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SCOTT COUNTY WORKZONE ENFORCEMENT STUDY

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This report was prepared in cooperation with the U.S. Department of Transportation, Federal Highway Administration; the Governor's Traffic Safety Bureau; and the Iowa Department of Transportation. The contents of this report reflect the views of the author, who is responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the Governor's Traffic Safety Bureau, the Iowa Department of Transportation, or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation.

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ABSTRACT

- TITLE:** 1993 Scott County Work Zone Enforcement Study
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- ABSTRACT:** The work zone enforcement study was completed with the assistance of the Scott County Board of Supervisors, City of Davenport and the City of Bettendorf with the intent of determining the effectiveness of the presence of law enforcement within work zones. This is a pilot study for the Federal Highway Administration, the Iowa Department of Transportation and the Iowa Governor's Traffic Study Bureau.

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CHAPTER I.

STUDY LOCATION, SCOPE AND BACKGROUND

I.1 PROJECT LOCATION

Scott County is located in eastern Iowa bordered on the east by the Mississippi River, on the north by Clinton County, on the west by Cedar County, and on the south by Muscatine Iowa. Scott County also contains the cities of Davenport and Bettendorf, which make up the Iowa portion of the Quad City Metropolitan Area (see Map I.)

The Quad City area also contains a fairly large interstate network that includes Interstate 80, Interstate 280 and Interstate 74. Interstate 80 is a major coast to coast thoroughfare. All of these interstates carry between 12,000 and 25,000 vehicles daily. In conjunction with this interstate network we are faced with four major Mississippi River crossings.

Due to the nature of our region with the states of Iowa and Illinois joining in one large community we are faced with daily commutes between states for work trips and other journeys. The interstate network also contains a majority of non-local traffic that may be unfamiliar with the region. Because of the wide diversity of individuals utilizing the region for transportation purposes it is important to note that many may not be knowledgeable about local laws or speeds and would be more likely to break laws out of ignorance or apathy.

I.2 STUDY SCOPE

The sole purpose of the Work Zone Enforcement Study is to determine if speeds within work zones are affected by variables such as enforcement, weather conditions, and the presence of the work zone barricades themselves. Since this project is a pilot study for the State of Iowa, all results will be delivered to appropriate Federal Highway Administration, Governor's Traffic Safety Bureau, and Iowa Department of Transportation officials with findings and recommendations.

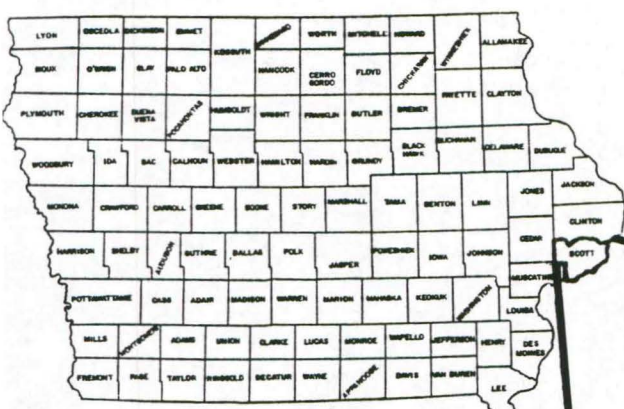
I.3 BACKGROUND OF STUDY

Throughout the years, it has become increasingly apparent that work zones have been very dangerous sites for construction crews and the motor vehicle operators within the work zone. When the Scott County Traffic Safety Task Force was formed in 1991, one of its main missions was to cut down on the number of accidents and conflicts within work zones. During the first two years of activities with work zone safety, local law enforcement agencies made minimal attempts at enforcing and patrolling these locations.

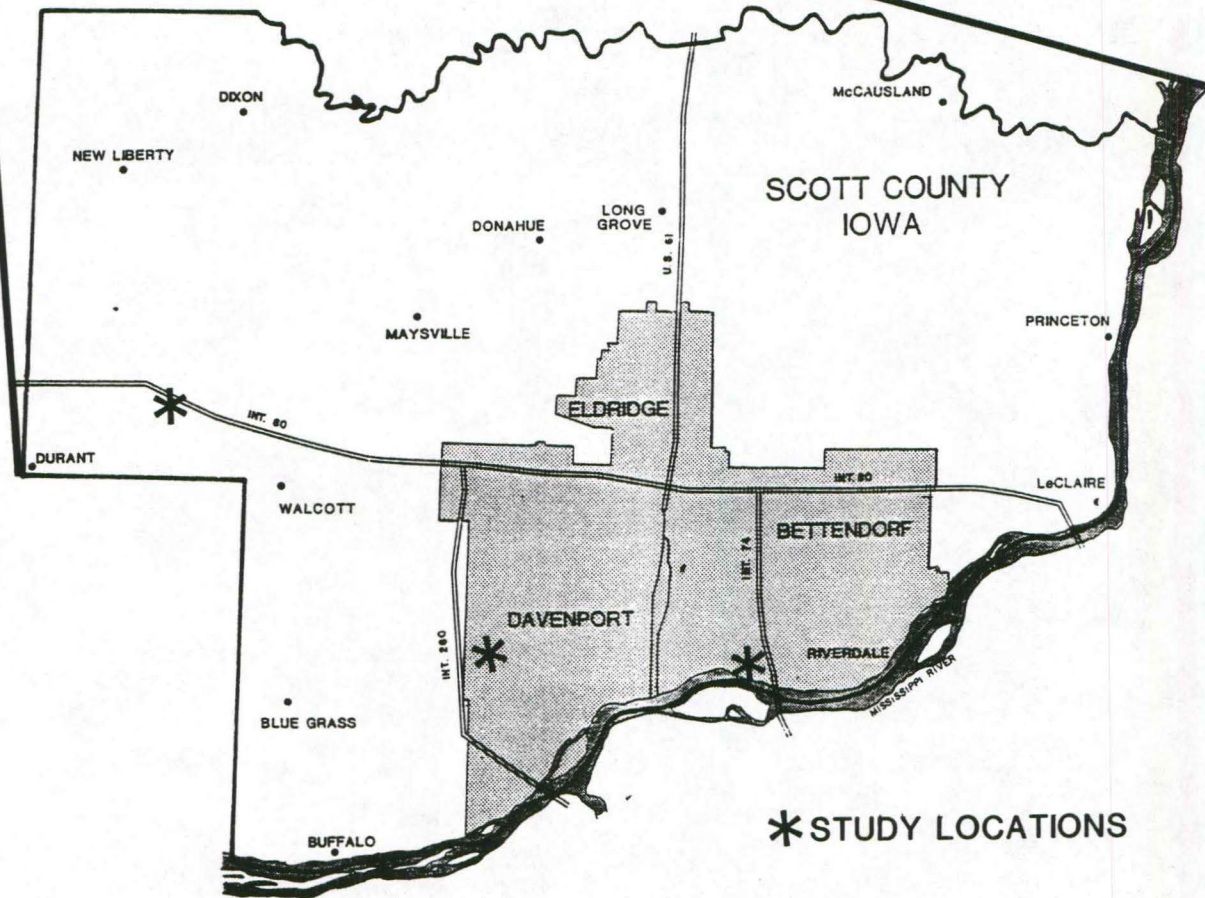
After several months of limited activities from the Scott County Task Force, the newly formed Multi-Disciplinary Task Force made up of engineers, law enforcement and other interested individuals formed with the mission of actively attacking matters of traffic safety problem and concerns. One of the areas of focus for this organization is work zone safety. In 1992 the Task Force made a few initiatives with attempts at getting traffic counts and speeds within work zones and enforcing these locations with overtime police officers. However, due to the lack of knowledge in the operation and installation of the traffic monitoring loop devices, there was no significant data to report.

In the Spring of 1993, the Governor's Traffic Safety Bureau and the Iowa Department of Transportation assisted the Task Force with the purchase of five (5) HiStar NC90 traffic monitoring devices that became the main components of this study. With the application of these traffic monitoring devices along with the cooperation of local law enforcement agencies, we were able to determine speeds within work zones prior to and during construction.

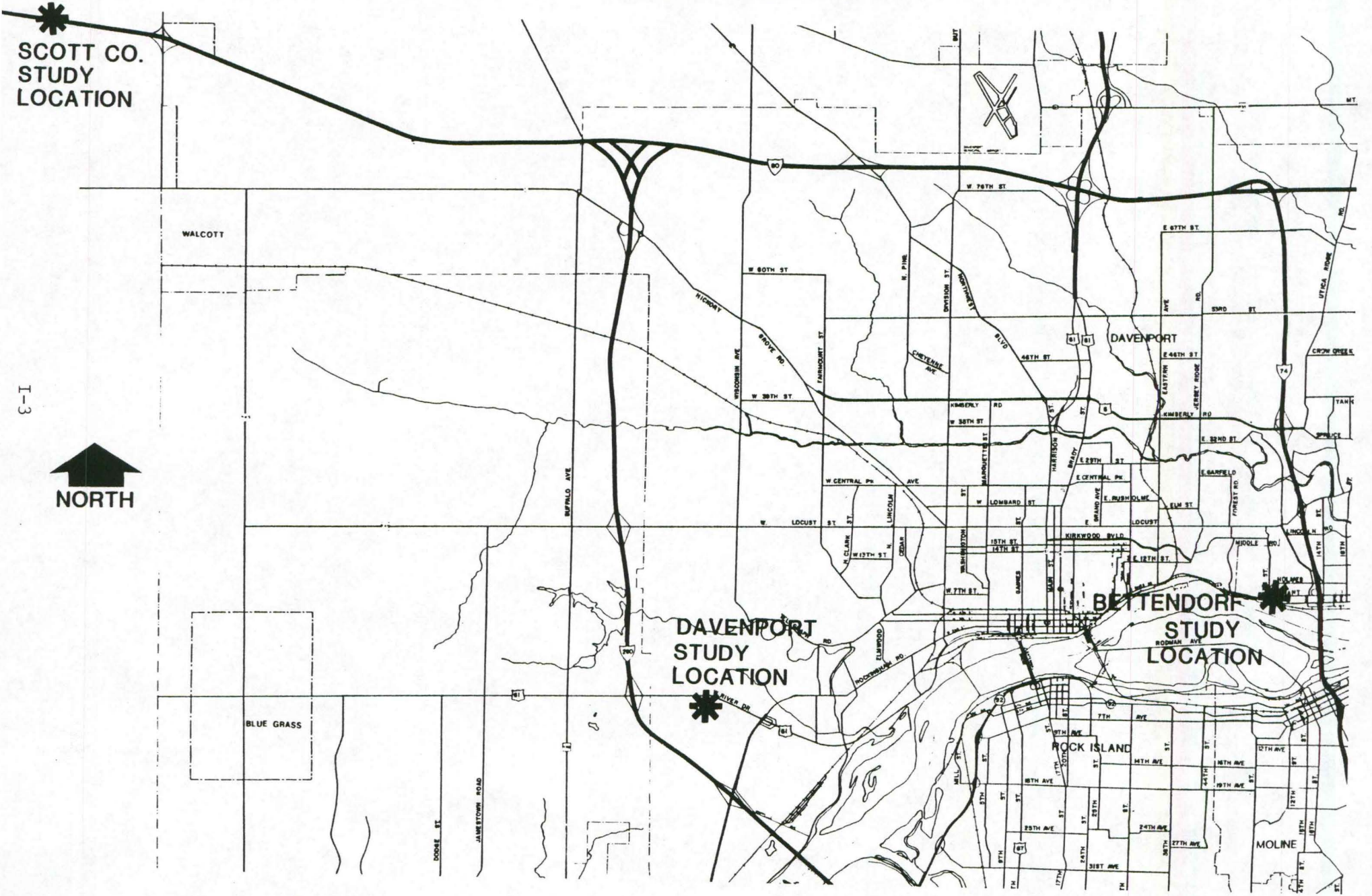
MAP I SCOTT COUNTY, IA LOCATION MAP



IOWA



MAP II SCOTT COUNTY WORKZONE ENFORCEMENT STUDY STUDY LOCATIONS



SCOTT CO.
STUDY
LOCATION

WALCOTT

I-3



BLUE GRASS

DAVENPORT
STUDY
LOCATION

BETTENDORF
STUDY
LOCATION

ROCK ISLAND

MOLINE

I.4 LIMITATIONS OF THE STUDY

Even though we strongly believe that the data and information contained within this study is important to work zone safety and traffic safety in general, there are a few limitations that kept us from completing the study as planned. The first problem arose during the pre-construction data gathering on U.S. 61 Davenport when the traffic monitoring devices were stolen on two occasions.

The major limitations with this study came during the summer of 1994. Like many other communities in the Midwest, flooding was a problem in our region. Due to the time and effort in combatting the flood conditions law enforcement officers were limited in time that they could spend on our study. It is for this reason that the post construction counts were omitted from our study and we relied upon the pre-construction and construction period data for our conclusions.

CHAPTER II.

METHOD OF APPROACH

II.1 OVERVIEW

The approach to this study is very simple. Three (3) work zone sites were selected by the Task Force to conduct the study. It was determined that each location would be studied prior to construction, during construction and after construction. These location studies would be done in forty-eight (48) hour time periods. The information that was to be analyzed was the speed of vehicles given the previously mentioned variables.

The most obvious of the variables was the presence of enforcement. Did the visibility of an enforcement vehicle have any impact on the speeds of the vehicles entering and driving within the work zone? Did the presence of the work zone have any impact on the speeds of the vehicle within the corridor? Other variables include weather conditions, placement of enforcement vehicles and the time of day.

II.2 LITERATURE SEARCH

Prior to and during this work zone study, we made attempts to gather information pertaining to any other studies that were done in the nation resembling this one in scope. Contacts were made to the Federal Highway Administration, State Departments of Transportation, Governor's Traffic Safety Bureaus and local transportation departments. We also completed an extensive library search to determine if any documentation had been published regarding work zones or work zone safety.

Even though our efforts were extensive, we were unable to find any documentation of any projects that were similar to this. We did receive several comments that enforcement was being utilized in a similar fashion in many locations. However, nothing had been documented to the extent that there was any information on file. Page V-1 gives a listing of the agencies that were contacted and their comments.

II.3 INVENTORY OF STUDY LOCATIONS

The Multi-Disciplinary Task Force decided that each jurisdiction (Scott County, Davenport and Bettendorf) would have the opportunity to study and enforce a work zone within their community. The Task Force is extremely fortunate to have as a member, the Iowa Department of Transportation and its local transportation center (East Central Transportation Center) who are very cooperative and informed the group of areas that may be beneficial for this study.

The East Central Transportation Center office supplied the Task Force with a complete listing of construction projects for the 1993 construction season. It was from that list that the decision to study specific areas was determined.

The Task Force was looking for a variety of locations in an attempt to diversify this study as much as possible. It was the decision of all involved to try to look at a major highway such as I-80, I-280 or I-74, a state highway and a local highly utilized roadway. The basic premise is that these different locations will have dramatically different results when being studied due to the variety of trip purposes involved.

II.4 SELECTION OF STUDY LOCATIONS

After reviewing the various types of construction projects that were to be completed during 1993 in our region, it was determined that the following sites would be used:

1. I-80 Scott County, located two (2) miles east of the Cedar County line.

2. U.S. 61 Davenport, located one (1) mile east, southeast of the U.S. 61, I-280 interchange.
3. U.S. 67 Bettendorf, located one (1) mile west of I-74.

These sites were chosen due to the physical attributes of the location along with the duration of the construction (all three projects were programmed for at least four to five working weeks) and the ability for law enforcement vehicles to be visible to the motor vehicle operator. All three locations have a history of excessive speed behavior.

II.5 DEFINITION OF EQUIPMENT

The traffic monitoring devices that were utilized in this study are NuMetrics NC 90 Traffic Monitoring Devices. The devices are stand-alone units that send out a magnetic field that calculates speed, vehicle classification, vehicle count, gap time, surface conditions and surface temperature.

II.6 APPLICATION OF EQUIPMENT

In order for this study to have any credibility at all, it would be important to supply as much data on the location as possible. As was mentioned previously in this document, the Task Force, with the assistance of the Iowa Department of Transportation and the Governor's Traffic Safety Bureau, was able to purchase five (5) NuMetrics NC 90 Traffic Monitoring Devices.

The traffic monitoring device was installed at the same site within each location for forty-eight (48) hours prior to and during construction. Unfortunately, due to the unexpected flooding that occurred in our area and throughout the Midwest during the summer of 1994, we had significant delays in terms of construction time frames along with the availability of enforcement officers to work the construction zones. It was because of these unexpected delays, that we decided to omit the post construction counts.

From the data we received during these time periods, we were able to assess the various variables within the site. For example, the data showed that speed dramatically decreased with the inclusion of the work zone. Prior to the site being under construction, speeds averaged between six percent (6%) to ten (10%) higher.

II.7 ENFORCEMENT TECHNIQUES

In all three locations, enforcement varied in terms of their location within the work zone. However, in all locations, the enforcement vehicle was within clear sight of the motorist. Whenever possible, law enforcement was located near the beginning of the work zone in an effort to get the vehicles slowed down to a reasonable speed prior to reaching the area under construction where crews were present.

Law enforcement personnel also tried driving within the work zone, but noted that the stationary vehicle located somewhere near the beginning of the location seemed to be the best. Other enforcement techniques included enforcement vehicles located prior to, within and beyond the work zone.

Davenport Sergeant Jerry Behning stated that the most effective technique for pulling over traffic violators within a work zone was to have an enforcement vehicle clocking speed upon entering the work zone and radio to enforcement vehicles waiting at the end of the work zone to ticket the offender. Utilization of this technique prevented the problem of added congestion and distraction to motorists operating within the work zone.

II.8 PREVIOUS ACCIDENT HISTORY OF THE WORK ZONE LOCATIONS

Utilization of the Iowa statewide accident reporting program PC-ALAS, we were able to determine the accident history of the three work zone locations. The following information is based upon a three year accident history from January 1, 1990 to December 31, 1992.

II.8.1 U.S. 61 DAVENPORT

The U.S. 61 Davenport location had a relatively low number of accidents considering the large traffic volume (10,200 vehicles per day) and the history of excessive speeds. Over the past three years this stretch of highway has been the location of nine (9) accidents resulting in zero (0) fatalities and six (6) minor injuries. There does not seem to be any pattern with the accidents which have varied from animals in the roadway to inexperienced driving (see page V-8 for a detailed three year summary of the accident history of this location).

II.8.2 U.S. 67 BETTENDORF

The U.S. 67 Bettendorf location also had a relatively low number of accidents considering the large traffic volume (24,200 vehicles per day) and the history of excessive speeds. Over the past three years this segment of highway has been the location of eleven (11) accidents resulting in zero (0) fatalities, three (3) major injuries, and two (2) minor injuries. Again, there does not seem to be any pattern with the accidents which have resulted from a variety of driver errors (see page V-9 for a detailed three year summary of the accident history of this location).

II.8.3 INTERSTATE 80 SCOTT COUNTY

Unlike the previous locations, the I-80 Scott County location had an unusually high number of accidents for an interstate segment of roadway. The Scott County Sheriff's Department stated that this location which has a daily traffic count of 24,100 vehicles has not been a bad area in terms of excessive speeds. Over the past three years this location has been the location of forty-three (43) accidents resulting in zero (0) fatalities and fifteen (15) minor injuries (See page V-10 for a detailed through year summary of the accident history of this location.).

CHAPTER III.

STUDY ANALYSIS

III.1 WORK ZONE LAYOUT ANALYSIS

Since this project involved three work zone study locations and a diverse selection of road segments in terms of traffic volume, speeds, trip purposes and most importantly differing repair projects the layout had significant impact on the speeds of the vehicles. The Davenport U.S. 61 location involved head to head traffic for approximately one-half mile for resurfacing work. The Bettendorf U.S. 67 project involved a one lane closure on a four lane roadway for minor patching work. The Interstate 80 Scott County Project involved a one lane closure in each direction for patching work.

III.2 STUDY OBSERVATIONS

During the study there were several key observations that took place among a variety of individuals that solidifies our position on the placement of enforcement vehicles near the beginning of the work zone. Several law enforcement officers noted that upon entering the work zone area vehicles were traveling at much lower speeds. We attribute much of this to the presence of the work zone and the knowledge of safety concerns that have been emphasized in our nation throughout the years. It is also important to note that the workers felt more comfortable with the presence of law enforcement. On several occasions workers approached individuals associated with the study and stated that the law enforcement presence made them much more comfortable doing their job.

It is also important to note that even though speeds did not decrease greatly with the presence of enforcement, speeds did decrease. It is our opinion that any decrease in vehicle speed has a positive impact on the work zone environment. Chapter IV. (Conclusions and Recommendations) gives a detailed listing of the average speed at each location and the average speeds during enforcement periods.

CHAPTER IV.

CONCLUSIONS AND RECOMMENDATIONS

IV.1 U.S. 67 BETTENDORF

The study within the City of Bettendorf took place on U.S. 67, a 4-lane undivided highway with a 45 mph speed limit that receives a variety of vehicle trips. This particular location which parallels the Mississippi River is a main thoroughfare between downtown Davenport and Bettendorf and also serves as a main access point to Interstate 74. According to the latest Daily Traffic Counts in May of 1992 this location has 23,900 vehicles. As was stated earlier in this document, this location saw very few accidents over the past three years. During the time period of January 1, 1990 to December 31, 1992 there were only eleven (11) accidents reported with zero (0) fatalities and five (5) injuries.

This work zone study location was a patching job set up that had a very limited window in which to compile the data and enforce the work zone during the construction. The project involved a one lane closure in each direction that allowed vehicle flow in one lane in each direction. In this location the speed limit was not reduced for the construction. Enforcement was concentrated during daylight hours while crews were present. The bulk of the enforcement efforts occurred during the morning and evening peak travel hours (see pages V-13 through V-15 for exact times of enforcement at this location).

At this location speeds varied significantly when the work zone was present compared with the site being clear of any barricades or limited lane use. The average speed was the most significant information that we were able to obtain during this study. Prior to construction, the average speed was 48 mph, with nearly fifty percent (50%) of vehicles exceeding the posted speed. However, during construction, we were pleased to be informed that the vehicle speed had decreased nearly 8 mph to 40.16 mph. We believe that this data reflects the motorists awareness of work zones, and the perceived perception of risk to themselves and the workers within a construction area. It is also important to note that during enforcement periods the speeds decreased to 47.4 MPH. This is not a great decrease in speed but does create an improved environment within the work zone.

Enforcement within the work zone was done at times when the vehicle counts were at or near the peak, and the results from the data were not far from the average speed during the entire study. Therefore, at this location we will conclude that enforcement did not have a great impact on the vehicles speed due to the fact that the speeds were not that high in the first place (see pages V-13 through V-15 for a detailed summary of speeds during the time the study). We would like to note, however, that the excessive speeds were lower when enforcement was present.

For the most part, enforcement was done in this location with one marked enforcement vehicle located within view of the oncoming motorist near the beginning of the work zone. There was no mass enforcement done at this location due to the size of the construction project. For further information regarding this study location, please contact Sgt. Jim Gibney at the Bettendorf Police Department (319) 344-4015.

For additional information and data regarding this project location please see pages V-11 through V-27 located in Chapter V.

IV.2 U.S. 61 DAVENPORT

The study within the City of Davenport took place on U.S. 61, a 4-lane divided highway with a 55 mph speed limit that receives a large number of truck and commuter trips. This particular location is a highly traveled section of highway for connections to Interstate 280 and Interstate 80. U.S. 61 acts as a main arterial for the business and industry of downtown Davenport. According to the latest Daily Traffic Counts in May of 1992

this location averages 6,700 vehicles. As was stated earlier in this document, this location saw very few accidents over the past three years. During the time period of January 1, 1990 to December 31, 1992 there were only nine (9) reported accidents with zero (0) fatalities and six (6) injuries.

This work zone study location was a resurfacing job set up that had approximately a six week working schedule that allowed us considerable time to compile data and enforce the work zone during construction periods. This project involved two lane closures causing head to head traffic during the duration of the construction phase. During the entire time of construction traffic was managed very well with no significant delays to the motorist.

The flow of traffic seemed to be steady and speeds were extremely low. In this location the speeds were not reduced for construction. Enforcement was concentrated during daylight hours while crews were present. The bulk of the enforcement efforts occurred during the morning and evening peak hours with some enforcement scattered throughout the day (see pages V-30 through V-32 for exact times of enforcement at this location).

Again, the average speed was the most significant information that we were able to obtain during this study. Prior to construction, the average speed was 51.8 mph, with only 20.95% of the vehicles exceeding the posted speed. However, during construction, we were pleased to be informed that the speeds had decreased by nearly 26 mph to 25.94 mph. Again we believe that this data reflects the motorists awareness of work zones and the perceived perception of risk to themselves and the workers within a construction area.

Enforcement within this location was done during daylight hours and during or near peak time periods of traffic volume (see pages V-30 through V-32 for a detailed listing of speeds and period of enforcement). The results demonstrated that the vehicles speeds did not vary greatly when enforcement was present, but did decrease slightly. On one occasion prior to construction, the speed decreased nearly 20 mph from one hour to the next when enforcement was present. We believe that this vast decrease in speeds was attributed to the presence of more than one enforcement vehicle. However, it is important to note that during enforcement periods the speeds decreased from 51.80 to 49.17 MPH. This is not a great decrease in speed, but does create an improved environment within the work zone.

Enforcement was done in this location with one marked enforcement vehicle located within view of the oncoming motorist near the beginning of the work zone. There were a few efforts of enforcement that had at least two enforcement vehicles present, but did not have that great of an impact, with the exception of the time period mentioned previously. For further information regarding this study location, please contact Sgt. Jerry Behning at the Davenport Police Department (319) 326-6112.

For additional information and data regarding this project location please see pages V-28 through V-44 located in Chapter V.

IV.3 INTERSTATE 80 SCOTT COUNTY

The study within Scott County jurisdiction took place on Interstate 80, a 4-lane divided interstate highway with a 65 mph speed limit that receives a majority of non-local multi-purpose trips. This particular location receives an Average Daily Traffic County of 22,800 vehicles of which a large percentage are semi-trailers and large trucks. As was stated earlier in this document, this location saw a fairly high number of accidents over the past few years with very limited severity. During the time period of January 1, 1990 to December 31, 1992 there were forty-three (43) accidents reported with zero (0) fatalities and fifteen (15) injuries.

