 32  | 35 mph | 93 F  | Dry |
| [08:45 PM-09:00 PM] | 40  | 35 mph | 91 F  | Dry |
| [09:00 PM-09:15 PM] | 39  | 37 mph | 91 F  | Dry |
| [09:15 PM-09:30 PM] | 41  | 36 mph | 91 F  | Dry |
| [09:30 PM-09:45 PM] | 30  | 37 mph | 89 F  | Dry |
| [09:45 PM-10:00 PM] | 21  | 36 mph | 89 F  | Dry |
| [10:00 PM-10:15 PM] | 31  | 35 mph | 89 F  | Dry |
| [10:15 PM-10:30 PM] | 24  | 36 mph | 87 F  | Dry |
| [10:30 PM-10:45 PM] | 17  | 34 mph | 87 F  | Dry |
| [10:45 PM-11:00 PM] | 18  | 36 mph | 87 F  | Dry |
| [11:00 PM-11:15 PM] | 19  | 37 mph | 85 F  | Dry |
| [11:15 PM-11:30 PM] | 18  | 38 mph | 85 F  | Dry |
| [11:30 PM-11:45 PM] | 17  | 33 mph | 85 F  | Dry |
| [11:45 PM-12:00 AM] | 10  | 32 mph | 85 F  | Dry |

## 08/31/2004

|                     |    |        |      |     |
|---------------------|----|--------|------|-----|
| [12:00 AM-12:15 AM] | 15 | 34 mph | 83 F | Dry |
| [12:15 AM-12:30 AM] | 10 | 36 mph | 83 F | Dry |
| [12:30 AM-12:45 AM] | 14 | 40 mph | 83 F | Dry |
| [12:45 AM-01:00 AM] | 7  | 34 mph | 83 F | Dry |
| [01:00 AM-01:15 AM] | 7  | 35 mph | 82 F | Dry |
| [01:15 AM-01:30 AM] | 4  | 39 mph | 82 F | Dry |
| [01:30 AM-01:45 AM] | 7  | 38 mph | 82 F | Dry |
| [01:45 AM-02:00 AM] | 4  | 36 mph | 82 F | Dry |
| [02:00 AM-02:15 AM] | 3  | 38 mph | 80 F | Dry |

# Date/Time/Volume/Average Speed/Temperature Report

| NC97                |       |           |       |         |  |
|---------------------|-------|-----------|-------|---------|--|
| Date & Time Range   | Count | Avg Speed | Temp  | Wet/Dry |  |
| 08/31/2004          |       |           |       |         |  |
| [02:15 AM-02:30 AM] | 3     | 36 mph    | 80 F  | Dry     |  |
| [02:30 AM-02:45 AM] | 1     | 43 mph    | 80 F  | Dry     |  |
| [02:45 AM-03:00 AM] | 4     | 37 mph    | 80 F  | Dry     |  |
| [03:00 AM-03:15 AM] | 6     | 39 mph    | 80 F  | Dry     |  |
| [03:15 AM-03:30 AM] | 8     | 38 mph    | 80 F  | Dry     |  |
| [03:30 AM-03:45 AM] | 5     | 35 mph    | 80 F  | Dry     |  |
| [03:45 AM-04:00 AM] | 1     | 28 mph    | 80 F  | Dry     |  |
| [04:00 AM-04:15 AM] | 3     | 34 mph    | 78 F  | Dry     |  |
| [04:15 AM-04:30 AM] | 5     | 35 mph    | 78 F  | Dry     |  |
| [04:30 AM-04:45 AM] | 5     | 34 mph    | 78 F  | Dry     |  |
| [04:45 AM-05:00 AM] | 9     | 30 mph    | 78 F  | Dry     |  |
| [05:00 AM-05:15 AM] | 7     | 39 mph    | 78 F  | Dry     |  |
| [05:15 AM-05:30 AM] | 4     | 38 mph    | 78 F  | Dry     |  |
| [05:30 AM-05:45 AM] | 14    | 36 mph    | 78 F  | Dry     |  |
| [05:45 AM-06:00 AM] | 12    | 39 mph    | 78 F  | Dry     |  |
| [06:00 AM-06:15 AM] | 15    | 32 mph    | 78 F  | Dry     |  |
| [06:15 AM-06:30 AM] | 20    | 30 mph    | 78 F  | Dry     |  |
| [06:30 AM-06:45 AM] | 47    | 36 mph    | 78 F  | Dry     |  |
| [06:45 AM-07:00 AM] | 64    | 36 mph    | 78 F  | Dry     |  |
| [07:00 AM-07:15 AM] | 67    | 33 mph    | 78 F  | Dry     |  |
| [07:15 AM-07:30 AM] | 62    | 37 mph    | 78 F  | Dry     |  |
| [07:30 AM-07:45 AM] | 73    | 33 mph    | 78 F  | Dry     |  |
| [07:45 AM-08:00 AM] | 73    | 35 mph    | 78 F  | Dry     |  |
| [08:00 AM-08:15 AM] | 49    | 35 mph    | 80 F  | Dry     |  |
| [08:15 AM-08:30 AM] | 54    | 37 mph    | 80 F  | Dry     |  |
| [08:30 AM-08:45 AM] | 76    | 36 mph    | 82 F  | Dry     |  |
| [08:45 AM-09:00 AM] | 51    | 36 mph    | 83 F  | Dry     |  |
| [09:00 AM-09:15 AM] | 56    | 35 mph    | 85 F  | Dry     |  |
| [09:15 AM-09:30 AM] | 61    | 37 mph    | 87 F  | Dry     |  |
| [09:30 AM-09:45 AM] | 57    | 37 mph    | 89 F  | Dry     |  |
| [09:45 AM-10:00 AM] | 62    | 37 mph    | 91 F  | Dry     |  |
| [10:00 AM-10:15 AM] | 70    | 36 mph    | 91 F  | Dry     |  |
| [10:15 AM-10:30 AM] | 69    | 35 mph    | 91 F  | Dry     |  |
| [10:30 AM-10:45 AM] | 79    | 34 mph    | 93 F  | Dry     |  |
| [10:45 AM-11:00 AM] | 74    | 36 mph    | 95 F  | Dry     |  |
| [11:00 AM-11:15 AM] | 110   | 37 mph    | 97 F  | Dry     |  |
| [11:15 AM-11:30 AM] | 103   | 37 mph    | 97 F  | Dry     |  |
| [11:30 AM-11:45 AM] | 148   | 35 mph    | 97 F  | Dry     |  |
| [11:45 AM-12:00 PM] | 127   | 35 mph    | 99 F  | Dry     |  |
| [12:00 PM-12:15 PM] | 107   | 35 mph    | 99 F  | Dry     |  |
| [12:15 PM-12:30 PM] | 89    | 36 mph    | 99 F  | Dry     |  |
| [12:30 PM-12:45 PM] | 107   | 35 mph    | 101 F | Dry     |  |
| [12:45 PM-01:00 PM] | 112   | 35 mph    | 103 F | Dry     |  |
| [01:00 PM-01:15 PM] | 96    | 36 mph    | 107 F | Dry     |  |
| [01:15 PM-01:30 PM] | 89    | 34 mph    | 107 F | Dry     |  |
| [01:30 PM-01:45 PM] | 92    | 35 mph    | 107 F | Dry     |  |
| [01:45 PM-02:00 PM] | 80    | 34 mph    | 107 F | Dry     |  |

# Date/Time/Volume/Average Speed/Temperature Report

| NC97                |       |           |       |         |
|---------------------|-------|-----------|-------|---------|
| Date & Time Range   | Count | Avg Speed | Temp  | Wet/Dry |
| 08/31/2004          |       |           |       |         |
| [02:00 PM-02:15 PM] | 84    | 36 mph    | 107 F | Dry     |
| [02:15 PM-02:30 PM] | 103   | 37 mph    | 109 F | Dry     |
| [02:30 PM-02:45 PM] | 83    | 36 mph    | 109 F | Dry     |
| [02:45 PM-03:00 PM] | 95    | 37 mph    | 109 F | Dry     |
| [03:00 PM-03:15 PM] | 84    | 36 mph    | 109 F | Dry     |
| [03:15 PM-03:30 PM] | 103   | 38 mph    | 111 F | Dry     |
| [03:30 PM-03:45 PM] | 98    | 38 mph    | 111 F | Dry     |
| [03:45 PM-04:00 PM] | 81    | 37 mph    | 111 F | Dry     |
| [04:00 PM-04:15 PM] | 111   | 38 mph    | 111 F | Dry     |
| [04:15 PM-04:30 PM] | 122   | 38 mph    | 109 F | Dry     |

|                 | 15 min   | 15 min   | pk hr | pk hr | pk hr   |
|-----------------|----------|----------|-------|-------|---------|
| SW Blvd         | NB1      | NB2      |       |       |         |
| Time            | Vehicles | Vehicles | NB1   | NB2   | NB1+NB2 |
| 8/30/2004 16:45 | 43       | 10       | 210   | 250   | 460     |
| 8/30/2004 17:00 | 50       | 73       | 201   | 247   | 448     |
| 8/30/2004 17:15 | 60       | 106      | 202   | 267   | 469     |
| 8/30/2004 17:30 | 60       | 86       | 213   | 275   | 488     |
| 8/30/2004 17:45 | 47       | 74       | 217   | 339   | 556     |
| 8/30/2004 18:00 | 46       | 57       | 213   | 323   | 536     |
| 8/30/2004 18:15 | 44       | 53       | 197   | 270   | 467     |
| 8/30/2004 18:30 | 31       | 52       | 168   | 236   | 404     |
| 8/30/2004 18:45 | 45       | 43       | 166   | 205   | 371     |
| 8/30/2004 19:00 | 27       | 49       | 147   | 197   | 344     |
| 8/30/2004 19:15 | 28       | 31       | 131   | 175   | 306     |
| 8/30/2004 19:30 | 23       | 31       | 123   | 154   | 277     |
| 8/30/2004 19:45 | 20       | 37       | 98    | 148   | 246     |
| 8/30/2004 20:00 | 22       | 33       | 93    | 132   | 225     |
| 8/30/2004 20:15 | 23       | 33       | 88    | 134   | 222     |
| 8/30/2004 20:30 | 21       | 21       | 86    | 124   | 210     |
| 8/30/2004 20:45 | 19       | 18       | 85    | 105   | 190     |
| 8/30/2004 21:00 | 23       | 18       | 86    | 90    | 176     |
| 8/30/2004 21:15 | 12       | 31       | 75    | 88    | 163     |
| 8/30/2004 21:30 | 20       | 19       | 74    | 86    | 160     |
| 8/30/2004 21:45 | 9        | 13       | 64    | 81    | 145     |
| 8/30/2004 22:00 | 15       | 19       | 56    | 82    | 138     |
| 8/30/2004 22:15 | 8        | 13       | 52    | 64    | 116     |
| 8/30/2004 22:30 | 7        | 12       | 39    | 57    | 96      |
| 8/30/2004 22:45 | 5        | 22       | 35    | 66    | 101     |
| 8/30/2004 23:00 | 9        | 15       | 29    | 62    | 91      |
| 8/30/2004 23:15 | 6        | 15       | 27    | 64    | 91      |
| 8/30/2004 23:30 | 3        | 12       | 23    | 64    | 87      |
| 8/30/2004 23:45 | 13       | 17       | 31    | 59    | 90      |
| 8/31/2004 0:00  | 3        | 6        | 25    | 50    | 75      |
| 8/31/2004 0:15  | 6        | 10       | 25    | 45    | 70      |
| 8/31/2004 0:30  | 7        | 7        | 29    | 40    | 69      |
| 8/31/2004 0:45  | 10       | 9        | 26    | 32    | 58      |
| 8/31/2004 1:00  | 2        | 1        | 25    | 27    | 52      |
| 8/31/2004 1:15  | 4        | 5        | 23    | 22    | 45      |
| 8/31/2004 1:30  | 4        | 4        | 20    | 19    | 39      |
| 8/31/2004 1:45  | 7        | 8        | 17    | 18    | 35      |
| 8/31/2004 2:00  | 2        | 1        | 17    | 18    | 35      |
| 8/31/2004 2:15  | 0        | 1        | 13    | 14    | 27      |
| 8/31/2004 2:30  | 0        | 4        | 9     | 14    | 23      |
| 8/31/2004 2:45  | 4        | 2        | 6     | 8     | 14      |
| 8/31/2004 3:00  | 2        | 4        | 6     | 11    | 17      |
| 8/31/2004 3:15  | 0        | 4        | 6     | 14    | 20      |
| 8/31/2004 3:30  | 1        | 1        | 7     | 11    | 18      |
| 8/31/2004 3:45  | 2        | 3        | 5     | 12    | 17      |
| 8/31/2004 4:00  | 3        | 5        | 6     | 13    | 19      |
| 8/31/2004 4:15  | 1        | 0        | 7     | 9     | 16      |
| 8/31/2004 4:30  | 3        | 4        | 9     | 12    | 21      |
| 8/31/2004 4:45  | 4        | 3        | 11    | 12    | 23      |
| 8/31/2004 5:00  | 2        | 6        | 10    | 13    | 23      |



