Final Draft

I-405 / SR 167 Express Toll Lanes

Planning Level Traffic and Revenue Study

Washington State Department of Transportation

ENGINEERS
PLANNERS
ECONOMISTS

WilburSmith
ASSOCIATES

Final Draft

I-405 / SR 167 Express Toll Lanes

Planning Level Traffic and Revenue Study

Prepared for

Washington State Department of Transportation

Prepared by

ENGINEERS PLANNERS ECONOMISTS

WilburSmith ASSOCIATES

December 31, 2009

TABLE OF CONTENTS

	PAGE NUMBER
Chapter 1 - Introduction	**1-1**
WSA's Previous I-405 and SR 167 Traffic and Revenue Studies	1-2
Motivation For Current Planning Level Traffic and Revenue Study	1-2
Study Objective	1-3
Project Corridor	1-4
Scope of Work	1-5
Order of Presentation	1-7
Chapter 2 – Description of Alternatives	**2-1**
Base Case Scenarios:	2-2
Option 1 – HOV3+, No Toll Cap	2-2
Option 2 – HOV3+, No Toll Cap	2-3
Option 3 – HOV3+, No Toll Cap	2-3
Option 4 – HOV3+, No Toll Cap	2-3
Option 5 – HOV3+, No Toll Cap	2-3
Sensitivity Tests	2-4
Option 1 – HOV3+, With Toll Cap	2-4
Option 1 – HOV2+, No Toll Cap	2-4
Option 4 – HOV2+, No Toll Cap	2-4
Option 4 – HOV3+, No Toll Cap, Project Phasing	2-4
Chapter 3 – Modeling Approach	**3-1**
Modeling Approach	3-1
Global Demand Estimates	3-2
Travel Time Simulation Model (VISSIM)	3-3
Market Share Demand Model	3-4
Vehicle Categories	3-6
Capacity Assumptions	3-7
Basic Assumptions	3-8
Chapter 4 – Estimated Traffic and Revenue	**4-1**
Traffic and Revenue Analysis	4-1
Optimum Rate Analysis	4-1
Tolling Concept	4-2
Rate Sensitivity Analysis	4-4

TABLE OF CONTENTS (CONT'D)

	PAGE NUMBER
Traffic and Revenue Results	4-4
Per-Mile Toll Rates	4-5
Zone to Zone Toll Rate Matrices	4-5
Transactions and Revenue by Zone and Period	4-5
Traffic and Revenue Per Period	4-11
Annual revenue Streams	4-13
Estimated Weekday Traffic	4-14
Chapter 5 – Sensitivity Tests	**5-1**
Description of Sensitivity Tests	5-1
Early Implementation of Option 1 in 2013	5-1
Option 1 with HOV2+ Free Designation	5-1
Option 1, HOV3+ Free Designation with Toll Cap	5-3
Early Implementation of Option 4 in 2013	5-3
Option 4 with HOV2+ Free Designation	5-3
Sensitivity Test Results	5-3
Comparison of Impacts on Traffic and Revenue	5-8
Disclaimer	5-11
Appendix A – Results of Study Options 1-5	
Appendix B – Results of Sensitivity Tests	

ILLUSTRATIONS

FIGURE		FOLLOWS PAGE
1-1	Location Map	1-3
2-1a	Option 1 Tolling Zones SR 167	2-3
2-1b	Option 1 Tolling Zones I-405	2-3
2-2a	Option 2 Tolling Zones SR 167	2-3
2-2b	Option 2 Tolling Zones I-405	2-3
2-3a	Option 3 Tolling Zones SR 167	2-3
2-3b	Option 3 Tolling Zones I-405	2-3
2-4a	Option 4 Tolling Zones SR 167	2-3
2-4b	Option 4 Tolling Zones I-405	2-3
2-5a	Option 5 Tolling Zones SR 167	2-3
2-5b	Option 5 Tolling Zones I-405	2-3
3-1	Modeling Approach	3-1
3-2	Types of Ingress/Egress Configurations	3-7
3-3	Examples For Volume Restrictions For Free-Flow Operation	3-8
4-1	Study Option 5 2020 A.M. Peak Weekday Toll Rate Sensitivity Curves	4-4
4-2	Comparison of Total Weekday Traffic And Annual Gross Revenue Streams	4-13
4-3	2035 A.M. Peak Hour Traffic Volumes	4-14
4-4	2035 P.M. Peak Hour Traffic Volumes	4-14
5-1	Comparison of Total Weekday Traffic And Annual Gross Revenue Streams	5-8

TABULATIONS

TABLE		PAGE
3-1	Share of HOV2 and HOV3+ Traffic as Percentage of Total Amount of Passenger Car Trips	3-7
4-1	Composition of Toll-Free Designation and Minimum Toll Requirements for Study Option 1 through 5	4-3
4-2	Aggregated Time-of-Day Periods for Traffic and Revenue Estimates	4-6
4-3	Comparison of Weekday Transactions versus Trips	4-7
4-4	Share of Total Weekday Transactions on Express Toll Lane Segments	4-9
4-5	Market Share of Weekday Toll-Free and Tolled Traffic On Express Toll Lane	4-10
4-6	Comparison of Weekday Traffic and Revenue	4-12
5-1	Composition of Toll-Free Designation and Minimum Toll Requirements for Sensitivity Tests	5-2
5-2	Comparison of Weekday Transactions versus Trips	5-4
5-3	Share of Total Weekday Transactions on Express Toll Lane Segments	5-6
5-4	Market Share of Weekday Toll-Free and Tolled Traffic on Express Toll Lane	5-7
5-5	Comparison of Weekday Traffic and Revenue to Option 1	5-9
5-6	Comparison of Weekday Traffic and Revenue to Option 4	5-10

CHAPTER 1

INTRODUCTION

The I-405 / SR 167 Express Toll Lanes project covers the I-405 corridor between the I-5 interchange in Lynnwood in the North and the I-5 / SR 512 interchange in the South including the SR 167 and the SR 512 corridors, covering the area between I-405 in Renton and the SR 512 and I-5 interchange in Lakewood. I-405 and SR 167 are critical north-south highways serving the eastern shore area of Lake Washington with major east –west highways intersecting the project corridor.

Over the years, traffic growth on I-405 and SR 167 has been strong, and congestion has continued to increase. This is expected to continue in the future in spite of major improvement programs within the Puget Sound region. It is consistent with trends in major urban areas throughout the U.S. Widening roadways, such as I-405, has become increasingly more difficult due to right-of-way constraints, environmental and other factors. In light of this situation, the Washington Department of Transportation (WSDOT) established an improvement plan for the I-405 / SR 167 corridor looking at the implementation of managed lanes..

Managed lanes, such as HOT lanes or express toll lanes, are rapidly emerging as a potential solution to congestion. In order to ensure that the managed lanes do not become congested, toll rates are adjusted during certain periods of the day. For example during periods of high traffic volumes (AM and PM peak hours) tolls for single occupant vehicles (SOV) are significantly increased to discourage and limit overuse and keep the lanes free flowing. During off-peak peaks when traffic is lighter, the managed lane tolls are reduced. The principal of dynamic pricing ensures that a portion of the roadway capacity is provided under free flow conditions, therefore providing a highly reliable travel alternative for motorists.

Managed lanes have been successfully operated in several locations around the country. The first project of this nature, the S.R. 91 Express Lanes in Orange County, California, has been an overwhelming success,

providing significant congestion relief and an opportunity for motorists to get out of congestion by paying a variable toll. HOT lane projects have also been successful in San Diego, California; Minneapolis, Minnesota; and Houston, Texas with other projects recently opening in Denver and Miami, as well as the SR 167 Express Toll Lanes in Washington.

WSA'S PREVIOUS I-405 AND SR 167 TRAFFIC AND REVENUE STUDIES

In 2002, Wilbur Smith Associates was asked to conduct preliminary traffic and revenue studies for I-405 under three alternative widening and operational scenarios. In 2003, WSA conducted preliminary analysis for SR167 HOT lanes, followed in 2005 by toll system design and additional traffic and revenue analysis in support of the implementation of the pilot project. Since 2006, WSA has also conducted numerous assignments related to pricing analysis for the I-405 Express Lanes from Renton to Lynwood, in various configurations and under different operational assumptions.

A comprehensive traffic and revenue study was performed for the northern portion of the Express Lanes, from SR 520 to I-5 (Lynwood).

The comprehensive traffic and revenue study included an extensive program of market research, including stated preference surveys and an assessment of future socio-economic parameters in the study corridor. A detailed operations profile and operations simulation models were developed for the I-405 corridor.

MOTIVATION FOR CURRENT PLANNING LEVEL TRAFFIC AND REVENUE STUDY

Subsequent to completion of the traffic and revenue studies and changes in project configurations, the Washington Department of Transportation (WSDOT) established a more expanded definition of the study corridor, including the already operational SR 167 corridor and the subsequent extension of the Express Toll Lanes on SR 167, to the south. The project corridor also covered the SR 512 corridor, with the southern terminus of the modeled project corridor at the SR 512 and I-5 interchange. This portion of the corridor was included for modeling purposes to reflect changes in regional traffic routes but there were no Express Toll Lanes assumed on the section south of the SR 167/SR 410 interchange.