This work zone study location was a PCC inlay project that extended approximately two miles and involved six weeks of construction. The project involved one lane closure in each direction with no head to head traffic. This was the only location in our study in which speeds were reduced during the time of construction. The speed limit was changed from 65 mph to 55 mph during construction. Enforcement was concentrated during daylight hours while crews were present. The bulk of the enforcement efforts occurred during peak travel times (see pages V-47 through V-52 for exact times of enforcement at this location).

As was the case at the previous two locations, the average speed was the most significant information that we were able to obtain during this study. Prior to construction, the average speed was 67.8 mph, with nearly sixty percent (60%) of the vehicles exceeding the posted speed limit. However, during construction we found that the vehicle speed had decreased by over 5 mph to 62.49 mph. We believe once again, that this data reflects the motorists' awareness of work zones, and the perceived perception of risk to themselves and the work crews within a construction area. However, it is important to note that during enforcement periods, the speeds decreased from 62.49 to 61.00 MPH. This is not a great decrease in speed, but does create an improved environment within the work zone.

Enforcement within the work zone was done at times when the vehicle counts were at or near peak volume and the results from the data were not far from the average speed during the entire study. Therefore, at this location we will conclude that enforcement did not have a great impact on the vehicles speed due to the fact that the speeds were not that high in the first place. However, once again we would like to note that the excessive speeds were lower when enforcement was present (see pages V-47 through V-52 for a detailed listing of speed during enforcement).

Much like the previous location, this location was enforced for the most part with one marked enforcement vehicle. On a few occasions, more than one enforcement vehicle was present. Never was there any more than two enforcement vehicles at this location. For further information regarding this study location, please contact Sgt. Carl Simms or Deputy Mark Benson of the Scott County Sheriffs Department at (319) 326-8611.

For additional information and data regarding this study location please see pages V-45 through V-64 located in Chapter V.

IV.4 LAW ENFORCEMENT COMMENTS

For simplicity reasons we developed a set of four questions regarding the work zone enforcement study as it pertains to law enforcement in order to receive comments from the various law enforcement agencies. Copies of the completed surveys are located on pages V-2 through V-4 in Chapter V. Section 4.4.1 summarizes the survey.

IV.4.1. LAW ENFORCEMENT SURVEY RESULTS

Sgt. Jim Gibney of the Bettendorf Police Department, Sgt. Jerry Behning of the Davenport Police Department and Lt. Carl Simms of the Scott County Sheriff's Department answered the survey with the following responses:

1. Does the presence of law enforcement make the work zone a safer environment for the crews and the motorist traveling through the site?

YES X NO ___

2. Do you believe that speeds are reduced by your presence within the work zone?

YES X NO ___

3. At what location within the work zone do you believe law enforcement is most effective?

Near the beginning X

In the middle X (Bettendorf response)

Near the end X (Bettendorf response)

4. What type of enforcement methods did you utilize, and which was the most effective?

Bettendorf Police Department

Sgt. Gibney stated that the speed display board was not effective. He further commented that the use of a stationary vehicle prior to the work zone was most effective.

Davenport Police Department

Sgt. Behning stated that team enforcement using a marked enforcement vehicle prior to the work zone receiving speeds and having another enforcement vehicle after the work zone pulling violators over was most effective in Davenport.

Scott County Sheriff's Department

Lt. Simms stated that they used a radar speed detector set up in marked patrol unit at the beginning of the work zone.

5. Additional comments regarding the work zone enforcement program.

Bettendorf Police Department

Mr. Gibney stated on the U.S. 67 project patching zones are hard to work. Scheduling of officers on short notice because of varied work schedules causes too much flex in work dates

Davenport Police Department

Mr. Behning stated that using the above enforcement method was effective in calling out speed along with any equipment violations to law enforcement officers ahead.

Scott County Sheriff's Department

Mr. Simms would like to see continued working relationship between law enforcement officers and the contractors.

IV.5 CONTRACTOR COMMENTS

For simplicity reasons we developed a set of three questions regarding the work zone enforcement study as it pertains to the contractors in order to receive comments from the three contractors involved in this study. Copies of the completed surveys are located on pages V-5 through V-6 in Chapter V. Section 4.5.2 gives a summary of the survey.

IV.5.1 CONTRACTOR SURVEY RESULTS

Two of the three contractors returned the survey. They were McCarthy Improvement Company out of Davenport, Iowa and Valley Construction out of Rock Island Illinois. The third company, Iowa Erosion out of Victor, Iowa did not respond. The following is a summary of the survey.

1. Does the presence of law enforcement make the work zone a safer environment for your crews and the motorist traveling through the site?

YES X NO

2. Would you support legislation to provide funding for continued enforcement activities within work zones?

YES X NO ___

3. Will the presence of law enforcement within the work zone lower you insurance premiums?

YES X NO ___

4. Additional comments regarding the work zone enforcement program.

Valley Construction

The answer to Question #3 is difficult. But we do believe that this kind of enforcement would lower our risk of injury which will affect our insurance rates. No matter how many signs go up or special traffic control, a police officer making a few arrests does more good than anything.

McCarthy Improvement Company

Stated the following benefits:

- helps with speed control
- alertness of traffic
- accident response
- towing vehicles.

IV.6 FINAL STATEMENT

Overall, we were pleased with the results of this study. We were a bit disappointed that the presence of enforcement did not have the impact that was thought prior to this study. It is important and significant that the speeds decreased with the presence of the law enforcement, and we believe that warrants continued work zone enforcement efforts in our regions. The statements made by the contractors in this study also lead us to the conclusion that these types of efforts are beneficial and should continue. Looking back at the data and the efforts that went into this study, we are encouraged that this type of study could prove to be beneficial to the residents of our region, as well as other interested parties throughout the nation.

In Scott County, we see our efforts as just beginning. Over the next two to three years, our task force is going to continue to enforce work zones and monitor the results. We believe that this study was beneficial, but we need to get more information in order to make this a complete analysis of work zone enforcement.

Once again, we would like to thank the National Highway Traffic Safety Administration, Federal Highway Administration, Iowa Department of Transportation, Governor's Traffic Safety Bureau and all the local law enforcement agencies for their assistance in making this study a success.

NATIONWIDE LITERATURE SEARCH

In conjunction with a nationwide literature search being done with Internet and Quadline computerized library systems, we contacted a random grouping of individuals involved in transportation throughout the nation. The following is a listing of individuals contacted and their reaction to efforts done in work zone enforcement and monitoring.

<u>REGION</u>	<u>LOCATION</u>	<u>CONTACT</u>	<u>RESPONSE</u>	<u>COMMENTS</u>
1	Augusta, ME	Paul Minor	No	
1	Boston, MA	Charles Sterling	No	
1	Montpelier, VA	Gordon MacArthur	No	
3	Baltimore, MD	Ronn Lipps	No	Referred to Dr. Nicholas Garber, University of Virginia
4	Tallahassee, FL	Ed Rice	No	
4	Frankfort, KY	Boyd Sigler	No	
5	Springfield, IL	Robert Jones	No	Referred to Professor Ray Benocal, University of Illinois
5	Indianapolis, IN	Ann Reiter	No	
5	Lansing, MI	Bob Maki	No	
5	St. Paul, MN	Gordon Boldt	No	
5	Columbus, OH	Bob Yankovich	No	
5	Madison, WI	David Manning	No	
6	Baton Rouge, LA	Alvin Richardson	No	
6	Little Rock, AR	Mike Selig	No	
7	Topeka, KS	Rosalie Thornburgh	No	
7	Lincoln, NE	Ken Ketulla	No	
7	Jefferson City, MO	Wayne Muri	No	Referred to Graham and Miglets Consulting of Independence, Missouri
8	Denver, CO	John Conger	No	
8	Pierre, SD	Larry Weiss	No	
9	Phoenix, AZ	Charles Eaton	No	
10	Boise, ID	Max Jensen	No	
10	Olympia, WA	Dave Peach	No	

At least one response from each region was attained. Sites within each region were picked at random and the surveys conducted by telephone.

Survey participants were asked if any work zone enforcement studies in their region had been done using traffic monitoring devices.

Responses and comments were noted.

Positive response was received from two of the three construction companies who experienced law enforcement within their work zone. It was noted that the mere presence of law enforcement reduced vehicle speed.

Companies contacted were Valley Construction and McCarthy's. Attempts to reach Iowa Erosion, subcontractor for Illowa, but no contacts were made.

WORK ZONE ENFORCEMENT STUDY 1994

ENFORCEMENT SURVEY

NAME: Carl Simms, Scott County Sheriff's Department

This survey is being taken to receive the law officers' input on the effectiveness of law enforcement within the work zone. Please take a few minutes and briefly answer the following questions.

1. Does the presence of law enforcement make the work zone a safer environment for the crews and the motorist traveling through the site?

YES X

NO

2. Do you believe that speeds are reduced by your presence within the work zone?

YES X

NO

3. At what location within the work zone do you believe law enforcement is most effective?

Near the beginning X

In the middle

Near the end

Other (please describe)

4. What type of enforcement methods did you utilize, and which was the most effective?

Radar set up in marked patrol unit at the beginning of work zone.

5. Additional comments regarding the work zone enforcement program.

Continue to work relationship with contractors.

WORK ZONE ENFORCEMENT STUDY 1994

ENFORCEMENT SURVEY

NAME: Sgt. Jerry Behning, Davenport Police Department

This survey is being taken to receive the law officers' input on the effectiveness of law enforcement within the work zone. Please take a few minutes and briefly answer the following questions.

1. Does the presence of law enforcement make the work zone a safer environment for the crews and the motorist traveling through the site?

YES X

NO

2. Do you believe that speeds are reduced by your presence within the work zone?

YES X

NO

3. At what location within the work zone do you believe law enforcement is most effective?

Near the beginning X

In the middle

Near the end

Other (please describe)

4. What type of enforcement methods did you utilize, and which was the most effective?

Team enforcement, with unmarked squad using laser speed detector.

5. Additional comments regarding the work zone enforcement program.

Using above method to call out speed along with any equipment violations and seat belt violations.

WORK ZONE ENFORCEMENT STUDY 1994

ENFORCEMENT SURVEY

NAME: Sgt. Jim Gibney, Bettendorf Police Department

This survey is being taken to receive the law officers' input on the effectiveness of law enforcement within the work zone. Please take a few minutes and briefly answer the following questions.

1. Does the presence of law enforcement make the work zone a safer environment for the crews and the motorist traveling through the site?

YES X

NO

2. Do you believe that speeds are reduced by your presence within the work zone?

YES X Created a more steady flow.

NO Speed display board caused unsafe conditions.

3. At what location within the work zone do you believe law enforcement is most effective?

Near the beginning X

In the middle X

Near the end X

Other (please describe)

4. What type of enforcement methods did you utilize, and which was the most effective?

Speed display board on I-80 not effective almost dangerous. Utilized radar stationary only. Moving road block caused congestion in both I-80 and I-74 projects.

5. Additional comments regarding the work zone enforcement program.

In Bettendorf the work zones consisted of "patching work" on 67 and I-80 and extended lane closures on I-74 during resurfacing. "Patching zones" are hard to work, scheduling of officers on short notice because of varying work schedules, too much flex in work dates. I-74 was easy to work and schedule.

WORK ZONE ENFORCEMENT STUDY 1994

ENFORCEMENT SURVEY

NAME: McCarthy Improvement Company

This survey is being taken to receive the law officers' input on the effectiveness of law enforcement within the work zone. Please take a few minutes and briefly answer the following questions.

1. Does the presence of law enforcement make the work zone a safer environment for the crews and the motorist traveling through the site?

YES X

NO

2. Do you believe that speeds are reduced by your presence within the work zone?

YES X

NO

3. Will the presence of law enforcement within the work zone lower your insurance premiums?

YES X In the long term this will lower our insurance premiums by reducing the number of accidents.

NO

4. Additional comments regarding the work zone enforcement program.

Benefits:

- Helps with Speed Control
- Alertness of Traffic
- Accident Response
- Towing Vehicles

WORK ZONE ENFORCEMENT STUDY 1994

ENFORCEMENT SURVEY

NAME: Valley Construction

This survey is being taken to receive the law officers' input on the effectiveness of law enforcement within the work zone. Please take a few minutes and briefly answer the following questions.

1. Does the presence of law enforcement make the work zone a safer environment for the crews and the motorist traveling through the site?

YES X

NO

2. Do you believe that speeds are reduced by your presence within the work zone?

YES X

NO

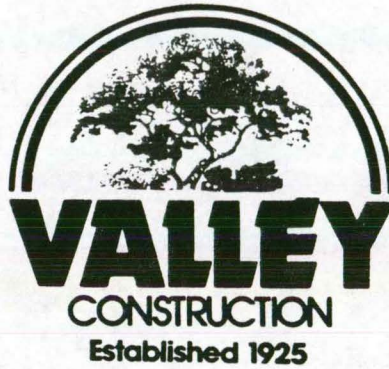
3. Will the presence of law enforcement within the work zone lower your insurance premiums?

YES X

NO

4. Additional comments regarding the work zone enforcement program.

The answer to number 3 is difficult, but we do believe that this kind of enforcement would lower our risk of injury which will affect our rates. No matter how many signs go up or special traffic control, a police officer making a few arrests does more good than anything.



January 13, 1994

Mr. Matt Fick
Bi-State Regional Planning Commission
1504 Third Avenue
Rock Island, Illinois 61201

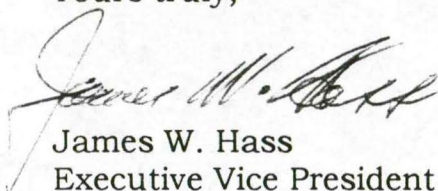
RE: Construction Area Police Speeding Surveillance

Dear Matt:

Valley Construction Company wants to go on record as a strong supporter of the police monitoring programs in construction work zones. We have been fortunate to have had experience with both the Iowa Highway Patrol and the Illinois State Police, as well as various municipal assistance on several occasions.

There is no doubt in our minds that these programs are well worth the time and money spent. Simply put, they save lives and serious injury to our workers in these work zones. No matter what we do with traffic control and reduced speed limits, it is the enforcement by the officers that finally gets the driver's attention. We hope that these efforts will continue in the future.

Yours truly,



James W. Hass
Executive Vice President

mka

JAN 14 1994

Accident History For The String In Scott County
 Starting Node 130101 : US 61 DAVENPORT @ INTERSTATE 280
 Ending Node 139215 : US 61 DAVENPORT @ ROCKINGHAM ROAD
 Time Period: 1/90 - 12/92

===== NUMBER OF ACCIDENTS =====

0 Fatal Accidents	0	Fatalities	0	Injuries
4 Personal Injury Accidents			6	Injuries
5 Property Damage Only Accidents				
9 Total Accidents	0	Fatalities	6	Injuries

===== Accidents by Time of Day and Day of Week =====

	0000	0200	0400	0600	0800	1000	1200	1400	1600	1800	2000	2200	All
	0159	0359	0559	0759	0959	1159	1359	1559	1759	1959	2159	2400	Times
Sunday	0	0	0	0	0	0	0	0	0	0	0	0	0
Monday	0	0	0	0	0	0	0	0	0	0	0	0	0
Tuesday	0	0	0	0	0	0	0	0	0	0	0	0	0
Wednesday	0	0	0	0	0	0	0	0	2	0	0	0	2
Thursday	1	0	0	0	0	0	0	0	0	0	1	0	2
Friday	0	0	0	0	0	0	0	0	0	0	0	1	1
Saturday	1	0	0	0	0	2	0	0	0	1	0	0	4
All Days	2	0	0	0	0	2	0	0	2	1	1	1	9

=== Drinking Drivers ===

0 Not Impaired	0 Impaired
0 Sobriety Tests Given	
=== Blood Alcohol Ranges ===	
0 BAC = 000	0 001 - 049
0 050 - 099	0 100 - 149
0 150 - 199	0 BAC > 199

=== Injury Summary ===

0 Fatal Injuries	
3 Major Injuries	
1 Minor Injuries	
2 Possible Injuries	
Property Damage = \$	28735

===== Driver / Vehicle Related Contributing Circumstances =====

3 Animal in Roadway Ran Traffic Signal Ran Stop Sign Passed Stopped School Bus Passing where Prohibited Passing Interfered w/ Oth Veh Left of Center - Not Passing FTYROW - Uncontrolled Intersection FTYROW - From Stop Sign FTYROW - From Yield Sign 1 FTYROW- Making Left Turn FTYROW- From Driveway FTYROW- From Parked Position FTYROW- To Pedestrian 1 FTYROW- Other Wrong Way on One-Way Speed Too Fast for Conditions Exceeding Speed Limit Drag Racing Improper Turn	Improper Lane Change 1 Following too Close No Signal or Improper Signal Disregarded Rail Road Signal Disregarded Warning Signal 1 Reckless Driving Improper Backing Illegal or Improper Backing Not Under Control Head Lights Not On Inattentive or Distracted Driver Confused Vision Obscured Oversized Vehicle Overloaded 1 Inexperienced Driver Other 1 Unknown None Apparent
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Accident History For The String In Scott County
 Starting Node 141920 : US 67 BETTENDORF @ 4TH STREET
 Ending Node 141923 : US 67 BETTENDORF @ 8TH STREET
 Time Period: 1/90 - 12/92

===== NUMBER OF ACCIDENTS =====

0	Fatal Accidents	0	Fatalities	0	Injuries
5	Personal Injury Accidents			5	Injuries
6	Property Damage Only Accidents				
11	Total Accidents	0	Fatalities	5	Injuries

===== Accidents by Time of Day and Day of Week =====

	0000	0200	0400	0600	0800	1000	1200	1400	1600	1800	2000	2200	All
	0159	0359	0559	0759	0959	1159	1359	1559	1759	1959	2159	2400	Times
Sunday	0	0	0	0	0	0	1	0	0	0	0	0	1
Monday	0	0	0	0	0	0	0	0	0	1	0	0	1
Tuesday	0	0	0	0	1	0	0	0	0	0	0	0	1
Wednesday	0	0	0	0	0	0	2	1	0	0	0	0	3
Thursday	0	0	0	0	1	0	0	0	0	1	0	0	2
Friday	0	0	0	0	1	0	0	1	0	0	0	0	2
Saturday	0	0	0	0	0	0	0	1	0	0	0	0	1
All Days	0	0	0	0	3	0	3	3	0	2	0	0	11

=== Drinking Drivers ===

0 Not Impaired	0 Impaired
0 Sobriety Tests Given	
=== Blood Alcohol Ranges ===	
0 BAC = 000	0 001 - 049
0 050 - 099	0 100 - 149
0 150 - 199	0 BAC > 199

=== Injury Summary ===

0 Fatal Injuries	
1 Major Injuries	
3 Minor Injuries	
1 Possible Injuries	
Property Damage = \$	45700

===== Driver / Vehicle Related Contributing Circumstances =====

<ul style="list-style-type: none"> Animal in Roadway 1 Ran Traffic Signal Ran Stop Sign Passed Stopped School Bus Passing where Prohibited 1 Passing Interfered W/ Oth Veh Left of Center - Not Passing FTYROW - Uncontrolled Intersection 1 FTYROW- From Stop Sign FTYROW - From Yield Sign 2 FTYROW- Making Left Turn FTYROW- From Driveway FTYROW- From Parked Position FTYROW- To Pedestrian FTYROW- Other Wrong Way on One-Way 1 Speed too Fast for Condition Exceeding Speed Limit Drag Racing Improper Turn 	<ul style="list-style-type: none"> Improper Lane Change 1 Following too Close No Signal or Improper Signal Disregarded Rail Road Signal Disregarded Warning Signal Reckless Driving Improper Backing Illegal or Improper Backing 2 Not Under Control Head Lights Not On Inattentive or Distracted Driver Confused Vision Obscured Oversized Vehicle Overloaded Inexperienced Driver Other Unknown 2 None Apparent
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Accident History For The String In Scott County
 Starting Node 214133 : INTERSTATE 80 CEDAR COUNTY LINE
 Ending Node 222301 : INTERSTATE 80 WALCOT INTERCHANGE
 Time Period: 1/90 - 12/92

===== NUMBER OF ACCIDENTS =====

0	Fatal Accidents	0	Fatalities	0	Injuries
9	Personal Injury Accidents			15	Injuries
34	Property Damage Only Accidents				
43	Total Accidents	0	Fatalities	15	Injuries

===== Accidents by Time of Day and Day of Week =====

	0000	0200	0400	0600	0800	1000	1200	1400	1600	1800	2000	2200	All Times
	0159	0359	0559	0759	0959	1159	1359	1559	1759	1959	2159	2400	
Sunday	0	0	1	0	0	0	0	1	0	0	0	0	2
Monday	1	0	0	0	0	0	2	1	0	0	0	0	4
Tuesday	2	1	0	0	0	1	1	1	0	0	1	3	10
Wednesday	0	0	1	0	2	1	1	0	2	0	0	0	7
Thursday	2	0	0	0	0	3	0	0	2	0	0	1	8
Friday	2	0	1	0	0	0	1	0	0	0	1	1	6
Saturday	0	0	0	1	0	1	0	1	1	1	0	1	6
All Days	7	1	3	1	2	6	5	4	5	1	2	6	43

=== Drinking Drivers ===

1 Not Impaired	3 Impaired
2 Sobriety Tests Given	
=== Blood Alcohol Ranges ===	
0 BAC = 000	0 001 - 049
0 050 - 099	0 100 - 149
1 150 - 199	1 BAC > 199

=== Injury Summary ===

0 Fatal Injuries	
1 Major Injuries	
8 Minor Injuries	
6 Possible Injuries	
Property Damage = \$	191445

===== Driver / Vehicle Related Contributing Circumstances =====

1 Animal in Roadway	1 Improper Lane Change
Ran Traffic Signal	1 Following too Close
Ran Stop Sign	No Signal or Improper Signal
Passed Stopped School Bus	Disregarded Rail Road Signal
1 Passing Where Prohibited	Disregarded Warning Signal
1 Passing Interfered W/ Oth Veh	Reckless Driving
Left of Center - Not Passing	Improper Backing
FTYROW - Uncontrolled Intersection	Illegal or Improper Backing
2 FTYROW- From Stop Sign	4 Not Under Control
1 FTYROW- From Yield Sign	Head Lights Not On
1 FTYROW- Making Left Turn	2 Inattentive or Distracted
FTYROW- From Driveway	Driver Confused
FTYROW- From Parked Position	1 Vision Obscured
FTYROW- To Pedestrian	Oversized Vehicle
FTYROW- Other	Overloaded
Wrong Way on One-Way	Inexperienced Driver
2 Speed too Fast for Condition	Other
Exceeding Speed Limit	2 Unknown
Drag Racing	22 None Apparent
1 Improper Turn	

COMPUTER GENERATED SUMMARY REPORT

ROUTE: U.S. 67 BETTENDORF

DURING CONSTRUCTION

A survey of vehicle traffic was conducted with HISTAR unit number 1536. The survey was done in the westbound lane on River Drive in Bettendorf. The survey lasted for forty-eight (48) hours and began on Tuesday, August 10, 1993 at 4:00 p.m. and ended on Thursday, August 12, 1993 at 4:00 p.m. Data was recorded in thirty (30) minute time periods. The total recorded volume of traffic showed 12,889 vehicles passed through the location with a peak volume of 351 on Wednesday, August 11, 1993 at 7:30 a.m. and a minimum volume of nine (9) on Wednesday, August 11, 1993 at 2:00 a.m.

SPEED

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

CHART 1

Speed Bins (mph)

5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
0	14	106	2679	2538	195	17	13							
15	16	348	6409	457	22	6								

Half of the vehicles were traveling at 38.0 mph or lower speed. The average speed for all classified vehicles was 40.16 mph with 75.24 percent exceeding the posted speed of 45 mph. The HI-STAR found 0.45 percent of the vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 40 mph and the ad percentile was 43.1 mph.

CLASS

Chart 2 lists the values of the eight class bins and the total volume for each bin:

CHART 2

Class Bins (feet)

<19	30	40	50	60	70	0	0>
12023	510	114	80	69	39	0	0

Most of the vehicles were passenger cars with a total count of 12,023. This represents 93.67 percent of the classified vehicles.

HEADWAY

During the peak time period, on Wednesday, August 11, 1993 at 7:30 a.m. the average headway between the vehicles was 5.13 seconds. The slow period occurred on Wednesday, August 11, 1993 at 2:00 a.m. and the headway between the vehicles averaged 200.00 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 74 degrees Fahrenheit and 119 degrees Fahrenheit. The HI-STAR analyzer determined that the roadway surface was dry 81.25 percent of the time.