|                 | 15 min   | 15 min   | pk hr | pk hr | pk hr   |
|-----------------|----------|----------|-------|-------|---------|
| SW Blvd         | NB1      | NB2      |       |       |         |
| Time            | Vehicles | Vehicles | NB1   | NB2   | NB1+NB2 |
| 8/31/2004 5:15  | 1        | 5        | 10    | 18    | 28      |
| 8/31/2004 5:30  | 6        | 4        | 13    | 18    | 31      |
| 8/31/2004 5:45  | 10       | 13       | 19    | 28    | 47      |
| 8/31/2004 6:00  | 12       | 15       | 29    | 37    | 66      |
| 8/31/2004 6:15  | 18       | 16       | 46    | 48    | 94      |
| 8/31/2004 6:30  | 5        | 24       | 45    | 68    | 113     |
| 8/31/2004 6:45  | 3        | 70       | 38    | 125   | 163     |
| 8/31/2004 7:00  | 8        | 79       | 34    | 189   | 223     |
| 8/31/2004 7:15  | 43       | 104      | 59    | 277   | 336     |
| 8/31/2004 7:30  | 71       | 67       | 125   | 320   | 445     |
| 8/31/2004 7:45  | 89       | 93       | 211   | 343   | 554     |
| 8/31/2004 8:00  | 74       | 117      | 277   | 381   | 658     |
| 8/31/2004 8:15  | 8        | 168      | 242   | 445   | 687     |
| 8/31/2004 8:30  | 94       | 114      | 265   | 492   | 757     |
| 8/31/2004 8:45  | 37       | 139      | 213   | 538   | 751     |
| 8/31/2004 9:00  | 102      | 139      | 241   | 560   | 801     |
| 8/31/2004 9:15  | 135      | 120      | 368   | 512   | 880     |
| 8/31/2004 9:30  | 120      | 123      | 394   | 521   | 915     |
| 8/31/2004 9:45  | 105      | 121      | 462   | 503   | 965     |
| 8/31/2004 10:00 | 106      | 127      | 466   | 491   | 957     |
| 8/31/2004 10:15 | 52       | 58       | 383   | 429   | 812     |
| 8/31/2004 10:30 | 28       | 66       | 291   | 372   | 663     |
| 8/31/2004 10:45 | 36       | 62       | 222   | 313   | 535     |
| 8/31/2004 11:00 | 50       | 67       | 166   | 253   | 419     |
| 8/31/2004 11:15 | 57       | 76       | 171   | 271   | 442     |
| 8/31/2004 11:30 | 62       | 63       | 205   | 268   | 473     |
| 8/31/2004 11:45 | 69       | 78       | 238   | 284   | 522     |
| 8/31/2004 12:00 | 58       | 90       | 246   | 307   | 553     |
| 8/31/2004 12:15 | 95       | 93       | 284   | 324   | 608     |
| 8/31/2004 12:30 | 101      | 99       | 323   | 360   | 683     |
| 8/31/2004 12:45 | 75       | 106      | 329   | 388   | 717     |
| 8/31/2004 13:00 | 95       | 118      | 366   | 416   | 782     |
| 8/31/2004 13:15 | 84       | 95       | 355   | 418   | 773     |
| 8/31/2004 13:30 | 78       | 74       | 332   | 393   | 725     |
| 8/31/2004 13:45 | 74       | 81       | 331   | 368   | 699     |
| 8/31/2004 14:00 | 62       | 76       | 298   | 326   | 624     |
| 8/31/2004 14:15 | 69       | 67       | 283   | 298   | 581     |
| 8/31/2004 14:30 | 68       | 68       | 273   | 292   | 565     |
| 8/31/2004 14:45 | 66       | 77       | 265   | 288   | 553     |
| 8/31/2004 15:00 | 63       | 71       | 266   | 283   | 549     |
| 8/31/2004 15:15 | 50       | 92       | 247   | 308   | 555     |
| 8/31/2004 15:30 | 51       | 90       | 230   | 330   | 560     |
| 8/31/2004 15:45 | 72       | 117      | 236   | 370   | 606     |
| 8/31/2004 16:00 | 59       | 76       | 232   | 375   | 607     |
| 8/31/2004 16:15 | 59       | 86       | 241   | 369   | 610     |
| 8/31/2004 16:30 | 49       | 78       | 239   | 357   | 596     |

|                 | 15 min   | 15 min   | pk hr | pk hr | pk hr   |
|-----------------|----------|----------|-------|-------|---------|
| SW Blvd         | SB1      | SB2      |       |       |         |
| Time            | Vehicles | Vehicles | SB1   | SB2   | SB1+SB2 |
| 8/30/2004 16:45 | 18       | 16       | 88    | 330   | 418     |
| 8/30/2004 17:00 | 23       | 215      | 86    | 464   | 550     |
| 8/30/2004 17:15 | 54       | 244      | 116   | 597   | 713     |
| 8/30/2004 17:30 | 48       | 239      | 143   | 714   | 857     |
| 8/30/2004 17:45 | 47       | 210      | 172   | 908   | 1080    |
| 8/30/2004 18:00 | 30       | 187      | 179   | 880   | 1059    |
| 8/30/2004 18:15 | 15       | 150      | 140   | 786   | 926     |
| 8/30/2004 18:30 | 8        | 104      | 100   | 651   | 751     |
| 8/30/2004 18:45 | 10       | 66       | 63    | 507   | 570     |
| 8/30/2004 19:00 | 4        | 68       | 37    | 388   | 425     |
| 8/30/2004 19:15 | 1        | 56       | 23    | 294   | 317     |
| 8/30/2004 19:30 | 3        | 66       | 18    | 256   | 274     |
| 8/30/2004 19:45 | 2        | 55       | 10    | 245   | 255     |
| 8/30/2004 20:00 | 0        | 44       | 6     | 221   | 227     |
| 8/30/2004 20:15 | 3        | 52       | 8     | 217   | 225     |
| 8/30/2004 20:30 | 1        | 45       | 6     | 196   | 202     |
| 8/30/2004 20:45 | 0        | 32       | 4     | 173   | 177     |
| 8/30/2004 21:00 | 2        | 40       | 6     | 169   | 175     |
| 8/30/2004 21:15 | 2        | 39       | 5     | 156   | 161     |
| 8/30/2004 21:30 | 3        | 41       | 7     | 152   | 159     |
| 8/30/2004 21:45 | 2        | 30       | 9     | 150   | 159     |
| 8/30/2004 22:00 | 0        | 21       | 7     | 131   | 138     |
| 8/30/2004 22:15 | 5        | 31       | 10    | 123   | 133     |
| 8/30/2004 22:30 | 6        | 24       | 13    | 106   | 119     |
| 8/30/2004 22:45 | 4        | 17       | 15    | 93    | 108     |
| 8/30/2004 23:00 | 5        | 18       | 20    | 90    | 110     |
| 8/30/2004 23:15 | 3        | 19       | 18    | 78    | 96      |
| 8/30/2004 23:30 | 3        | 18       | 15    | 72    | 87      |
| 8/30/2004 23:45 | 2        | 17       | 13    | 72    | 85      |
| 8/31/2004 0:00  | 2        | 10       | 10    | 64    | 74      |
| 8/31/2004 0:15  | 1        | 15       | 8     | 60    | 68      |
| 8/31/2004 0:30  | 3        | 10       | 8     | 52    | 60      |
| 8/31/2004 0:45  | 0        | 14       | 6     | 49    | 55      |
| 8/31/2004 1:00  | 1        | 7        | 5     | 46    | 51      |
| 8/31/2004 1:15  | 1        | 7        | 5     | 38    | 43      |
| 8/31/2004 1:30  | 3        | 4        | 5     | 32    | 37      |
| 8/31/2004 1:45  | 0        | 7        | 5     | 25    | 30      |
| 8/31/2004 2:00  | 0        | 4        | 4     | 22    | 26      |
| 8/31/2004 2:15  | 1        | 3        | 4     | 18    | 22      |
| 8/31/2004 2:30  | 1        | 3        | 2     | 17    | 19      |
| 8/31/2004 2:45  | 0        | 1        | 2     | 11    | 13      |
| 8/31/2004 3:00  | 1        | 4        | 3     | 11    | 14      |
| 8/31/2004 3:15  | 0        | 6        | 2     | 14    | 16      |
| 8/31/2004 3:30  | 1        | 8        | 2     | 19    | 21      |
| 8/31/2004 3:45  | 1        | 5        | 3     | 23    | 26      |
| 8/31/2004 4:00  | 0        | 1        | 2     | 20    | 22      |
| 8/31/2004 4:15  | 0        | 3        | 2     | 17    | 19      |
| 8/31/2004 4:30  | 2        | 5        | 3     | 14    | 17      |
| 8/31/2004 4:45  | 2        | 5        | 4     | 14    | 18      |
| 8/31/2004 5:00  | 0        | 9        | 4     | 22    | 26      |

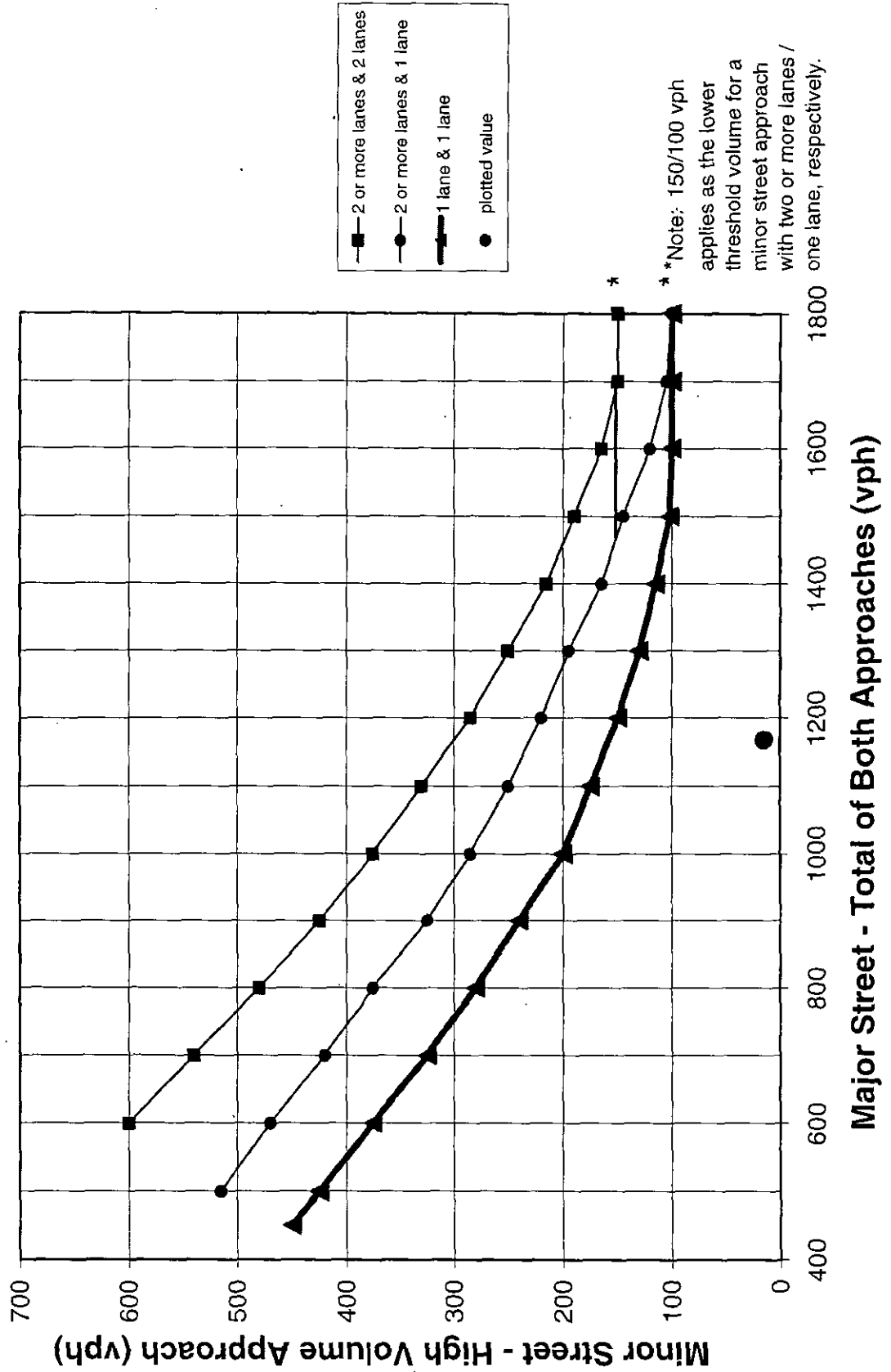
|                 | 15 min   | 15 min   | pk hr | pk hr | pk hr   |
|-----------------|----------|----------|-------|-------|---------|
| SW Blvd         | SB1      | SB2      |       |       |         |
| Time            | Vehicles | Vehicles | SB1   | SB2   | SB1+SB2 |
| 8/31/2004 5:15  | 2        | 7        | 6     | 26    | 32      |
| 8/31/2004 5:30  | 1        | 4        | 5     | 25    | 30      |
| 8/31/2004 5:45  | 1        | 14       | 4     | 34    | 38      |
| 8/31/2004 6:00  | 1        | 12       | 5     | 37    | 42      |
| 8/31/2004 6:15  | 9        | 15       | 12    | 45    | 57      |
| 8/31/2004 6:30  | 13       | 20       | 24    | 61    | 85      |
| 8/31/2004 6:45  | 32       | 47       | 55    | 94    | 149     |
| 8/31/2004 7:00  | 36       | 64       | 90    | 146   | 236     |
| 8/31/2004 7:15  | 22       | 67       | 103   | 198   | 301     |
| 8/31/2004 7:30  | 18       | 62       | 108   | 240   | 348     |
| 8/31/2004 7:45  | 29       | 73       | 105   | 266   | 371     |
| 8/31/2004 8:00  | 32       | 73       | 101   | 275   | 376     |
| 8/31/2004 8:15  | 29       | 49       | 108   | 257   | 365     |
| 8/31/2004 8:30  | 16       | 54       | 106   | 249   | 355     |
| 8/31/2004 8:45  | 18       | 76       | 95    | 252   | 347     |
| 8/31/2004 9:00  | 15       | 51       | 78    | 230   | 308     |
| 8/31/2004 9:15  | 15       | 56       | 64    | 237   | 301     |
| 8/31/2004 9:30  | 11       | 61       | 59    | 244   | 303     |
| 8/31/2004 9:45  | 9        | 57       | 50    | 225   | 275     |
| 8/31/2004 10:00 | 14       | 62       | 49    | 236   | 285     |
| 8/31/2004 10:15 | 9        | 70       | 43    | 250   | 293     |
| 8/31/2004 10:30 | 17       | 69       | 49    | 258   | 307     |
| 8/31/2004 10:45 | 28       | 79       | 68    | 280   | 348     |
| 8/31/2004 11:00 | 25       | 74       | 79    | 292   | 371     |
| 8/31/2004 11:15 | 15       | 110      | 85    | 332   | 417     |
| 8/31/2004 11:30 | 18       | 103      | 86    | 366   | 452     |
| 8/31/2004 11:45 | 22       | 148      | 80    | 435   | 515     |
| 8/31/2004 12:00 | 19       | 127      | 74    | 488   | 562     |
| 8/31/2004 12:15 | 36       | 107      | 95    | 485   | 580     |
| 8/31/2004 12:30 | 22       | 89       | 99    | 471   | 570     |
| 8/31/2004 12:45 | 24       | 107      | 101   | 430   | 531     |
| 8/31/2004 13:00 | 26       | 112      | 108   | 415   | 523     |
| 8/31/2004 13:15 | 25       | 96       | 97    | 404   | 501     |
| 8/31/2004 13:30 | 27       | 89       | 102   | 404   | 506     |
| 8/31/2004 13:45 | 20       | 92       | 98    | 389   | 487     |
| 8/31/2004 14:00 | 25       | 80       | 97    | 357   | 454     |
| 8/31/2004 14:15 | 24       | 84       | 96    | 345   | 441     |
| 8/31/2004 14:30 | 23       | 103      | 92    | 359   | 451     |
| 8/31/2004 14:45 | 39       | 83       | 111   | 350   | 461     |
| 8/31/2004 15:00 | 26       | 95       | 112   | 365   | 477     |
| 8/31/2004 15:15 | 20       | 84       | 108   | 365   | 473     |
| 8/31/2004 15:30 | 29       | 103      | 114   | 365   | 479     |
| 8/31/2004 15:45 | 25       | 98       | 100   | 380   | 480     |
| 8/31/2004 16:00 | 25       | 81       | 99    | 366   | 465     |
| 8/31/2004 16:15 | 24       | 111      | 103   | 393   | 496     |
| 8/31/2004 16:30 | 21       | 122      | 95    | 412   | 507     |