This extension of the project corridor was necessary to reflect the following impacts of building Express Toll Lanes in the I-405 and SR 167 corridors:

- Express Toll Lanes on the southern portion of I-405 will also impact operations on SR 167 Toll Lanes and vice versa;
- A potential direct connector between the I-405 and SR 167 Express Toll Lanes will create an up to 50-mile-long Express Lane system which has to be evaluated as a whole, from a traffic and revenue perspective;
- Due to the length of this Express Lane System, various regional impacts on travel patterns have to be considered; and
- The user benefits for the combined system would not be reflected properly, and therefore the usage would be understated, if each corridor was evaluated separately.

The extension of the project corridor resulted in the need for a more detailed planning level traffic and revenue study based on new project configurations and building heavily upon data collected, and the analysis associated with, the Investment Level Study completed in 2007. A new global travel demand model for the PSRC region was used in the analysis, as well as new simulation modeling, to establish a new data set for the I-405/SR 167 corridor traffic and revenue forecasting process.

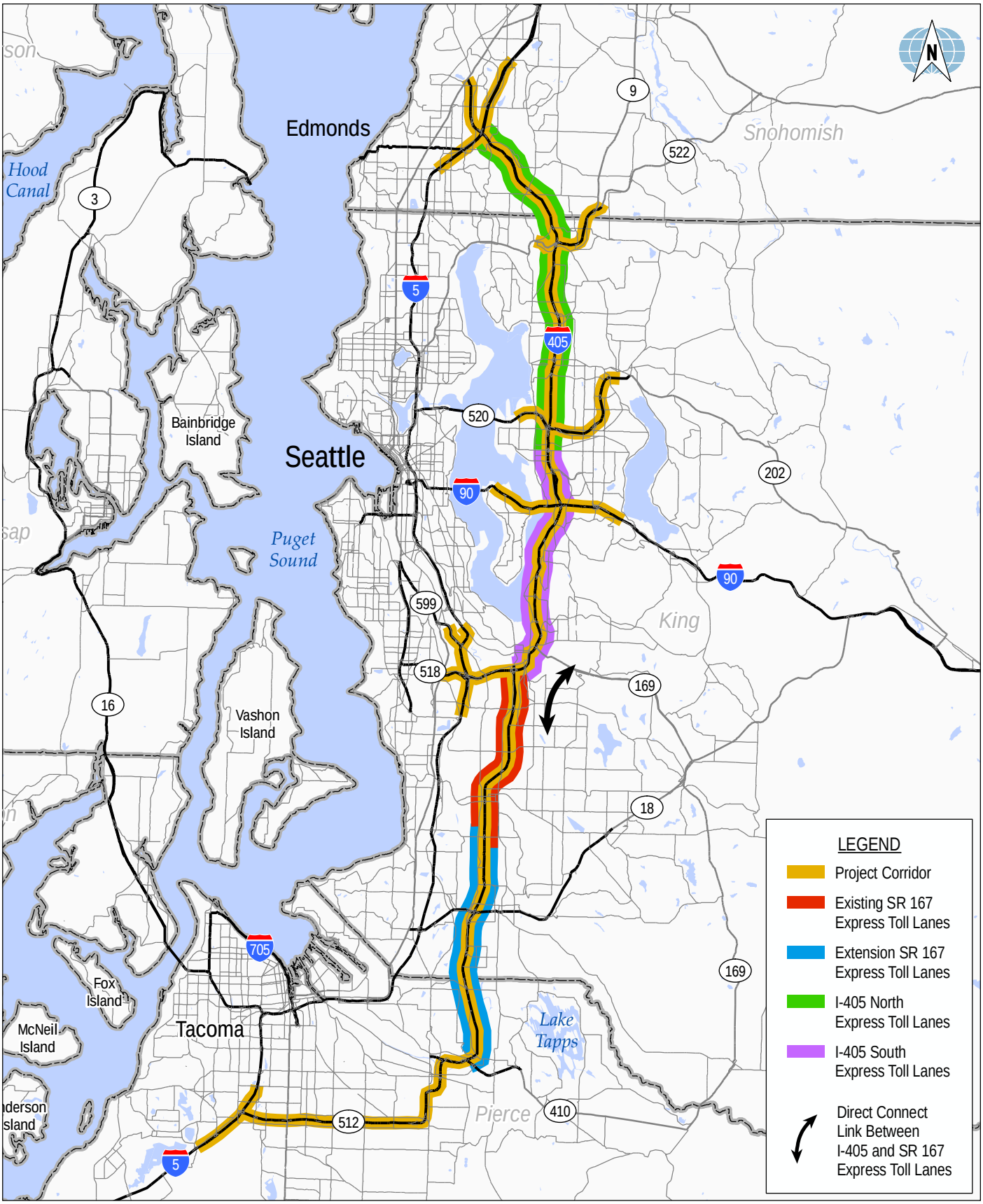
Figure 1-1 shows the study area evaluated in this project.

STUDY OBJECTIVE

The objective of this study was to focus on five project configurations, called Study Options 1 through 5, which were the basis for the analyses. During the study work, various toll operation scenarios were tested to evaluate their impact on estimated traffic and revenue.

Making maximum use of the data and analyses in the 2006/2007 report, this study was prepared to provide input for the decision-making process from a traffic and revenue perspective.

This project involved the recoding of demand model networks to reflect the five alternatives being analyzed, updating demand data, revising the detailed operations corridor micro-simulation model (VISSIM), conducting operations simulation model runs, refining of stated preference data, and the developing of new projections of traffic volumes and potential toll revenues.



FINAL DRAFT

WilburSmith ASSOCIATES

LOCATION MAP

FIGURE 1-1

Estimates of traffic and revenue developed for this study are intended for use in comparing various infrastructure and toll operations scenarios. A more detailed analysis would be required for one or more of the preferred project configurations in order to certify the revenue estimates, in support of possible project financing.

PROJECT CORRIDOR

The proposed Express Toll Lanes consist of three major segments as shown in Figure 1-1. The I-405 North portion will extend from the I-5/I-405 interchange in the north (Lynnwood) to downtown Bellevue at the North East 6th Street direct access point. The section covering the I-405 South portion of the corridor continues from there to the I-405/SR 167 interchange, where the Express Toll Lanes will merge back into the existing HOV lane. The third segment includes the existing SR 167 Express Toll Lanes and the potential extension of these lanes to the SR 512/SR 410 interchange with SR 167 in Puyallup. The modeled corridor is represented in the form of a skeleton model as highlighted in green and includes sections of I-5 in Lakewood, Tukwila and Lynnwood; I-90; SR 520; and all interchanges along the I-405 and SR 167 routes. This covers a total length of approximately 63 miles.

The study examined a total of five physical infrastructure configurations (Study Options), all including the following two basic infrastructure concepts:

- SR 167 Express Toll Lanes currently in operation with the extension of the southbound Express Toll Lane, from the vicinity of 37th Street NW to 8th Street East (Stage 4); and
- I-405 North Express Toll Lane project with conversion of the single HOV lane to a single Express Toll Lane between the I-5 and I-405 interchange and SR 522 and conversion of the HOV lane, and addition of a lane, to create two Express Toll Lanes between SR 522 and SR 520/Downtown Bellevue.

Depending on the different Study Option configurations, various additional Express Toll Lane extensions and capacity improvements were assumed.

The Study Option configurations include the following improvements:

- Study Option 1 (working title: "Funded") represents the currently funded projects and only includes the basic infrastructure concept as described above.

- Study Option 2 (working title: "Separate Systems") is based on Study Option 1 plus conversion of the HOV lane on I-405 from Renton to Bellevue to a single Express Toll Lane, which results in a 30-mile Express Toll Lane system on I-405.

- Study Option 3 (working title: "Connected System") includes all elements of Study Option 2 and provides a direct connect link between the I-405 and SR 167 Express Toll Lanes which integrates the SR 167 and I-405 Express Toll Lanes into one Eastside Corridor system of over 40 miles in length.

- Study Option 4 (working title: "40-Mile System") is based on the Study Option 3 infrastructure with the addition of a second Express Toll Lane between Renton and Bellevue which creates roughly twenty miles of two lane Express Toll Lane system on I-405 from north of SR 167 to SR 522. In addition, the northbound Express Toll Lane on SR 167 is extended from 15th Street SW, south to 8th Street E (Stage 5). As a result the over 40 mile long Eastside Corridor system is two lanes in each direction, for a significant length, in the middle of the Express Toll Lane system.

- Study Option 5 (working title: "50-Mile System") utilizes Study Option 4 improvements and adds a general purpose lane between Renton and Bellevue on I-405, in each direction, following the master plan. In Option 5, a second Express Toll Lane is added between SR 522 and I-5, with a direct access configuration at the SR 522 interchange. Option 5 also includes an extension of the Express Toll Lane lanes on northbound and southbound SR 167 between SR 512 and 8th Street E (Stage 6), which results in an Eastside Corridor managed lane system of over 50 miles in length.

SCOPE OF WORK

A three-tiered modeling approach was used for the analysis. First, the Puget Sound Regional Council (PSRC) model was used to estimate total demand in the corridor; that is the total amount of traffic demand on the I-405 and SR 167. Second, a market share "micro-model" was developed, using a tight "window" around the project corridor, to estimate the share of traffic between the toll-free general purpose and the tolled managed

lanes. The third model was a VISSIM micro-simulation model, to estimate changes in travel speeds and travel times under varying shares of traffic between the toll-free general purpose lanes and tolled managed lanes. The demand data from the PSRC model, as well as the VISSIM simulation networks and data, were provided to WSA by the I-405 Team. After completion of the traffic and revenue modeling, a final set of demand data was extracted for each alternative, including information about Express Toll Lane traffic versus general purpose lane traffic, and matrices with ramp-to-ramp toll and volume information. This final set of demand data reflecting the tolled operation of the Express lanes was then used by the I-405 Team for the operational analysis of the Express Toll lanes and the general purpose lanes.