U.S. 67 BETTENDORF (DURING CONSTRUCTION)

DATE	TIME	COUNT	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
08/10/93	16:00	213	0	0	0	0	1	3	28	127	36	11	3	1	2	0	1	41
08/10/93	16:30	231	0	0	0	0	0	8	42	130	40	5	2	1	2	1	0	40
08/10/93	17:00	221	0	1	1	0	0	3	20	111	67	15	3	0	0	0	0	42
08/10/93	17:30	181	0	0	0	0	0	5	44	88	34	7	1	0	1	0	0	40
08/10/93	18:00	133	0	0	1	0	2	7	24	65	26	5	1	0	0	0	0	39
08/10/93	18:30	98	0	0	0	0	0	0	14	46	28	6	3	0	1	0	0	42
08/10/93	19:00	103	0	0	0	0	0	4	23	48	20	2	1	0	0	0	0	38
08/10/93	19:30	92	0	0	0	0	0	5	21	42	20	2	0	1	0	0	0	39
08/10/93	20:00	105	0	1	0	1	0	5	30	47	16	1	4	0	0	0	0	39
08/10/93	20:30	95	0	0	0	0	0	3	26	46	16	3	1	0	0	0	0	40
08/10/93	21:00	78	0	0	0	0	1	4	25	34	14	0	0	0	0	0	0	39
08/10/93	21:30	98	0	0	0	0	0	6	39	44	6	2	0	0	0	0	0	38
08/10/93	22:00	67	0	0	0	0	0	5	23	33	5	0	1	0	0	0	0	38
08/10/93	22:30	48	0	1	0	0	1	3	4	27	10	2	0	0	0	0	0	39
08/10/93	23:00	73	0	0	0	0	0	2	23	37	10	1	0	0	0	0	0	39
08/10/93	23:30	39	0	0	0	1	0	2	13	14	6	0	2	0	0	0	0	38
08/11/93	00:00	38	0	0	0	0	1	3	16	12	6	0	0	0	0	0	0	38
08/11/93	00:30	28	0	0	0	0	1	1	8	12	5	0	1	0	0	0	0	39
08/11/93	01:00	18	0	0	0	0	0	3	1	6	7	0	0	0	0	0	0	38
08/11/93	01:30	11	0	0	0	0	0	1	4	5	0	0	1	0	0	0	0	39
08/11/93	02:00	9	0	0	0	0	1	1	5	2	0	0	0	0	0	0	0	34
08/11/93	02:30	16	0	0	0	0	0	1	3	10	1	1	0	0	0	0	0	39
08/11/93	03:00	13	0	0	0	0	0	2	5	2	1	2	0	1	0	0	0	40
08/11/93	03:30	10	0	0	0	0	0	1	3	4	2	0	0	0	0	0	0	39
08/11/93	04:00	17	0	0	0	0	0	1	6	7	2	0	1	0	0	0	0	39
08/11/93	04:30	35	0	0	0	0	0	0	11	13	11	0	0	0	0	0	0	40
08/11/93	05:00	52	0	0	0	0	0	3	15	26	6	2	0	0	0	0	0	39
08/11/93	05:30	81	0	0	0	0	0	2	19	32	19	4	1	0	0	0	0	38
08/11/93	06:00	122	0	1	0	0	1	2	21	72	25	0	0	0	0	0	0	40
08/11/93	06:30	227	0	0	0	0	1	3	32	110	55	13	10	0	0	0	1	41
08/11/93	07:00	268	0	1	0	0	1	2	27	146	68	10	9	0	2	0	1	42
08/11/93	07:30	351	0	2	0	1	0	3	49	192	79	20	4	0	0	1	0	41

Σ I-V

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

U.S. 67 BETTENDORF (DURING CONSTRUCTION)

DATE	TIME	COUNT	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
08/11/93	08:00	243	0	0	0	0	1	6	30	137	50	10	6	0	1	0	0	41
08/11/93	08:30	193	0	0	0	0	0	5	31	105	35	13	2	0	0	1	0	41
08/11/93	09:00	167	0	0	0	0	0	2	39	89	22	4	8	0	0	0	1	40
08/11/93	09:30	185	0	0	0	0	0	7	39	98	30	6	4	0	1	0	0	40
08/11/93	10:00	167	0	0	0	0	0	13	40	82	26	5	1	0	0	0	0	39
08/11/93	10:30	170	0	0	0	0	1	3	34	89	32	9	2	0	0	0	0	40
08/11/93	11:00	197	0	0	0	1	0	3	39	115	31	3	4	1	0	0	0	40
08/11/93	11:30	199	0	0	1	3	1	6	36	106	36	2	4	1	0	0	2	40
08/11/93	12:00	180	0	0	0	0	1	6	41	81	38	8	4	1	0	0	0	40
08/11/93	12:30	164	0	0	0	0	0	4	42	70	35	6	3	0	0	0	0	39
08/11/93	13:00	191	0	0	0	0	0	7	32	94	41	10	5	0	0	1	0	41
08/11/93	13:30	201	0	0	1	0	2	6	48	95	41	5	3	0	0	0	0	40
08/11/93	14:00	209	0	0	0	0	1	3	43	109	40	5	7	1	0	0	0	41
08/11/93	14:30	218	0	1	0	0	2	3	33	119	49	8	2	0	1	0	0	41
08/11/93	15:00	265	0	0	0	0	1	3	43	139	62	9	6	0	0	0	1	41
08/11/93	15:30	267	0	0	0	1	2	8	23	136	69	19	6	2	0	0	0	41
08/11/93	16:00	216	0	0	0	0	1	5	36	106	53	6	8	0	0	0	0	41
08/11/93	16:30	246	0	0	1	0	0	2	39	110	74	14	4	0	0	0	1	41
08/11/93	17:00	213	0	0	0	1	1	3	34	115	54	3	1	1	0	0	0	40
08/11/93	17:30	181	0	0	0	1	2	2	22	81	54	13	5	0	1	0	0	42
08/11/93	18:00	124	0	0	0	0	0	4	30	51	31	6	2	0	0	0	0	40
08/11/93	18:30	116	0	0	0	0	0	2	25	55	31	1	2	0	0	0	0	40
08/11/93	19:00	113	0	0	0	0	0	5	22	59	22	3	1	0	0	0	0	40
08/11/93	19:30	109	0	0	0	0	0	2	29	48	23	4	1	1	0	0	0	40
08/11/93	20:00	98	0	0	0	0	1	5	36	47	6	3	0	0	0	0	0	38
08/11/93	20:30	103	0	0	0	1	1	2	45	27	19	4	1	1	2	0	0	39
08/11/93	21:00	113	0	1	0	0	1	6	31	56	15	2	1	0	0	0	0	39
08/11/93	21:30	100	0	0	1	1	2	2	25	43	21	3	1	0	1	0	0	40
08/11/93	22:00	85	0	0	0	0	1	2	19	47	12	2	2	0	0	0	0	40
08/11/93	22:30	88	0	0	0	0	0	2	34	40	10	2	0	0	0	0	0	39
08/11/93	23:00	91	0	0	0	0	0	5	24	38	15	7	1	0	0	0	1	40
08/11/93	23:30	58	0	0	0	1	0	4	22	24	6	1	0	0	0	0	0	38

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

47-1-Δ

U.S. 67 BETTENDORF (DURING CONSTRUCTION)

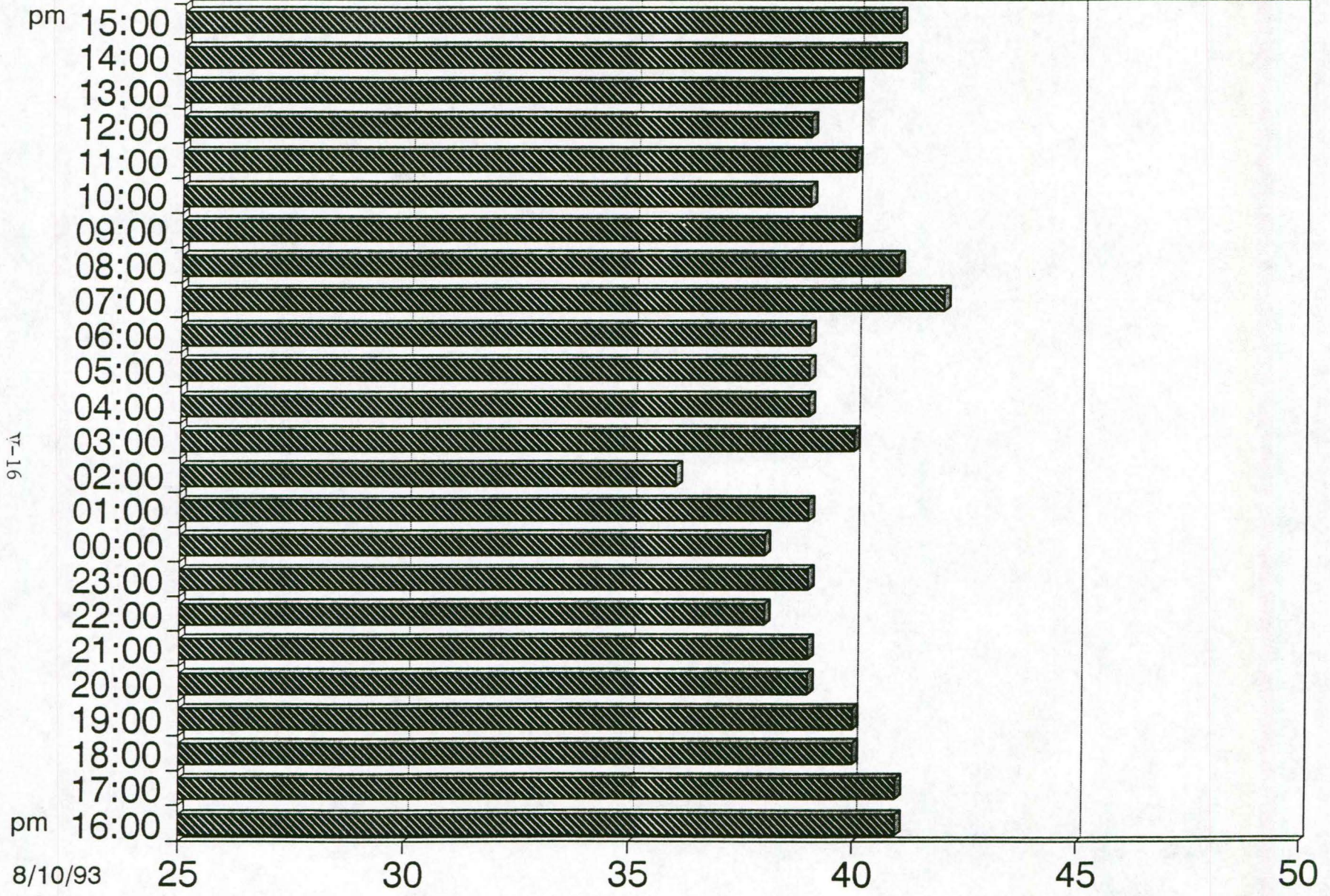
DATE	TIME	COUNT	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
08/12/93	00:00	33	0	0	0	0	0	2	7	17	4	1	0	0	0	0	0	37
08/12/93	00:30	29	0	0	0	0	1	0	9	13	4	2	0	0	0	0	0	39
08/12/93	01:00	21	0	0	0	0	0	1	7	9	3	0	1	0	0	0	0	39
08/12/93	01:30	13	0	0	0	0	0	1	1	8	2	1	0	0	0	0	0	40
08/12/93	02:00	14	0	0	0	0	0	1	8	3	2	0	0	0	0	0	0	37
08/12/93	02:30	9	0	0	0	0	0	0	5	4	0	0	0	0	0	0	0	37
08/12/93	03:00	17	0	0	0	0	0	1	5	9	1	0	1	0	0	0	0	39
08/12/93	03:30	12	0	0	1	0	0	0	4	5	1	0	1	0	0	0	0	38
08/12/93	04:00	22	0	0	1	0	0	1	9	9	2	0	0	0	0	0	0	37
08/12/93	04:30	27	0	0	0	0	0	1	11	11	2	2	0	0	0	0	0	39
08/12/93	05:00	44	0	0	0	0	0	6	19	14	4	1	0	0	0	0	0	37
08/12/93	05:30	86	0	1	0	0	0	1	16	47	17	3	1	0	0	0	0	40
08/12/93	06:00	119	0	0	0	0	0	2	27	65	22	1	2	0	0	0	0	40
08/12/93	06:30	200	0	0	0	1	1	4	41	106	42	5	0	0	0	0	0	40
08/12/93	07:00	269	0	0	0	0	2	6	46	122	80	7	5	0	0	0	0	41
08/12/93	07:30	348	0	0	0	0	0	7	77	191	56	12	4	0	0	0	0	40
08/12/93	08:00	223	0	0	0	0	0	4	43	123	41	7	4	0	0	0	1	41
08/12/93	08:30	193	0	0	1	0	2	6	46	101	28	7	0	1	0	1	0	40
08/12/93	09:00	164	0	1	0	0	0	8	35	86	25	8	1	0	0	0	0	40
08/12/93	09:30	153	0	0	0	0	0	2	52	72	22	4	1	0	0	0	0	39
08/12/93	10:00	188	0	0	0	0	1	7	52	93	28	5	2	0	0	0	0	39
08/12/93	10:30	178	0	0	0	0	0	4	38	92	34	5	2	1	0	0	1	40
08/12/93	11:00	171	0	0	1	0	1	5	37	90	26	8	2	1	0	0	0	40
08/12/93	11:30	202	0	1	2	1	3	8	32	94	48	10	3	0	0	0	0	40
08/12/93	12:00	187	0	0	0	0	1	3	24	94	51	9	1	2	1	0	1	42
08/12/93	12:30	190	0	0	1	0	0	3	46	97	31	6	4	1	0	1	0	40
08/12/93	13:00	206	0	1	0	0	3	5	38	101	46	6	4	1	0	0	0	40
08/12/93	13:30	200	0	0	0	0	0	4	22	119	47	7	1	0	0	0	0	41
08/12/93	14:00	191	0	2	0	0	0	7	63	84	26	5	3	0	1	0	0	39
08/12/93	14:30	233	0	0	0	0	0	1	39	133	49	5	1	1	0	0	0	40
08/12/93	15:00	253	0	0	1	0	2	5	39	139	51	11	4	0	0	0	1	41
08/12/93	15:30	253	0	0	0	1	56	10	91	57	19	9	1	1	0	0	0	34

51-15

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

U.S. 67 - AUGUST 10, 1993 @ 4:00 PM TO AUGUST 11, 1993 @ 3:00 PM

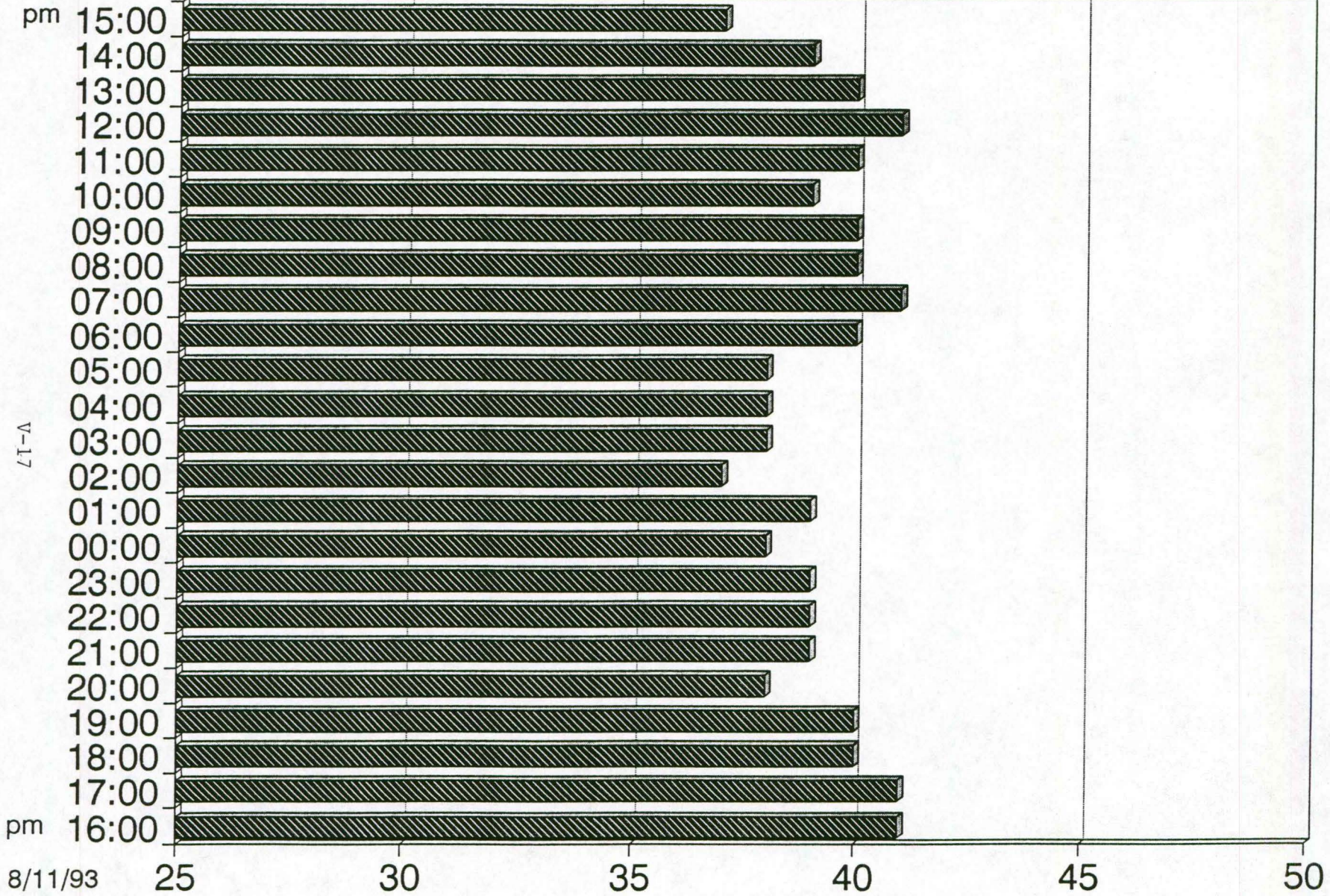
8/11/93



AVERAGE SPEED (MPH)

U.S. 67 - AUGUST 11, 1993 @ 4:00 PM TO AUGUST 12, 1993 @ 3:00 PM

8/12/93



8/11/93

AVERAGE SPEED (MPH)

COMPUTER GENERATED SUMMARY REPORT

ROUTE: U.S. 67 BETTENDORF

PRIOR TO CONSTRUCTION

A survey of vehicle traffic was conducted with HISTAR unit number 1534. The survey was done in the westbound lane on River Drive in Bettendorf, Iowa. The survey lasted for forty-eight (48) hours and began on Monday, May 10, 1993 at 12:00 p.m. and ended on Wednesday, May 12, 1993 at 12:00 p.m. Data was recorded in fifteen (15) minute time periods. The total recorded volume of traffic showed 13,070 vehicles passed through the location with a peak volume of 213 on Wednesday, May 12, 1993 at 7:30 a.m. and a minimum volume of three (3) on Wednesday, May 12, 1993 at 2:45 a.m.

SPEED

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

CHART 1

Speed Bins (mph)

5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
1	11	17	205	4708	2270	162	32							
12	18	44	1566	3545	360	45								

Half of the vehicles were traveling at 45.4 mph or lower speed. The average speed for all classified vehicles was 48.00 mph with 49.35 percent exceeding the posted speed of 45 mph. The HI-STAR found 4.61 percent of the vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 45 mph and the 85th percentile was 52.5 mph.

CLASS

Chart 2 lists the values of the eight class bins and the total volume for each bin:

CHART 2

Class Bins (feet)

<19	30	40	50	60	70	0	0>
11857	694	164	116	111	54	0	0

Most of the vehicles were passenger cars with a total count of 11,857. This represents 91.24 percent of the classified vehicles.

HEADWAY

During the peak time period, on Wednesday, May 12, 1993 at 7:30 a.m., the average headway between the vehicles was 4.23 seconds. The slow period occurred on Wednesday, May 12, 1993 at 2:45 a.m. and the headway between the vehicles averaged 300.00 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 66 degrees Fahrenheit and 115 degrees Fahrenheit. The HI-STAR analyzer determined that the roadway surface was dry 100.00 percent of the time.

U.S. 67 BETTENDORF (PRIOR TO CONSTRUCTION)

DATE	TIME	COUNT	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
05/10/93	12:00	136	0	0	1	0	0	0	2	26	53	30	18	6	0	0	0	47
05/10/93	12:15	120	0	0	0	0	0	0	5	17	52	24	19	2	0	0	0	46
05/10/93	12:30	130	0	0	0	0	0	0	0	15	62	27	24	1	1	0	0	48
05/10/93	12:45	130	0	0	1	0	0	0	4	19	43	29	21	6	3	1	1	47
05/10/93	13:00	141	0	1	1	0	0	1	3	20	57	38	16	1	2	0	0	46
05/10/93	13:15	125	0	1	0	1	0	1	2	26	49	25	17	3	0	0	0	46
05/10/93	13:30	130	0	0	0	0	0	0	1	11	56	37	19	2	3	0	0	48
05/10/93	13:45	126	0	0	0	0	1	0	4	12	53	37	17	2	0	0	0	47
05/10/93	14:00	124	0	0	0	0	0	0	3	16	52	39	12	0	0	0	0	46
05/10/93	14:15	125	0	0	0	0	0	0	4	15	56	29	15	5	0	0	0	47
05/10/93	14:30	137	0	0	0	1	0	0	1	26	48	37	21	0	2	1	0	47
05/10/93	14:45	115	0	0	0	0	0	1	1	14	51	27	17	2	1	0	1	48
05/10/93	15:00	120	0	0	0	0	0	0	2	16	32	37	26	3	2	2	0	49
05/10/93	15:15	127	0	0	0	0	0	0	2	15	40	34	27	5	3	0	0	48
05/10/93	15:30	150	0	1	0	0	0	0	2	12	38	57	34	1	4	1	0	49
05/10/93	15:45	123	0	0	0	0	0	0	2	12	47	38	16	7	1	0	0	48
05/10/93	16:00	129	0	0	0	0	0	1	0	9	55	48	15	1	0	0	0	48
05/10/93	16:15	97	0	0	0	0	2	0	1	3	29	25	26	3	5	1	1	50
05/10/93	16:30	131	0	0	0	0	0	0	1	14	48	38	20	5	3	0	1	48
05/10/93	16:45	126	0	0	0	2	0	0	1	14	47	37	17	3	5	0	0	48
05/10/93	17:00	115	0	0	0	0	0	0	2	23	41	32	13	2	0	1	0	46
05/10/93	17:15	137	0	0	0	1	1	8	21	33	38	20	11	1	0	1	0	42
05/10/93	17:30	93	0	1	0	1	0	0	0	7	40	28	12	3	0	1	0	48
05/10/93	17:45	92	0	0	0	0	0	0	0	8	32	30	18	2	2	0	0	49
05/10/93	18:00	88	0	1	0	0	0	0	3	6	32	28	15	1	1	0	0	47
05/10/93	18:15	72	0	0	0	0	0	0	1	2	25	24	15	2	2	0	0	49
05/10/93	18:30	59	0	0	0	0	0	1	2	2	20	18	11	5	0	0	0	49
05/10/93	18:45	71	0	1	0	1	0	0	0	12	21	15	17	4	0	0	0	48
05/10/93	19:00	56	0	0	0	1	1	0	0	2	20	20	11	1	0	0	0	48
05/10/93	19:15	56	0	0	0	0	0	0	0	10	15	14	14	1	1	1	0	49
05/10/93	19:30	55	0	0	0	0	0	1	1	7	14	22	9	1	0	0	0	48
05/10/93	19:45	46	0	0	0	0	0	0	0	6	21	12	5	0	1	0	0	46

V-20

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

U.S. 67 BETTENDORF (PRIOR TO CONSTRUCTION)

DATE	TIME	COUNT	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
05/10/93	20:00	44	0	0	0	0	0	0	0	8	15	7	10	3	0	1	0	49
05/10/93	20:15	50	0	0	0	0	0	0	1	6	18	15	7	1	1	1	0	48
05/10/93	20:30	46	0	0	0	0	0	0	0	6	13	8	10	4	1	2	2	52
05/10/93	20:45	34	0	0	0	0	0	0	0	12	8	8	6	0	0	0	0	46
05/10/93	21:00	38	0	0	0	0	0	1	0	6	16	10	4	1	0	0	0	47
05/10/93	21:15	31	0	0	0	0	0	1	0	6	6	11	6	1	0	0	0	48
05/10/93	21:30	42	0	0	0	0	0	0	1	6	20	8	3	3	0	0	1	48
05/10/93	21:45	25	0	1	0	0	0	0	0	8	8	3	3	1	1	0	0	45
05/10/93	22:00	42	0	0	0	0	0	1	5	8	15	9	3	0	1	0	0	45
05/10/93	22:15	29	0	0	0	0	0	0	2	2	10	9	6	0	0	0	0	48
05/10/93	22:30	26	0	0	0	0	0	0	1	1	10	10	3	1	0	0	0	48
05/10/93	22:45	17	0	0	0	0	0	0	0	4	8	3	2	0	0	0	0	46
05/10/93	23:00	28	0	0	0	0	0	0	0	2	10	9	6	0	1	0	0	49
05/10/93	23:15	20	0	0	0	0	0	0	0	7	9	2	2	0	0	0	0	45
05/10/93	23:30	13	0	0	0	0	0	0	0	6	5	1	1	0	0	0	0	44
05/10/93	23:45	13	0	0	0	0	0	0	0	3	8	1	1	0	0	0	0	45
05/11/93	00:00	8	0	0	0	0	0	0	0	0	4	3	1	0	0	0	0	48
05/11/93	00:15	7	0	0	0	0	0	0	0	1	2	4	0	0	0	0	0	47
05/11/93	00:30	11	0	0	0	0	0	0	1	1	5	2	2	0	0	0	0	46
05/11/93	00:45	11	0	0	0	0	0	0	0	3	4	2	2	0	0	0	0	46
05/11/93	01:00	10	0	0	0	0	0	0	0	2	1	5	1	0	1	0	0	50
05/11/93	01:15	10	0	0	0	0	0	1	0	1	3	4	1	0	0	0	0	46
05/11/93	01:30	10	0	0	0	0	0	0	1	1	4	2	2	0	0	0	0	47
05/11/93	01:45	9	0	0	0	0	0	0	0	0	1	1	4	2	0	0	0	48
05/11/93	02:00	8	0	0	0	0	0	0	0	0	3	1	4	0	0	0	0	51
05/11/93	02:15	8	0	0	0	0	0	0	0	1	4	3	0	0	0	0	0	46
05/11/93	02:30	5	0	0	1	0	0	0	0	0	1	2	1	0	0	0	0	43
05/11/93	02:45	10	0	0	0	0	0	0	1	2	4	2	0	1	0	0	0	46
05/11/93	03:00	7	0	0	0	0	0	0	0	1	3	2	0	1	0	0	0	48
05/11/93	03:15	6	0	0	0	0	0	0	1	1	1	1	2	0	0	0	0	47
05/11/93	03:30	7	0	0	0	0	0	0	0	1	3	2	1	0	0	0	0	47
05/11/93	03:45	10	0	0	0	0	0	0	0	0	6	3	1	0	0	0	0	48

V-21

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

U.S. 67 BETTENDORF (PRIOR TO CONSTRUCTION)