| SW Blvd<br>time period ending | Peak hour Volumes |      |       | Max                  |
|-------------------------------|-------------------|------|-------|----------------------|
|                               | NB                | SB   | NB+SB | 1636                 |
| 8/30/2004 16:45               | 460               | 418  | 878   |                      |
| 8/30/2004 17:00               | 448               | 550  | 998   |                      |
| 8/30/2004 17:15               | 469               | 713  | 1182  |                      |
| 8/30/2004 17:30               | 488               | 857  | 1345  |                      |
| 8/30/2004 17:45               | 556               | 1080 | 1636  | <=PEAK: 4:45-5:45 PM |
| 8/30/2004 18:00               | 536               | 1059 | 1595  |                      |
| 8/30/2004 18:15               | 467               | 926  | 1393  |                      |
| 8/30/2004 18:30               | 404               | 751  | 1155  |                      |
| 8/30/2004 18:45               | 371               | 570  | 941   |                      |
| 8/30/2004 19:00               | 344               | 425  | 769   |                      |
| 8/30/2004 19:15               | 306               | 317  | 623   |                      |
| 8/30/2004 19:30               | 277               | 274  | 551   |                      |
| 8/30/2004 19:45               | 246               | 255  | 501   |                      |
| 8/30/2004 20:00               | 225               | 227  | 452   |                      |
| 8/30/2004 20:15               | 222               | 225  | 447   |                      |
| 8/30/2004 20:30               | 210               | 202  | 412   |                      |
| 8/30/2004 20:45               | 190               | 177  | 367   |                      |
| 8/30/2004 21:00               | 176               | 175  | 351   |                      |
| 8/30/2004 21:15               | 163               | 161  | 324   |                      |
| 8/30/2004 21:30               | 160               | 159  | 319   |                      |
| 8/30/2004 21:45               | 145               | 159  | 304   |                      |
| 8/30/2004 22:00               | 138               | 138  | 276   |                      |
| 8/30/2004 22:15               | 116               | 133  | 249   |                      |
| 8/30/2004 22:30               | 96                | 119  | 215   |                      |
| 8/30/2004 22:45               | 101               | 108  | 209   |                      |
| 8/30/2004 23:00               | 91                | 110  | 201   |                      |
| 8/30/2004 23:15               | 91                | 96   | 187   |                      |
| 8/30/2004 23:30               | 87                | 87   | 174   |                      |
| 8/30/2004 23:45               | 90                | 85   | 175   |                      |
| 8/31/2004 0:00                | 75                | 74   | 149   |                      |
| 8/31/2004 0:15                | 70                | 68   | 138   |                      |
| 8/31/2004 0:30                | 69                | 60   | 129   |                      |
| 8/31/2004 0:45                | 58                | 55   | 113   |                      |
| 8/31/2004 1:00                | 52                | 51   | 103   |                      |
| 8/31/2004 1:15                | 45                | 43   | 88    |                      |
| 8/31/2004 1:30                | 39                | 37   | 76    |                      |
| 8/31/2004 1:45                | 35                | 30   | 65    |                      |
| 8/31/2004 2:00                | 35                | 26   | 61    |                      |
| 8/31/2004 2:15                | 27                | 22   | 49    |                      |
| 8/31/2004 2:30                | 23                | 19   | 42    |                      |
| 8/31/2004 2:45                | 14                | 13   | 27    |                      |
| 8/31/2004 3:00                | 17                | 14   | 31    |                      |
| 8/31/2004 3:15                | 20                | 16   | 36    |                      |
| 8/31/2004 3:30                | 18                | 21   | 39    |                      |
| 8/31/2004 3:45                | 17                | 26   | 43    |                      |
| 8/31/2004 4:00                | 19                | 22   | 41    |                      |
| 8/31/2004 4:15                | 16                | 19   | 35    |                      |
| 8/31/2004 4:30                | 21                | 17   | 38    |                      |
| 8/31/2004 4:45                | 23                | 18   | 41    |                      |
| 8/31/2004 5:00                | 23                | 26   | 49    |                      |

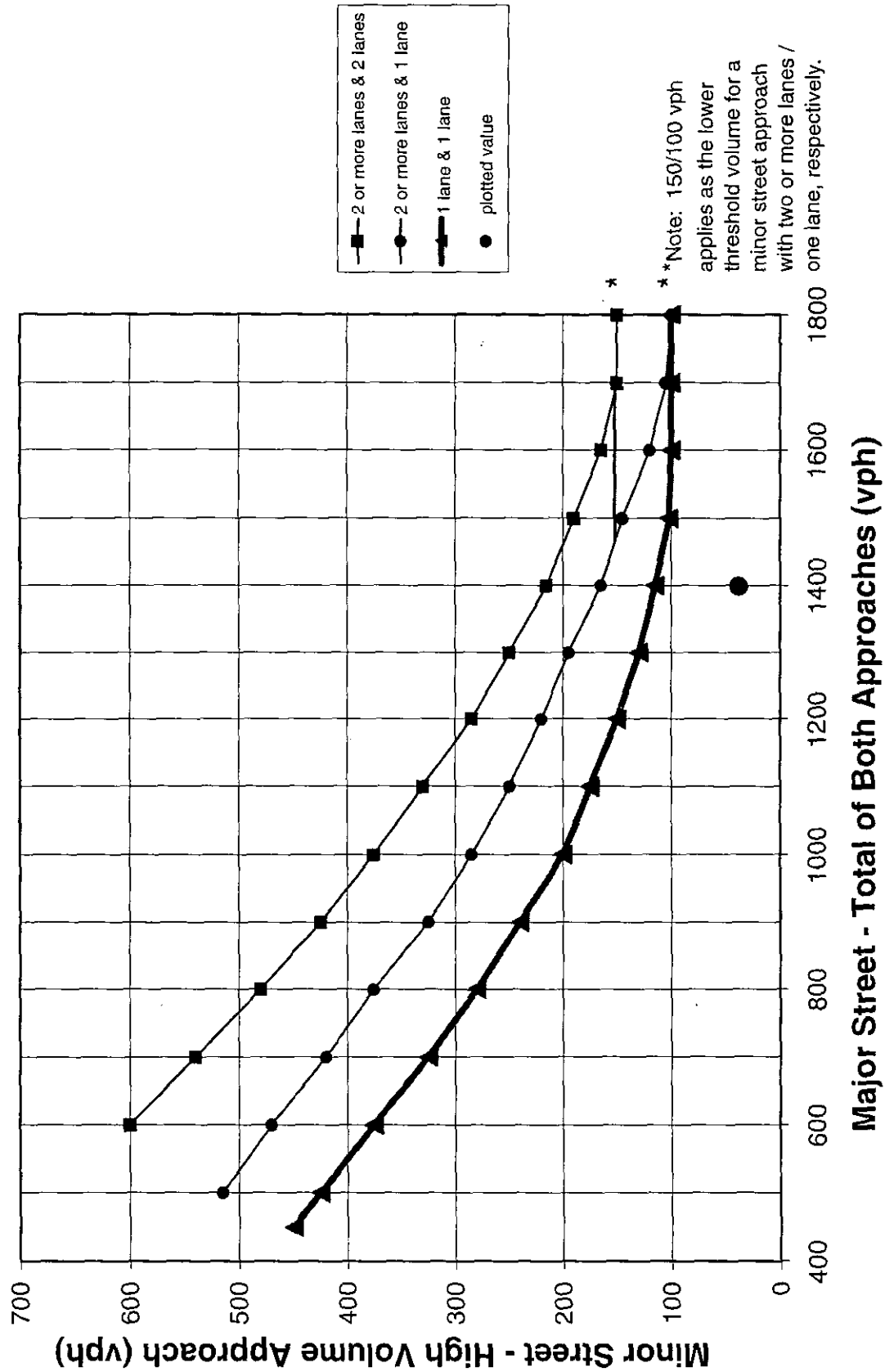
| SW Blvd<br>time period ending | Peak hour Volumes |     |       | Max  |
|-------------------------------|-------------------|-----|-------|------|
|                               | NB                | SB  | NB+SB | 1636 |
| 8/31/2004 5:15                | 28                | 32  | 60    |      |
| 8/31/2004 5:30                | 31                | 30  | 61    |      |
| 8/31/2004 5:45                | 47                | 38  | 85    |      |
| 8/31/2004 6:00                | 66                | 42  | 108   |      |
| 8/31/2004 6:15                | 94                | 57  | 151   |      |
| 8/31/2004 6:30                | 113               | 85  | 198   |      |
| 8/31/2004 6:45                | 163               | 149 | 312   |      |
| 8/31/2004 7:00                | 223               | 236 | 459   |      |
| 8/31/2004 7:15                | 336               | 301 | 637   |      |
| 8/31/2004 7:30                | 445               | 348 | 793   |      |
| 8/31/2004 7:45                | 554               | 371 | 925   |      |
| 8/31/2004 8:00                | 658               | 376 | 1034  |      |
| 8/31/2004 8:15                | 687               | 365 | 1052  |      |
| 8/31/2004 8:30                | 757               | 355 | 1112  |      |
| 8/31/2004 8:45                | 751               | 347 | 1098  |      |
| 8/31/2004 9:00                | 801               | 308 | 1109  |      |
| 8/31/2004 9:15                | 880               | 301 | 1181  |      |
| 8/31/2004 9:30                | 915               | 303 | 1218  |      |
| 8/31/2004 9:45                | 965               | 275 | 1240  |      |
| 8/31/2004 10:00               | 957               | 285 | 1242  |      |
| 8/31/2004 10:15               | 812               | 293 | 1105  |      |
| 8/31/2004 10:30               | 663               | 307 | 970   |      |
| 8/31/2004 10:45               | 535               | 348 | 883   |      |
| 8/31/2004 11:00               | 419               | 371 | 790   |      |
| 8/31/2004 11:15               | 442               | 417 | 859   |      |
| 8/31/2004 11:30               | 473               | 452 | 925   |      |
| 8/31/2004 11:45               | 522               | 515 | 1037  |      |
| 8/31/2004 12:00               | 553               | 562 | 1115  |      |
| 8/31/2004 12:15               | 608               | 580 | 1188  |      |
| 8/31/2004 12:30               | 683               | 570 | 1253  |      |
| 8/31/2004 12:45               | 717               | 531 | 1248  |      |
| 8/31/2004 13:00               | 782               | 523 | 1305  |      |
| 8/31/2004 13:15               | 773               | 501 | 1274  |      |
| 8/31/2004 13:30               | 725               | 506 | 1231  |      |
| 8/31/2004 13:45               | 699               | 487 | 1186  |      |
| 8/31/2004 14:00               | 624               | 454 | 1078  |      |
| 8/31/2004 14:15               | 581               | 441 | 1022  |      |
| 8/31/2004 14:30               | 565               | 451 | 1016  |      |
| 8/31/2004 14:45               | 553               | 461 | 1014  |      |
| 8/31/2004 15:00               | 549               | 477 | 1026  |      |
| 8/31/2004 15:15               | 555               | 473 | 1028  |      |
| 8/31/2004 15:30               | 560               | 479 | 1039  |      |
| 8/31/2004 15:45               | 606               | 480 | 1086  |      |
| 8/31/2004 16:00               | 607               | 465 | 1072  |      |
| 8/31/2004 16:15               | 610               | 496 | 1106  |      |
| 8/31/2004 16:30               | 596               | 507 | 1103  |      |