The I-405 Team provided WSA with all future-year global travel demand estimates that are based on the current PSRC travel demand model. The I-405/SR 167 travel demand estimates for the five Study Options were generated for a 188-zone subarea model covering the highlighted area shown in Figure 1-1. The I-405 Team provided separate sets of subarea demand data for each Study Option for the 2020, 2035 and 2045 time horizons. The data was also extracted for use in the traffic operations simulation model. The data received from the I-405 Team was formatted in half hour time increments for two six-hour periods from 5:00 AM to 11:00 AM and from 2:00 PM to 8:00 PM. The data was aggregated to match assignment periods used in previous studies.

The demand model networks were recoded to match the Express Toll Lane configurations for each Study Option. Based on the provided VISSIM micro-simulation networks, a series of simulation runs for each alternative and assignment period was performed, under varying loading conditions of the Express Toll Lanes. This information was used to estimate delays on the general purpose lanes.

A number of sensitivity tests were performed, such as different restrictions for free usage of the Express Toll Lanes and maximum toll limitations. A detailed description of the various scenarios can be found in Chapter 2. The work was documented and compiled for this report.

The 2006/2007 Investment Level Study included an extensive program of market research and outreach. Part of this program was computer-based stated preference surveys, which measured motorists' willingness to pay tolls and general propensity to use the proposed Express Toll Lanes. This information was adapted to match the new forecast horizons. Other assumptions and modeling procedures used in this study that are not

related to demand data or network configurations were adapted from the 2006/2007 Investment Level Study.

ORDER OF PRESENTATION

Chapter 2 provides a detailed description of modeled alternatives and operational scenarios. The modeling approach is explained in Chapter 3 and Chapter 4 summarizes the results of the traffic and revenue analyses for Study Options 1 through 5. Chapter 5 describes the sensitivity tests and their results.

CHAPTER 2

DESCRIPTION OF ALTERNATIVES

The project corridor extends from the I-405/I-5 interchange in Lynnwood to The I-5/SR512 interchange in Lakewood. It was assumed that the Express Toll Lanes would be operated with up to nine segments (tolling zones) per direction. Since each zone has multiple entry and exit points, tolls within these segments would be charged independently from the actual distance traveled within each of these zones. It was assumed that these tolling zones would be combined into three sections:

- I-405 North (Tolling Zones A through C);
- I-405 South (Tolling Zones D through F); and
- SR 167 (Tolling Zones G through I).

The toll rates would be displayed on dynamic message signs informing the motorists about the cost to travel through the section (three tolling zones). At the limits of the three major sections, the rates for the following downstream major section would be displayed. This limits the amount of information that needs to be displayed while enabling the motorists to make an informed decision whether to use the Express Toll Lanes at the decision point, for the current toll rates. At the limits of the three major sections, the motorists will have the chance to exit the lanes, if the displayed rates seem to be too high for the time savings incurred, when using the Express Toll Lanes. The extension of the tolling zones, for each of the infrastructure study options, is shown on figures 2-1 through 2-5.

It is assumed that the Express Toll Lanes would be operated under a dynamic toll-setting algorithm that adjusts the toll rates based on measured volumes and/or traffic densities. The use of dynamic pricing aims to ensure that the Express Toll Lanes operate at or near free conditions at all times.

In order to evaluate the effects of different toll operations on traffic and revenue estimates, it was assumed that certain assumptions would be held constant for the Base Case Scenarios. This included allowing HOV3+

vehicles to access the Express Lanes for free and not setting a maximum toll rate (no toll cap). Sensitivity tests were run based on the conditions listed below:

- Option 4 – HOV 2+ no toll, no toll cap
- Option 1 – HOV 3+ no toll, with toll cap
- Option 1 – HOV 2+ no toll, no toll cap
- Option 4 – HOV 3+ no toll, no toll cap, project phasing

The basic travel demand model data was provided to WSA by the I-405 Team for 2020, 2035 and 2045 time horizons. In order to evaluate the effects of potential project phasing, traffic and revenue analyses were performed for 2013 for Option 1 and Option 4 as directed by the I-405 Team. The various detailed assumptions for the Options above are described in the following paragraphs.

BASE CASE SCENARIOS:

OPTION 1 – HOV 3+, NO TOLL CAP

Option 1 assumes that vehicles with two occupants are able to use the Express Toll Lanes free of charge (HOV2+ toll-free operation) on SR 167 and that vehicles with three or more occupants (HOV3+ toll-free operation) could use the Express Toll Lanes free of charge on I-405 North. The I-405 South segment operates as an HOV lane with an HOV2+ free designation. The limits of the toll zones are shown in Figure 2-1a for the SR 167 portion and in Figure 2-1b for the I-405 North portion of the corridor. The traffic and revenue analysis was performed for 2013, 2020, 2035 and 2045 time horizons. The tolls were determined according to the approach described in Chapter 3. It is assumed that access/egress to/from the Express Toll Lanes for single occupant vehicles (SOV) will be the northbound entrance or the southbound exit, in the vicinity of NE 6th Street, since the lanes are designated HOV2+ south of this location. Vehicles with two occupants (HOV2) will have the choice to either travel in the general purpose (GP) lanes or to utilize the HOV lanes when entering or exiting, at this location. The SR 167 Express Toll Lanes would be operating according to the existing toll operation. The tolls on the Express Toll Lanes would be set based on travel demand and would be adjusted to meet operational requirements to keep traffic free-flowing.

OPTION 2 – HOV 3+, NO TOLL CAP

This option includes all elements of Option 1 plus the conversion of the HOV lanes between Bellevue and Renton into Express Toll Lanes. The project configuration is shown in Figures 2-2a and 2-2b. The corridor has 9 tolling zones in each direction. The SR 167 Express Toll Lanes (Zones A through C) will operate under the current HOV2+ toll-free operation where only SOV's will pay for using the lanes. Tolling zones D through I on I-405 are assumed to be operating under the HOV3+ toll-free designation (SOV and HOV2 vehicles have to pay a toll charge). Vehicles using the Express Toll Lanes between SR 167 and I-405 Express Toll Lanes have to exit the Express Toll Lanes, use the existing general purpose lane connecting ramps and then re-enter the Express Lanes in the next downstream tolling zone.

OPTION 3 – HOV 3+, NO TOLL CAP

This Option is based on the Option 2 configuration and includes direct connecting ramps between the I-405 and the SR 167 Express Lanes. These direct connectors create a continuous system of Express Toll Lanes. The entire system is assumed to be HOV3+ toll-free (SOV and HOV2 vehicles have to pay a toll charge) in order to avoid changes in the toll operation within the toll lane system. The toll zones for this study option are shown in Figures 2-3a and 2-3b.