DATE	TIME	COUNT	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
05/11/93	04:00	8	0	0	0	0	0	0	0	2	1	2	2	1	0	0	0	49
05/11/93	04:15	11	0	0	0	0	0	0	0	0	4	5	2	0	0	0	0	49
05/11/93	04:30	17	0	0	0	0	0	0	0	4	6	3	3	1	0	0	0	47
05/11/93	04:45	16	0	0	0	1	0	0	0	0	9	3	1	0	0	0	1	44
05/11/93	05:00	20	0	0	0	0	0	0	1	3	10	5	1	0	0	0	0	46
05/11/93	05:15	26	0	0	0	0	0	0	1	1	7	8	7	1	0	0	1	50
05/11/93	05:30	45	0	0	0	0	0	0	0	2	11	15	14	3	0	0	0	51
05/11/93	05:45	40	0	0	0	0	0	0	0	0	11	10	15	2	2	0	0	52
05/11/93	06:00	56	0	0	0	0	1	0	0	4	13	22	13	1	2	0	0	50
05/11/93	06:15	76	0	0	0	0	0	1	0	5	28	20	16	3	1	1	1	49
05/11/93	06:30	116	0	0	0	0	0	0	0	10	52	27	23	4	0	0	0	48
05/11/93	06:45	119	0	0	0	0	0	0	0	6	34	33	37	6	2	0	0	50
05/11/93	07:00	145	0	0	0	0	0	1	0	6	32	42	51	8	2	0	0	50
05/11/93	07:15	166	0	0	0	0	1	0	1	11	48	47	47	9	1	1	0	50
05/11/93	07:30	204	0	0	0	1	0	0	0	27	96	49	25	2	2	0	0	47
05/11/93	07:45	192	0	0	0	0	0	1	4	21	80	44	31	2	7	1	0	48
05/11/93	08:00	153	0	1	0	0	0	0	0	25	46	36	38	5	0	0	0	48
05/11/93	08:15	121	0	0	1	0	0	0	2	12	39	40	21	2	3	0	0	48
05/11/93	08:30	92	0	0	0	0	0	2	1	12	30	26	18	3	0	0	0	48
05/11/93	08:45	99	0	0	0	0	0	0	3	11	38	27	12	4	2	0	1	48
05/11/93	09:00	82	0	0	1	1	0	0	4	8	22	26	19	0	0	0	0	47
05/11/93	09:15	77	0	0	0	0	0	0	0	10	36	17	10	2	0	0	1	47
05/11/93	09:30	79	0	0	0	0	0	0	1	16	27	20	10	1	2	1	1	48
05/11/93	09:45	53	0	0	0	0	0	0	3	2	24	10	9	2	1	1	0	47
05/11/93	10:00	62	0	0	0	0	0	0	0	9	28	17	7	1	0	0	0	47
05/11/93	10:15	61	0	0	0	0	0	0	1	7	24	22	5	1	1	0	0	47
05/11/93	10:30	74	0	0	0	0	0	0	3	9	34	17	8	1	0	1	1	47
05/11/93	10:45	72	0	0	0	0	0	0	0	7	29	14	16	3	1	0	1	48
05/11/93	11:00	52	0	0	0	0	0	0	2	4	18	18	8	0	2	0	0	48
05/11/93	11:15	80	0	0	0	0	0	0	0	10	30	27	11	1	1	0	0	48
05/11/93	11:30	72	0	0	0	0	0	1	1	9	27	19	11	2	1	0	0	47
05/11/93	11:45	93	0	0	0	0	0	0	1	16	40	19	14	1	1	1	0	47

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

U.S. 67 BETTENDORF (PRIOR TO CONSTRUCTION)

DATE	TIME	COUNT	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
05/11/93	12:00	78	0	0	0	0	0	0	1	6	31	27	8	3	2	0	0	48
05/11/93	12:15	78	0	0	0	0	0	0	2	11	34	18	11	1	1	0	0	47
05/11/93	12:30	70	0	0	0	0	0	0	1	4	25	24	12	3	0	1	0	49
05/11/93	12:45	102	0	0	0	1	0	0	3	8	37	27	20	1	3	1	0	48
05/11/93	13:00	78	0	0	0	0	0	0	0	10	23	24	15	5	1	0	0	49
05/11/93	13:15	83	1	0	0	0	0	0	0	11	26	22	18	4	1	0	0	48
05/11/93	13:30	88	0	0	0	0	1	0	1	15	37	14	13	2	2	0	0	45
05/11/93	13:45	92	0	1	0	0	0	1	1	10	34	27	13	1	2	1	0	47
05/11/93	14:00	83	0	0	0	0	1	0	0	6	23	30	20	1	1	0	1	49
05/11/93	14:15	92	0	0	0	0	0	0	2	6	21	21	26	11	1	2	1	51
05/11/93	14:30	81	0	0	0	1	0	0	0	5	37	21	9	4	1	0	2	48
05/11/93	14:45	102	0	0	0	0	0	1	2	9	35	35	16	3	1	0	0	48
05/11/93	15:00	117	0	0	0	0	0	1	4	18	23	30	31	7	2	0	1	49
05/11/93	15:15	152	0	1	1	0	0	1	2	19	58	38	27	5	0	0	0	47
05/11/93	15:30	132	0	0	0	0	1	0	0	10	47	39	28	3	1	0	0	48
05/11/93	15:45	130	0	0	0	0	0	0	3	15	43	37	23	6	1	1	0	48
05/11/93	16:00	132	0	0	0	0	0	0	1	15	38	46	25	2	3	2	0	49
05/11/93	16:15	94	0	0	0	0	0	1	1	15	21	30	22	3	1	0	0	49
05/11/93	16:30	142	0	0	0	0	0	0	1	11	53	45	23	6	3	0	0	49
05/11/93	16:45	113	0	0	0	0	0	0	2	15	37	30	24	4	0	1	0	48
05/11/93	17:00	136	0	0	0	0	0	1	2	13	45	44	26	3	1	0	0	48
05/11/93	17:15	100	0	0	0	0	0	1	0	7	38	35	14	1	2	1	0	48
05/11/93	17:30	98	0	0	0	0	0	0	0	11	34	31	17	2	1	1	0	48
05/11/93	17:45	83	0	0	0	0	0	0	0	9	25	27	17	2	3	0	0	49
05/11/93	18:00	86	0	0	0	0	0	0	1	11	43	19	10	1	0	0	1	47
05/11/93	18:15	76	0	0	0	0	0	0	0	7	23	24	17	3	1	0	1	50
05/11/93	18:30	89	0	0	0	0	0	0	0	4	39	32	13	0	0	0	1	48
05/11/93	18:45	79	0	0	0	1	0	0	3	13	31	15	13	2	0	1	0	47
05/11/93	19:00	79	0	0	0	0	0	1	0	14	34	14	12	2	2	0	0	47
05/11/93	19:15	54	0	0	0	0	1	0	0	5	20	10	14	1	1	0	2	49
05/11/93	19:30	47	0	0	1	1	0	0	2	5	12	18	4	3	0	0	0	46
05/11/93	19:45	48	0	0	0	0	0	0	1	6	17	14	7	0	0	0	1	46

V-23

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

U.S. 67 BETTENDORF (PRIOR TO CONSTRUCTION)

DATE	TIME	COUNT	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
05/11/93	20:00	62	0	0	1	0	0	0	4	18	25	10	2	1	1	0	0	44
05/11/93	20:15	38	0	0	0	0	0	0	1	8	15	7	6	1	0	0	0	47
05/11/93	20:30	32	0	0	0	0	1	1	2	7	14	2	3	2	0	0	0	44
05/11/93	20:45	35	0	0	0	0	0	0	1	6	17	8	2	1	0	0	0	46
05/11/93	21:00	46	0	0	0	0	0	0	0	10	22	8	5	1	0	0	0	46
05/11/93	21:15	40	0	0	0	0	0	0	1	14	13	6	4	1	0	0	1	46
05/11/93	21:30	42	0	0	0	0	0	0	2	7	21	3	6	3	0	0	0	47
05/11/93	21:45	30	0	0	0	1	0	1	2	2	17	5	2	0	0	0	0	44
05/11/93	22:00	33	0	0	0	0	0	0	0	5	13	10	4	0	0	0	1	48
05/11/93	22:15	28	0	0	0	0	0	0	2	3	13	6	4	0	0	0	0	46
05/11/93	22:30	31	0	0	0	0	0	0	0	5	13	6	5	2	0	0	0	48
05/11/93	22:45	18	0	0	0	0	0	0	0	3	4	9	1	1	0	0	0	48
05/11/93	23:00	39	0	0	0	0	0	0	0	1	10	12	14	1	1	0	0	51
05/11/93	23:15	18	0	0	0	0	0	0	2	0	9	4	2	0	0	1	0	48
05/11/93	23:30	9	0	0	0	0	0	0	0	1	4	3	1	0	0	0	0	47
05/11/93	23:45	10	0	0	0	0	0	0	0	1	7	1	1	0	0	0	0	46
05/12/93	00:00	10	0	0	0	0	0	0	1	3	3	3	0	0	0	0	0	44
05/12/93	00:15	11	0	0	0	0	0	0	1	2	5	3	0	0	0	0	0	45
05/12/93	00:30	27	0	0	0	0	0	0	0	2	7	11	4	2	0	1	0	50
05/12/93	00:45	12	0	0	0	0	0	0	0	3	7	0	2	0	0	0	0	45
05/12/93	01:00	15	0	0	0	0	0	0	0	3	5	3	3	0	1	0	0	48
05/12/93	01:15	9	0	0	0	0	0	0	0	3	5	0	0	0	0	1	0	46
05/12/93	01:30	9	0	0	0	0	1	0	0	3	1	1	1	1	0	0	0	39
05/12/93	01:45	9	0	0	0	0	0	0	0	1	4	2	2	0	0	0	0	48
05/12/93	02:00	9	0	0	0	0	0	0	0	0	4	3	0	2	0	0	0	50
05/12/93	02:15	5	0	0	0	0	0	0	1	1	0	1	2	0	0	0	0	47
05/12/93	02:30	6	0	0	0	0	0	0	0	2	1	1	1	0	1	0	0	49
05/12/93	02:45	3	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	47
05/12/93	03:00	7	0	0	0	0	0	0	0	0	4	1	1	0	0	0	0	41
05/12/93	03:15	13	0	0	0	0	0	0	1	1	3	1	2	1	0	0	0	33
05/12/93	03:30	10	0	0	0	0	0	0	1	1	2	3	1	1	0	0	0	43
05/12/93	03:45	10	0	0	0	0	0	0	0	2	3	4	1	0	0	0	0	47

V 24

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

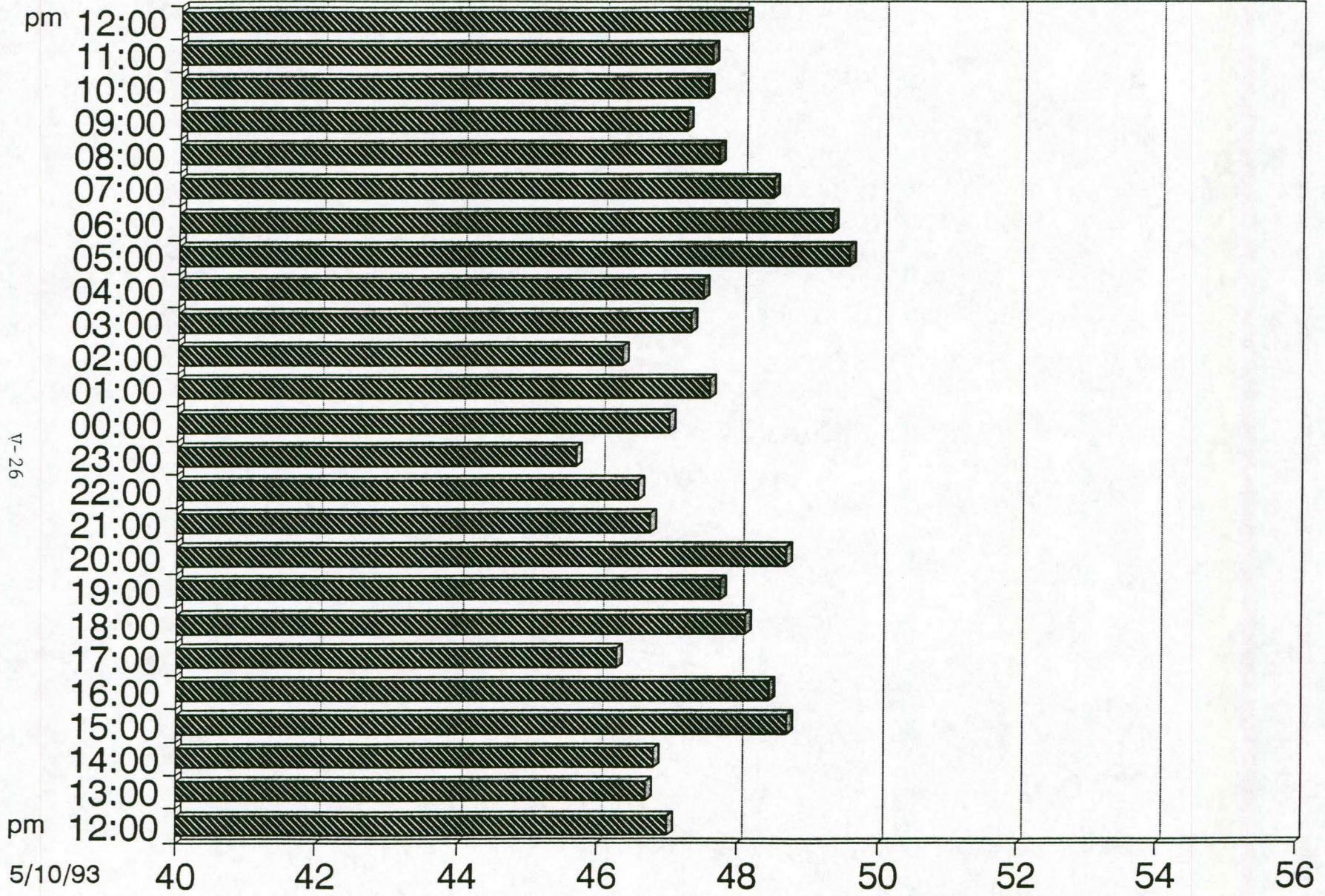
U.S. 67 BETTENDORF (PRIOR TO CONSTRUCTION)

DATE	TIME	COUNT	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
05/12/93	04:00	8	0	0	0	0	0	0	0	0	5	1	2	0	0	0	0	48
05/12/93	04:15	16	0	0	0	0	0	0	0	1	7	3	4	1	0	0	0	49
05/12/93	04:30	18	0	0	0	0	0	0	0	4	4	8	0	1	1	0	0	48
05/12/93	04:45	18	0	0	0	0	0	0	0	1	4	7	5	1	0	0	0	50
05/12/93	05:00	21	0	0	0	0	0	0	0	2	8	6	5	0	0	0	0	48
05/12/93	05:15	34	0	1	0	0	1	1	1	0	8	12	6	1	3	0	0	48
05/12/93	05:30	41	0	0	0	0	0	0	0	2	5	16	16	1	1	0	0	51
05/12/93	05:45	54	0	0	0	0	1	0	0	1	10	20	15	5	2	0	0	51
05/12/93	06:00	52	0	0	0	1	0	0	0	2	18	15	10	4	2	0	0	50
05/12/93	06:15	81	0	0	0	0	0	0	0	3	18	33	18	5	2	0	0	49
05/12/93	06:30	119	0	0	1	0	0	1	0	4	33	39	29	9	2	1	0	50
05/12/93	06:45	116	0	0	0	0	0	0	1	3	26	42	40	1	2	0	0	50
05/12/93	07:00	147	0	0	0	0	0	1	3	17	43	29	43	6	2	2	0	49
05/12/93	07:15	153	0	0	1	0	0	0	0	15	60	46	29	0	0	0	0	47
05/12/93	07:30	213	0	0	0	0	0	1	0	23	91	53	36	2	4	0	1	48
05/12/93	07:45	212	0	1	0	0	0	0	1	43	92	40	24	4	2	1	0	46
05/12/93	08:00	140	0	0	0	0	0	1	3	21	48	32	29	4	0	2	0	48
05/12/93	08:15	107	0	0	0	0	0	0	5	12	28	33	25	4	0	0	0	48
05/12/93	08:30	111	0	0	0	0	1	1	1	16	40	31	16	3	2	0	0	47
05/12/93	08:45	118	0	0	0	0	0	1	4	11	50	29	17	4	1	0	1	48
05/12/93	09:00	69	0	0	0	1	0	0	0	8	23	26	7	4	0	0	0	48
05/12/93	09:15	72	0	0	0	0	0	0	3	11	21	25	11	0	0	1	0	47
05/12/93	09:30	82	0	0	0	0	0	0	1	11	38	18	10	2	0	1	0	47
05/12/93	09:45	61	0	0	0	0	0	0	0	10	22	20	8	1	0	0	0	47
05/12/93	10:00	58	0	0	0	0	0	0	1	11	21	21	4	0	0	0	0	46
05/12/93	10:15	74	0	0	0	0	0	0	0	8	35	15	16	0	0	0	0	48
05/12/93	10:30	62	0	0	0	0	0	0	0	17	20	10	12	1	1	0	0	46
05/12/93	10:45	80	0	0	0	0	0	0	0	12	29	24	12	1	1	0	1	48
05/12/93	11:00	85	0	0	0	0	0	2	3	12	31	23	9	1	4	0	0	47
05/12/93	11:15	89	0	0	0	0	1	0	0	18	35	20	11	1	2	0	0	46
05/12/93	11:30	75	0	0	0	0	0	1	1	8	33	21	9	1	1	0	0	47
05/12/93	11:45	98	0	0	0	0	0	0	5	12	36	22	14	4	3	1	1	48

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

U.S. 67 - MAY 10, 1993 @ 12:00 PM TO MAY 11, 1993 @ 12:00 PM

5/11/93

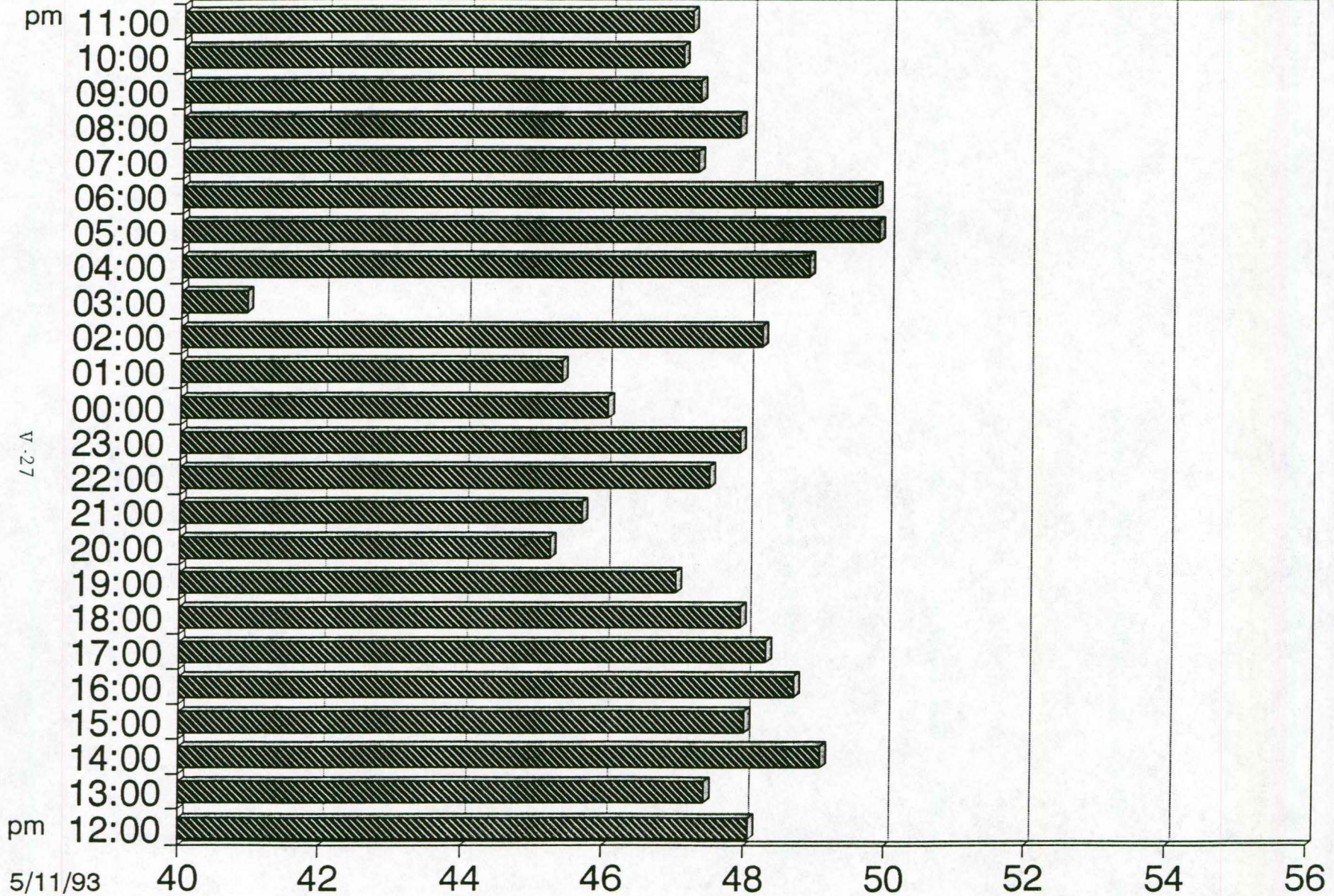


V-26

AVERAGE SPEED (MPH)

U.S. 67 - MAY 11, 1993 @ 12:00 PM TO MAY 12, 1993 @ 12:00 PM

5/12/93



AVERAGE SPEED (MPH)

5/11/93

V-27

COMPUTER GENERATED SUMMARY REPORT

ROUTE: U.S 61 DAVENPORT

DURING CONSTRUCTION

A survey of vehicle traffic was conducted with HISTAR unit number 1515. The survey was done in the westbound lane on Highway 61 in Davenport, Iowa in Scott County. The survey lasted for forty-eight (48) hours and began on Tuesday, August 24, 1993 at 3:00 p.m. and ended on Thursday, August 26, 1993 at 3:00 p.m. Data were recorded in thirty (30) minute time periods. The total recorded volume of traffic showed 5,455 vehicles passed through the location with a peak volume of 205 on Tuesday, August 24, 1993 at 4:30 p.m. and a minimum volume of 0 on Tuesday, August 24, 1993 at 6:30 p.m.

SPEED

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

CHART 1

Speed Bins (mph)

5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
4		613		1102		408		251		50		3		0
	59		1856		591		369		78		5		2	

Half of the vehicles were traveling at 21.2 mph or lower speed. The average speed for all classified vehicles was 25.94 mph with 0.19 percent exceeding the posted speed of 55 mph. The mode speed for this traffic study was 20 mph and the 85th percentile was 34.9 mph.

CLASS

Chart 2 lists the values of the eight class bins and the total volume for each bin:

CHART 2

Class Bins (feet)

<19	30	40	50	60	70	0	0>
4940	196	66	85	77	27	0	0

Most of the vehicles were passenger cars with a total count of 4,940. This represents 91.63 percent of the classified vehicles.

HEADWAY

During the peak time period, on Tuesday, August 24, 1993 at 4:30 p.m. the average headway between the vehicles was 8.78 seconds. The slow period occurred on Tuesday, August 24, 1993 at 6:30 p.m. and the headway between the vehicles 0 seconds (no vehicles recorded).

WEATHER

The roadway surface temperature over the period of the study varied between 76 degrees Fahrenheit and 123 degrees Fahrenheit. The HI-STAR analyzer determined that the roadway surface was dry 100.00 percent of the time.