- Existing Signal Warrants

# Existing Peak Hour Volume Warrant - AM Peak Hour (Southwest Blvd & 25th St)

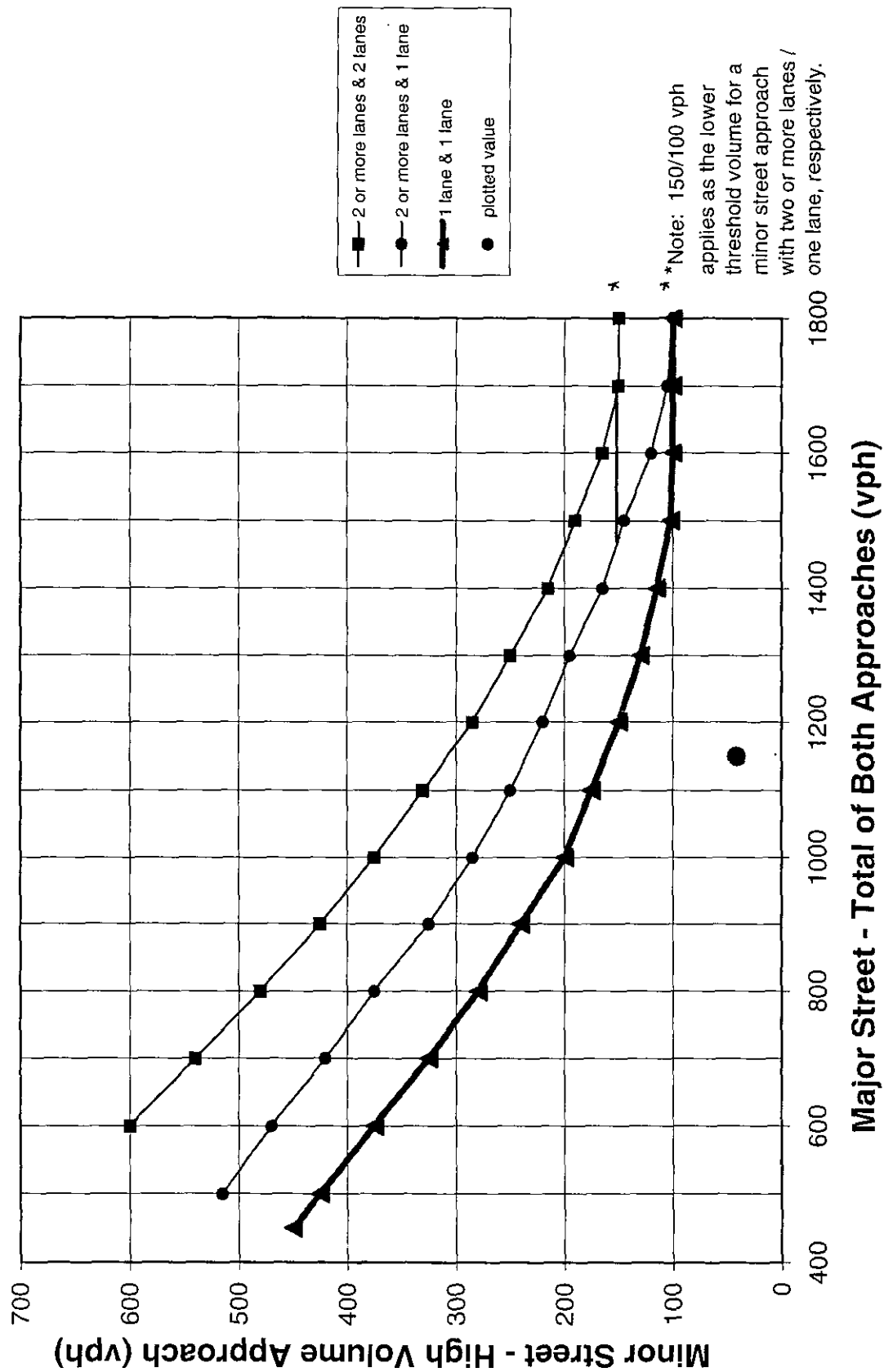


# Existing Peak Hour Volume Warrant - PM Peak Hour (Southwest Blvd & 25th St)

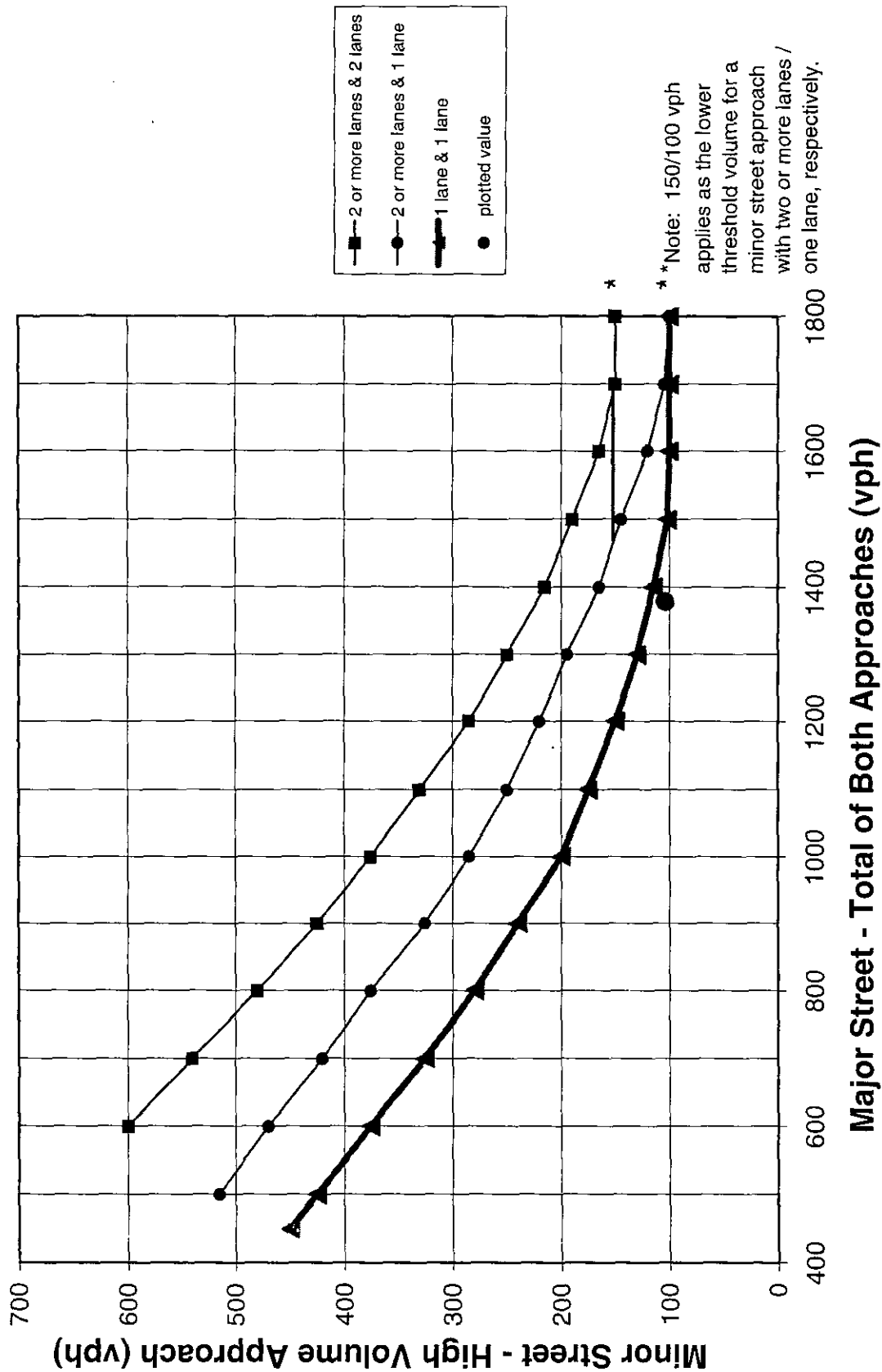




# Existing Peak Hour Volume Warrant - AM Peak Hour (Southwest Blvd & 26th St)



# Existing Peak Hour Volume Warrant - PM Peak Hour (Southwest Blvd & 26th St)



- Existing Reports

| TWO-WAY STOP CONTROL SUMMARY                     |                   |       |           |                          |                   |      |    |
|--|-------------------|-------|-----------|--------------------------|-------------------|------|----|
| <b>General Information</b>                       |                   |       |           | <b>Site Information</b>  |                   |      |    |
| Analyst  | CP                |       |           | Intersection             | SW Blvd & 25th St |      |    |
| Agency/Co.                                       | Olsson Associates |       |           | Jurisdiction             | KC, MO            |      |    |
| Date Performed                                   | 08/18/2004        |       |           | Analysis Year            | 2004 AM           |      |    |
| Analysis Time Period                             | Existing AM       |       |           |                          |                   |      |    |
| Project Description 2-2003-1280                  |                   |       |           |                          |                   |      |    |
| East/West Street:                                |                   |       |           | North/South Street:      |                   |      |    |
| Intersection Orientation: North-South            |                   |       |           | Study Period (hrs): 0.25 |                   |      |    |
| <b>Vehicle Volumes and Adjustments</b>           |                   |       |           |                          |                   |      |    |
| <b>Major Street</b>                              | Northbound        |       |           | Southbound               |                   |      |    |
| Movement   | 1                 | 2     | 3         | 4                        | 5                 | 6    |    |
|  | L                 | T     | R         | L                        | T                 | R    |    |
| Volume   | 0                 | 716   | 120       | 19                       | 313               | 0    |    |
| Peak-Hour Factor, PHF                            | 1.00              | 0.92  | 0.92      | 0.92                     | 0.92              | 1.00 |    |
| Hourly Flow Rate, HFR                            | 0                 | 778   | 130       | 20                       | 340               | 0    |    |
| Percent Heavy Vehicles                           | 0                 | --    | --        | 3                        | --                | --   |    |
| Median Type                                      | Undivided         |       |           |                          |                   |      |    |
| RT Channelized                                   |                   |       | 0         |                          |                   | 0    |    |
| Lanes  | 0                 | 2     | 0         | 1                        | 2                 | 0    |    |
| Configuration                                    |                   | T     | TR        | L                        | T                 |      |    |
| Upstream Signal                                  |                   | 0     |           |                          | 0                 |      |    |
| <b>Minor Street</b>                              | Westbound         |       |           | Eastbound                |                   |      |    |
| Movement   | 7                 | 8     | 9         | 10                       | 11                | 12   |    |
|  | L                 | T     | R         | L                        | T                 | R    |    |
| Volume   | 5                 | 0     | 10        | 0                        | 0                 | 0    |    |
| Peak-Hour Factor, PHF                            | 0.92              | 1.00  | 0.92      | 1.00                     | 1.00              | 1.00 |    |
| Hourly Flow Rate, HFR                            | 5                 | 0     | 10        | 0                        | 0                 | 0    |    |
| Percent Heavy Vehicles                           | 3                 | 0     | 3         | 0                        | 0                 | 0    |    |
| Percent Grade (%)                                | 0                 |       |           | 0                        |                   |      |    |
| Flared Approach                                  |                   | N     |           |                          | N                 |      |    |
| Storage  |                   | 0     |           |                          | 0                 |      |    |
| RT Channelized                                   |                   |       | 0         |                          |                   | 0    |    |
| Lanes  | 0                 | 0     | 0         | 0                        | 0                 | 0    |    |
| Configuration                                    |                   | LR    |           |                          |                   |      |    |
| <b>Delay, Queue Length, and Level of Service</b> |                   |       |           |                          |                   |      |    |
| Approach   | NB                | SB    | Westbound |                          | Eastbound         |      |    |
| Movement   | 1                 | 4     | 7         | 8                        | 9                 | 10   | 11 |
| Lane Configuration                               |                   | L     |           | LR                       |                   |      |    |
| v (vph)  |                   | 20    |           | 15                       |                   |      |    |
| C (m) (vph)                                      |                   | 739   |           | 361                      |                   |      |    |
| v/c  |                   | 0.03  |           | 0.04                     |                   |      |    |
| 95% queue length                                 |                   | 0.08  |           | 0.13                     |                   |      |    |
| Control Delay                                    |                   | 10.0+ |           | 15.4                     |                   |      |    |
| LOS  |                   | B     |           | C                        |                   |      |    |
| Approach Delay                                   | --                | --    | 15.4      |                          |                   |      |    |
| Approach LOS                                     | --                | --    | C         |                          |                   |      |    |