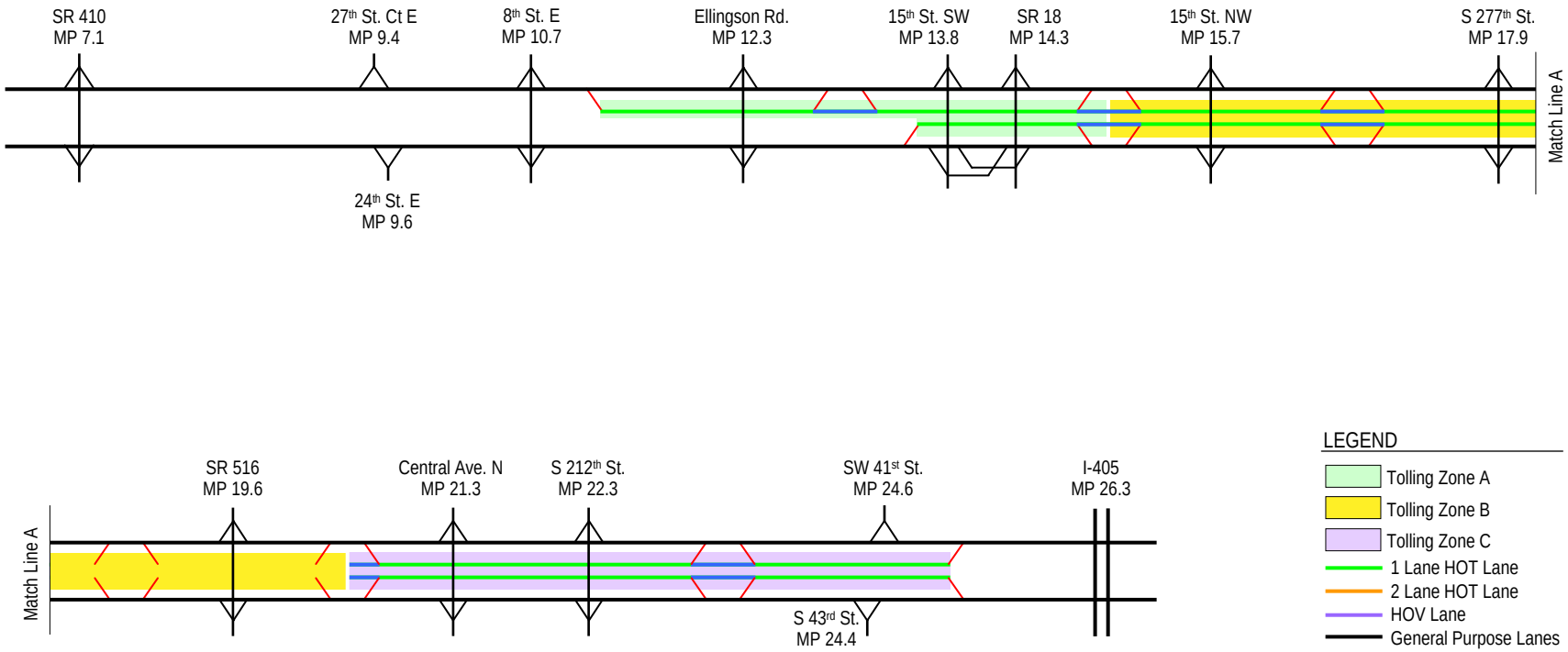
OPTION 4 – HOV 3+, NO TOLL CAP

The Option 4 configuration is based on Option 3 and includes a second Express Toll Lane between Bellevue and Renton on I-405 with the addition of a direct access point at North 8th Street (Figures 2-4a and 2-4b). The SR 167 southbound Express Toll Lane will be extended south to 8th Street East (Stage 5), the northbound direction is extended to the south from 15th St. SW to 8th Street E. An HOV3+ toll-free designation is assumed for the entire toll lane system.

OPTION 5 – HOV 3+, NO TOLL CAP

This configuration uses the Option 4 toll lane configuration and includes the addition of a general purpose lane between Bellevue and Renton. The configuration includes two Express Toll Lanes between the SR 522 and the I-5 interchanges and a direct access configuration at the SR 522 interchange. The Express Toll Lanes on SR 167 in both directions are assumed to be extended south ending just north of the SR 140/SR 512 interchange. The entire toll lane corridor is assumed to be operating under an HOV3+ toll-free designation. This creates a more than 50-mile long Express Toll Lane corridor (Figures 2-5a and 2-5b).