U.S. 61 DAVENPORT (DURING CONSTRUCTION)

DATE	TIME	COUNT	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
08/24/93	15:00	157	0	1	25	61	34	17	11	4	2	1	1	0	0	0	0	24
08/24/93	15:30	161	1	4	24	65	38	13	9	2	4	0	0	0	0	0	0	22
08/24/93	16:00	154	0	2	41	58	19	16	12	2	1	0	0	0	0	0	0	21
08/24/93	16:30	205	0	0	19	81	46	27	11	10	7	4	0	0	0	0	0	25
08/24/93	17:00	167	0	0	7	56	56	21	9	8	3	4	2	0	0	0	0	26
08/24/93	17:30	125	0	1	5	46	27	19	17	5	4	0	0	0	0	0	0	26
08/24/93	18:00	33	0	0	2	14	6	4	3	4	0	0	0	0	0	0	0	26
08/24/93	18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ERR
08/24/93	19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ERR
08/24/93	19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ERR
08/24/93	20:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	20
08/24/93	20:30	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	20
08/24/93	21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ERR
08/24/93	21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ERR
08/24/93	22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ERR
08/24/93	22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ERR
08/24/93	23:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	20
08/24/93	23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ERR
08/25/93	00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ERR
08/25/93	00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ERR
08/25/93	01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ERR
08/25/93	01:30	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	20
08/25/93	02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ERR
08/25/93	02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ERR
08/25/93	03:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	20
08/25/93	03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ERR
08/25/93	04:00	3	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	30
08/25/93	04:30	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	30
08/25/93	05:00	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	30
08/25/93	05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ERR
08/25/93	06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ERR
08/25/93	06:30	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	30

V-30

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

U.S. 61 DAVENPORT (DURING CONSTRUCTION)

DATE	TIME	COUNT	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
08/25/93	07:00	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	30
08/25/93	07:30	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	30
08/25/93	08:00	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	30
08/25/93	08:30	5	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	30
08/25/93	09:00	4	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	23
08/25/93	09:30	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	25
08/25/93	10:00	8	0	0	1	6	1	0	0	0	0	0	0	0	0	0	0	20
08/25/93	10:30	49	0	0	2	16	23	3	1	1	1	0	0	0	0	0	0	23
08/25/93	11:00	109	0	2	15	38	12	11	6	13	8	1	0	1	0	0	0	26
08/25/93	11:30	121	0	1	16	50	21	20	5	4	4	0	0	0	0	0	0	24
08/25/93	12:00	114	0	1	20	38	19	15	7	7	3	1	2	0	0	0	0	25
08/25/93	12:30	116	0	2	21	43	17	7	8	8	4	2	0	0	0	0	0	23
08/25/93	13:00	94	0	2	12	31	14	9	9	9	5	1	1	0	0	0	0	26
08/25/93	13:30	113	0	2	15	44	16	12	7	7	3	2	0	0	0	0	0	23
08/25/93	14:00	127	0	1	15	41	22	19	8	10	7	2	2	0	0	0	0	27
08/25/93	14:30	122	0	0	10	37	31	12	12	8	8	1	1	0	0	0	0	26
08/25/93	15:00	152	0	1	13	62	30	10	15	9	5	5	0	0	0	0	0	25
08/25/93	15:30	171	0	0	13	66	45	15	11	13	6	0	0	0	0	0	0	25
08/25/93	16:00	155	1	2	16	53	35	14	17	12	2	1	2	0	0	0	0	25
08/25/93	16:30	181	0	3	38	92	29	10	5	1	0	0	0	0	0	0	0	20
08/25/93	17:00	182	0	4	38	75	38	10	9	4	1	0	0	0	0	1	0	22
08/25/93	17:30	128	0	7	9	37	32	14	9	10	5	3	1	0	1	0	0	26
08/25/93	18:00	97	1	1	3	14	31	8	12	13	8	4	2	0	0	0	0	31
08/25/93	18:30	88	0	0	3	28	14	13	8	9	10	2	1	0	0	0	0	29
08/25/93	19:00	84	0	0	7	28	18	9	7	8	4	2	1	0	0	0	0	27
08/25/93	19:30	66	0	0	5	17	14	8	9	8	2	0	3	0	0	0	0	29
08/25/93	20:00	53	0	0	2	8	15	8	7	4	7	1	1	0	0	0	0	31
08/25/93	20:30	64	0	1	4	19	13	8	3	5	8	2	1	0	0	0	0	29
08/25/93	21:00	45	0	0	2	13	8	6	3	7	3	2	1	0	0	0	0	30
08/25/93	21:30	44	0	2	1	9	8	3	2	5	6	2	4	0	1	0	0	33
08/25/93	22:00	45	0	0	5	9	13	5	3	4	4	2	0	0	0	0	0	28
08/25/93	22:30	35	0	0	2	10	9	3	2	4	1	1	2	0	0	1	0	30

V-31

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

U.S. 61 DAVENPORT (DURING CONSTRUCTION)

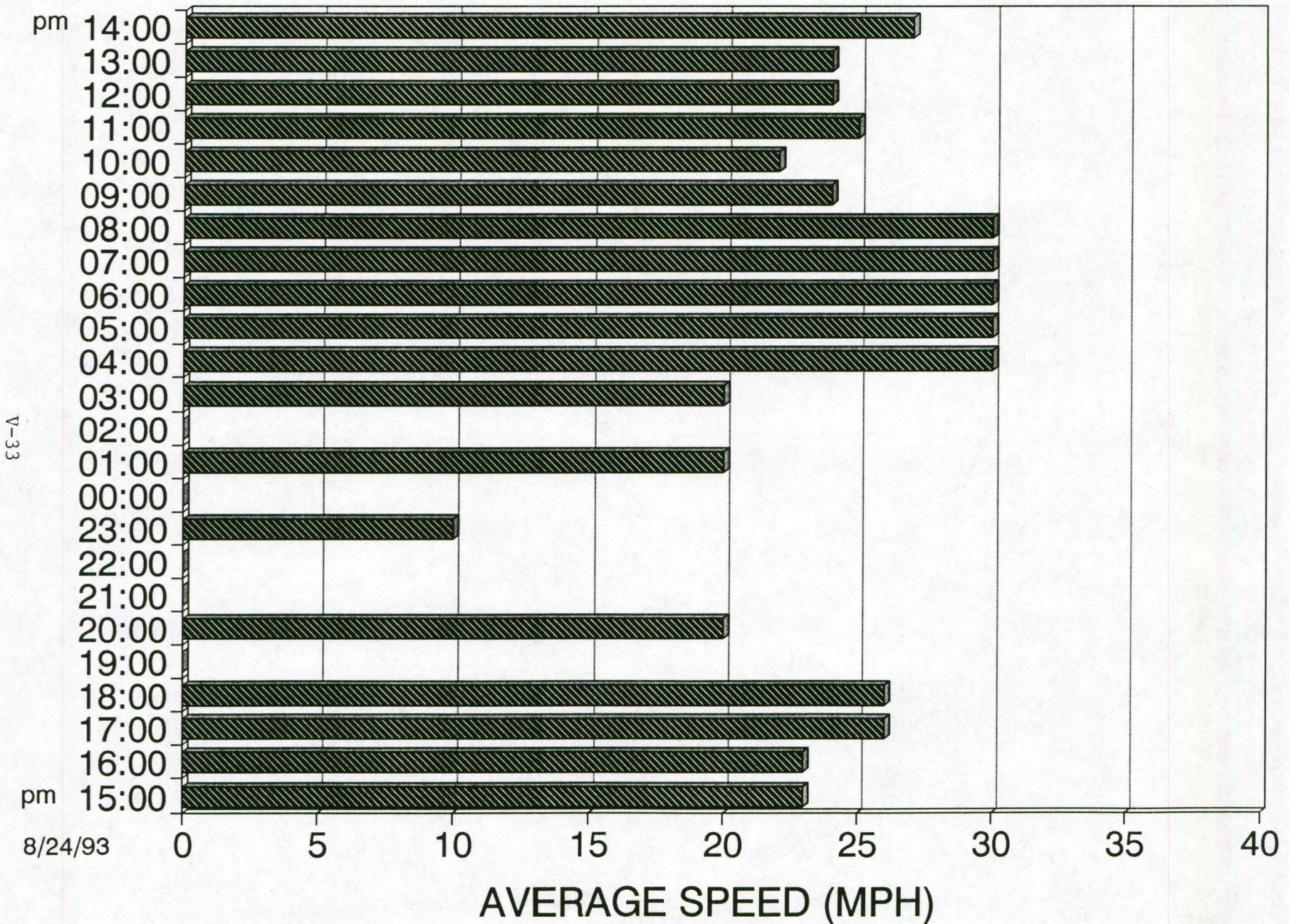
DATE	TIME	COUNT	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
08/25/93	23:00	42	0	0	3	15	7	2	3	3	7	1	1	0	0	0	0	29
08/25/93	23:30	19	0	0	2	6	3	1	2	2	3	0	0	0	0	0	0	28
08/26/93	00:00	24	0	1	0	4	7	2	3	1	5	0	0	0	1	0	0	32
08/26/93	00:30	14	0	0	0	3	5	2	1	3	0	0	0	0	0	0	0	29
08/26/93	01:00	13	0	0	0	4	3	1	4	1	0	0	0	0	0	0	0	28
08/26/93	01:30	10	0	0	0	2	1	2	1	0	3	0	0	0	0	0	0	30
08/26/93	02:00	9	0	0	1	1	2	0	3	1	1	0	0	0	0	0	0	31
08/26/93	02:30	5	0	0	1	0	0	0	2	0	1	0	0	1	0	0	0	38
08/26/93	03:00	5	0	0	0	1	1	2	0	0	0	0	1	0	0	0	0	32
08/26/93	03:30	8	0	0	0	6	1	1	0	0	0	0	0	0	0	0	0	22
08/26/93	04:00	5	0	0	1	0	2	1	0	1	0	0	0	0	0	0	0	27
08/26/93	04:30	9	0	0	0	2	1	2	1	1	1	0	0	0	0	0	0	27
08/26/93	05:00	29	0	1	7	10	6	1	0	2	1	1	0	0	0	0	0	23
08/26/93	05:30	27	0	0	4	6	5	1	7	0	3	0	0	0	0	0	0	26
08/26/93	06:00	52	0	1	4	21	8	7	5	2	3	0	0	0	0	0	0	25
08/26/93	06:30	52	0	0	8	15	13	4	6	3	2	0	0	0	0	0	0	25
08/26/93	07:00	89	0	0	8	34	28	7	4	4	1	1	0	1	0	0	0	24
08/26/93	07:30	93	0	0	12	42	22	7	3	3	2	0	0	0	0	0	0	23
08/26/93	08:00	83	0	2	9	29	17	5	3	6	5	3	3	0	0	0	0	26
08/26/93	08:30	85	0	0	7	24	17	10	8	8	6	1	1	0	0	0	0	27
08/26/93	09:00	80	0	0	7	28	12	8	3	11	6	1	1	0	0	0	0	27
08/26/93	09:30	82	0	1	7	14	11	13	7	13	9	3	2	0	0	0	0	30
08/26/93	10:00	86	0	2	14	19	13	2	9	9	7	7	3	1	0	0	0	30
08/26/93	10:30	90	0	0	7	24	17	17	6	8	4	4	1	0	0	0	0	28
08/26/93	11:00	103	0	2	17	28	21	9	7	10	8	0	1	0	0	0	0	26
08/26/93	11:30	94	0	0	5	24	11	16	16	9	8	2	1	1	0	0	0	30
08/26/93	12:00	106	0	0	12	36	12	8	8	13	13	2	0	0	0	0	0	28
08/26/93	12:30	106	0	1	8	36	14	14	12	11	3	3	4	0	0	0	0	28
08/26/93	13:00	110	1	4	17	39	18	10	7	6	3	0	1	0	0	0	0	23
08/26/93	13:30	99	0	1	19	33	22	8	3	7	2	1	0	0	0	0	0	23
08/26/93	14:00	99	0	2	16	41	15	15	5	2	2	0	1	0	0	0	0	23
08/26/93	14:30	126	0	1	5	38	29	20	12	10	6	2	1	0	0	0	0	27

V-32

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

US 61 DAVENPORT - AUGUST 24, 1993 @ 3:00 PM TO AUGUST 25, 1993 @ 2:00 PM

8/25/93

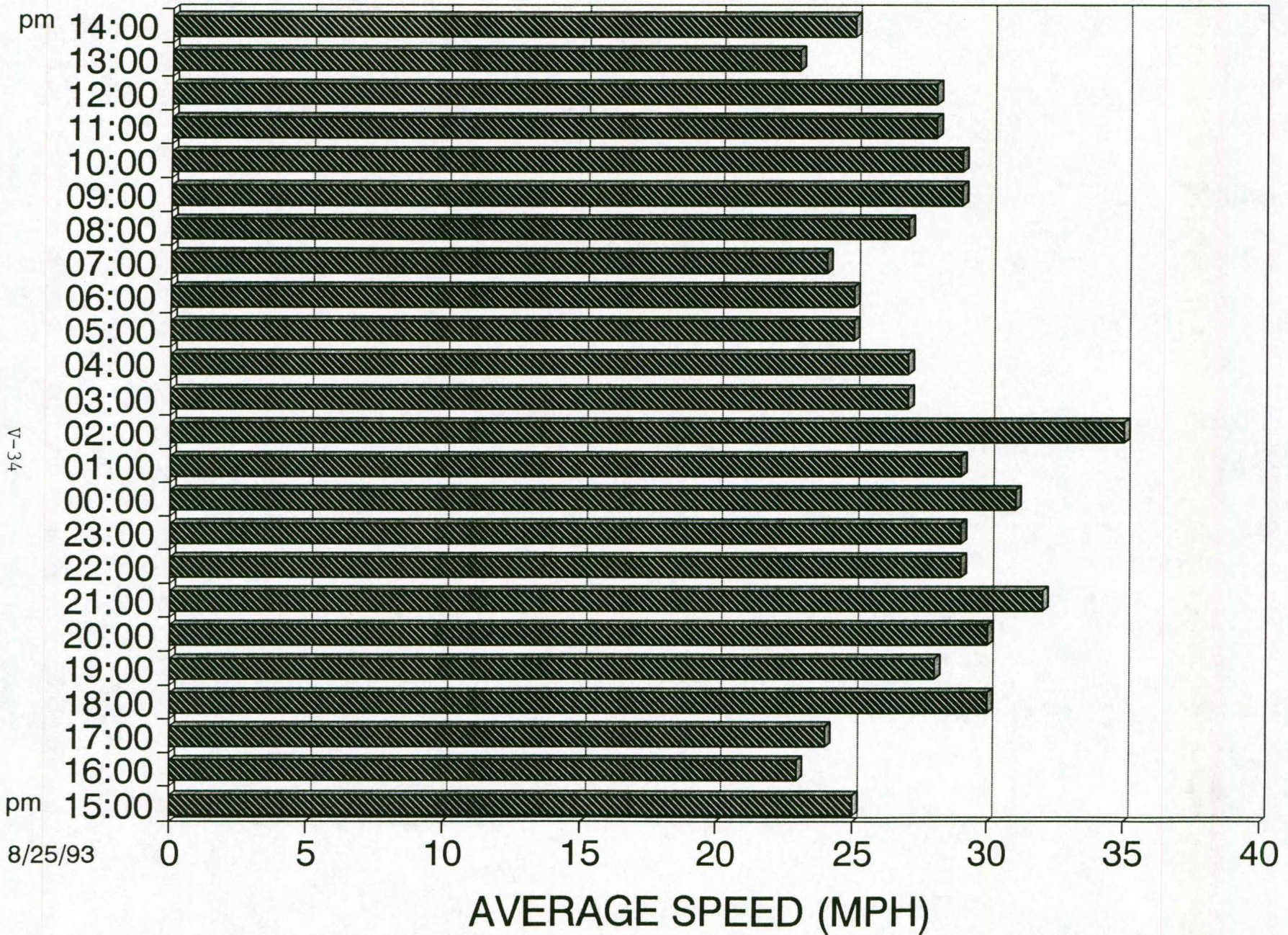


V-33

8/24/93

US 61 DAVENPORT - AUGUST 25, 1993 @ 3:00 PM TO AUGUST 26, 1993 @ 2:00 PM

8/26/92



V-34

COMPUTER GENERATED SUMMARY REPORT

ROUTE: U.S 61 DAVENPORT

PRIOR TO CONSTRUCTION

A survey of vehicle traffic was conducted with HISTAR unit number 1514. The survey was done in the eastbound lane on Highway 61 in Davenport, Iowa in Scott County. The survey lasted for forty-eight (48) hours and began on Monday, May 10, 1993 at 3:00 p.m. and ended on Wednesday, May 12, 1993 at 3:00 p.m. Data were recorded in fifteen (15) minute time periods. The total recorded volume of traffic showed 5,429 vehicles passed through the location with a peak volume of 117 on Wednesday, May 12, 1993 at 2:45 p.m. and a minimum volume of 0 on Tuesday, May 11, 1993 at 2:30 a.m.

SPEED

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

CHART 1

Speed Bins (mph)

5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
0	25	150	72	742	1848	357	34							
2	6	81	248	1044	661	66								

Half of the vehicles were traveling at 51.3 mph or lower speed. The average speed for all classified vehicles was 51.80 mph with 20.95 percent exceeding the posted speed of 55 mph. The mode speed for this traffic study was 55 mph and the 85th percentile was 57.9 mph.

CLASS

Chart 2 lists the values of the eight class bins and the total volume for each bin:

CHART 2

Class Bins (feet)

<19	30	40	50	60	70	0	0>
4274	379	178	129	172	204	0	0

Most of the vehicles were passenger cars with a total count of 4,274. This represents 80.10 percent of the classified vehicles.

HEADWAY

During the peak time period, on Wednesday, May 12, 1993 at 2:45 p.m. the average headway between the vehicles was 7.69 seconds. The slow period occurred on Tuesday, May 11, 1993 at 2:30 a.m. and the headway between the vehicles 0 seconds (no vehicles recorded).

WEATHER

The roadway surface temperature over the period of the study varied between 68 degrees Fahrenheit and 115 degrees Fahrenheit. The HI-STAR analyzer determined that the roadway surface was dry 100.00 percent of the time.

U.S. 61 DAVENPORT (PRIOR TO CONSTRUCTION)

DATE	TIME	COUNT	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
05/10/93	15:00	51	0	0	0	0	0	1	0	1	6	12	19	5	4	1	0	51
05/10/93	15:15	53	0	0	0	1	0	0	0	3	5	12	22	5	4	1	0	53
05/10/93	15:30	71	0	0	0	0	0	0	0	3	6	18	30	12	2	0	0	53
05/10/93	15:45	66	0	0	0	0	0	0	1	0	4	17	28	10	6	0	0	54
05/10/93	16:00	71	0	0	0	0	0	0	0	2	11	12	30	12	4	0	0	54
05/10/93	16:15	47	0	0	0	0	0	0	0	0	6	8	16	7	8	2	0	56
05/10/93	16:30	76	0	0	0	0	0	1	0	3	5	13	32	13	9	0	0	55
05/10/93	16:45	64	0	0	0	0	0	0	0	1	8	12	25	9	6	2	0	54
05/10/93	17:00	75	0	0	1	0	0	0	0	1	4	19	29	11	6	2	1	54
05/10/93	17:15	67	0	0	0	0	0	0	0	1	8	12	24	13	6	3	0	55
05/10/93	17:30	48	0	0	1	0	0	0	0	0	3	11	22	5	5	1	0	54
05/10/93	17:45	28	0	0	0	0	0	0	0	0	2	5	9	9	2	0	0	54
05/10/93	18:00	35	0	0	0	0	0	0	0	1	1	8	14	9	1	0	0	53
05/10/93	18:15	33	0	0	0	0	0	0	1	2	4	6	12	4	3	0	1	53
05/10/93	18:30	40	0	0	0	0	0	0	0	0	10	8	12	5	2	2	1	54
05/10/93	18:45	38	0	0	0	0	0	0	1	1	3	6	14	9	1	1	0	51
05/10/93	19:00	28	0	0	0	0	0	0	0	1	2	6	8	7	2	1	1	56
05/10/93	19:15	25	0	0	0	0	0	0	0	0	2	10	11	1	1	0	0	53
05/10/93	19:30	23	0	0	0	0	0	0	0	0	6	5	8	4	0	0	0	52
05/10/93	19:45	20	0	0	0	0	0	0	0	2	1	6	9	1	1	0	0	52
05/10/93	20:00	24	0	0	0	0	0	0	0	0	2	5	10	6	0	1	0	55
05/10/93	20:15	22	0	0	0	0	0	0	1	3	2	8	6	1	1	0	0	50
05/10/93	20:30	18	0	0	0	0	0	0	0	0	1	6	6	2	3	0	0	55
05/10/93	20:45	22	0	0	0	0	0	0	0	2	4	6	4	3	3	0	0	53
05/10/93	21:00	17	0	0	0	0	0	1	0	0	3	5	8	0	0	0	0	50
05/10/93	21:15	23	0	0	0	0	0	0	0	1	4	5	6	5	2	0	0	53
05/10/93	21:30	12	0	0	0	0	0	0	2	0	2	2	3	2	1	0	0	51
05/10/93	21:45	24	0	0	0	1	0	0	0	1	5	8	6	2	1	0	0	50
05/10/93	22:00	12	0	0	0	0	0	0	1	1	1	4	3	0	1	0	1	52
05/10/93	22:15	16	0	0	0	0	0	0	1	0	3	5	4	2	1	0	0	52
05/10/93	22:30	10	0	0	0	0	0	0	0	1	1	2	5	0	1	0	0	53
05/10/93	22:45	13	0	0	0	0	0	0	3	2	2	0	3	1	1	0	0	43

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

U.S. 61 DAVENPORT (PRIOR TO CONSTRUCTION)

DATE	TIME	COUNT	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
05/10/93	23:00	16	0	0	0	0	0	0	0	3	2	5	2	1	2	0	0	48
05/10/93	23:15	11	0	0	0	0	0	0	1	3	1	2	2	1	0	1	0	49
05/10/93	23:30	10	0	0	0	0	0	0	0	2	1	3	3	1	0	0	0	50
05/10/93	23:45	5	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	51
05/11/93	00:00	11	0	0	0	0	0	0	0	1	5	1	4	0	0	0	0	49
05/11/93	00:15	6	0	0	0	0	0	0	0	1	1	2	1	1	0	0	0	50
05/11/93	00:30	8	0	0	0	0	0	0	0	0	1	3	3	0	0	0	0	45
05/11/93	00:45	10	0	0	0	0	0	0	1	2	1	3	3	0	0	0	0	48
05/11/93	01:00	7	0	0	0	0	0	0	0	0	3	1	1	1	1	0	0	52
05/11/93	01:15	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	45
05/11/93	01:30	4	0	0	0	0	0	0	0	0	0	2	1	1	0	0	0	54
05/11/93	01:45	6	0	0	0	0	0	0	0	0	2	0	3	0	1	0	0	53
05/11/93	02:00	4	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	35
05/11/93	02:15	5	0	0	0	0	0	0	0	0	1	2	2	0	0	0	0	51
05/11/93	02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ERR
05/11/93	02:45	4	0	0	0	0	0	0	0	0	2	1	1	0	0	0	0	49
05/11/93	03:00	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	55
05/11/93	03:15	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	40
05/11/93	03:30	3	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	48
05/11/93	03:45	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/11/93	04:00	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	60
05/11/93	04:15	2	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	53
05/11/93	04:30	3	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	53
05/11/93	04:45	5	0	0	0	0	0	0	0	1	2	0	2	0	0	0	0	48
05/11/93	05:00	4	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	48
05/11/93	05:15	13	0	0	0	0	0	0	0	1	1	5	5	1	0	0	0	52
05/11/93	05:30	10	0	0	0	0	0	1	0	0	2	2	1	1	2	0	0	47
05/11/93	05:45	7	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	56
05/11/93	06:00	11	0	0	0	0	0	0	0	0	3	3	1	4	0	0	0	53
05/11/93	06:15	21	0	0	0	0	0	0	0	0	1	7	9	4	0	0	0	54
05/11/93	06:30	30	0	0	0	0	0	0	0	2	6	5	14	1	2	0	0	52
05/11/93	06:45	27	0	0	0	0	0	1	0	1	5	2	11	5	2	0	0	53

88-A

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

U.S. 61 DAVENPORT (PRIOR TO CONSTRUCTION)

DATE	TIME	COUNT	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
05/11/93	07:00	31	0	0	2	0	0	0	0	1	1	6	13	4	1	1	1	51
05/11/93	07:15	26	0	0	0	0	0	0	0	0	3	3	13	5	2	0	0	55
05/11/93	07:30	32	0	0	0	0	0	0	1	3	3	7	14	1	1	0	1	50
05/11/93	07:45	37	0	0	0	0	0	1	3	2	10	3	15	0	2	0	0	48
05/11/93	08:00	31	0	0	0	0	0	0	0	1	6	8	6	8	1	0	1	54
05/11/93	08:15	37	0	0	0	0	1	0	2	5	5	6	14	4	0	0	0	49
05/11/93	08:30	36	0	0	0	0	0	0	0	1	2	7	15	5	3	0	0	50
05/11/93	08:45	19	0	0	0	0	0	0	0	1	4	2	8	3	1	0	0	53
05/11/93	09:00	35	0	0	0	0	0	0	1	3	13	5	11	0	1	0	1	50
05/11/93	09:15	45	0	0	0	0	0	1	1	2	6	7	15	7	3	0	0	49
05/11/93	09:30	36	0	0	1	0	0	1	0	1	2	8	16	2	2	0	1	49
05/11/93	09:45	45	0	0	0	0	0	0	0	1	9	10	11	9	2	1	0	51
05/11/93	10:00	32	0	0	0	0	0	0	1	2	3	7	14	2	3	0	0	53
05/11/93	10:15	37	0	0	0	0	0	0	0	1	6	5	21	1	1	0	1	52
05/11/93	10:30	29	0	0	0	0	0	0	0	3	5	3	12	3	3	0	0	53
05/11/93	10:45	33	0	0	0	0	0	1	1	2	4	5	16	4	0	0	0	51
05/11/93	11:00	21	0	0	0	0	0	0	1	1	3	2	4	9	0	0	0	51
05/11/93	11:15	33	0	0	0	0	0	0	1	7	3	7	9	2	4	0	0	51
05/11/93	11:30	40	0	0	0	0	0	0	0	2	6	3	16	12	0	0	0	53
05/11/93	11:45	45	0	0	0	0	0	1	1	0	0	9	20	10	1	1	0	52
05/11/93	12:00	50	0	0	0	0	0	0	0	1	4	9	21	8	4	2	1	56
05/11/93	12:15	29	0	0	0	0	0	0	0	2	4	1	8	8	6	0	0	56
05/11/93	12:30	33	0	0	0	0	0	0	3	1	6	3	8	5	5	1	0	52
05/11/93	12:45	43	0	0	0	0	0	0	2	0	9	8	13	5	4	0	1	52
05/11/93	13:00	45	0	0	0	0	0	0	1	0	7	14	13	6	3	0	1	53
05/11/93	13:15	37	0	0	0	0	0	0	0	3	3	7	11	7	5	1	0	55
05/11/93	13:30	32	0	0	0	0	0	0	2	1	4	6	7	3	5	2	1	53
05/11/93	13:45	40	0	0	0	0	0	0	1	0	5	6	21	5	1	0	0	52
05/11/93	14:00	27	0	0	0	0	0	0	0	1	3	2	8	8	1	1	1	52
05/11/93	14:15	44	0	0	0	0	0	1	1	1	7	6	21	5	2	0	0	52
05/11/93	14:30	39	0	0	0	0	0	0	0	3	10	10	8	2	3	3	0	52
05/11/93	14:45	51	0	0	0	0	0	0	0	3	3	6	24	8	7	0	0	55

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

U.S. 61 DAVENPORT (PRIOR TO CONSTRUCTION)