| TWO-WAY STOP CONTROL SUMMARY                     |                   |      |           |                          |                   |          |
|--|-------------------|------|-----------|--------------------------|-------------------|----------|
| <b>General Information</b>                       |                   |      |           | <b>Site Information</b>  |                   |          |
| Analyst  | CP                |      |           | Intersection             | SW Blvd & 25th St |          |
| Agency/Co.                                       | Olsson Associates |      |           | Jurisdiction             | KC, MO            |          |
| Date Performed                                   | 08/18/2004        |      |           | Analysis Year            | 2004 PM           |          |
| Analysis Time Period                             | Existing PM       |      |           |                          |                   |          |
| Project Description 2-2003-1280                  |                   |      |           |                          |                   |          |
| East/West Street:                                |                   |      |           | North/South Street:      |                   |          |
| Intersection Orientation: North-South            |                   |      |           | Study Period (hrs): 0.25 |                   |          |
| <b>Vehicle Volumes and Adjustments</b>           |                   |      |           |                          |                   |          |
| <b>Major Street</b>                              | Northbound        |      |           | Southbound               |                   |          |
| Movement   | 1                 | 2    | 3         | 4                        | 5                 | 6        |
|  | L                 | T    | R         | L                        | T                 | R        |
| Volume   | 0                 | 569  | 22        | 34                       | 774               | 0        |
| Peak-Hour Factor, PHF                            | 1.00              | 0.92 | 0.92      | 0.92                     | 0.92              | 1.00     |
| Hourly Flow Rate, HFR                            | 0                 | 618  | 23        | 36                       | 841               | 0        |
| Percent Heavy Vehicles                           | 0                 | --   | --        | 3                        | --                | --       |
| Median Type                                      | Undivided         |      |           |                          |                   |          |
| RT Channelized                                   |                   |      | 0         |                          |                   | 0        |
| Lanes  | 0                 | 2    | 0         | 1                        | 2                 | 0        |
| Configuration                                    |                   | T    | TR        | L                        | T                 |          |
| Upstream Signal                                  |                   | 0    |           |                          | 0                 |          |
| <b>Minor Street</b>                              | Westbound         |      |           | Eastbound                |                   |          |
| Movement   | 7                 | 8    | 9         | 10                       | 11                | 12       |
|  | L                 | T    | R         | L                        | T                 | R        |
| Volume   | 16                | 0    | 22        | 0                        | 0                 | 0        |
| Peak-Hour Factor, PHF                            | 0.92              | 1.00 | 0.92      | 1.00                     | 1.00              | 1.00     |
| Hourly Flow Rate, HFR                            | 17                | 0    | 23        | 0                        | 0                 | 0        |
| Percent Heavy Vehicles                           | 3                 | 0    | 3         | 0                        | 0                 | 0        |
| Percent Grade (%)                                | 0                 |      |           | 0                        |                   |          |
| Flared Approach                                  |                   | N    |           |                          | N                 |          |
| Storage  |                   | 0    |           |                          | 0                 |          |
| RT Channelized                                   |                   |      | 0         |                          |                   | 0        |
| Lanes  | 0                 | 0    | 0         | 0                        | 0                 | 0        |
| Configuration                                    |                   | LR   |           |                          |                   |          |
| <b>Delay, Queue Length, and Level of Service</b> |                   |      |           |                          |                   |          |
| Approach   | NB                | SB   | Westbound |                          | Eastbound         |          |
| Movement   | 1                 | 4    | 7         | 8                        | 9                 | 10 11 12 |
| Lane Configuration                               |                   | L    |           | LR                       |                   |          |
| v (vph)  |                   | 36   |           | 40                       |                   |          |
| C (m) (vph)                                      |                   | 933  |           | 323                      |                   |          |
| v/c  |                   | 0.04 |           | 0.12                     |                   |          |
| 95% queue length                                 |                   | 0.12 |           | 0.42                     |                   |          |
| Control Delay                                    |                   | 9.0  |           | 17.7                     |                   |          |
| LOS  |                   | A    |           | C                        |                   |          |
| Approach Delay                                   | --                | --   | 17.7      |                          |                   |          |
| Approach LOS                                     | --                | --   | C         |                          |                   |          |

| TWO-WAY STOP CONTROL SUMMARY                     |                   |       |           |                          |                   |      |    |
|--|-------------------|-------|-----------|--------------------------|-------------------|------|----|
| <b>General Information</b>                       |                   |       |           | <b>Site Information</b>  |                   |      |    |
| Analyst  | CP                |       |           | Intersection             | SW Blvd & 26th St |      |    |
| Agency/Co.                                       | Olsson Associates |       |           | Jurisdiction             | KC, MO            |      |    |
| Date Performed                                   | 08/18/2004        |       |           | Analysis Year            | 2004 AM           |      |    |
| Analysis Time Period                             | Existing AM       |       |           |                          |                   |      |    |
| Project Description 2-2003-1280                  |                   |       |           |                          |                   |      |    |
| East/West Street:                                |                   |       |           | North/South Street:      |                   |      |    |
| Intersection Orientation: North-South            |                   |       |           | Study Period (hrs): 0.25 |                   |      |    |
| <b>Vehicle Volumes and Adjustments</b>           |                   |       |           |                          |                   |      |    |
| <b>Major Street</b>                              | Northbound        |       |           | Southbound               |                   |      |    |
| Movement   | 1                 | 2     | 3         | 4                        | 5                 | 6    |    |
|  | L                 | T     | R         | L                        | T                 | R    |    |
| Volume   | 0                 | 811   | 21        | 14                       | 304               | 0    |    |
| Peak-Hour Factor, PHF                            | 1.00              | 0.92  | 0.92      | 0.92                     | 0.92              | 1.00 |    |
| Hourly Flow Rate, HFR                            | 0                 | 881   | 22        | 15                       | 330               | 0    |    |
| Percent Heavy Vehicles                           | 0                 | --    | --        | 3                        | --                | --   |    |
| Median Type                                      | Undivided         |       |           |                          |                   |      |    |
| RT Channelized                                   |                   |       | 0         |                          |                   | 0    |    |
| Lanes  | 0                 | 2     | 0         | 1                        | 2                 | 0    |    |
| Configuration                                    |                   | T     | TR        | L                        | T                 |      |    |
| Upstream Signal                                  |                   | 0     |           |                          | 0                 |      |    |
| <b>Minor Street</b>                              | Westbound         |       |           | Eastbound                |                   |      |    |
| Movement   | 7                 | 8     | 9         | 10                       | 11                | 12   |    |
|  | L                 | T     | R         | L                        | T                 | R    |    |
| Volume   | 16                | 0     | 25        | 0                        | 0                 | 0    |    |
| Peak-Hour Factor, PHF                            | 0.92              | 1.00  | 0.92      | 1.00                     | 1.00              | 1.00 |    |
| Hourly Flow Rate, HFR                            | 17                | 0     | 27        | 0                        | 0                 | 0    |    |
| Percent Heavy Vehicles                           | 3                 | 0     | 3         | 0                        | 0                 | 0    |    |
| Percent Grade (%)                                | 0                 |       |           | 0                        |                   |      |    |
| Flared Approach                                  |                   | N     |           |                          | N                 |      |    |
| Storage  |                   | 0     |           |                          | 0                 |      |    |
| RT Channelized                                   |                   |       | 0         |                          |                   | 0    |    |
| Lanes  | 0                 | 0     | 0         | 0                        | 0                 | 0    |    |
| Configuration                                    |                   | LR    |           |                          |                   |      |    |
| <b>Delay, Queue Length, and Level of Service</b> |                   |       |           |                          |                   |      |    |
| Approach   | NB                | SB    | Westbound |                          | Eastbound         |      |    |
| Movement   | 1                 | 4     | 7         | 8                        | 9                 | 10   | 11 |
| Lane Configuration                               |                   | L     |           | LR                       |                   |      |    |
| v (vph)  |                   | 15    |           | 44                       |                   |      |    |
| C (m) (vph)                                      |                   | 742   |           | 334                      |                   |      |    |
| v/c  |                   | 0.02  |           | 0.13                     |                   |      |    |
| 95% queue length                                 |                   | 0.06  |           | 0.45                     |                   |      |    |
| Control Delay                                    |                   | 10.0- |           | 17.4                     |                   |      |    |
| LOS  |                   | A     |           | C                        |                   |      |    |
| Approach Delay                                   | --                | --    | 17.4      |                          |                   |      |    |
| Approach LOS                                     | --                | --    | C         |                          |                   |      |    |

## TWO-WAY STOP CONTROL SUMMARY

## General Information

Analyst CP  
 Agency/Co. Olsson Associates  
 Date Performed 08/18/2004  
 Analysis Time Period Existing PM

## Site Information

Intersection SW Blvd & 26th St  
 Jurisdiction KC, MO  
 Analysis Year 2004 PM

Project Description 2-2003-1280

East/West Street:

North/South Street:

Intersection Orientation: North-South

Study Period (hrs): 0.25

## Vehicle Volumes and Adjustments

| Major Street           | Northbound |      |      | Southbound |      |      |
|------------------------|------------|------|------|------------|------|------|
| Movement               | 1          | 2    | 3    | 4          | 5    | 6    |
|                        | L          | T    | R    | L          | T    | R    |
| Volume                 | 0          | 574  | 15   | 33         | 757  | 0    |
| Peak-Hour Factor, PHF  | 1.00       | 0.92 | 0.92 | 0.92       | 0.92 | 1.00 |
| Hourly Flow Rate, HFR  | 0          | 623  | 16   | 35         | 822  | 0    |
| Percent Heavy Vehicles | 0          | --   | --   | 3          | --   | --   |
| Median Type            | Undivided  |      |      |            |      |      |
| RT Channelized         |            |      | 0    |            |      | 0    |
| Lanes                  | 0          | 2    | 0    | 1          | 2    | 0    |
| Configuration          |            | T    | TR   | L          | T    |      |
| Upstream Signal        |            | 0    |      |            | 0    |      |
| Minor Street           | Westbound  |      |      | Eastbound  |      |      |
| Movement               | 7          | 8    | 9    | 10         | 11   | 12   |
|                        | L          | T    | R    | L          | T    | R    |
| Volume                 | 87         | 0    | 17   | 0          | 0    | 0    |
| Peak-Hour Factor, PHF  | 0.92       | 1.00 | 0.92 | 1.00       | 1.00 | 1.00 |
| Hourly Flow Rate, HFR  | 94         | 0    | 18   | 0          | 0    | 0    |
| Percent Heavy Vehicles | 3          | 0    | 3    | 0          | 0    | 0    |
| Percent Grade (%)      | 0          |      |      | 0          |      |      |
| Flared Approach        |            | N    |      |            | N    |      |
| Storage                |            | 0    |      |            | 0    |      |
| RT Channelized         |            |      | 0    |            |      | 0    |
| Lanes                  | 0          | 0    | 0    | 0          | 0    | 0    |
| Configuration          |            | LR   |      |            |      |      |

## Delay, Queue Length, and Level of Service

| Approach           | NB | SB   | Westbound |      |   | Eastbound |    |    |
|--------------------|----|------|-----------|------|---|-----------|----|----|
| Movement           | 1  | 4    | 7         | 8    | 9 | 10        | 11 | 12 |
| Lane Configuration |    | L    |           | LR   |   |           |    |    |
| v (vph)            |    | 35   |           | 112  |   |           |    |    |
| C (m) (vph)        |    | 934  |           | 218  |   |           |    |    |
| v/c                |    | 0.04 |           | 0.51 |   |           |    |    |
| 95% queue length   |    | 0.12 |           | 2.64 |   |           |    |    |
| Control Delay      |    | 9.0  |           | 37.8 |   |           |    |    |
| LOS                |    | A    |           | E    |   |           |    |    |
| Approach Delay     | -- | --   | 37.8      |      |   |           |    |    |
| Approach LOS       | -- | --   | E         |      |   |           |    |    |

## TWO-WAY STOP CONTROL SUMMARY

## General Information

|                      |                   |
|----------------------|-------------------|
| Analyst              | CP                |
| Agency/Co.           | Olsson Associates |
| Date Performed       | 08/18/2004        |
| Analysis Time Period | Existing AM       |

## Site Information

|               |                          |
|---------------|--------------------------|
| Intersection  | 26th Street & Jarboe St. |
| Jurisdiction  | KC, MO                   |
| Analysis Year | 2004 AM                  |

Project Description 2-2003-1280

East/West Street:

North/South Street:

Intersection Orientation: East-West

Study Period (hrs): 0.25

## Vehicle Volumes and Adjustments

| Major Street           | Eastbound |      |      | Westbound |      |      |
|------------------------|-----------|------|------|-----------|------|------|
| Movement               | 1         | 2    | 3    | 4         | 5    | 6    |
|                        | L         | T    | R    | L         | T    | R    |
| Volume                 | 0         | 28   | 7    | 7         | 33   | 0    |
| Peak-Hour Factor, PHF  | 1.00      | 0.92 | 0.92 | 0.92      | 0.92 | 1.00 |
| Hourly Flow Rate, HFR  | 0         | 30   | 7    | 7         | 35   | 0    |
| Percent Heavy Vehicles | 0         | --   | --   | 3         | --   | --   |
| Median Type            | Undivided |      |      |           |      |      |
| RT Channelized         |           |      | 0    |           |      | 0    |
| Lanes                  | 0         | 1    | 0    | 0         | 1    | 0    |
| Configuration          |           |      | TR   | LT        |      |      |
| Upstream Signal        |           | 0    |      |           | 0    |      |

| Minor Street           | Northbound |      |      | Southbound |      |      |
|------------------------|------------|------|------|------------|------|------|
| Movement               | 7          | 8    | 9    | 10         | 11   | 12   |
|                        | L          | T    | R    | L          | T    | R    |
| Volume                 | 8          | 0    | 11   | 0          | 0    | 0    |
| Peak-Hour Factor, PHF  | 0.92       | 1.00 | 0.92 | 1.00       | 1.00 | 1.00 |
| Hourly Flow Rate, HFR  | 8          | 0    | 11   | 0          | 0    | 0    |
| Percent Heavy Vehicles | 3          | 0    | 3    | 0          | 0    | 0    |
| Percent Grade (%)      | 0          |      |      | 0          |      |      |
| Flared Approach        |            | N    |      |            | N    |      |
| Storage                |            | 0    |      |            | 0    |      |
| RT Channelized         |            |      | 0    |            |      | 0    |
| Lanes                  | 0          | 0    | 0    | 0          | 0    | 0    |
| Configuration          |            | LR   |      |            |      |      |

## Delay, Queue Length, and Level of Service

| Approach           | EB | WB   | Northbound |      |   | Southbound |    |    |
|--------------------|----|------|------------|------|---|------------|----|----|
| Movement           | 1  | 4    | 7          | 8    | 9 | 10         | 11 | 12 |
| Lane Configuration |    | LT   |            | LR   |   |            |    |    |
| v (vph)            |    | 7    |            | 19   |   |            |    |    |
| C (m) (vph)        |    | 1567 |            | 980  |   |            |    |    |
| v/c                |    | 0.00 |            | 0.02 |   |            |    |    |
| 95% queue length   |    | 0.01 |            | 0.06 |   |            |    |    |
| Control Delay      |    | 7.3  |            | 8.7  |   |            |    |    |
| LOS                |    | A    |            | A    |   |            |    |    |
| Approach Delay     | -- | --   | 8.7        |      |   |            |    |    |
| Approach LOS       | -- | --   | A          |      |   |            |    |    |



## TWO-WAY STOP CONTROL SUMMARY

| General Information                              |                   |      |            | Site Information         |                          |            |    |
|--|-------------------|------|------------|--------------------------|--------------------------|------------|----|
| Analyst  | CP                |      |            | Intersection             | 26th Street & Jarboe St. |            |    |
| Agency/Co.                                       | Olsson Associates |      |            | Jurisdiction             | KC, MO                   |            |    |
| Date Performed                                   | 08/18/2004        |      |            | Analysis Year            | 2004 PM                  |            |    |
| Analysis Time Period                             | Existing PM       |      |            |                          |                          |            |    |
| Project Description 2-2003-1280                  |                   |      |            |                          |                          |            |    |
| East/West Street:                                |                   |      |            | North/South Street:      |                          |            |    |
| Intersection Orientation: East-West              |                   |      |            | Study Period (hrs): 0.25 |                          |            |    |
| <b>Vehicle Volumes and Adjustments</b>           |                   |      |            |                          |                          |            |    |
| <b>Major Street</b>                              | Eastbound         |      |            | Westbound                |                          |            |    |
| Movement   | 1                 | 2    | 3          | 4                        | 5                        | 6          |    |
|  | L                 | T    | R          | L                        | T                        | R          |    |
| Volume   | 0                 | 43   | 6          | 9                        | 97                       | 0          |    |
| Peak-Hour Factor, PHF                            | 1.00              | 0.92 | 0.92       | 0.92                     | 0.92                     | 1.00       |    |
| Hourly Flow Rate, HFR                            | 0                 | 46   | 6          | 9                        | 105                      | 0          |    |
| Percent Heavy Vehicles                           | 0                 | --   | --         | 3                        | --                       | --         |    |
| Median Type                                      | Undivided         |      |            |                          |                          |            |    |
| RT Channelized                                   |                   |      | 0          |                          |                          | 0          |    |
| Lanes  | 0                 | 1    | 0          | 0                        | 1                        | 0          |    |
| Configuration                                    |                   |      | TR         | LT                       |                          |            |    |
| Upstream Signal                                  |                   | 0    |            |                          | 0                        |            |    |
| <b>Minor Street</b>                              | Northbound        |      |            | Southbound               |                          |            |    |
| Movement   | 7                 | 8    | 9          | 10                       | 11                       | 12         |    |
|  | L                 | T    | R          | L                        | T                        | R          |    |
| Volume   | 8                 | 0    | 8          | 0                        | 0                        | 0          |    |
| Peak-Hour Factor, PHF                            | 0.92              | 1.00 | 0.92       | 1.00                     | 1.00                     | 1.00       |    |
| Hourly Flow Rate, HFR                            | 8                 | 0    | 8          | 0                        | 0                        | 0          |    |
| Percent Heavy Vehicles                           | 3                 | 0    | 3          | 0                        | 0                        | 0          |    |
| Percent Grade (%)                                | 0                 |      |            | 0                        |                          |            |    |
| Flared Approach                                  |                   | N    |            |                          | N                        |            |    |
| Storage  |                   | 0    |            |                          | 0                        |            |    |
| RT Channelized                                   |                   |      | 0          |                          |                          | 0          |    |
| Lanes  | 0                 | 0    | 0          | 0                        | 0                        | 0          |    |
| Configuration                                    |                   | LR   |            |                          |                          |            |    |
| <b>Delay, Queue Length, and Level of Service</b> |                   |      |            |                          |                          |            |    |
| Approach   | EB                | WB   | Northbound |                          |                          | Southbound |    |
| Movement   | 1                 | 4    | 7          | 8                        | 9                        | 10         | 11 |
| Lane Configuration                               |                   | LT   |            | LR                       |                          |            |    |
| v (vph)  |                   | 9    |            | 16                       |                          |            |    |
| C (m) (vph)                                      |                   | 1548 |            | 902                      |                          |            |    |
| v/c  |                   | 0.01 |            | 0.02                     |                          |            |    |
| 95% queue length                                 |                   | 0.02 |            | 0.05                     |                          |            |    |
| Control Delay                                    |                   | 7.3  |            | 9.1                      |                          |            |    |
| LOS  |                   | A    |            | A                        |                          |            |    |
| Approach Delay                                   | --                | --   | 9.1        |                          |                          |            |    |
| Approach LOS                                     | --                | --   | A          |                          |                          |            |    |

## TWO-WAY STOP CONTROL SUMMARY

| General Information                              |                   |      |            | Site Information         |                  |            |       |
|--|-------------------|------|------------|--------------------------|------------------|------------|-------|
| Analyst  | CP                |      |            | Intersection             | 26th & Belleview |            |       |
| Agency/Co.                                       | Olsson Associates |      |            | Jurisdiction             | KC, MO           |            |       |
| Date Performed                                   | 08/18/2004        |      |            | Analysis Year            | 2004 AM          |            |       |
| Analysis Time Period                             | Existing AM       |      |            |                          |                  |            |       |
| Project Description 2-2003-1280                  |                   |      |            |                          |                  |            |       |
| East/West Street:                                |                   |      |            | North/South Street:      |                  |            |       |
| Intersection Orientation: East-West              |                   |      |            | Study Period (hrs): 0.25 |                  |            |       |
| <b>Vehicle Volumes and Adjustments</b>           |                   |      |            |                          |                  |            |       |
| <b>Major Street</b>                              | Eastbound         |      |            | Westbound                |                  |            |       |
| Movement   | 1                 | 2    | 3          | 4                        | 5                | 6          |       |
|  | L                 | T    | R          | L                        | T                | R          |       |
| Volume   | 0                 | 22   | 17         | 14                       | 25               | 3          |       |
| Peak-Hour Factor, PHF                            | 0.92              | 0.92 | 0.92       | 0.92                     | 0.92             | 0.92       |       |
| Hourly Flow Rate, HFR                            | 0                 | 23   | 18         | 15                       | 27               | 3          |       |
| Percent Heavy Vehicles                           | 3                 | --   | --         | 3                        | --               | --         |       |
| Median Type                                      | Undivided         |      |            |                          |                  |            |       |
| RT Channelized                                   |                   |      | 0          |                          |                  | 0          |       |
| Lanes  | 0                 | 1    | 0          | 0                        | 1                | 0          |       |
| Configuration                                    | LTR               |      |            | LTR                      |                  |            |       |
| Upstream Signal                                  |                   | 0    |            |                          | 0                |            |       |
| <b>Minor Street</b>                              | Northbound        |      |            | Southbound               |                  |            |       |
| Movement   | 7                 | 8    | 9          | 10                       | 11               | 12         |       |
|  | L                 | T    | R          | L                        | T                | R          |       |
| Volume   | 0                 | 0    | 0          | 0                        | 8                | 15         |       |
| Peak-Hour Factor, PHF                            | 0.92              | 0.92 | 0.92       | 0.92                     | 0.92             | 0.92       |       |
| Hourly Flow Rate, HFR                            | 0                 | 0    | 0          | 0                        | 8                | 16         |       |
| Percent Heavy Vehicles                           | 2                 | 2    | 2          | 3                        | 3                | 3          |       |
| Percent Grade (%)                                | 0                 |      |            | 0                        |                  |            |       |
| Flared Approach                                  |                   | N    |            |                          | N                |            |       |
| Storage  |                   | 0    |            |                          | 0                |            |       |
| RT Channelized                                   |                   |      | 0          |                          |                  | 0          |       |
| Lanes  | 0                 | 0    | 0          | 0                        | 1                | 0          |       |
| Configuration                                    |                   |      |            |                          | LTR              |            |       |
| <b>Delay, Queue Length, and Level of Service</b> |                   |      |            |                          |                  |            |       |
| Approach   | EB                | WB   | Northbound |                          |                  | Southbound |       |
| Movement   | 1                 | 4    | 7          | 8                        | 9                | 10         | 11 12 |
| Lane Configuration                               | LTR               | LTR  |            |                          |                  |            | LTR   |
| v (vph)  | 0                 | 15   |            |                          |                  |            | 24    |
| C (m) (vph)                                      | 1576              | 1562 |            |                          |                  |            | 939   |
| v/c  | 0.00              | 0.01 |            |                          |                  |            | 0.03  |
| 95% queue length                                 | 0.00              | 0.03 |            |                          |                  |            | 0.08  |
| Control Delay                                    | 7.3               | 7.3  |            |                          |                  |            | 8.9   |
| LOS  | A                 | A    |            |                          |                  |            | A     |
| Approach Delay                                   | --                | --   | 8.9        |                          |                  |            |       |
| Approach LOS                                     | --                | --   | A          |                          |                  |            |       |