Not To Scale

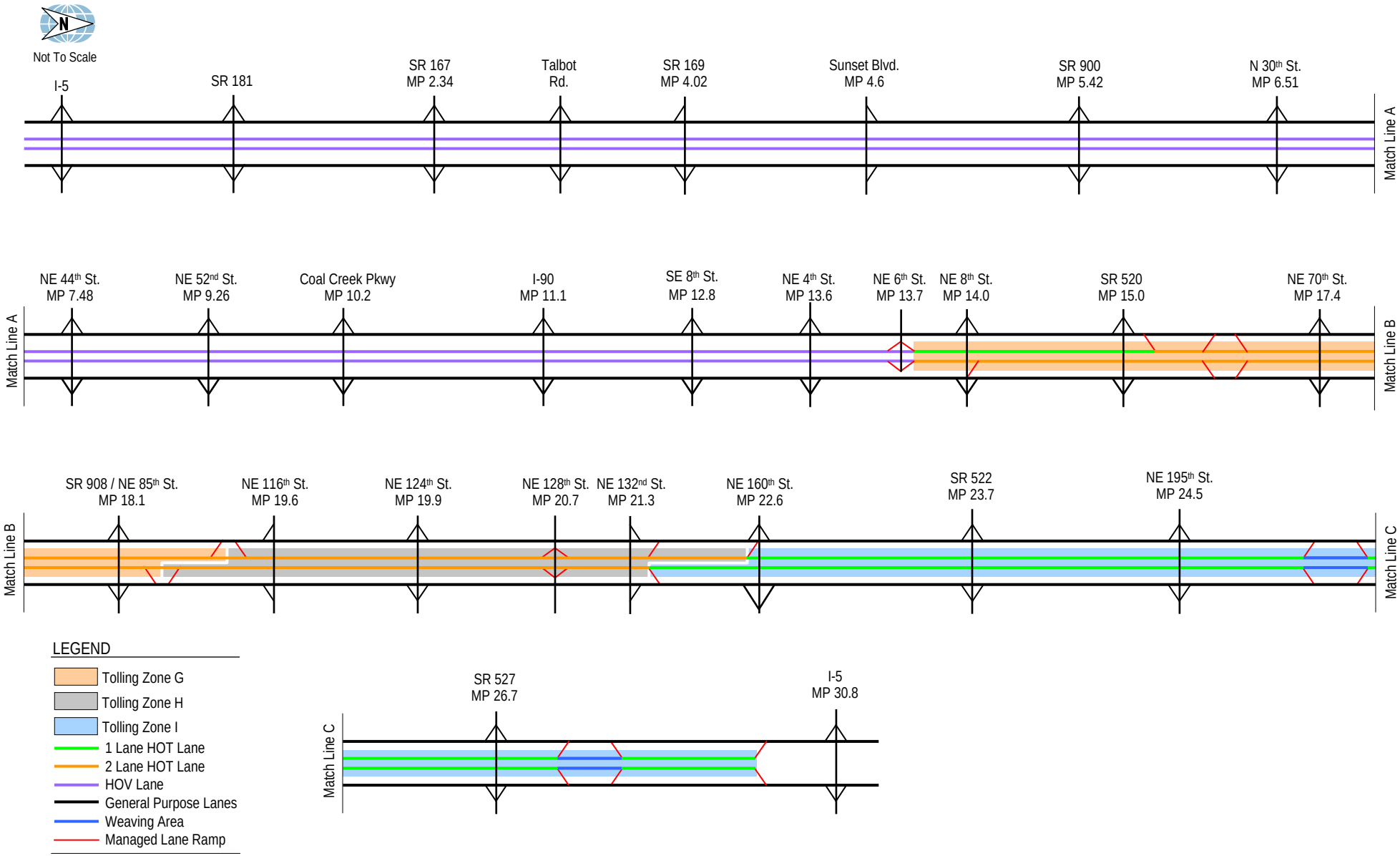


FINAL DRAFT

WilburSmith ASSOCIATES

OPTION 1 TOLLING ZONES SR 167

FIGURE 2-1a



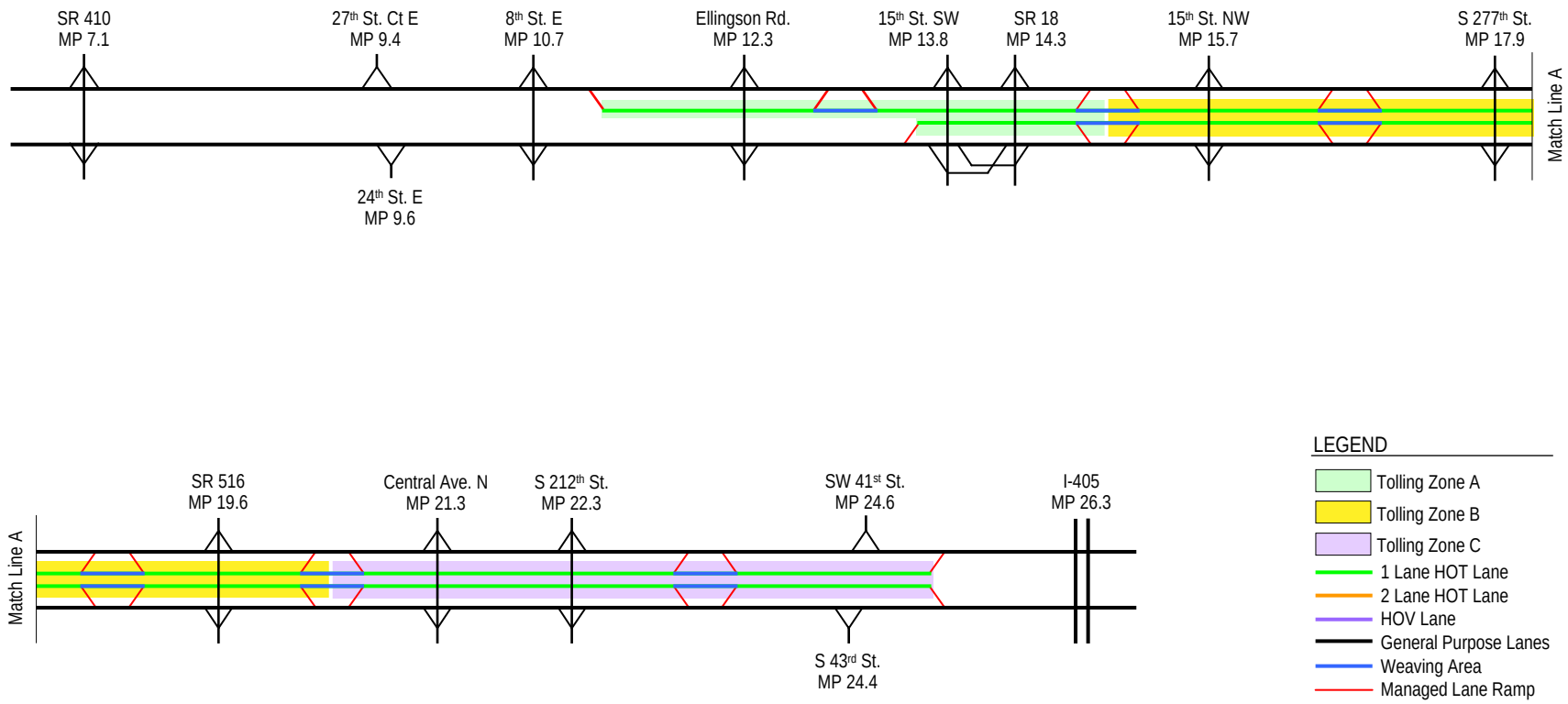
FINAL DRAFT

WilburSmith ASSOCIATES

OPTION 1 TOLLING ZONES I-405

FIGURE 2-1b

Not To Scale

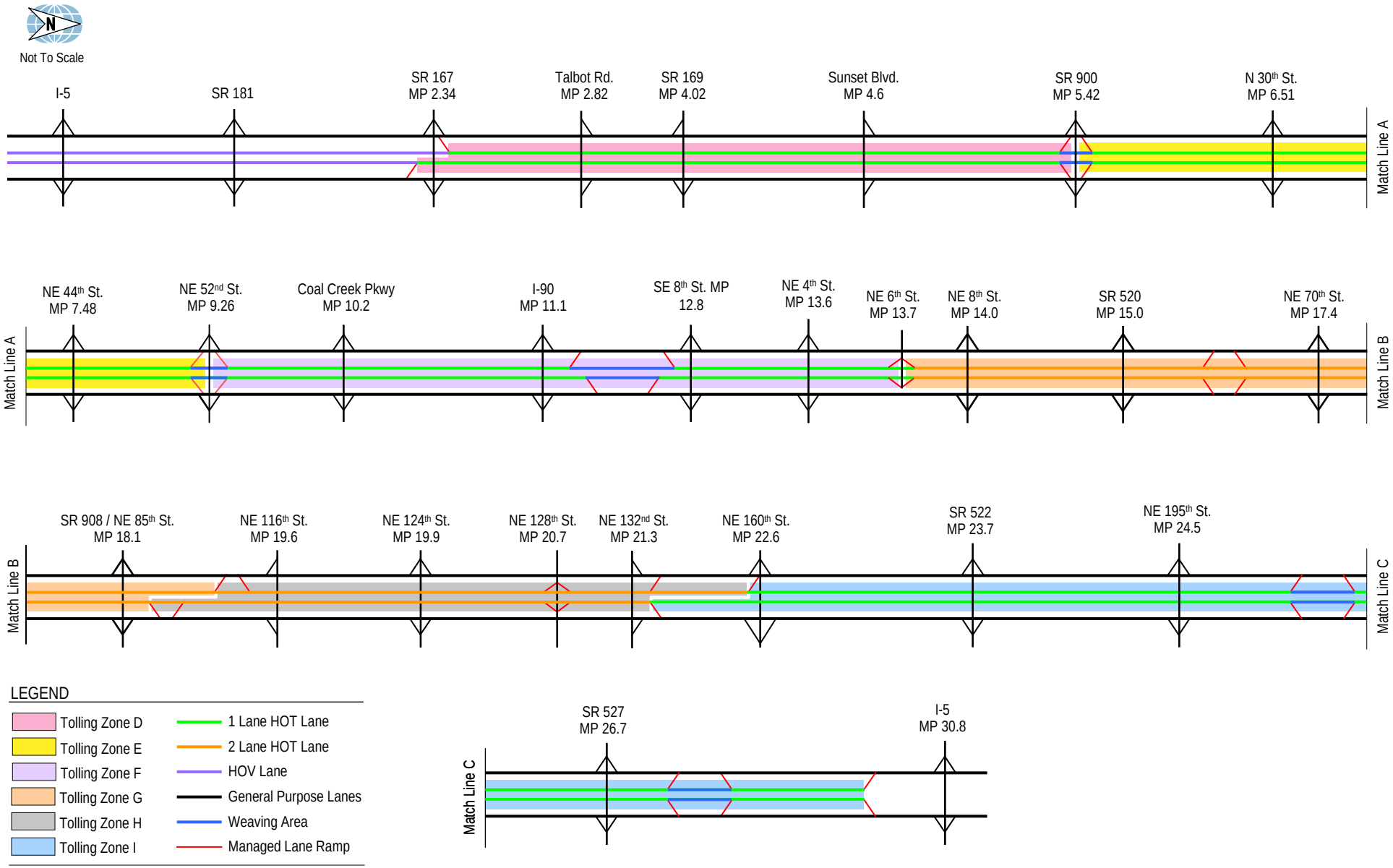


FINAL DRAFT

WilburSmith ASSOCIATES

OPTION 2 TOLLING ZONES SR 167

FIGURE 2-2a



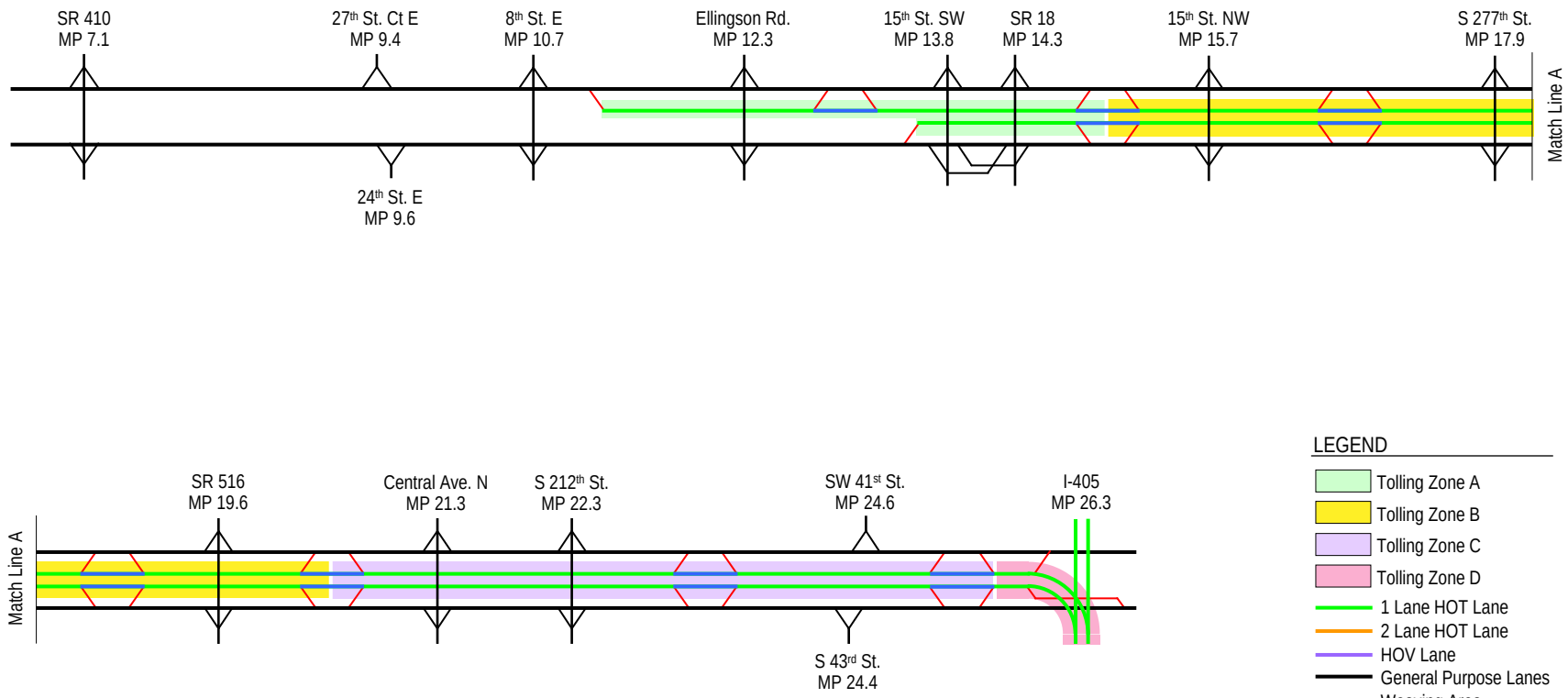
FINAL DRAFT

WilburSmith ASSOCIATES

OPTION 2 TOLLING ZONES
I-405

FIGURE 2-2b

Not To Scale

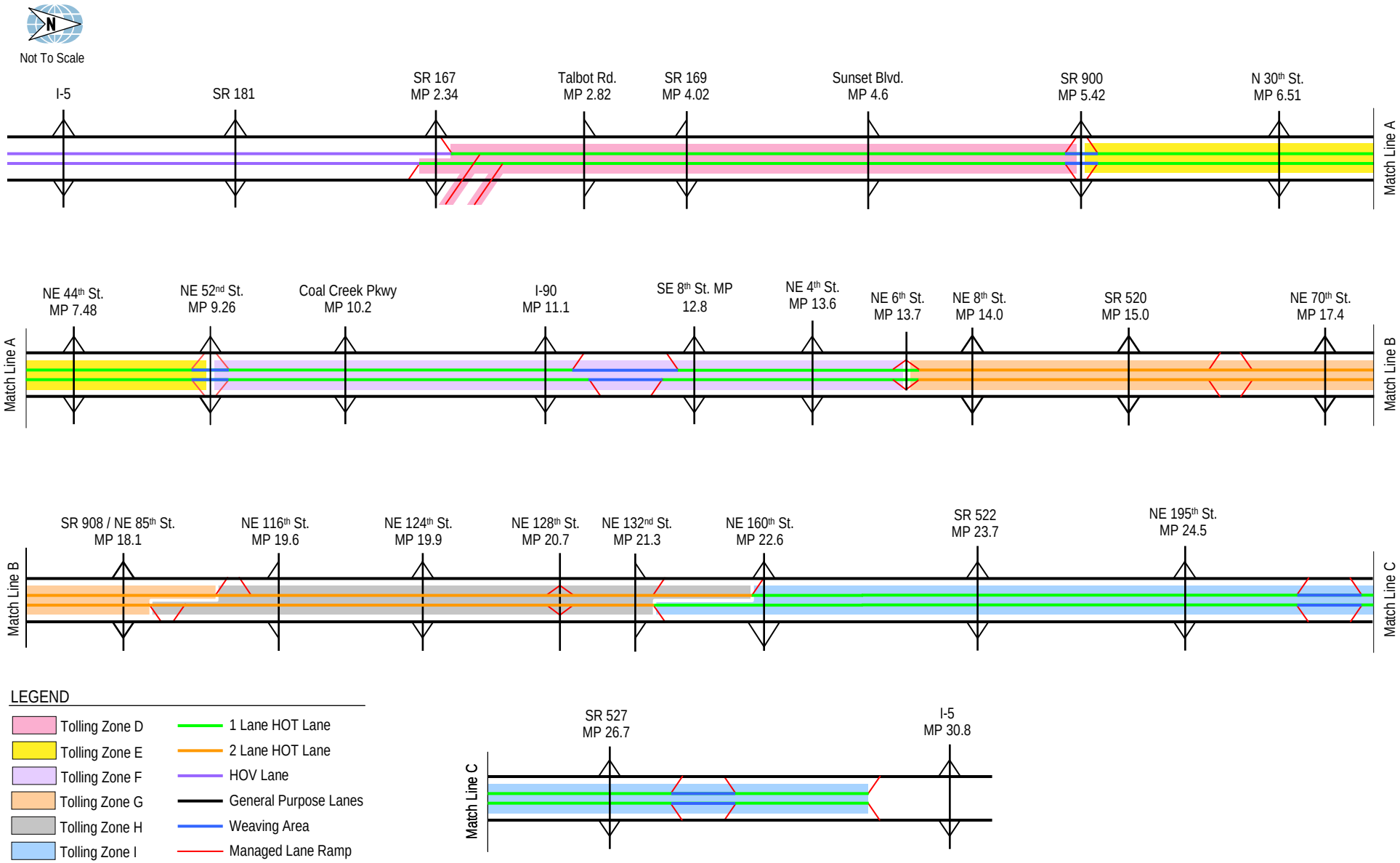


FINAL DRAFT

WilburSmith ASSOCIATES

OPTION 3 TOLLING ZONES
SR 167

FIGURE 2-3a



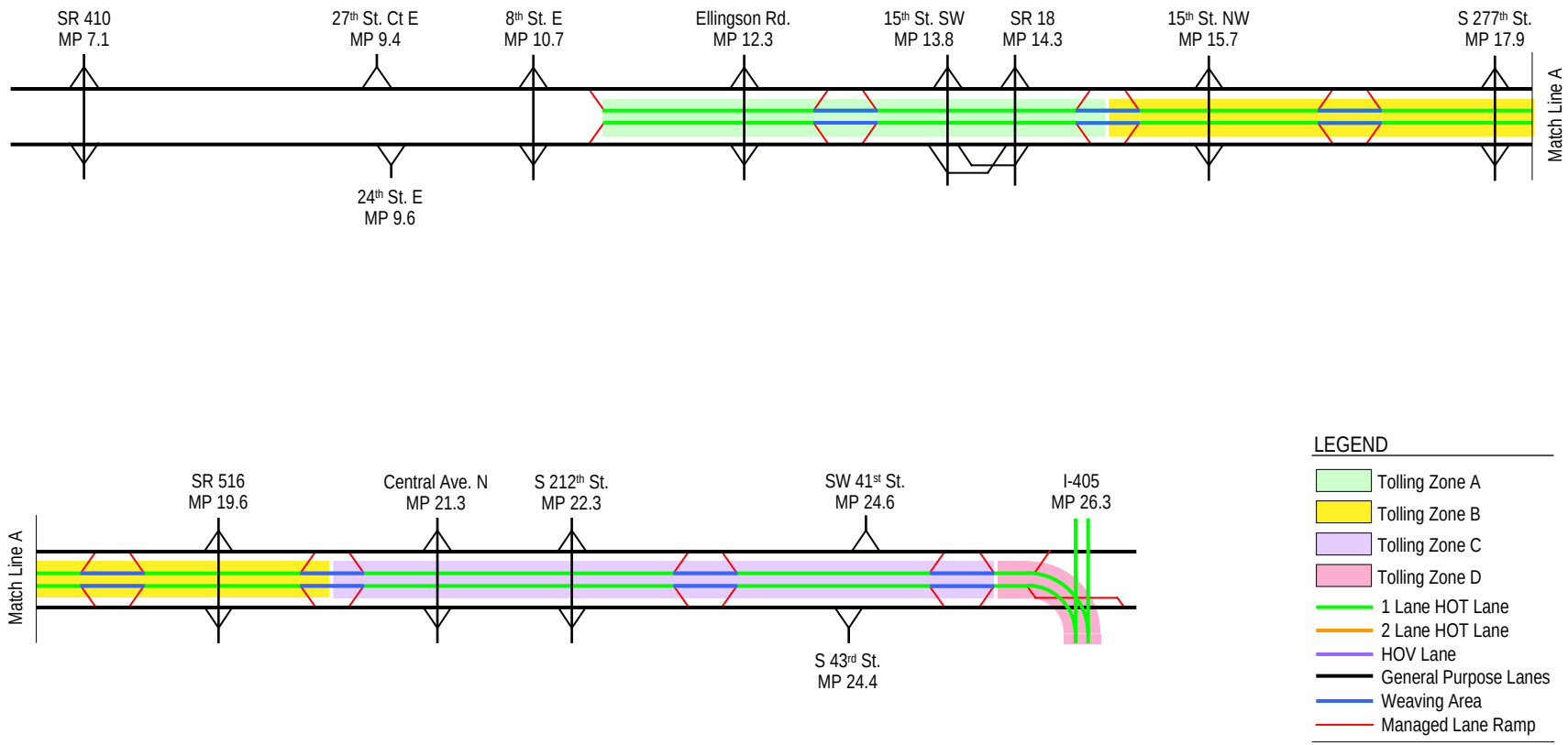