DATE	TIME	COUNT	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
05/11/93	15:00	61	0	0	0	0	1	0	1	2	7	4	27	10	7	1	1	55
05/11/93	15:15	55	0	0	0	0	0	0	1	1	5	7	21	8	8	1	1	54
05/11/93	15:30	67	0	0	0	0	0	0	1	1	8	9	25	15	7	1	0	55
05/11/93	15:45	66	0	1	0	0	0	0	0	3	5	17	22	9	7	2	0	54
05/11/93	16:00	56	0	0	1	0	0	0	2	1	5	11	22	8	6	0	0	53
05/11/93	16:15	63	0	0	0	0	0	0	3	4	3	7	23	8	10	3	1	54
05/11/93	16:30	72	0	0	0	0	1	0	0	2	6	16	31	10	2	3	1	54
05/11/93	16:45	71	0	0	0	0	0	1	0	1	8	19	24	12	4	2	0	54
05/11/93	17:00	60	0	0	0	0	0	0	0	1	2	13	22	14	7	0	1	56
05/11/93	17:15	61	0	0	0	0	0	0	0	1	5	11	32	6	5	1	0	55
05/11/93	17:30	48	0	0	0	0	0	0	0	0	4	16	18	6	2	0	1	53
05/11/93	17:45	44	0	0	0	0	0	0	0	2	3	6	14	14	3	0	0	53
05/11/93	18:00	37	0	0	0	0	0	0	0	1	4	6	15	9	2	0	0	54
05/11/93	18:15	23	0	0	0	0	0	0	0	2	1	4	8	2	5	1	0	56
05/11/93	18:30	35	0	0	0	0	0	0	0	1	5	7	15	4	2	1	0	54
05/11/93	18:45	28	0	0	1	0	0	0	0	0	2	5	14	1	4	0	0	52
05/11/93	19:00	22	0	0	0	0	0	0	0	0	5	5	6	4	1	1	0	54
05/11/93	19:15	33	0	0	0	0	0	0	0	0	8	8	8	6	2	0	1	53
05/11/93	19:30	25	0	0	0	0	0	0	0	0	2	4	12	3	3	0	0	53
05/11/93	19:45	31	0	0	0	0	1	0	0	2	2	8	15	2	1	0	0	52
05/11/93	20:00	24	0	0	0	0	0	0	0	1	3	6	12	0	2	0	0	53
05/11/93	20:15	22	0	0	0	0	0	0	0	0	5	7	7	1	1	0	0	49
05/11/93	20:30	19	0	0	0	0	0	0	0	1	4	4	7	1	1	1	0	53
05/11/93	20:45	19	0	0	0	0	0	0	0	1	5	5	7	0	1	0	0	51
05/11/93	21:00	15	0	0	0	0	0	0	0	1	2	4	4	1	2	0	0	49
05/11/93	21:15	20	0	0	0	0	0	0	0	0	1	7	6	3	3	0	0	55
05/11/93	21:30	16	0	0	0	0	0	0	0	0	1	8	2	4	1	0	0	54
05/11/93	21:45	23	0	0	0	0	0	0	0	1	2	4	11	3	1	1	0	54
05/11/93	22:00	27	0	0	0	0	0	1	0	0	2	11	7	3	2	1	0	53
05/11/93	22:15	18	0	0	0	0	0	0	0	0	6	4	7	1	0	0	0	51
05/11/93	22:30	13	0	0	0	1	0	0	0	0	1	4	5	0	0	0	1	47
05/11/93	22:45	13	0	0	0	0	0	0	0	0	0	4	5	3	0	1	0	56

07-Δ

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

U.S. 61 DAVENPORT (PRIOR TO CONSTRUCTION)

DATE	TIME	COUNT	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
05/11/93	23:00	13	0	0	0	0	0	0	0	0	1	0	8	2	2	0	0	57
05/11/93	23:15	13	0	0	0	0	0	0	0	0	1	3	4	3	1	1	0	56
05/11/93	23:30	14	0	0	0	0	0	0	0	1	4	2	4	2	1	0	0	52
05/11/93	23:45	11	0	0	0	0	0	0	0	2	0	5	3	0	1	0	0	51
05/12/93	00:00	7	0	0	0	0	0	0	0	0	0	2	3	1	1	0	0	56
05/12/93	00:15	3	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	48
05/12/93	00:30	7	0	0	0	0	0	0	0	2	0	2	1	1	0	0	0	42
05/12/93	00:45	6	0	0	0	0	0	0	0	0	0	3	2	1	0	0	0	53
05/12/93	01:00	4	0	0	0	0	0	0	1	0	0	1	1	1	0	0	0	50
05/12/93	01:15	2	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	50
05/12/93	01:30	5	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	54
05/12/93	01:45	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	55
05/12/93	02:00	4	0	0	0	0	0	0	2	0	0	1	1	0	0	0	0	44
05/12/93	02:15	2	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	43
05/12/93	02:30	3	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	58
05/12/93	02:45	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	45
05/12/93	03:00	3	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	32
05/12/93	03:15	2	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	50
05/12/93	03:30	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	55
05/12/93	03:45	3	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	48
05/12/93	04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ERR
05/12/93	04:15	4	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	53
05/12/93	04:30	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	20
05/12/93	04:45	5	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	42
05/12/93	05:00	3	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	48
05/12/93	05:15	8	0	0	0	0	0	0	0	1	2	1	3	0	1	0	0	51
05/12/93	05:30	5	0	0	0	0	0	0	0	0	0	1	2	2	0	0	0	56
05/12/93	05:45	10	0	0	0	0	0	0	0	0	5	2	3	0	0	0	0	49
05/12/93	06:00	18	0	0	0	0	0	0	0	1	3	5	5	2	1	1	0	53
05/12/93	06:15	18	0	0	0	0	0	0	0	1	1	3	9	2	1	0	0	51
05/12/93	06:30	33	0	0	0	0	0	0	0	0	6	4	15	7	0	0	0	52
05/12/93	06:45	31	0	0	0	0	0	0	0	3	1	3	11	9	4	0	0	55

V-41

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

U.S. 61 DAVENPORT (PRIOR TO CONSTRUCTION)

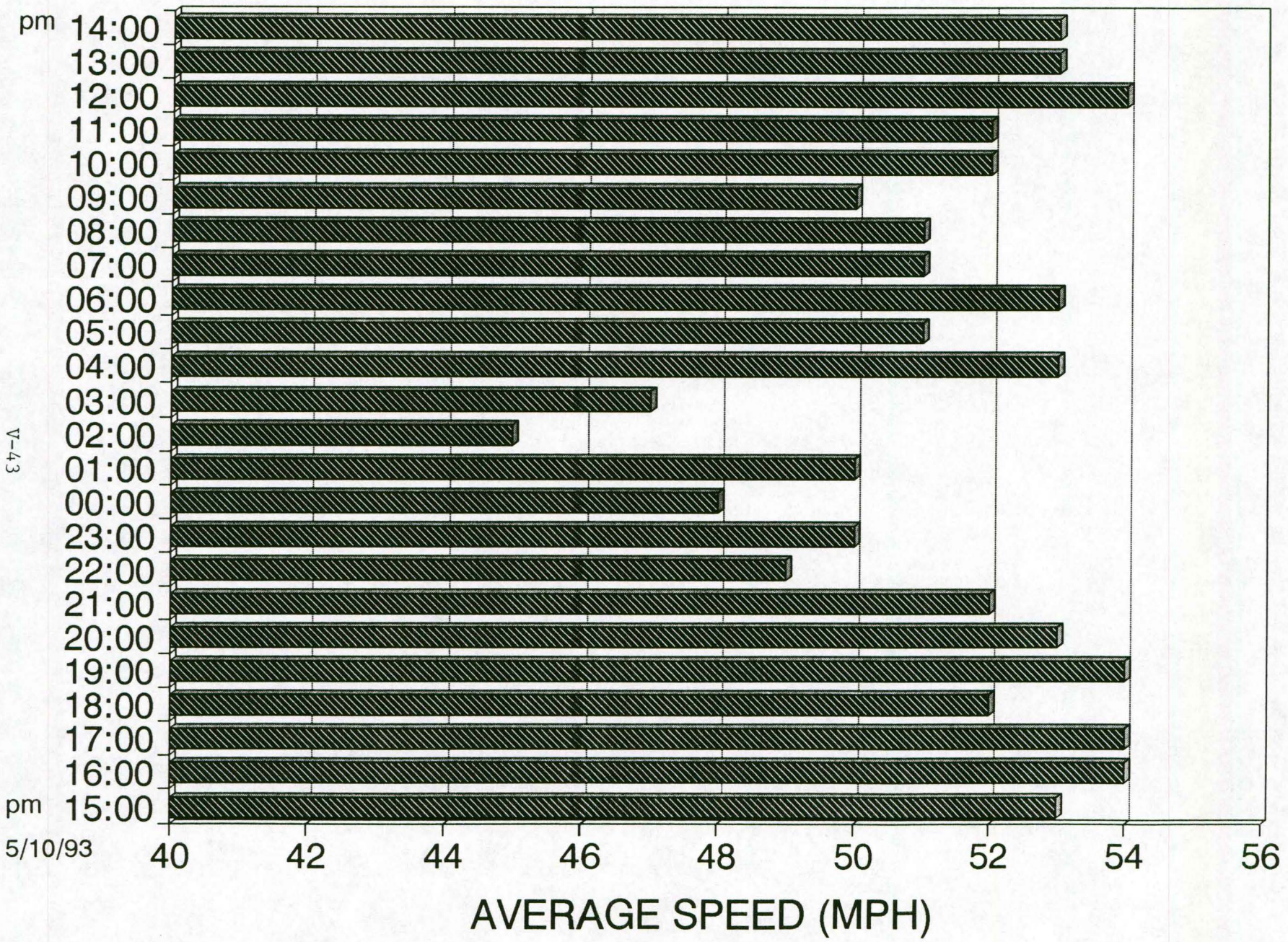
DATE	TIME	COUNT	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	AVERAGE SPEED
05/12/93	07:00	32	0	0	1	0	0	0	3	3	3	4	12	3	2	0	0	48
05/12/93	07:15	41	0	0	0	0	0	1	0	2	7	1	19	7	4	0	0	54
05/12/93	07:30	32	0	0	0	0	0	0	0	0	10	10	5	3	3	1	0	52
05/12/93	07:45	29	0	0	0	0	0	0	0	5	7	3	9	4	1	0	0	51
05/12/93	08:00	30	0	0	0	0	0	1	1	4	8	5	7	2	0	1	0	47
05/12/93	08:15	35	0	0	0	0	0	1	0	1	10	4	11	2	3	1	2	53
05/12/93	08:30	42	0	0	0	0	0	0	4	2	8	7	15	0	3	1	1	50
05/12/93	08:45	30	0	0	0	0	0	0	1	1	7	4	7	4	4	0	0	49
05/12/93	09:00	38	0	0	0	0	0	1	0	4	5	9	13	3	3	0	0	51
05/12/93	09:15	38	0	0	0	0	0	0	1	3	7	9	12	4	0	1	0	50
05/12/93	09:30	44	0	0	0	0	0	0	0	2	6	13	16	3	2	2	0	53
05/12/93	09:45	32	0	0	0	0	0	0	3	3	3	12	9	1	1	0	0	49
05/12/93	10:00	41	0	0	0	1	0	0	3	3	4	10	12	5	2	0	0	49
05/12/93	10:15	45	0	0	0	0	0	0	0	6	3	9	15	6	3	0	1	51
05/12/93	10:30	32	0	0	0	0	0	0	0	2	4	6	13	4	2	1	0	54
05/12/93	10:45	37	0	0	1	0	0	1	1	3	4	9	16	1	1	0	0	50
05/12/93	11:00	36	0	0	0	0	0	0	0	2	8	6	13	2	2	0	1	49
05/12/93	11:15	38	0	0	0	0	0	0	0	3	3	9	14	4	2	1	0	50
05/12/93	11:30	44	0	0	0	0	0	1	0	3	8	10	14	3	3	0	2	52
05/12/93	11:45	31	0	0	0	0	0	0	0	1	4	12	10	2	1	0	0	50
05/12/93	12:00	53	0	1	0	0	0	0	0	3	6	6	26	6	5	0	0	53
05/12/93	12:15	35	0	0	1	0	0	1	1	2	3	8	13	1	3	1	0	50
05/12/93	12:30	40	0	0	0	0	0	1	0	1	7	14	11	3	3	0	0	52
05/12/93	12:45	40	0	0	0	1	0	1	1	1	8	6	14	5	1	0	1	50
05/12/93	13:00	41	0	0	0	0	0	1	0	4	2	10	13	7	1	0	1	50
05/12/93	13:15	36	0	0	0	0	0	0	2	0	5	9	8	6	4	1	1	54
05/12/93	13:30	46	0	0	0	0	1	0	2	2	6	11	13	5	4	1	0	51
05/12/93	13:45	44	0	0	0	1	0	5	1	2	6	11	13	1	2	0	0	46
05/12/93	14:00	96	0	0	0	0	0	53	0	0	31	9	0	0	0	0	0	36
05/12/93	14:15	93	0	0	3	0	5	0	0	8	65	2	0	0	0	0	0	38
05/12/93	14:30	59	0	0	12	0	24	0	0	20	0	0	0	0	0	0	0	27
05/12/93	14:45	117	0	0	0	0	116	0	0	0	0	0	0	0	0	0	0	25

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

V-42

US 61 DAVENPORT - MAY 10, 1993 @3:00 PM TO MAY 11, 1993 @ 2:00 PM

5/11/93



V-43

5/10/93

US 61 DAVENPORT - MAY 11, 1993 @ 3:00 PM TO MAY 12, 1993 @ 2:00 PM

5/12/93

pm 14:00

13:00

12:00

11:00

10:00

09:00

08:00

07:00

06:00

05:00

04:00

03:00

02:00

01:00

00:00

23:00

22:00

21:00

20:00

19:00

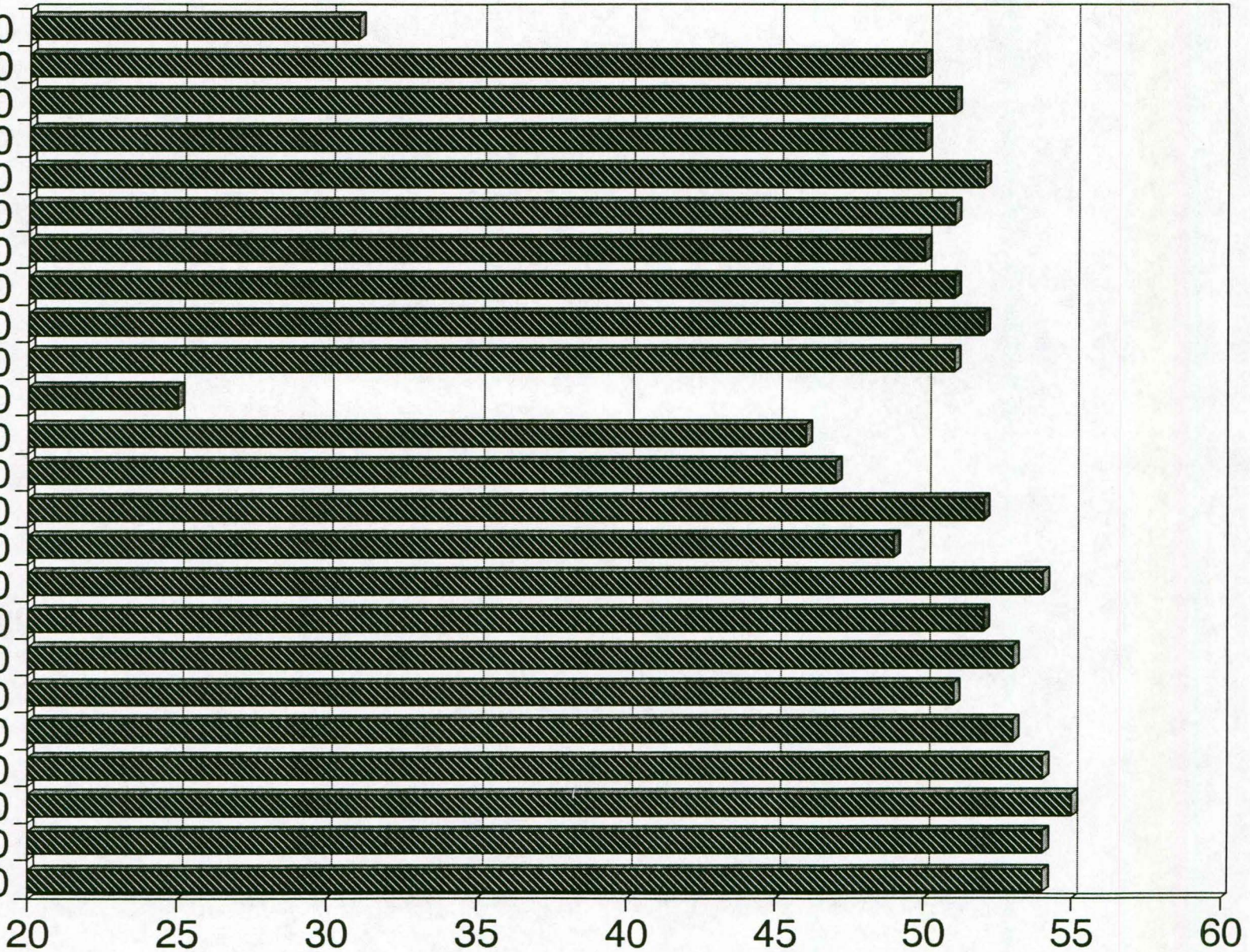
18:00

17:00

16:00

pm 15:00

5/11/93



AVERAGE SPEED (MPH)

COMPUTER GENERATED SUMMARY REPORT

ROUTE: INTERSTATE 80 SCOTT COUNTY

DURING CONSTRUCTION

A survey of vehicle traffic was conducted with HISTAR unit number 1515. The survey was done in the eastbound lane on I-80 in Scott County. The survey lasted for forty-eight (48) hours and began on Tuesday, June 1, 1993 at 12:00 p.m. and ended on Thursday, June 3, 1993 at 12:00 p.m. Data was recorded in fifteen (15) minute time periods. The total recorded volume of traffic showed 6,599 vehicles passed through the location with a peak volume of ninety-three (93) on Wednesday, June 2, 1993 at 5:30 p.m. and a minimum volume of two (2) on Wednesday, June 2, 1993 at 3:30 a.m.

SPEED

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

CHART 1

Speed Bins (mph)

5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
2	14	23	59	171	635	2351	430							
4	29	39	130	195	879	1327								

Half of the vehicles were traveling at 62.6 mph or lower speed. The average speed for all classified vehicles was 62.49 mph with 79.31 percent exceeding the posted speed of 55 mph. The mode speed for this traffic study was 65 mph and the 85th percentile was 68.6 mph.

CLASS

Chart 2 lists the values of the eight class bins and the total volume for each bin:

CHART 2

Class Bins (feet)

<19	30	40	50	60	70	0	0>
5093	358	171	232	319	115	0	0

Most of the vehicles were passenger cars with a total count of 5,093. This represents 81.00 percent of the classified vehicles.

HEADWAY

During the peak time period, on Wednesday, June 2, 1993 at 5:30 p.m. the average headway between the vehicles was 9.68 seconds. The slow period occurred on Wednesday, June 2, 1993 at 3:30 a.m. and the headway between the vehicles averaged 450.00 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 55 degrees Fahrenheit and 98 degrees Fahrenheit. The HI-STAR analyzer determined that the roadway surface was wet 80.21 percent of the time.

INTERSTATE 80 SCOTT COUNTY (DURING CONSTRUCTION)

DATE	TIME	COUN	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
06/01/93	12:00	43	0	0	0	0	0	0	1	1	1	1	4	3	20	8	3	62
06/01/93	12:15	51	0	0	0	1	0	0	0	0	1	0	5	7	22	12	2	62
06/01/93	12:30	79	0	0	0	0	0	1	1	0	1	3	7	11	32	17	4	62
06/01/93	12:45	60	0	0	0	0	1	0	1	0	2	1	2	8	22	15	7	63
06/01/93	13:00	72	0	0	0	0	0	0	0	0	1	1	8	14	28	13	6	63
06/01/93	13:15	72	0	0	0	0	0	0	0	0	4	1	9	4	26	21	5	63
06/01/93	13:30	84	0	0	0	1	1	0	0	1	2	2	6	9	31	21	6	60
06/01/93	13:45	60	0	0	0	1	0	0	0	1	0	2	6	4	26	16	3	63
06/01/93	14:00	62	0	0	0	0	0	1	0	0	0	0	8	10	19	15	5	60
06/01/93	14:15	57	0	1	0	0	0	1	1	1	1	3	4	6	20	12	5	60
06/01/93	14:30	80	0	0	0	2	0	1	0	0	5	1	7	5	36	17	4	61
06/01/93	14:45	62	0	0	0	0	0	0	0	1	0	0	3	5	27	17	3	59
06/01/93	15:00	57	0	0	0	0	1	0	0	0	0	2	4	6	21	20	2	64
06/01/93	15:15	83	0	0	0	0	1	0	1	1	1	1	6	9	38	15	7	62
06/01/93	15:30	76	0	0	0	1	1	1	0	1	0	0	2	3	31	20	9	59
06/01/93	15:45	77	0	0	0	1	0	1	0	0	1	1	5	14	28	11	3	53
06/01/93	16:00	74	0	0	0	1	0	0	0	2	0	1	4	5	32	21	6	63
06/01/93	16:15	87	0	0	0	0	0	0	1	3	1	0	8	15	31	19	7	62
06/01/93	16:30	80	0	0	1	0	0	0	1	1	2	2	4	7	41	14	5	62
06/01/93	16:45	67	0	0	1	0	0	0	0	2	1	5	2	6	21	20	7	62
06/01/93	17:00	74	0	0	0	0	0	0	0	1	0	1	2	11	28	22	7	64
06/01/93	17:15	70	0	0	0	0	1	0	0	0	1	0	1	4	27	21	12	64
06/01/93	17:30	56	0	1	0	0	0	0	1	1	1	1	2	6	26	11	6	64
06/01/93	17:45	67	0	0	0	0	0	0	1	2	0	0	5	7	28	16	8	65
06/01/93	18:00	57	0	0	0	0	1	0	0	3	1	0	4	10	18	13	4	59
06/01/93	18:15	66	0	0	0	0	0	0	0	2	1	1	4	7	28	15	4	60
06/01/93	18:30	45	0	0	0	1	0	0	0	0	1	1	5	7	16	11	2	62
06/01/93	18:45	51	0	0	1	1	0	0	0	0	1	0	6	4	25	7	3	59
06/01/93	19:00	52	0	0	0	2	0	2	1	0	0	1	5	6	19	13	0	57
06/01/93	19:15	35	0	0	0	0	0	0	0	0	1	0	1	3	19	9	0	61
06/01/93	19:30	38	0	0	1	0	1	1	0	0	0	2	3	5	13	8	3	60
06/01/93	19:45	39	0	0	0	0	0	0	2	2	3	2	4	4	12	7	2	58

V-47

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

INTERSTATE 80 SCOTT COUNTY (DURING CONSTRUCTION)

DATE	TIME	COUN	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
06/01/93	20:00	48	0	0	0	0	0	1	0	0	0	0	3	3	22	10	4	58
06/01/93	20:15	29	0	0	0	1	0	1	1	0	0	1	2	4	10	7	1	59
06/01/93	20:30	17	0	0	0	0	0	1	1	0	0	0	1	5	6	2	0	56
06/01/93	20:45	30	0	0	0	0	0	0	1	1	1	0	8	4	10	2	1	56
06/01/93	21:00	21	0	0	0	0	0	0	0	0	0	1	1	6	11	1	0	60
06/01/93	21:15	19	0	0	0	0	0	0	0	1	3	2	4	3	2	0	1	46
06/01/93	21:30	35	0	0	0	0	0	0	1	1	1	4	5	6	8	5	2	56
06/01/93	21:45	24	0	0	0	0	0	0	0	2	0	3	5	4	7	1	0	53
06/01/93	22:00	29	0	0	0	0	0	1	0	0	2	0	4	5	7	7	2	60
06/01/93	22:15	18	0	0	0	0	1	0	0	2	2	0	1	5	4	1	1	53
06/01/93	22:30	21	0	0	0	0	0	0	1	0	0	0	6	5	9	0	0	60
06/01/93	22:45	10	0	0	0	0	0	0	0	0	0	1	2	3	1	2	1	62
06/01/93	23:00	12	0	0	0	0	0	0	1	0	1	1	1	2	4	0	0	47
06/01/93	23:15	14	0	0	0	0	0	0	1	1	1	0	1	6	2	2	0	58
06/01/93	23:30	8	0	0	0	0	0	0	0	0	1	0	1	1	1	3	0	54
06/01/93	23:45	14	0	0	0	0	0	0	1	0	2	1	2	5	2	0	0	51
06/02/93	00:00	16	0	0	0	0	0	0	0	0	1	0	3	3	3	2	1	50
06/02/93	00:15	9	0	0	0	0	0	0	0	0	0	0	4	0	3	2	0	62
06/02/93	00:30	27	0	0	0	0	1	2	1	2	2	2	5	2	6	3	0	51
06/02/93	00:45	16	0	0	0	0	0	0	1	2	0	5	3	1	2	1	0	49
06/02/93	01:00	6	0	0	0	0	0	0	0	0	1	0	3	0	1	0	1	58
06/02/93	01:15	6	0	0	0	0	0	0	0	0	2	0	1	2	0	0	0	44
06/02/93	01:30	8	0	0	0	0	0	0	0	0	0	1	2	1	3	1	0	61
06/02/93	01:45	5	0	0	0	0	0	0	1	0	1	0	1	1	0	1	0	53
06/02/93	02:00	11	0	0	0	0	0	1	0	1	1	1	3	2	0	1	1	54
06/02/93	02:15	10	0	0	0	0	0	0	0	0	2	4	1	0	3	0	0	54
06/02/93	02:30	10	0	0	0	0	0	1	0	0	3	0	0	4	2	0	0	54
06/02/93	02:45	7	0	0	0	0	0	0	0	1	1	1	3	0	1	0	0	52
06/02/93	03:00	6	0	0	0	0	0	0	0	1	1	0	4	0	0	0	0	51
06/02/93	03:15	7	0	0	0	0	1	1	0	0	0	1	1	1	0	1	0	41
06/02/93	03:30	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	55
06/02/93	03:45	13	0	0	0	0	0	0	1	1	0	1	4	2	1	1	0	46

V-4

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

INTERSTATE 80 SCOTT COUNTY (DURING CONSTRUCTION)