|  |                   |      |            |                          |                  |            |       |
|--|-------------------|------|------------|--------------------------|------------------|------------|-------|
| <b>General Information</b>                       |                   |      |            | <b>Site Information</b>  |                  |            |       |
| Analyst  | CP                |      |            | Intersection             | 26th & Belleview |            |       |
| Agency/Co.                                       | Olsson Associates |      |            | Jurisdiction             | KC, MO           |            |       |
| Date Performed                                   | 08/18/2004        |      |            | Analysis Year            | 2004 PM          |            |       |
| Analysis Time Period                             | Existing PM       |      |            |                          |                  |            |       |
| Project Description 2-2003-1280                  |                   |      |            |                          |                  |            |       |
| East/West Street:                                |                   |      |            | North/South Street:      |                  |            |       |
| Intersection Orientation: East-West              |                   |      |            | Study Period (hrs): 0.25 |                  |            |       |
| <b>Vehicle Volumes and Adjustments</b>           |                   |      |            |                          |                  |            |       |
| <b>Major Street</b>                              | <b>Eastbound</b>  |      |            | <b>Westbound</b>         |                  |            |       |
| Movement   | 1                 | 2    | 3          | 4                        | 5                | 6          |       |
|  | L                 | T    | R          | L                        | T                | R          |       |
| Volume   | 1                 | 37   | 14         | 15                       | 69               | 2          |       |
| Peak-Hour Factor, PHF                            | 0.92              | 0.92 | 0.92       | 0.92                     | 0.92             | 0.92       |       |
| Hourly Flow Rate, HFR                            | 1                 | 40   | 15         | 16                       | 74               | 2          |       |
| Percent Heavy Vehicles                           | 3                 | --   | --         | 3                        | --               | --         |       |
| Median Type                                      | Undivided         |      |            |                          |                  |            |       |
| RT Channelized                                   |                   |      | 0          |                          |                  | 0          |       |
| Lanes  | 0                 | 1    | 0          | 0                        | 1                | 0          |       |
| Configuration                                    | LTR               |      |            | LTR                      |                  |            |       |
| Upstream Signal                                  |                   | 0    |            |                          | 0                |            |       |
| <b>Minor Street</b>                              | <b>Northbound</b> |      |            | <b>Southbound</b>        |                  |            |       |
| Movement   | 7                 | 8    | 9          | 10                       | 11               | 12         |       |
|  | L                 | T    | R          | L                        | T                | R          |       |
| Volume   | 0                 | 0    | 0          | 6                        | 13               | 37         |       |
| Peak-Hour Factor, PHF                            | 0.92              | 0.92 | 0.92       | 0.92                     | 0.92             | 0.92       |       |
| Hourly Flow Rate, HFR                            | 0                 | 0    | 0          | 6                        | 14               | 40         |       |
| Percent Heavy Vehicles                           | 2                 | 2    | 2          | 3                        | 3                | 3          |       |
| Percent Grade (%)                                | 0                 |      |            | 0                        |                  |            |       |
| Flared Approach                                  |                   | N    |            |                          | N                |            |       |
| Storage  |                   | 0    |            |                          | 0                |            |       |
| RT Channelized                                   |                   |      | 0          |                          |                  | 0          |       |
| Lanes  | 0                 | 0    | 0          | 0                        | 1                | 0          |       |
| Configuration                                    |                   |      |            |                          | LTR              |            |       |
| <b>Delay, Queue Length, and Level of Service</b> |                   |      |            |                          |                  |            |       |
| Approach   | EB                | WB   | Northbound |                          |                  | Southbound |       |
| Movement   | 1                 | 4    | 7          | 8                        | 9                | 10         | 11 12 |
| Lane Configuration                               | LTR               | LTR  |            |                          |                  |            | LTR   |
| v (vph)  | 1                 | 16   |            |                          |                  |            | 60    |
| C (m) (vph)                                      | 1517              | 1544 |            |                          |                  |            | 890   |
| v/c  | 0.00              | 0.01 |            |                          |                  |            | 0.07  |
| 95% queue length                                 | 0.00              | 0.03 |            |                          |                  |            | 0.22  |
| Control Delay                                    | 7.4               | 7.4  |            |                          |                  |            | 9.3   |
| LOS  | A                 | A    |            |                          |                  |            | A     |
| Approach Delay                                   | --                | --   |            |                          |                  | 9.3        |       |
| Approach LOS                                     | --                | --   |            |                          |                  | A          |       |

## TWO-WAY STOP CONTROL SUMMARY

## General Information

|                      |                   |
|----------------------|-------------------|
| Analyst              | CP                |
| Agency/Co.           | Olsson Associates |
| Date Performed       | 08/18/2004        |
| Analysis Time Period | Existing AM       |

## Site Information

|               |                 |
|---------------|-----------------|
| Intersection  | 25th & Bellevue |
| Jurisdiction  | KC, MO          |
| Analysis Year | 2004 AM         |

Project Description 2-2003-1280

East/West Street:

North/South Street:

Intersection Orientation: East-West

Study Period (hrs): 0.25

## Vehicle Volumes and Adjustments

| Major Street           | Eastbound |      |      | Westbound |      |      |
|------------------------|-----------|------|------|-----------|------|------|
| Movement               | 1         | 2    | 3    | 4         | 5    | 6    |
|                        | L         | T    | R    | L         | T    | R    |
| Volume                 | 0         | 132  | 7    | 18        | 15   | 0    |
| Peak-Hour Factor, PHF  | 1.00      | 0.92 | 0.92 | 0.92      | 0.92 | 1.00 |
| Hourly Flow Rate, HFR  | 0         | 143  | 7    | 19        | 16   | 0    |
| Percent Heavy Vehicles | 0         | --   | --   | 3         | --   | --   |
| Median Type            | Undivided |      |      |           |      |      |
| RT Channelized         |           |      | 0    |           |      | 0    |
| Lanes                  | 0         | 1    | 0    | 0         | 1    | 0    |
| Configuration          |           |      | TR   | LT        |      |      |
| Upstream Signal        |           | 0    |      |           | 0    |      |

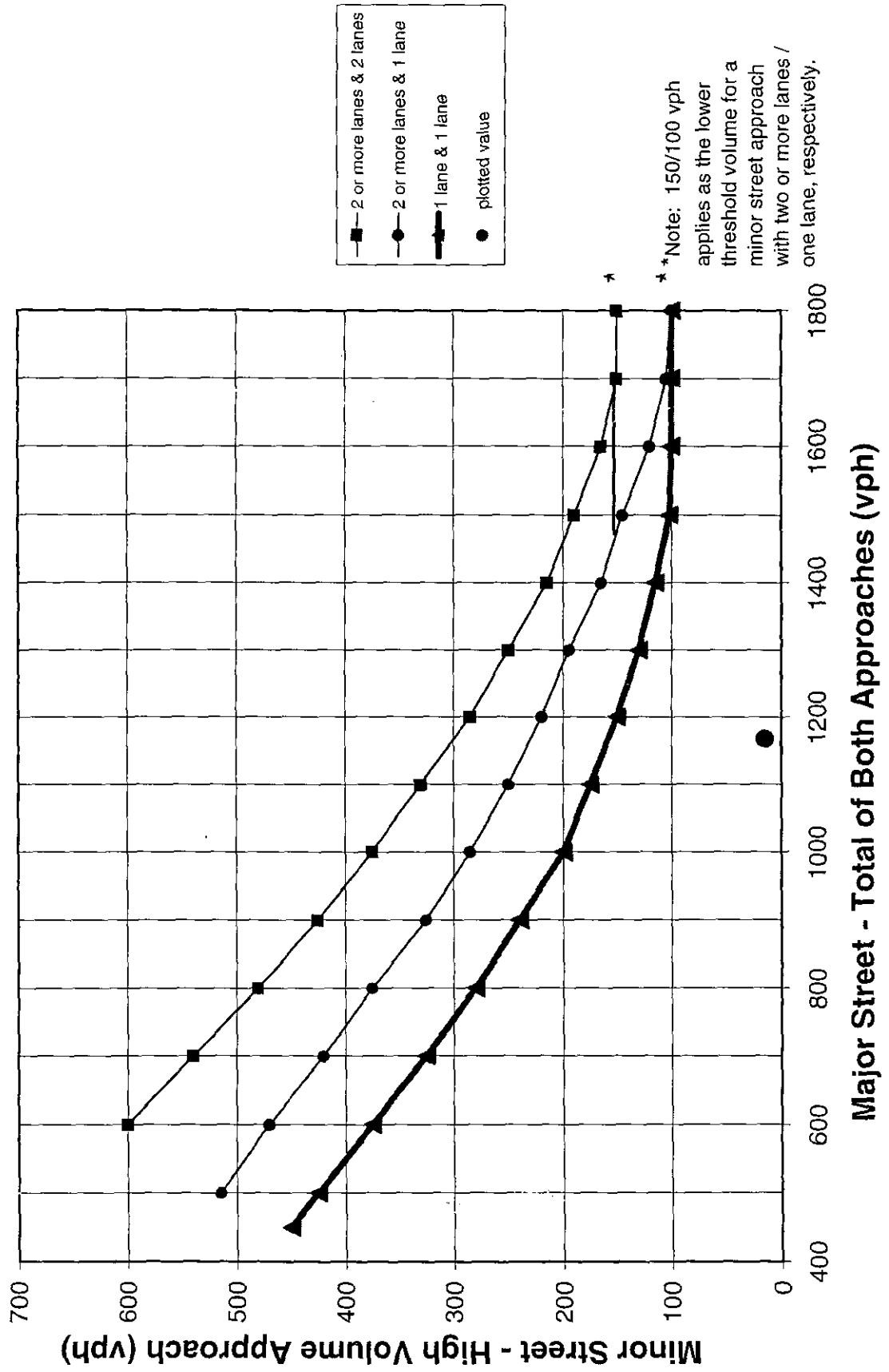
| Minor Street           | Northbound |      |      | Southbound |      |      |
|------------------------|------------|------|------|------------|------|------|
| Movement               | 7          | 8    | 9    | 10         | 11   | 12   |
|                        | L          | T    | R    | L          | T    | R    |
| Volume                 | 0          | 0    | 1    | 0          | 0    | 0    |
| Peak-Hour Factor, PHF  | 0.92       | 1.00 | 0.92 | 1.00       | 1.00 | 1.00 |
| Hourly Flow Rate, HFR  | 0          | 0    | 1    | 0          | 0    | 0    |
| Percent Heavy Vehicles | 3          | 0    | 3    | 0          | 0    | 0    |
| Percent Grade (%)      | 0          |      |      | 0          |      |      |
| Flared Approach        |            | N    |      |            | N    |      |
| Storage                |            | 0    |      |            | 0    |      |
| RT Channelized         |            |      | 0    |            |      | 0    |
| Lanes                  | 0          | 0    | 0    | 0          | 0    | 0    |
| Configuration          |            | LR   |      |            |      |      |

## Delay, Queue Length, and Level of Service

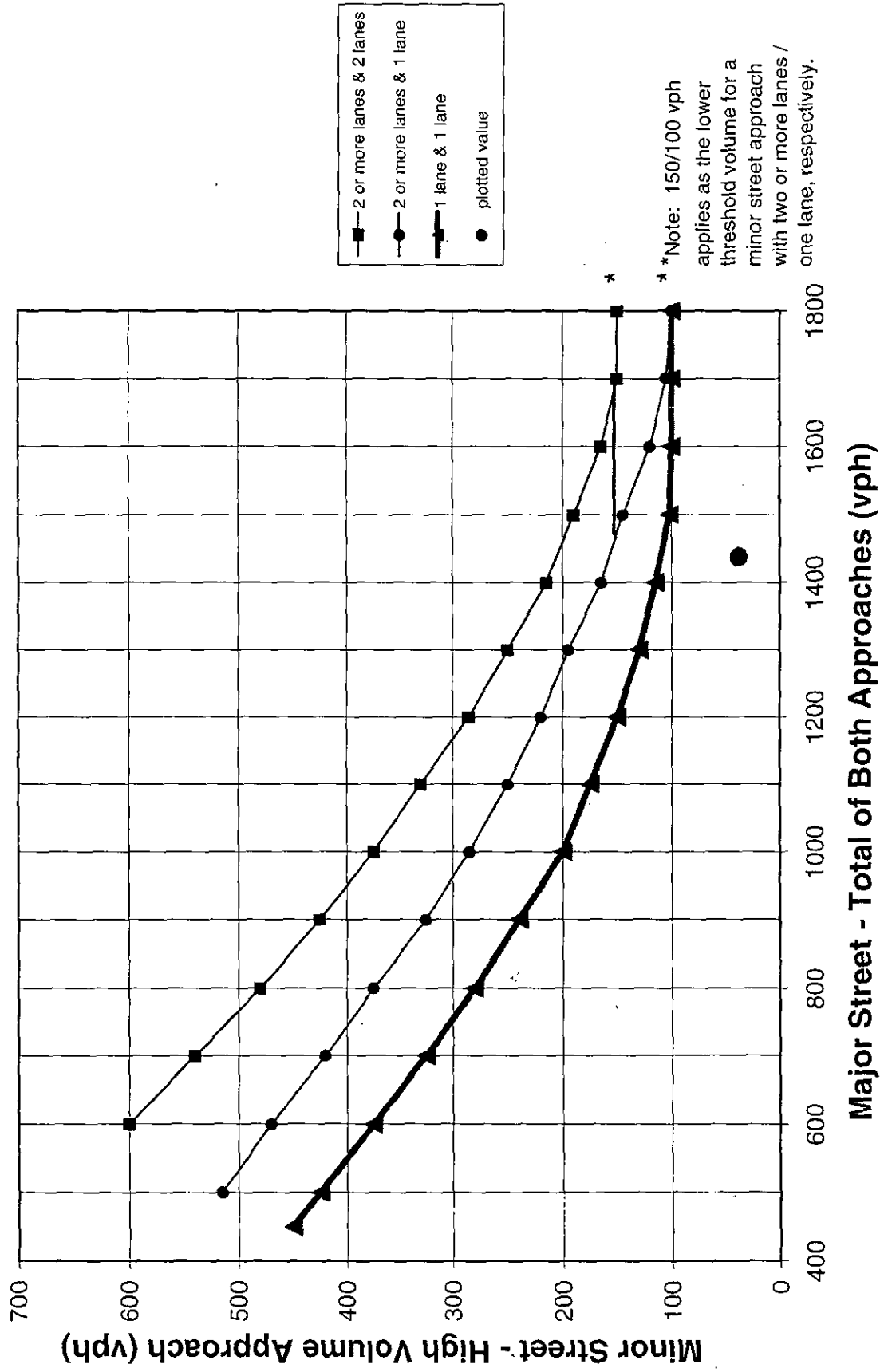
| Approach           | EB | WB   | Northbound |      |   | Southbound |    |    |
|--------------------|----|------|------------|------|---|------------|----|----|
| Movement           | 1  | 4    | 7          | 8    | 9 | 10         | 11 | 12 |
| Lane Configuration |    | LT   |            | LR   |   |            |    |    |
| v (vph)            |    | 19   |            | 1    |   |            |    |    |
| C (m) (vph)        |    | 1425 |            | 898  |   |            |    |    |
| v/c                |    | 0.01 |            | 0.00 |   |            |    |    |
| 95% queue length   |    | 0.04 |            | 0.00 |   |            |    |    |
| Control Delay      |    | 7.6  |            | 9.0  |   |            |    |    |
| LOS                |    | A    |            | A    |   |            |    |    |
| Approach Delay     | -- | --   | 9.0        |      |   |            |    |    |
| Approach LOS       | -- | --   | A          |      |   |            |    |    |