FINAL DRAFT

WilburSmith ASSOCIATES

OPTION 3 TOLLING ZONES
I-405

FIGURE 2-3b

Not To Scale

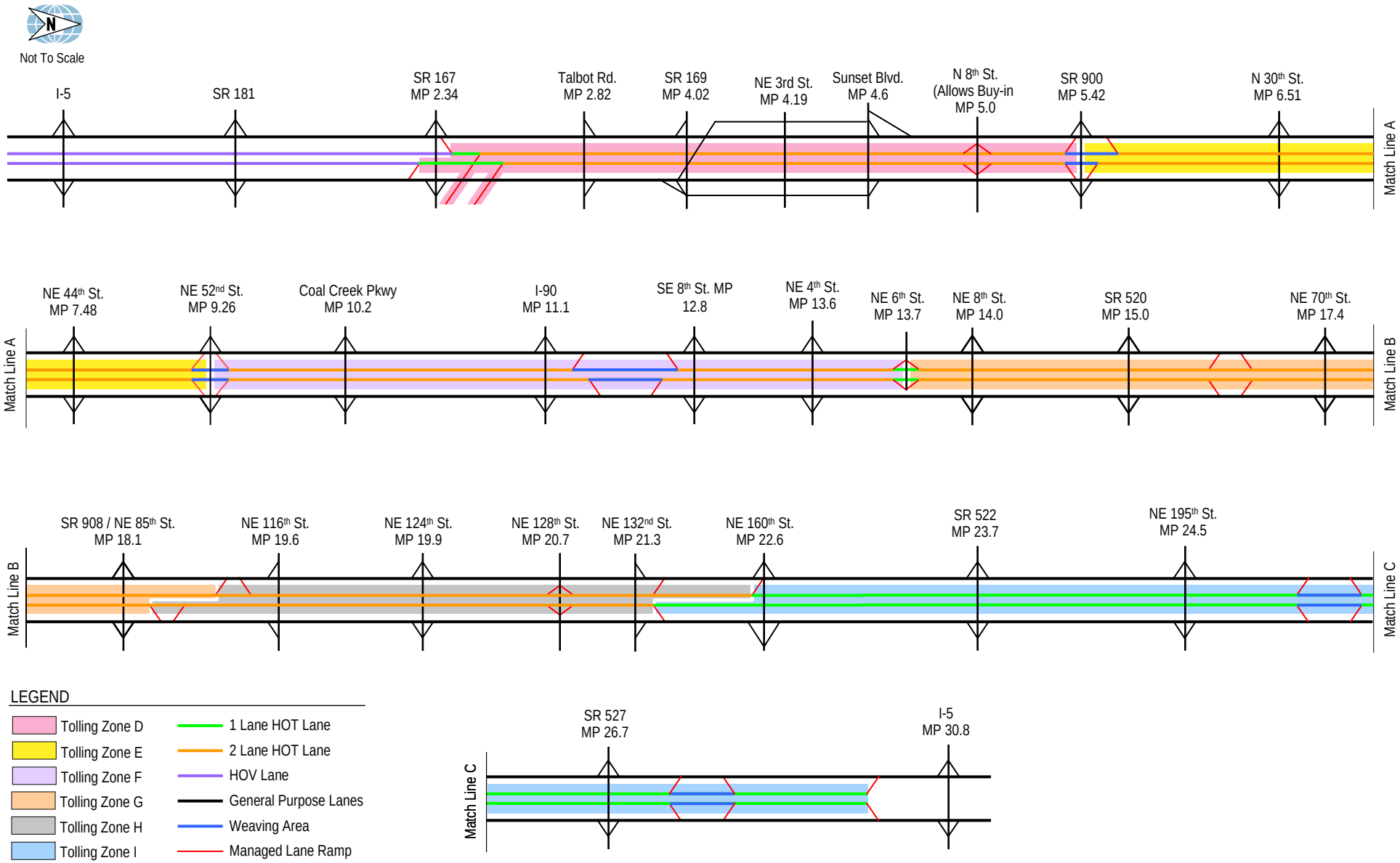


FINAL DRAFT

WilburSmith ASSOCIATES

OPTION 4 TOLLING ZONES SR 167

FIGURE 2-4a



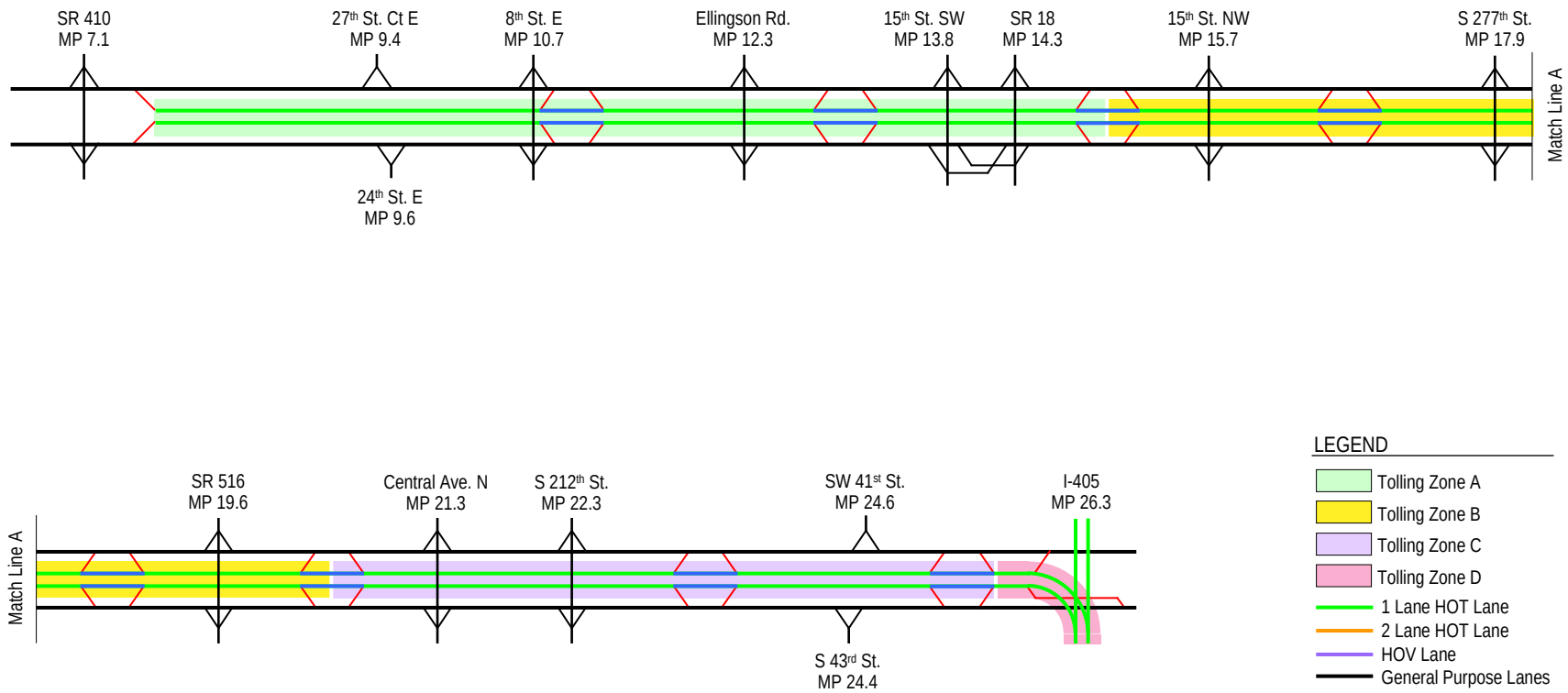
FINAL DRAFT

WilburSmith ASSOCIATES

OPTION 4 TOLLING ZONES
I-405

FIGURE 2-4b

Not To Scale

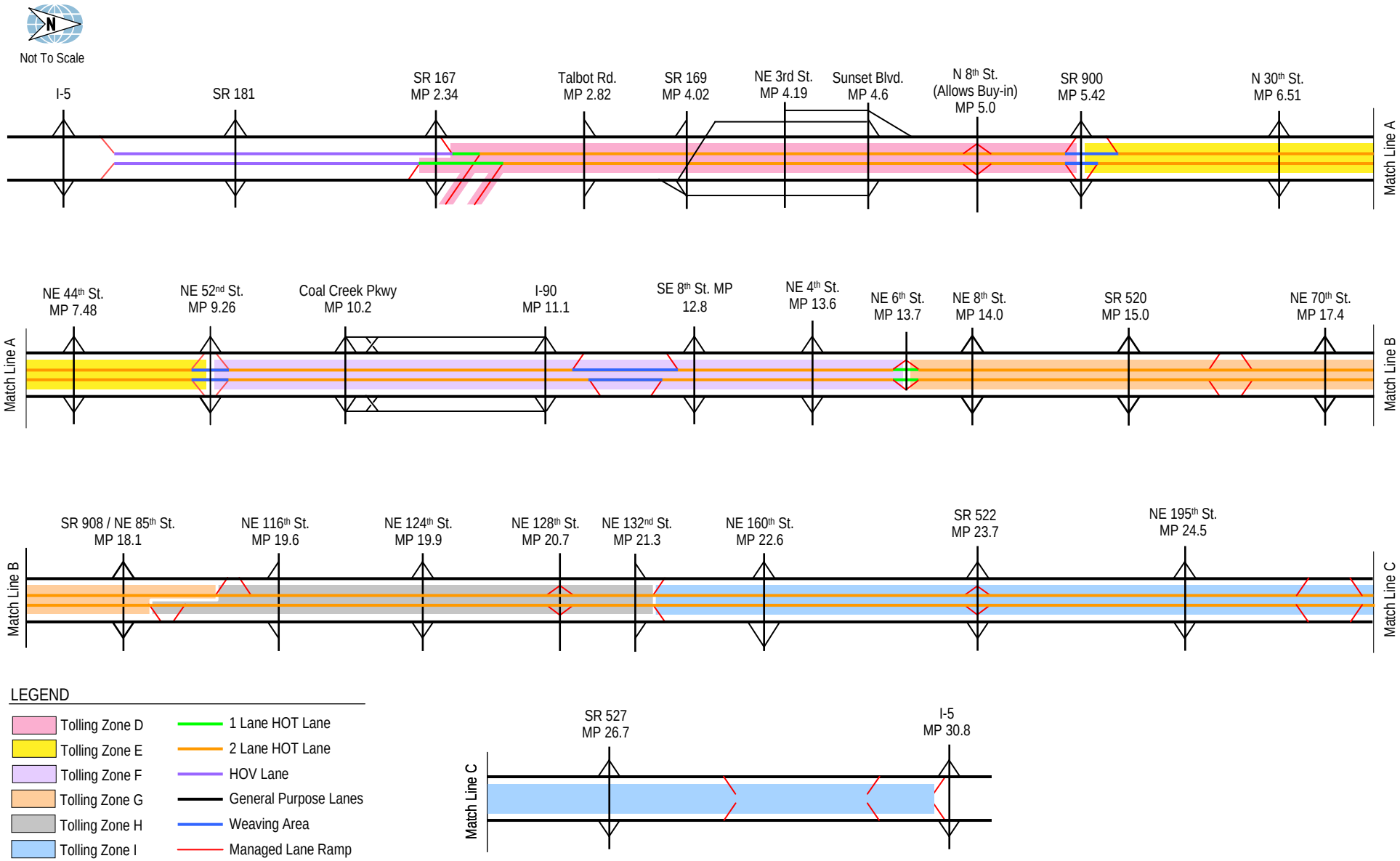


FINAL DRAFT

WilburSmith ASSOCIATES

OPTION 5 TOLLING ZONES SR 167

FIGURE 2-5a



FINAL DRAFT

WilburSmith ASSOCIATES

OPTION 5 TOLLING ZONES
I-405

FIGURE 2-5b

SENSITIVITY TESTS

In order to evaluate the effects of various tolling policies and potential phasing of the infrastructure implementation, the following sensitivity tests were performed to estimate the impact of these scenarios on tolls, traffic and revenue.

OPTION 1 – HOV 3+, WITH TOLL CAP

Based on the Study Option 1 infrastructure configuration, it was assumed that the tolls on the SR 167 Express Toll Lanes and the I-405 Express Toll Lanes would not exceed $12.00 in 2008 dollars. This means a motorist using both segments would not pay more than a maximum of $24.00. The toll caps were inflated at an assumed rate of 2.5 percent per year to reflect inflation incurred over the course of the projection horizon. All other assumptions were identical to the ones used in the Option 1 Base Case.