DATE	TIME	COUN	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
06/02/93	04:00	9	0	0	0	0	0	0	1	0	4	1	2	1	0	0	0	48
06/02/93	04:15	15	0	0	0	0	0	0	1	4	3	2	1	1	0	0	0	36
06/02/93	04:30	11	0	0	0	0	1	0	0	2	4	0	2	0	1	0	0	42
06/02/93	04:45	12	0	0	0	1	0	0	0	3	3	1	1	2	0	0	0	42
06/02/93	05:00	7	0	0	0	0	0	0	0	1	0	0	0	3	3	0	0	59
06/02/93	05:15	13	0	0	0	0	1	0	0	2	2	1	0	3	1	3	0	54
06/02/93	05:30	7	0	0	0	0	1	0	0	1	0	1	0	3	0	0	0	42
06/02/93	05:45	15	0	0	0	0	0	1	0	0	0	6	1	2	3	1	0	51
06/02/93	06:00	16	0	0	0	0	0	0	0	1	0	2	3	2	4	1	3	61
06/02/93	06:15	10	0	0	0	0	1	0	0	0	1	0	3	2	3	0	0	55
06/02/93	06:30	16	0	0	0	0	0	0	0	1	0	0	3	2	5	3	2	63
06/02/93	06:45	21	0	0	0	0	0	0	0	0	2	1	1	6	8	1	1	58
06/02/93	07:00	25	0	0	0	0	0	0	0	1	1	0	2	4	12	4	0	60
06/02/93	07:15	28	0	0	1	0	0	0	0	2	0	0	5	4	7	7	2	61
06/02/93	07:30	29	0	0	0	0	0	0	0	0	0	0	0	4	19	5	0	63
06/02/93	07:45	23	0	0	0	0	1	0	1	1	1	0	4	4	8	3	0	58
06/02/93	08:00	25	0	0	0	0	0	0	0	0	1	0	3	5	14	2	0	62
06/02/93	08:15	47	0	0	0	1	0	0	1	0	1	3	23	9	5	2	0	54
06/02/93	08:30	39	0	1	0	0	0	0	0	0	0	1	3	5	17	5	3	57
06/02/93	08:45	34	0	0	0	0	0	0	0	1	1	0	4	5	14	6	1	59
06/02/93	09:00	27	0	0	0	0	0	0	0	0	0	1	1	4	9	6	3	58
06/02/93	09:15	52	0	0	1	0	0	1	0	1	0	1	3	9	19	9	4	58
06/02/93	09:30	38	0	0	0	0	0	0	0	0	1	0	2	5	15	11	4	66
06/02/93	09:45	37	0	0	0	0	0	0	1	1	3	3	2	7	9	7	2	57
06/02/93	10:00	40	0	0	1	0	0	0	1	0	3	2	7	1	10	7	3	52
06/02/93	10:15	41	0	0	0	0	0	0	0	0	0	0	1	8	22	8	1	63
06/02/93	10:30	40	0	0	0	0	0	0	0	2	2	0	4	7	17	3	3	59
06/02/93	10:45	44	0	0	0	0	0	0	0	0	0	0	3	7	14	13	5	63
06/02/93	11:00	46	0	0	0	1	0	0	0	0	0	1	2	3	18	12	4	58
06/02/93	11:15	39	0	0	0	0	0	1	2	0	1	1	5	2	11	15	1	62
06/02/93	11:30	45	0	0	0	0	0	1	0	0	1	1	6	4	16	13	2	62
06/02/93	11:45	62	0	0	0	0	0	0	0	2	0	1	4	6	27	15	1	58

67-A

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

INTERSTATE 80 SCOTT COUNTY (DURING CONSTRUCTION)

DATE	TIME	COUN	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
06/02/93	12:00	54	0	0	1	0	1	0	1	1	1	0	3	6	20	13	5	61
06/02/93	12:15	39	0	0	0	0	1	0	0	0	1	0	2	6	18	10	0	62
06/02/93	12:30	43	0	0	0	2	0	0	0	2	0	0	5	4	12	11	6	61
06/02/93	12:45	59	0	0	0	0	0	0	0	1	3	2	5	8	18	16	6	64
06/02/93	13:00	51	0	0	0	0	0	1	0	0	0	2	3	9	25	9	1	62
06/02/93	13:15	41	0	0	0	0	0	0	0	0	1	2	3	7	11	13	2	61
06/02/93	13:30	62	0	0	0	0	0	0	1	0	1	0	1	5	28	14	9	63
06/02/93	13:45	43	0	0	0	0	0	0	0	0	1	0	2	6	23	9	2	65
06/02/93	14:00	67	0	0	0	1	0	0	1	2	2	0	4	7	32	14	3	62
06/02/93	14:15	58	0	0	0	0	0	1	1	0	0	1	4	12	21	11	3	59
06/02/93	14:30	55	0	0	0	0	0	1	0	0	1	1	6	9	15	13	8	63
06/02/93	14:45	48	0	0	0	1	0	0	1	1	1	0	8	5	16	9	1	55
06/02/93	15:00	76	1	0	0	3	0	0	0	3	1	3	4	12	26	18	5	61
06/02/93	15:15	47	0	0	0	0	0	0	0	0	1	0	6	8	18	10	3	63
06/02/93	15:30	52	0	0	0	0	0	0	0	0	0	0	5	4	31	9	1	62
06/02/93	15:45	71	0	0	0	0	0	0	0	0	0	0	2	4	37	21	4	64
06/02/93	16:00	68	0	0	0	0	0	0	0	0	0	1	4	13	28	14	3	60
06/02/93	16:15	67	0	0	0	0	0	0	0	1	1	1	5	3	29	12	11	62
06/02/93	16:30	65	0	0	0	0	0	0	0	0	0	5	5	6	21	17	8	62
06/02/93	16:45	63	0	0	0	0	0	1	1	1	1	1	2	8	28	14	5	63
06/02/93	17:00	78	0	0	0	0	1	0	0	1	0	1	6	7	32	21	7	63
06/02/93	17:15	49	0	0	0	0	0	0	1	0	0	1	4	2	15	15	9	64
06/02/93	17:30	93	0	1	0	0	0	0	1	3	1	1	4	14	34	21	10	62
06/02/93	17:45	55	0	0	0	0	1	0	0	2	0	0	1	5	20	13	11	64
06/02/93	18:00	62	0	0	1	1	0	0	0	3	5	1	3	4	21	13	7	59
06/02/93	18:15	55	0	0	0	0	0	0	1	0	1	3	7	7	13	15	5	60
06/02/93	18:30	54	0	0	0	0	0	0	4	1	1	0	7	10	18	7	3	57
06/02/93	18:45	37	0	0	0	0	0	0	0	3	1	2	6	2	11	7	2	56
06/02/93	19:00	40	0	0	0	0	0	0	0	3	2	0	5	7	17	3	2	59
06/02/93	19:15	42	0	0	0	0	0	0	0	1	1	1	2	5	18	13	0	63
06/02/93	19:30	30	0	0	0	2	0	0	1	2	1	1	5	5	5	5	1	53
06/02/93	19:45	28	0	0	0	0	0	1	0	0	0	0	2	7	7	5	1	51

V-50

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

INTERSTATE 80 SCOTT COUNTY (DURING CONSTRUCTION)

DATE	TIME	COUN	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
06/02/93	20:00	24	0	0	0	0	0	0	0	1	0	0	2	6	10	3	1	60
06/02/93	20:15	29	0	0	0	0	0	0	1	0	0	2	1	3	14	2	0	49
06/02/93	20:30	19	0	0	0	0	0	0	0	2	0	1	3	3	6	3	0	57
06/02/93	20:45	21	0	0	0	0	0	0	1	1	1	0	2	3	11	1	0	57
06/02/93	21:00	31	0	0	0	0	0	1	0	0	1	1	3	13	6	4	1	59
06/02/93	21:15	32	0	0	0	0	0	0	1	1	1	4	10	8	4	1	0	53
06/02/93	21:30	25	0	0	0	0	0	0	0	0	3	2	9	4	2	1	4	59
06/02/93	21:45	30	0	0	0	0	0	0	0	0	1	3	1	5	13	2	5	64
06/02/93	22:00	30	0	0	0	0	0	0	0	0	0	1	2	8	15	2	0	59
06/02/93	22:15	13	0	0	0	0	0	0	0	1	0	0	1	1	3	4	0	48
06/02/93	22:30	15	0	0	0	0	0	0	0	1	0	2	4	1	6	1	0	59
06/02/93	22:45	12	0	0	0	0	0	0	0	1	0	2	3	2	2	1	0	52
06/02/93	23:00	22	0	0	0	0	0	1	1	3	1	4	5	5	2	0	0	52
06/02/93	23:15	11	0	0	0	0	0	1	0	0	0	1	1	4	2	0	2	60
06/02/93	23:30	13	1	0	0	0	0	0	1	0	0	0	1	2	5	2	1	58
06/02/93	23:45	13	0	0	0	0	0	0	0	0	0	1	2	1	6	2	0	58
06/03/93	00:00	16	0	0	0	0	0	0	0	1	1	0	2	7	5	0	0	59
06/03/93	00:15	6	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	27
06/03/93	00:30	13	0	0	0	0	0	0	0	0	1	0	0	5	5	1	1	63
06/03/93	00:45	9	0	0	1	0	0	0	0	2	1	0	3	1	1	0	0	48
06/03/93	01:00	6	0	0	0	0	0	0	0	0	1	3	2	0	0	0	0	51
06/03/93	01:15	6	0	0	0	0	0	0	0	0	1	0	0	4	0	1	0	59
06/03/93	01:30	11	0	0	0	0	0	0	0	0	2	1	4	1	0	0	0	38
06/03/93	01:45	4	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	36
06/03/93	02:00	9	0	0	0	0	0	1	0	1	0	1	1	1	2	1	0	48
06/03/93	02:15	9	0	0	0	0	0	0	0	1	0	1	4	0	1	2	0	57
06/03/93	02:30	5	0	0	0	0	0	0	0	2	1	0	0	0	0	0	1	40
06/03/93	02:45	7	0	0	0	0	1	0	0	0	0	0	3	0	3	0	0	55
06/03/93	03:00	6	0	0	0	0	0	0	0	1	0	1	3	0	1	0	0	53
06/03/93	03:15	9	0	0	0	0	0	0	0	0	2	1	3	2	0	0	0	47
06/03/93	03:30	6	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	48
06/03/93	03:45	8	0	0	0	0	0	1	0	0	1	0	0	2	4	0	0	57

T5-A

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

INTERSTATE 80 SCOTT COUNTY (DURING CONSTRUCTION)

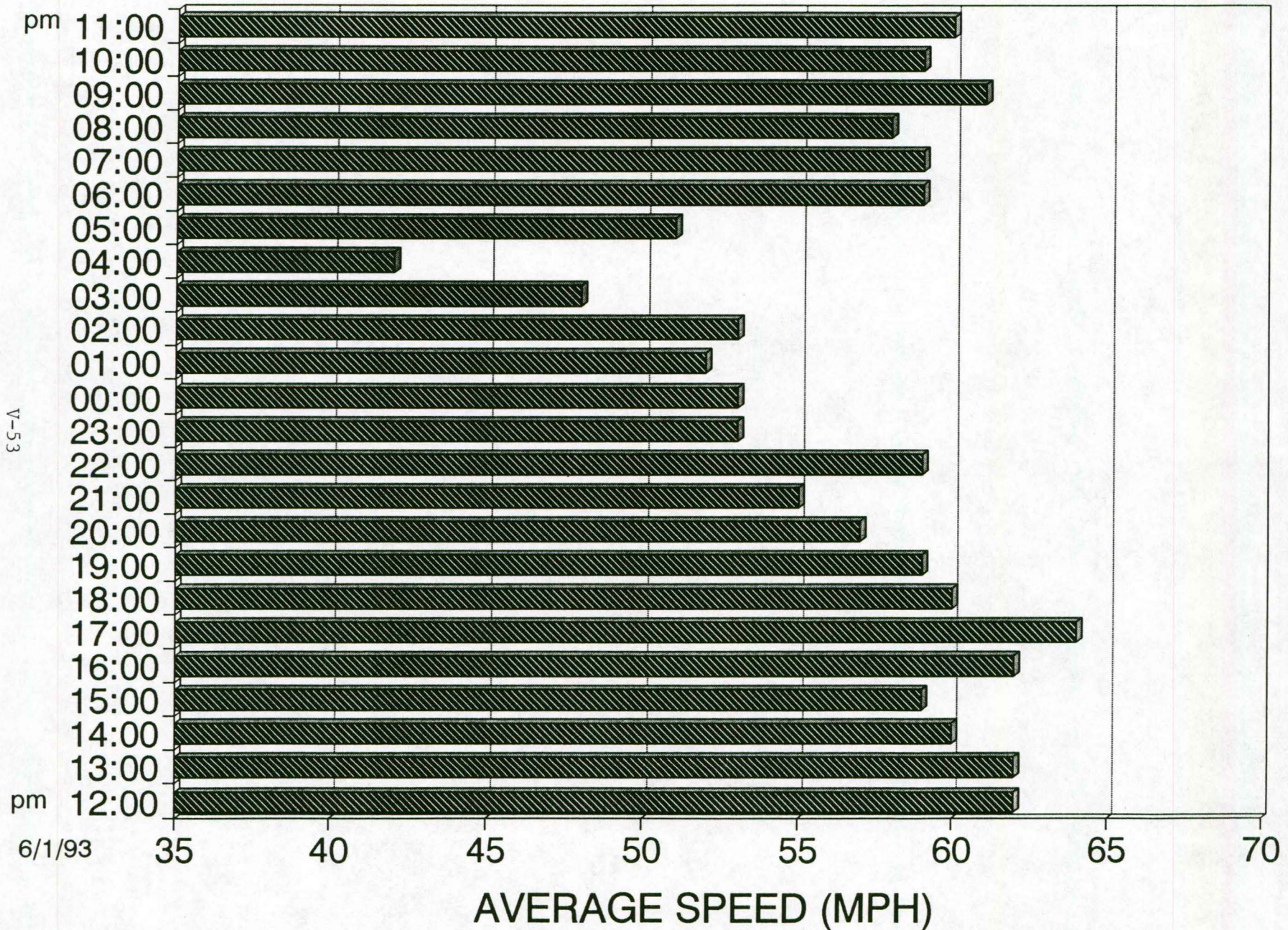
DATE	TIME	COUN	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
06/03/93	04:00	14	0	0	0	0	1	0	1	0	1	1	4	2	2	1	0	50
06/03/93	04:15	14	0	0	0	0	0	0	0	0	4	0	7	0	0	0	0	40
06/03/93	04:30	7	0	0	0	0	0	0	0	0	3	2	0	0	0	0	0	34
06/03/93	04:45	6	0	0	0	0	0	0	0	0	0	2	2	0	1	0	0	46
06/03/93	05:00	8	0	0	0	0	0	0	0	0	0	1	1	3	0	0	1	45
06/03/93	05:15	9	0	0	0	0	0	1	0	0	0	0	2	2	4	0	0	58
06/03/93	05:30	8	0	0	0	0	0	0	0	0	0	0	4	2	0	1	0	51
06/03/93	05:45	24	0	0	0	1	0	2	2	0	1	1	3	4	7	1	0	49
06/03/93	06:00	17	0	0	0	0	0	0	0	0	1	0	2	2	8	2	0	55
06/03/93	06:15	19	0	0	0	0	0	0	0	0	0	1	2	2	11	0	2	60
06/03/93	06:30	21	0	0	0	0	0	0	0	0	1	1	3	3	8	4	0	59
06/03/93	06:45	18	0	0	0	0	0	0	0	2	1	2	3	3	5	1	0	54
06/03/93	07:00	18	0	0	0	0	0	0	0	0	2	0	3	3	7	3	0	61
06/03/93	07:15	28	0	0	0	0	0	0	0	1	0	0	4	3	9	8	3	65
06/03/93	07:30	21	0	0	1	0	0	0	0	0	1	1	0	5	9	2	2	61
06/03/93	07:45	27	0	0	0	0	0	0	1	1	0	1	2	2	10	7	3	64
06/03/93	08:00	26	0	0	0	0	0	1	0	0	1	0	1	7	10	5	0	60
06/03/93	08:15	27	0	0	0	0	0	0	0	1	0	4	5	5	3	5	2	56
06/03/93	08:30	41	0	0	0	0	0	0	0	0	1	1	3	10	12	8	2	57
06/03/93	08:45	30	0	0	0	0	0	0	0	1	2	1	4	5	9	6	2	62
06/03/93	09:00	28	0	0	0	0	0	0	0	1	1	1	3	4	6	9	3	64
06/03/93	09:15	47	0	0	1	0	0	0	0	0	1	1	4	6	16	13	2	59
06/03/93	09:30	31	0	0	0	0	0	1	0	1	1	3	1	6	9	6	2	59
06/03/93	09:45	50	0	0	0	0	0	1	0	1	0	0	6	7	20	11	3	62
06/03/93	10:00	36	0	0	0	0	0	0	3	0	0	2	3	6	16	3	0	55
06/03/93	10:15	46	0	0	0	0	0	0	0	0	0	1	5	2	28	6	2	62
06/03/93	10:30	48	0	0	0	0	0	0	0	1	0	2	2	3	16	16	4	60
06/03/93	10:45	41	0	0	1	0	0	0	0	1	1	0	1	5	10	11	7	59
06/03/93	11:00	52	0	0	1	0	0	0	0	0	1	0	4	6	16	17	5	62
06/03/93	11:15	59	0	0	0	0	1	0	1	0	0	1	2	5	15	25	6	63
06/03/93	11:30	57	0	0	0	1	0	0	0	0	0	1	5	8	22	17	1	62
06/03/93	11:45	45	0	0	0	1	0	1	0	0	1	2	3	3	12	15	7	64

V-52

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

I 80 SCOTT COUNTY - JUNE 1, 1993 @ 12:00 PM TO JUNE 2, 1993 @ 11:00 AM

6/2/93

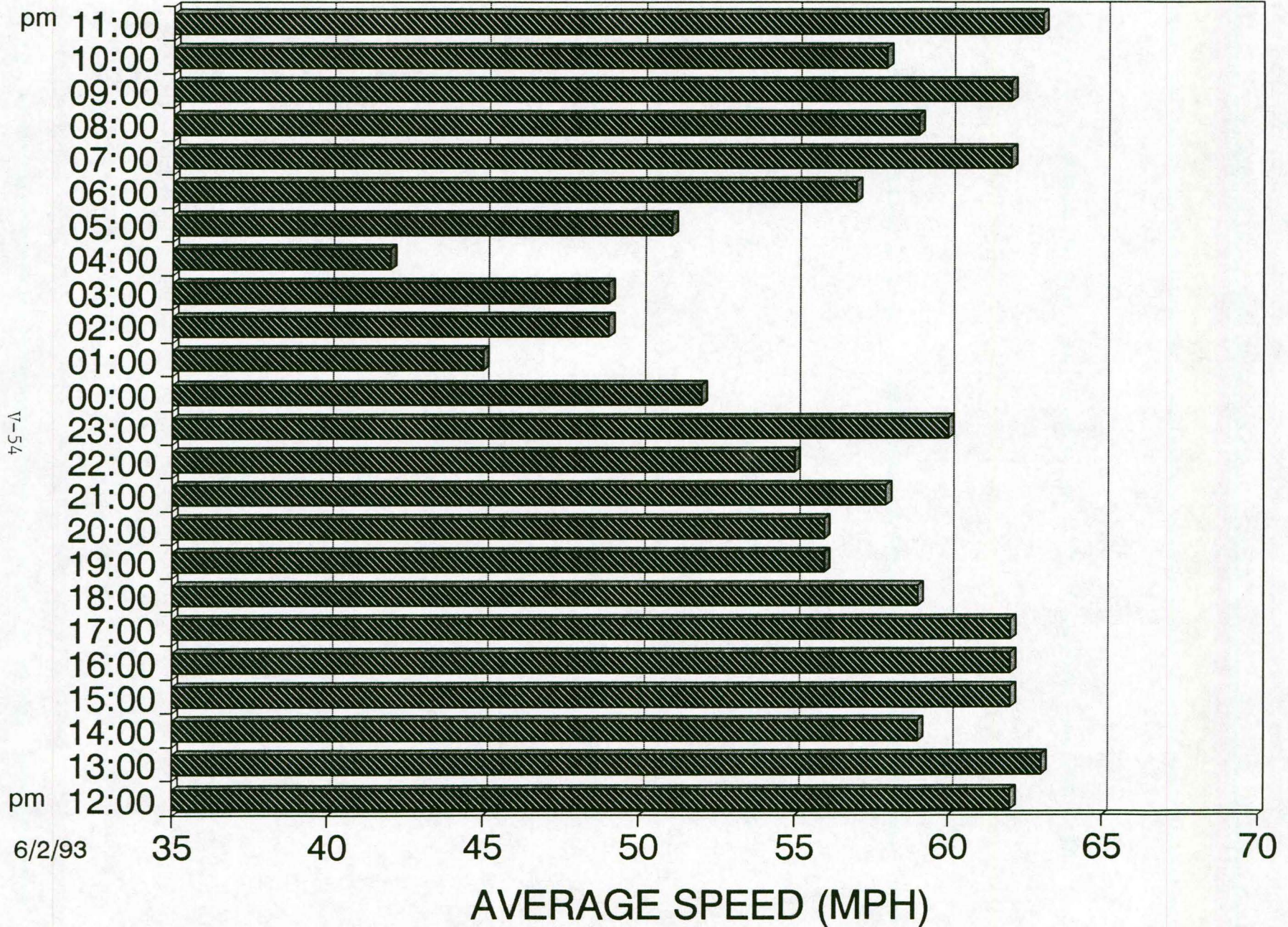


V-53

6/1/93

I 80 SCOTT COUNTY - JUNE 2, 1993 @ 12:00 PM TO JUNE 3, 1993 @ 11:00 AM

6/3/93



V-54

6/2/93

COMPUTER GENERATED SUMMARY REPORT

ROUTE: INTERSTATE 80 SCOTT COUNTY

PRIOR TO CONSTRUCTION

A survey of vehicle traffic was conducted with HISTAR unit number 1536. The survey was done in the eastbound lane on I-80 in Scott County. The survey lasted for forty-eight (48) hours and began on Monday, May 10, 1993 at 12:00 p.m. and ended on Wednesday, May 12, 1993 at 12:00 p.m. Data was recorded in fifteen (15) minute time periods. The total recorded volume of traffic showed 6,613 vehicles passed through the location with a peak volume of ninety-six (96) on Monday, May 10, 1993 at 4:45 p.m. and a minimum volume of two (2) on Tuesday, May 11, 1993 at 2:15 a.m.

SPEED

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

CHART 1

Speed Bins (mph)

5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
1		6		4		4		22		118		2084		1031
	0		5		5		17		28		311		2243	

Half of the vehicles were traveling at 66.2 mph or lower speed. The average speed for all classified vehicles was 67.80 mph with 55.69 percent exceeding the posted speed of 65 mph. The HI-STAR found 96.43 percent of the vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 70 mph and the 85th percentile was 71.2 mph.

CLASS

Chart 2 lists the values of the eight class bins and the total volume for each bin:

CHART 2

Class Bins (feet)

<19	30	40	50	60	70	0	0>
4647	399	176	182	337	138	0	0

Most of the vehicles were passenger cars with a total count of 4,647. This represents 79.04 percent of the classified vehicles.

HEADWAY

During the peak time period, on Monday, May 10, 1993 at 4:45 p.m. the average headway between the vehicles was 9.38 seconds. The slow period occurred on Tuesday, May 11, 1993 at 2:15 a.m. and the headway between the vehicles averaged 450.00 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 64 degrees Fahrenheit and 107 degrees Fahrenheit. The HI-STAR analyzer determined that the roadway surface was dry 53.65 percent of the time.