- Existing + Phase I Development Signal Warrants

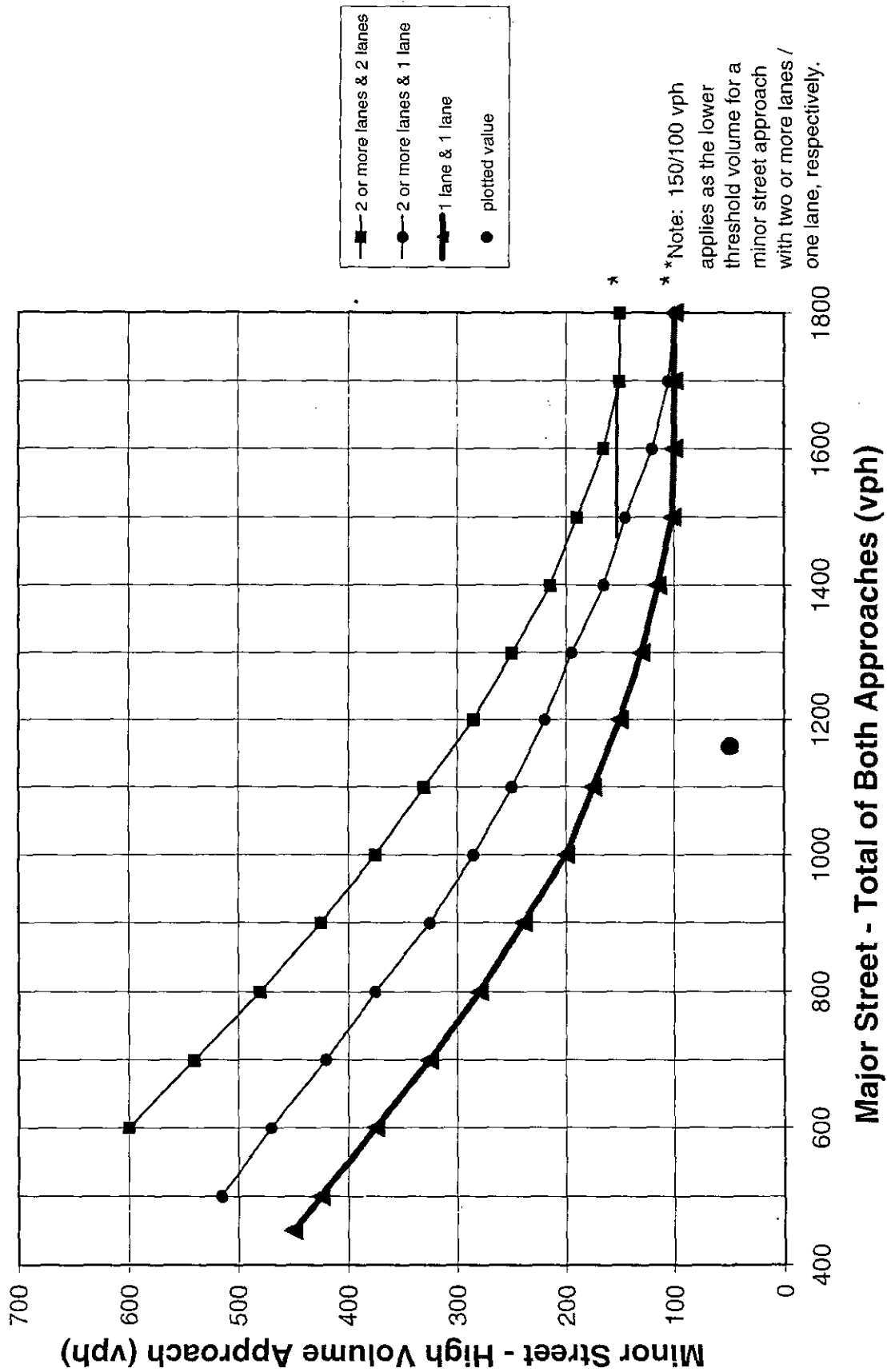
# Existing + Phase I Development Peak Hour Volume Warrant - AM Peak Hour (Southwest Blvd & 25th St)



# Existing + Phase I Development Peak Hour Volume Warrant - PM Peak Hour (Southwest Blvd & 25th St)

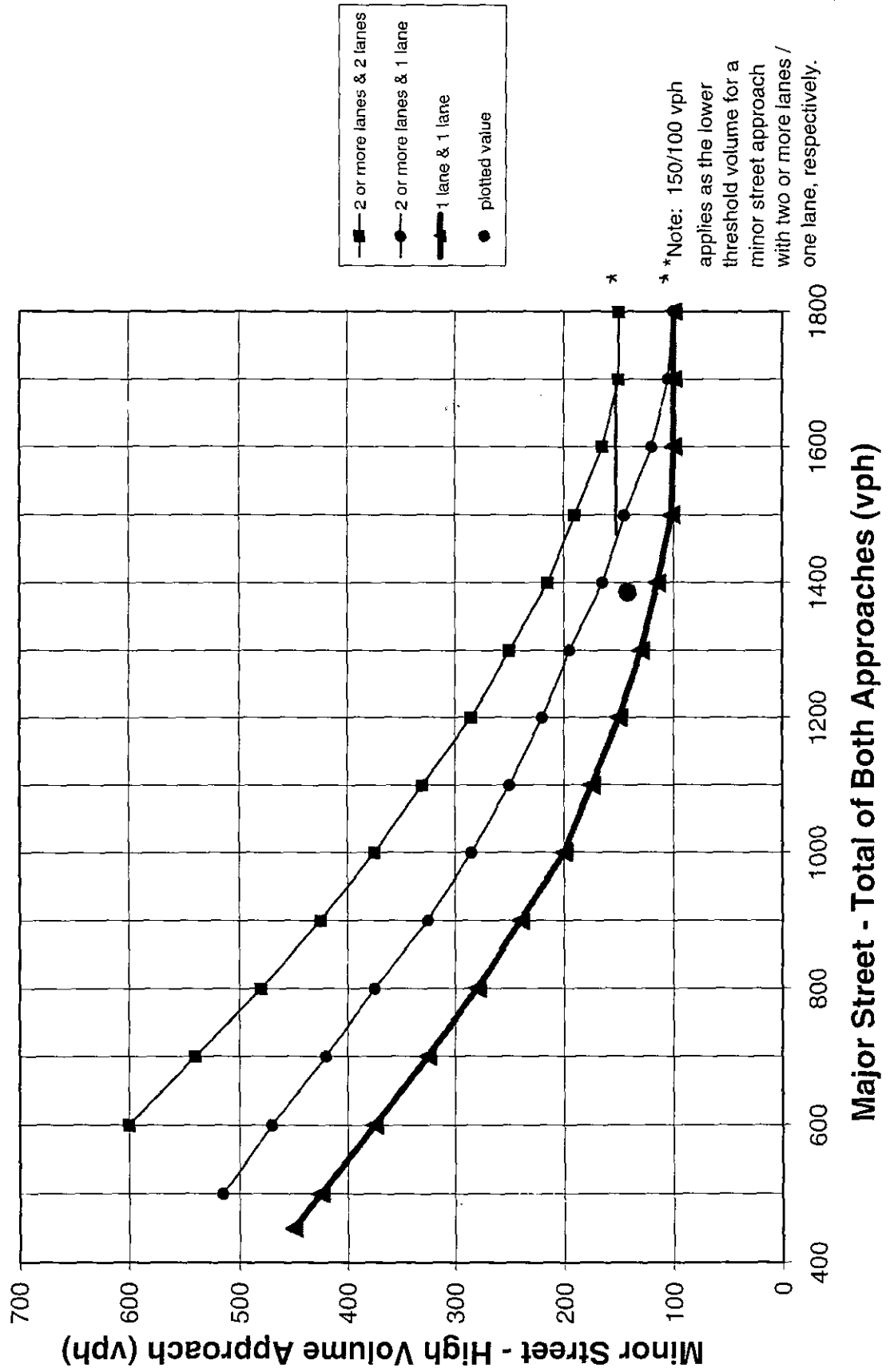


# Existing + Phase I Development Peak Hour Volume Warrant - AM Peak Hour (Southwest Blvd & 26th St)





# Existing + Phase I Development Peak Hour Volume Warrant - PM Peak Hour (Southwest Blvd & 26th St)



- Existing + Phase I Development Reports

## TWO-WAY STOP CONTROL SUMMARY

| General Information                       |                       |      | Site Information         |                   |      |           |    |    |
|---|-----------------------|------|--------------------------|-------------------|------|-----------|----|----|
| Analyst                                   | CP                    |      | Intersection             | SW Blvd & 25th St |      |           |    |    |
| Agency/Co.                                | Olsson Associates     |      | Jurisdiction             | KC, MO            |      |           |    |    |
| Date Performed                            | 08/18/2004            |      | Analysis Year            | 2004 AM           |      |           |    |    |
| Analysis Time Period                      | Existing + Phase 1 AM |      |                          |                   |      |           |    |    |
| Project Description 2-2003-1280           |                       |      |                          |                   |      |           |    |    |
| East/West Street:                         |                       |      | North/South Street:      |                   |      |           |    |    |
| Intersection Orientation: North-South     |                       |      | Study Period (hrs): 0.25 |                   |      |           |    |    |
| Vehicle Volumes and Adjustments           |                       |      |                          |                   |      |           |    |    |
| Major Street                              | Northbound            |      |                          | Southbound        |      |           |    |    |
| Movement                                  | 1                     | 2    | 3                        | 4                 | 5    | 6         |    |    |
|   | L                     | T    | R                        | L                 | T    | R         |    |    |
| Volume                                    | 0                     | 719  | 133                      | 29                | 313  | 0         |    |    |
| Peak-Hour Factor, PHF                     | 1.00                  | 0.92 | 0.92                     | 0.92              | 0.92 | 1.00      |    |    |
| Hourly Flow Rate, HFR                     | 0                     | 781  | 144                      | 31                | 340  | 0         |    |    |
| Percent Heavy Vehicles                    | 0                     | --   | --                       | 3                 | --   | --        |    |    |
| Median Type                               | Undivided             |      |                          |                   |      |           |    |    |
| RT Channelized                            |                       |      | 0                        |                   |      | 0         |    |    |
| Lanes                                     | 0                     | 2    | 0                        | 1                 | 2    | 0         |    |    |
| Configuration                             |                       | T    | TR                       | L                 | T    |           |    |    |
| Upstream Signal                           |                       | 0    |                          |                   | 0    |           |    |    |
| Minor Street                              | Westbound             |      |                          | Eastbound         |      |           |    |    |
| Movement                                  | 7                     | 8    | 9                        | 10                | 11   | 12        |    |    |
|   | L                     | T    | R                        | L                 | T    | R         |    |    |
| Volume                                    | 5                     | 0    | 10                       | 0                 | 0    | 0         |    |    |
| Peak-Hour Factor, PHF                     | 0.92                  | 1.00 | 0.92                     | 1.00              | 1.00 | 1.00      |    |    |
| Hourly Flow Rate, HFR                     | 5                     | 0    | 10                       | 0                 | 0    | 0         |    |    |
| Percent Heavy Vehicles                    | 3                     | 0    | 3                        | 0                 | 0    | 0         |    |    |
| Percent Grade (%)                         | 0                     |      |                          | 0                 |      |           |    |    |
| Flared Approach                           |                       | N    |                          |                   | N    |           |    |    |
| Storage                                   |                       | 0    |                          |                   | 0    |           |    |    |
| RT Channelized                            |                       |      | 0                        |                   |      | 0         |    |    |
| Lanes                                     | 0                     | 0    | 0                        | 0                 | 0    | 0         |    |    |
| Configuration                             |                       | LR   |                          |                   |      |           |    |    |
| Delay, Queue Length, and Level of Service |                       |      |                          |                   |      |           |    |    |
| Approach                                  | NB                    | SB   | Westbound                |                   |      | Eastbound |    |    |
| Movement                                  | 1                     | 4    | 7                        | 8                 | 9    | 10        | 11 | 12 |
| Lane Configuration                        |                       | L    |                          | LR                |      |           |    |    |
| v (vph)                                   |                       | 31   |                          | 15                |      |           |    |    |
| C (m) (vph)                               |                       | 728  |                          | 347               |      |           |    |    |
| v/c                                       |                       | 0.04 |                          | 0.04              |      |           |    |    |
| 95% queue length                          |                       | 0.13 |                          | 0.14              |      |           |    |    |
| Control Delay                             |                       | 10.2 |                          | 15.8              |      |           |    |    |
| LOS                                       |                       | B    |                          | C                 |      |           |    |    |
| Approach Delay                            | --                    | --   | 15.8                     |                   |      |           |    |    |
| Approach LOS                              | --                    | --   | C                        |                   |      |           |    |    |