INTERSTATE 80 SCOTT COUNTY (PRIOR TO CONSTRUCTION)

DATE	TIME	COUNT	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
05/10/93	12:00	41	0	0	0	0	0	0	0	1	0	0	1	2	12	15	10	68
05/10/93	12:15	61	0	0	0	0	0	0	0	0	1	1	2	9	15	18	11	62
05/10/93	12:30	42	0	0	1	0	0	0	0	3	0	0	0	5	16	9	6	61
05/10/93	12:45	61	0	0	0	0	0	0	0	0	0	0	1	1	18	28	8	63
05/10/93	13:00	61	0	0	0	0	0	0	0	0	0	0	0	3	18	27	8	63
05/10/93	13:15	54	0	0	0	1	0	1	0	0	1	0	1	0	16	16	15	64
05/10/93	13:30	59	0	0	0	0	0	0	0	0	0	0	0	2	9	26	15	62
05/10/93	13:45	76	0	0	0	0	0	0	0	0	0	0	1	1	19	28	16	59
05/10/93	14:00	56	0	0	1	0	0	0	0	3	0	0	0	2	23	14	12	65
05/10/93	14:15	53	0	0	0	0	0	0	0	0	0	0	1	2	12	26	8	64
05/10/93	14:30	70	0	0	0	0	0	0	0	0	1	0	2	2	20	34	9	66
05/10/93	14:45	60	0	0	0	0	0	0	0	1	0	0	3	3	14	23	12	63
05/10/93	15:00	66	0	0	0	0	0	0	0	0	0	0	1	4	16	24	16	64
05/10/93	15:15	60	0	0	0	0	0	0	0	0	0	0	2	2	12	22	17	64
05/10/93	15:30	80	0	0	1	0	0	0	0	0	0	2	0	3	12	34	19	61
05/10/93	15:45	67	0	0	0	0	1	0	1	0	0	2	0	2	15	27	18	67
05/10/93	16:00	75	0	0	0	0	0	0	0	0	0	1	1	4	21	22	19	62
05/10/93	16:15	72	0	0	0	0	0	0	0	0	0	1	1	1	26	22	14	62
05/10/93	16:30	80	0	0	0	1	0	0	1	0	0	0	2	3	23	22	20	61
05/10/93	16:45	96	0	0	0	0	0	0	0	0	0	0	0	2	24	34	18	56
05/10/93	17:00	81	0	0	0	0	0	0	0	0	0	0	1	1	17	31	24	64
05/10/93	17:15	71	0	0	0	0	0	0	0	0	0	0	1	2	20	27	7	55
05/10/93	17:30	63	0	0	1	0	0	0	0	0	0	0	1	0	10	26	20	64
05/10/93	17:45	59	0	0	0	0	0	0	0	0	0	0	1	1	18	21	12	62
05/10/93	18:00	39	0	0	0	0	0	0	0	0	0	0	2	6	17	7	2	57
05/10/93	18:15	66	0	0	0	0	0	0	0	0	0	0	2	3	14	27	14	63
05/10/93	18:30	70	0	0	0	0	0	0	0	0	1	0	1	6	18	22	14	60
05/10/93	18:45	48	0	0	0	0	0	0	0	1	1	0	0	4	15	12	6	54
05/10/93	19:00	52	0	0	0	0	0	0	0	0	1	0	0	1	16	17	9	58
05/10/93	19:15	54	0	0	0	0	0	0	0	0	1	1	0	2	18	18	3	53
05/10/93	19:30	36	0	0	0	0	0	0	0	0	0	0	1	1	16	7	5	56
05/10/93	19:45	28	0	0	0	0	0	0	0	0	0	0	1	0	2	12	7	55

V-57

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

INTERSTATE 80 SCOTT COUNTY (PRIOR TO CONSTRUCTION)

DATE	TIME	COUNT	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
05/10/93	20:00	39	0	0	0	0	0	0	0	1	0	0	0	0	7	18	6	57
05/10/93	20:15	27	0	0	0	0	0	0	0	0	0	0	0	2	8	6	7	59
05/10/93	20:30	18	0	0	0	0	0	0	0	0	0	0	1	0	11	2	1	55
05/10/93	20:45	30	0	0	0	0	0	0	0	0	0	0	0	0	8	12	4	55
05/10/93	21:00	30	0	0	1	0	0	0	0	0	0	0	0	3	6	17	1	62
05/10/93	21:15	30	0	0	0	0	0	0	0	0	0	0	0	1	6	16	3	60
05/10/93	21:30	32	0	0	0	0	0	0	0	0	0	0	1	1	12	11	2	57
05/10/93	21:45	31	0	0	0	0	0	0	0	0	1	0	0	2	7	10	5	55
05/10/93	22:00	22	0	0	0	0	0	0	0	0	0	0	2	1	6	9	1	58
05/10/93	22:15	30	0	0	0	0	0	0	0	0	0	0	2	5	8	5	2	48
05/10/93	22:30	20	0	0	0	0	0	0	0	1	0	0	2	2	5	6	1	55
05/10/93	22:45	16	0	0	0	0	0	0	0	1	0	0	0	0	4	8	0	54
05/10/93	23:00	20	0	0	0	0	0	0	0	0	0	0	0	1	7	7	1	54
05/10/93	23:15	12	0	0	0	0	0	0	0	0	0	0	2	2	2	3	1	54
05/10/93	23:30	7	0	0	0	0	0	0	0	0	0	1	0	2	2	0	1	54
05/10/93	23:45	13	0	0	0	0	0	0	0	0	1	0	1	3	4	0	2	53
05/11/93	00:00	10	0	0	0	0	0	0	0	0	0	0	0	3	1	4	0	53
05/11/93	00:15	7	0	0	0	0	0	0	0	0	0	0	0	0	3	1	1	49
05/11/93	00:30	12	0	0	0	0	0	0	0	0	0	0	0	0	2	3	2	41
05/11/93	00:45	11	0	0	0	0	0	0	0	0	0	0	0	2	8	0	0	58
05/11/93	01:00	14	0	0	0	0	0	0	0	0	1	0	1	0	2	6	2	57
05/11/93	01:15	11	0	0	0	0	0	0	0	0	0	0	1	3	4	1	0	51
05/11/93	01:30	13	0	0	0	0	0	0	0	0	0	0	0	9	2	1	0	57
05/11/93	01:45	3	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	68
05/11/93	02:00	8	0	0	0	0	0	0	0	0	0	0	0	1	3	3	0	58
05/11/93	02:15	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	63
05/11/93	02:30	5	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	67
05/11/93	02:45	9	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4	48
05/11/93	03:00	9	0	0	0	0	0	0	0	0	0	0	0	0	2	4	1	54
05/11/93	03:15	7	0	0	0	0	0	0	0	0	0	0	0	1	2	2	0	47
05/11/93	03:30	7	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	58
05/11/93	03:45	6	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	65

85-A

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

INTERSTATE 80 SCOTT COUNTY (PRIOR TO CONSTRUCTION)

DATE	TIME	COUNT	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
05/11/93	04:00	9	0	0	0	0	0	0	0	0	0	1	0	1	1	2	0	35
05/11/93	04:15	9	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	36
05/11/93	04:30	8	0	0	0	0	0	0	0	0	0	0	0	0	6	1	0	58
05/11/93	04:45	15	0	0	0	0	0	0	0	0	0	0	0	2	4	3	2	49
05/11/93	05:00	5	0	0	0	0	0	0	0	0	0	0	0	1	2	2	0	66
05/11/93	05:15	8	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	44
05/11/93	05:30	9	0	0	0	0	0	0	0	0	0	0	0	1	5	3	0	66
05/11/93	05:45	10	0	0	0	0	0	0	0	0	0	0	0	0	5	4	1	68
05/11/93	06:00	19	0	0	0	0	0	0	0	0	0	0	1	0	9	6	2	64
05/11/93	06:15	27	0	0	0	0	0	0	0	0	0	0	3	1	11	9	1	61
05/11/93	06:30	22	0	0	0	0	0	0	0	0	0	0	0	2	2	11	3	57
05/11/93	06:45	16	0	0	0	0	0	0	0	0	0	0	0	0	4	6	2	52
05/11/93	07:00	29	0	0	0	0	0	0	0	0	0	0	0	1	12	9	3	58
05/11/93	07:15	24	0	0	0	0	0	1	0	0	0	1	1	2	5	7	3	54
05/11/93	07:30	20	0	0	0	0	0	0	0	0	1	0	1	3	5	7	1	59
05/11/93	07:45	36	0	0	0	0	0	0	0	0	0	0	0	0	10	17	6	64
05/11/93	08:00	27	0	0	0	0	0	0	0	0	0	0	1	1	8	11	4	63
05/11/93	08:15	37	0	0	0	0	0	0	0	0	0	0	0	0	11	17	6	64
05/11/93	08:30	21	0	0	0	0	0	0	0	0	0	0	0	1	8	5	1	48
05/11/93	08:45	20	0	0	0	0	0	0	0	0	0	0	0	1	9	6	2	61
05/11/93	09:00	44	0	0	0	0	0	0	0	0	0	0	1	2	13	13	10	61
05/11/93	09:15	30	0	0	0	0	0	0	0	0	0	0	0	1	10	13	4	64
05/11/93	09:30	39	0	0	0	0	0	0	0	0	0	0	0	2	13	14	5	59
05/11/93	09:45	42	0	0	0	0	0	0	0	0	0	0	3	1	10	14	8	58
05/11/93	10:00	34	0	0	0	0	0	0	0	0	0	0	0	1	7	14	9	64
05/11/93	10:15	20	0	0	0	0	0	0	0	0	0	0	0	0	5	12	3	70
05/11/93	10:30	58	0	0	0	0	0	0	0	0	0	0	1	4	30	16	3	62
05/11/93	10:45	47	0	0	0	0	0	0	0	0	0	0	0	3	16	18	4	59
05/11/93	11:00	54	0	0	0	0	0	0	0	0	0	0	3	4	23	15	4	60
05/11/93	11:15	66	0	0	0	0	0	0	0	0	0	1	0	6	18	26	9	62
05/11/93	11:30	42	0	0	0	0	0	0	0	0	0	0	1	0	24	10	5	64
05/11/93	11:45	55	0	0	0	0	0	0	0	0	0	0	2	2	21	16	8	60

65-V

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

INTERSTATE 80 SCOTT COUNTY (PRIOR TO CONSTRUCTION)

DATE	TIME	COUNT	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
05/11/93	12:00	49	0	0	0	0	0	0	1	0	0	1	2	1	13	17	12	65
05/11/93	12:15	56	0	0	0	0	1	0	0	0	0	0	1	2	25	19	4	62
05/11/93	12:30	41	0	0	0	0	0	0	0	0	0	1	2	3	12	16	6	66
05/11/93	12:45	42	0	0	0	0	0	0	0	0	0	0	0	5	14	12	4	56
05/11/93	13:00	41	0	0	0	0	0	0	0	0	0	0	2	3	19	8	7	64
05/11/93	13:15	46	0	0	0	0	0	0	0	0	0	0	1	4	23	14	4	67
05/11/93	13:30	43	0	0	0	0	0	0	0	1	0	0	2	2	14	13	3	54
05/11/93	13:45	58	0	0	0	0	0	0	0	0	0	0	2	2	20	20	8	61
05/11/93	14:00	49	0	0	0	0	0	0	0	0	0	1	0	2	11	22	6	59
05/11/93	14:15	57	0	0	0	0	0	0	0	0	0	1	2	8	18	14	8	59
05/11/93	14:30	55	0	0	0	0	0	0	0	0	0	0	0	2	14	26	10	65
05/11/93	14:45	65	0	0	0	0	0	0	0	0	0	2	1	3	28	14	9	59
05/11/93	15:00	60	0	0	0	1	0	0	0	0	0	0	1	3	28	15	9	63
05/11/93	15:15	61	0	0	0	0	0	0	0	0	0	0	0	0	26	24	5	61
05/11/93	15:30	88	0	0	0	0	0	0	0	0	0	0	2	1	34	28	14	61
05/11/93	15:45	77	0	0	0	0	0	0	0	0	0	1	1	7	22	29	13	64
05/11/93	16:00	81	0	0	0	0	0	0	0	1	0	0	4	8	27	27	8	62
05/11/93	16:15	61	0	0	0	0	0	0	0	0	1	0	0	5	23	25	4	64
05/11/93	16:30	71	1	0	0	0	0	0	0	2	0	0	0	2	28	31	5	64
05/11/93	16:45	74	0	0	0	0	0	0	0	0	0	0	1	4	15	37	12	64
05/11/93	17:00	67	0	0	0	0	0	0	0	0	0	0	1	1	16	26	15	61
05/11/93	17:15	77	0	0	0	0	0	0	0	0	0	0	1	6	36	23	8	64
05/11/93	17:30	57	0	0	0	0	0	0	0	0	0	0	1	5	24	16	9	65
05/11/93	17:45	48	0	0	1	0	0	0	0	1	1	0	1	6	15	16	3	59
05/11/93	18:00	50	0	0	0	0	0	0	0	0	0	0	0	4	23	18	5	67
05/11/93	18:15	44	0	0	0	0	0	0	0	0	0	0	3	2	16	13	7	63
05/11/93	18:30	53	0	0	0	0	0	0	0	0	0	0	0	0	22	15	11	62
05/11/93	18:45	45	0	0	0	0	0	0	0	0	0	0	1	2	9	15	7	52
05/11/93	19:00	40	0	0	0	0	0	0	0	0	0	0	0	0	16	10	9	60
05/11/93	19:15	31	0	0	0	0	0	1	0	0	0	1	0	2	7	8	4	49
05/11/93	19:30	47	0	0	0	0	0	1	0	0	0	1	0	0	13	18	8	59
05/11/93	19:45	37	0	0	0	0	0	0	0	0	0	1	1	1	11	16	3	60

09-A

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

INTERSTATE 80 SCOTT COUNTY (PRIOR TO CONSTRUCTION)

DATE	TIME	COUNT	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
05/11/93	20:00	33	0	0	0	0	0	0	0	0	0	0	0	0	6	11	7	51
05/11/93	20:15	31	0	0	0	0	0	0	0	0	0	0	1	1	15	8	3	60
05/11/93	20:30	33	0	0	0	0	0	0	0	0	0	1	1	2	13	7	6	61
05/11/93	20:45	26	0	0	0	0	0	0	0	0	0	0	1	2	5	8	3	49
05/11/93	21:00	30	0	0	0	0	0	0	0	0	0	1	1	2	13	8	1	57
05/11/93	21:15	24	0	0	0	0	0	0	0	0	0	0	3	1	9	4	1	49
05/11/93	21:30	18	0	0	0	0	0	0	0	0	0	0	0	1	10	2	1	51
05/11/93	21:45	19	0	0	0	0	0	0	0	0	0	1	0	2	7	7	1	63
05/11/93	22:00	23	0	0	0	0	0	0	0	0	0	0	1	0	12	5	1	55
05/11/93	22:15	23	0	0	0	0	0	0	0	0	0	0	1	1	6	8	4	59
05/11/93	22:30	22	0	0	0	0	0	0	0	0	0	0	0	0	11	3	6	63
05/11/93	22:45	16	0	0	0	0	0	0	0	0	0	1	0	1	7	2	2	53
05/11/93	23:00	16	0	0	0	0	0	0	0	0	0	0	0	0	7	3	2	51
05/11/93	23:15	14	0	0	0	0	0	0	0	0	0	0	0	0	8	4	2	68
05/11/93	23:30	16	0	0	0	0	0	0	0	0	0	0	0	0	5	5	1	47
05/11/93	23:45	11	0	0	0	0	0	0	0	0	0	0	0	0	1	8	1	64
05/12/93	00:00	14	0	0	0	0	0	0	0	0	0	0	0	0	3	2	8	67
05/12/93	00:15	10	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0	49
05/12/93	00:30	12	0	0	0	0	0	0	0	0	0	0	0	0	2	6	3	65
05/12/93	00:45	14	0	0	0	0	0	0	0	0	0	0	0	0	6	4	1	53
05/12/93	01:00	17	0	0	0	0	0	0	0	0	0	0	0	0	1	11	2	58
05/12/93	01:15	16	0	0	0	0	0	0	0	0	0	0	0	0	5	8	1	60
05/12/93	01:30	9	0	0	0	0	0	0	0	0	0	0	0	0	2	6	0	61
05/12/93	01:45	7	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	60
05/12/93	02:00	9	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	47
05/12/93	02:15	14	0	0	0	1	0	0	0	0	3	0	0	0	3	5	0	50
05/12/93	02:30	7	0	0	0	0	0	0	1	0	2	0	0	1	0	1	0	36
05/12/93	02:45	11	0	0	0	0	0	0	0	0	0	0	1	0	6	0	0	40
05/12/93	03:00	7	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	56
05/12/93	03:15	7	0	0	0	0	0	0	0	0	0	0	0	1	4	0	1	56
05/12/93	03:30	14	0	0	0	0	0	0	0	0	0	0	0	0	7	3	2	58
05/12/93	03:45	7	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	28

I9-Δ

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

INTERSTATE 80 SCOTT COUNTY (PRIOR TO CONSTRUCTION)

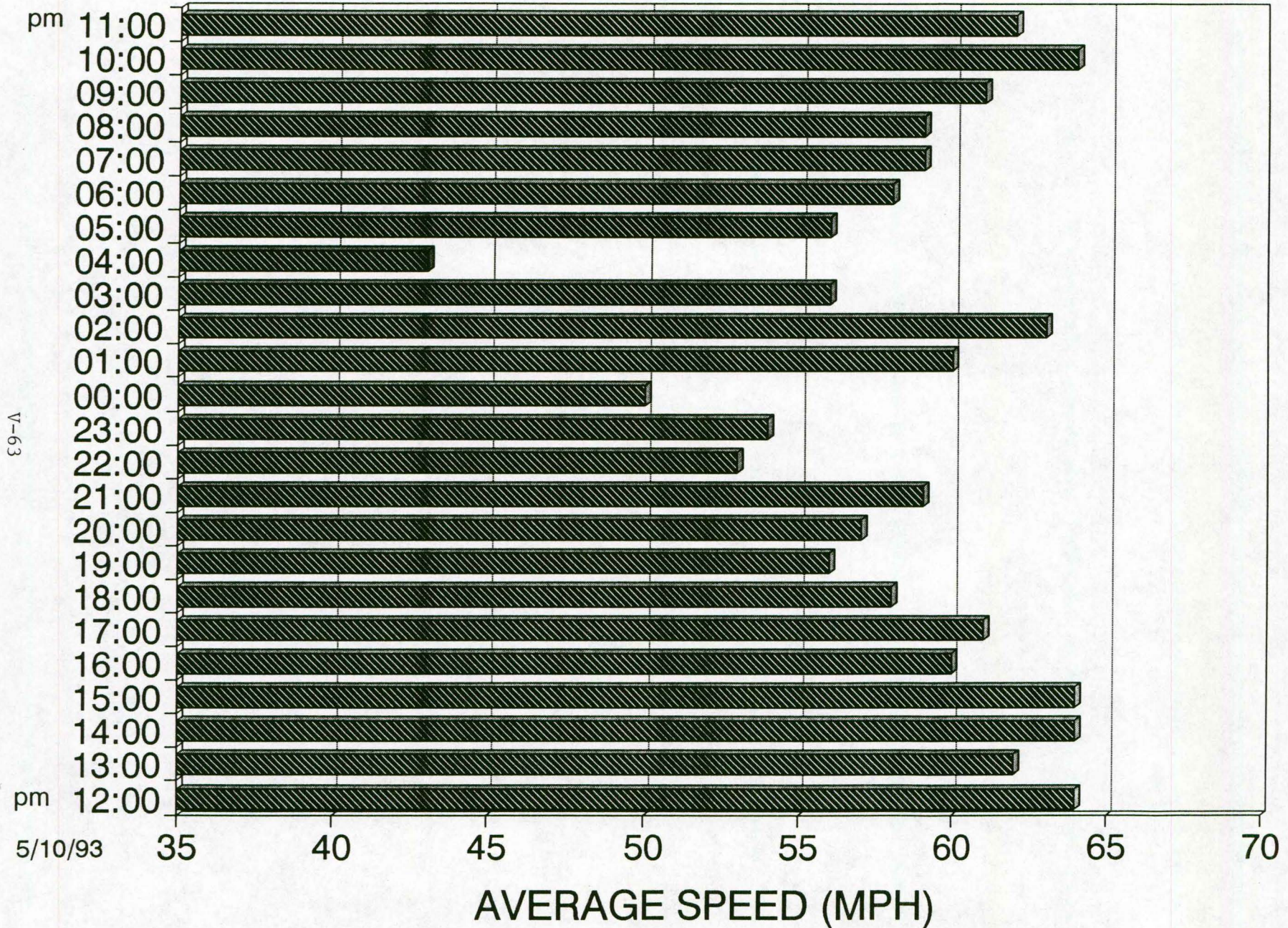
DATE	TIME	COUNT	S_5	S_10	S_15	S_20	S_25	S_30	S_35	S_40	S_45	S_50	S_55	S_60	S_65	S_70	S_75	
05/12/93	04:00	15	0	0	0	0	0	0	0	0	0	0	0	1	7	2	4	64
05/12/93	04:15	5	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	26
05/12/93	04:30	10	0	0	0	0	0	0	0	0	0	0	0	0	8	1	0	59
05/12/93	04:45	7	0	0	0	0	0	0	0	0	0	0	0	0	3	1	1	49
05/12/93	05:00	11	0	0	0	0	0	0	0	0	0	0	0	1	2	2	2	44
05/12/93	05:15	7	0	0	0	0	0	0	0	0	0	0	0	2	5	0	0	64
05/12/93	05:30	11	0	0	0	0	0	0	0	0	0	0	0	0	5	4	1	62
05/12/93	05:45	13	0	0	0	0	0	0	0	0	0	0	1	1	4	6	0	61
05/12/93	06:00	28	0	0	0	0	0	0	0	0	0	0	0	2	12	6	1	50
05/12/93	06:15	18	0	0	0	0	0	0	0	0	0	0	0	0	5	7	3	58
05/12/93	06:30	19	0	0	0	0	0	0	0	0	0	0	0	1	6	6	3	58
05/12/93	06:45	19	0	0	0	0	0	0	0	0	0	0	0	0	6	6	3	54
05/12/93	07:00	19	0	0	0	0	1	0	0	0	1	1	0	0	8	3	4	61
05/12/93	07:15	19	0	0	0	0	0	0	0	0	0	0	0	0	10	7	1	64
05/12/93	07:30	33	0	0	0	0	0	0	0	0	0	0	1	1	5	20	4	65
05/12/93	07:45	43	0	0	0	0	0	0	0	0	0	0	0	2	13	14	5	54
05/12/93	08:00	34	0	0	0	0	1	0	0	0	1	0	0	1	12	9	8	63
05/12/93	08:15	31	0	0	0	0	0	0	0	0	0	0	2	1	8	11	7	64
05/12/93	08:30	32	0	0	0	0	0	0	0	0	0	0	0	0	6	13	11	66
05/12/93	08:45	23	0	0	0	0	0	0	0	0	0	0	0	0	6	11	2	57
05/12/93	09:00	47	0	0	0	0	0	0	0	0	0	0	3	1	12	17	11	64
05/12/93	09:15	28	0	0	0	0	0	0	0	0	0	0	0	1	4	13	5	57
05/12/93	09:30	40	0	0	0	0	0	0	0	0	0	0	0	2	12	12	11	64
05/12/93	09:45	44	0	0	0	0	0	0	0	0	0	1	1	2	14	17	7	65
05/12/93	10:00	53	0	0	0	0	0	1	0	0	0	0	1	0	23	14	4	54
05/12/93	10:15	56	0	0	0	0	0	0	0	0	0	0	0	1	12	22	17	65
05/12/93	10:30	49	0	0	0	1	0	0	0	0	1	0	1	6	15	10	13	64
05/12/93	10:45	41	0	0	0	0	0	0	0	0	0	0	2	1	8	20	4	58
05/12/93	11:00	44	0	0	0	0	0	0	0	0	1	0	1	2	17	11	12	68
05/12/93	11:15	53	0	0	0	0	0	0	0	0	0	0	0	1	7	18	19	60
05/12/93	11:30	38	0	0	0	0	0	0	0	0	0	0	0	1	21	10	4	64
05/12/93	11:45	52	0	0	0	0	0	0	0	0	0	0	1	1	18	17	12	65

V-62

S 5, S 10, ETC = VEHICLE SPEED. LAST COLUMN IS THE AVERAGE SPEED. SHADED AREA = ENFORCEMENT PERIODS

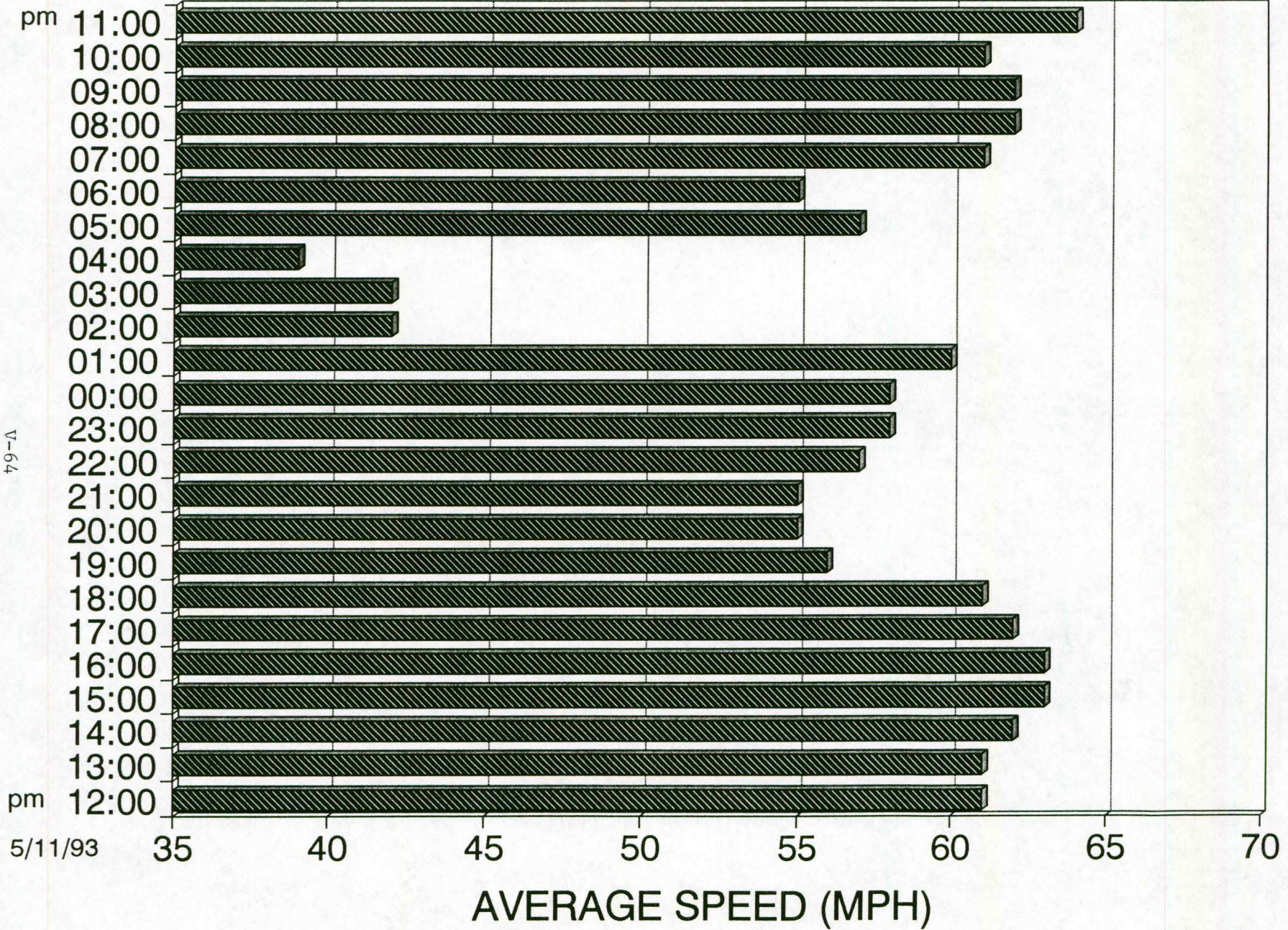
I 80 SCOTT COUNTY - MAY 10, 1993 @ 12:00 PM TO MAY 11, 1993 @ 11:00AM

5/11/93



I 80 SCOTT COUNTY - MAY 11, 1993 @ 12:00 PM TO MAY 12, 1993 @ 11:00 AM

5/12/93



STATE LIBRARY OF IOWA



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