OPTION 1 – HOV 2+, NO TOLL CAP

This sensitivity test assumed HOV2+ free operation of the SR 167 and the I-405 Express Toll Lanes. All other assumptions were identical to the ones used in the Option 1 Base Case.

OPTION 4 – HOV 2+, NO TOLL CAP

Based on the Option 4 infrastructure configuration, this sensitivity test assumes HOV2+ operation on the entire Express Toll Lane corridor. The toll rates were not capped. All other assumptions were identical to the ones used in the Option 4 Base Case.

OPTION 4 – HOV 3+, NO TOLL CAP, PROJECT PHASING

This test assumes an identical configuration as assumed in the Base Case Option 4 scenario, but assumes an early implementation in 2013. All other assumptions were identical to the ones used in the Option 4 Base Case.

For each of the study options and the sensitivity tests, complete sets of toll sensitivity runs were performed and optimal toll rates per tolling zone, direction, and time of day, were determined. The methodology is described in Chapter 3. Chapter 4 shows the results for the Base Case alternatives. Results for the sensitivity tests are shown in Chapter 5.

CHAPTER 3

MODELING APPROACH

As discussed in previous chapters, five base case project configurations were subjected to traffic and revenue analysis and four sensitivity tests were performed. The analyses included the development of multi-level detailed traffic models, an assessment of optimum toll levels, estimates of traffic volumes by time of day and travel direction, estimates of revenue potential and extraction of the final demand data for purposes of operational analyses.

MODELING APPROACH

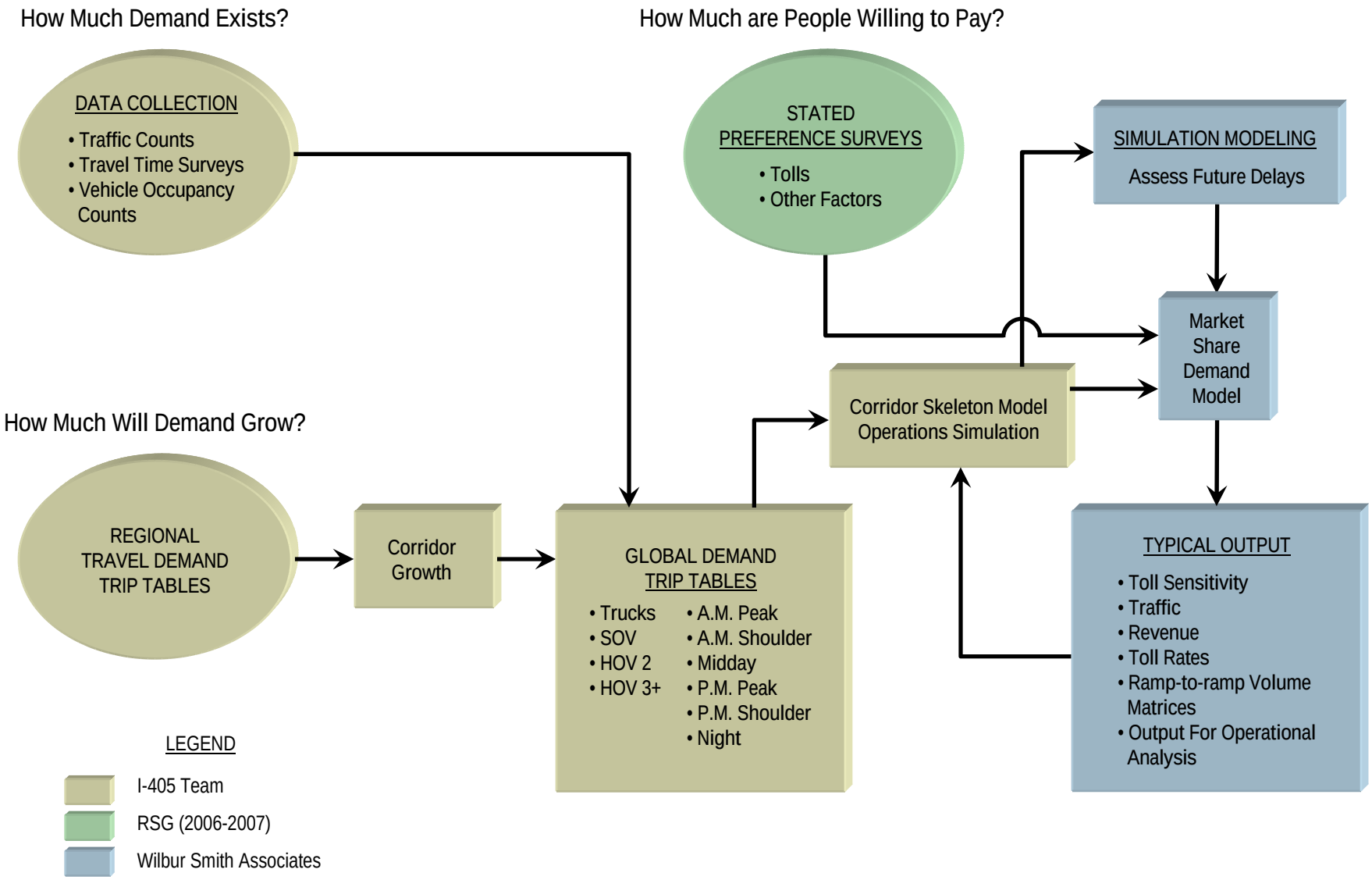
Figure 3-1 presents an overview of the methodology used to develop estimates of traffic and revenue for the project alternatives. A traffic and revenue study attempts to answer the following three overall questions:

- How much will the demand grow in the future?
- What share of traffic can be expected to use the toll facility?
- What will drivers be willing to pay?

The overall modeling approach used in the study required the development and utilization of three independent models. These included:

- **Regional model for global demand estimates** – The global demand was an estimate of the total amount of traffic that would be expected to be using the project corridor under the improved conditions. These estimates were based on the results of the newest PSRC regional travel demand model and were provided to WSA by the I-405 Study Team.[1]

[1] EMME/3 Regional travel demand model, version 1C, January 2007


How Much Demand Exists?
How Much are People Willing to Pay?
How Much Will Demand Grow?
DATA COLLECTION
• Traffic Counts
• Travel Time Surveys
• Vehicle Occupancy Counts
STATED PREFERENCE SURVEYS
• Tolls
• Other Factors
SIMULATION MODELING
Assess Future Delays
Market Share Demand Model
Corridor Skeleton Model Operations Simulation
REGIONAL TRAVEL DEMAND TRIP TABLES
Corridor Growth
GLOBAL DEMAND TRIP TABLES
• Trucks
• SOV
• HOV 2
• HOV 3+
• A.M. Peak
• A.M. Shoulder
• Midday
• P.M. Peak
• P.M. Shoulder
• Night
TYPICAL OUTPUT
• Toll Sensitivity
• Traffic
• Revenue
• Toll Rates
• Ramp-to-ramp Volume Matrices
• Output For Operational Analysis
LEGEND
I-405 Team
RSG (2006-2007)
Wilbur Smith Associates

- **Travel time simulation model** – The existing VISSM micro simulation models [2] of the project corridor were adapted to identify changes in travel time and delay on different segments of the general purpose lanes under various alternative project configurations. Motorists' willingness to pay a toll to use express toll lanes depends heavily on congestion levels and traffic backups in the toll-free general purpose lanes. The simulation model is an enhanced tool to provide a better indication of delay conditions under varying levels of demand. The simulation model was run under various loading points and the resulting delay information was integrated into the market share model.

- **The market share demand model** – This model was used to estimate the share of total traffic in the SR 167/I-405 corridor that would choose the Express Toll Lanes, versus the toll-free general purpose lanes, under varying operating conditions and toll rates. The share of corridor traffic in the Express Toll Lanes is based on several factors, including location of access points, differences in configurations, time savings offered by the Express Toll Lanes, and the toll rates being charged. In order to recognize the constraint of traffic demand, due to the congestion in the corridor, and the effect that the increased capacity of the Express Toll Lanes will have on the overall corridor demand (latent demand in the corridor), the market share demand model trip tables were extracted from the global demand model runs and were calibrated to match capacities at various bottleneck locations. The extracted subarea matrices were provided by the I-405 Team for the time periods from 5:00 AM to 11:00 AM and from 2:00 PM to 8:00 PM, in half hour increments. Based on this, the demand data was aggregated to match the assignment periods used in previous traffic and revenue studies. The demand between 11:00 AM and 2:00 PM was estimated using data from the adjacent morning and afternoon periods and profiles from available count data and previously used demand data.

GLOBAL DEMAND ESTIMATES

The corridor global traffic demand is defined as the total traffic traveling in the Express Toll Lane corridor. Global demand estimates were prepared using trip tables from the current EMME/3 travel demand model for a 188-zone subarea model, covering the extents of the micro-simulation model. The regional travel demand model was used in two ways: to provide the base travel patterns for the micro-model subarea; and

[2] Vissim 5.1 micros simulation networks and demand matrices were provided by the I-405 Team for Study Options 1 through 5 during the course of the study.

to develop growth characteristics for the micro-model subarea. This data was provided by the I-405 Team and processed by WSA.

The analysis periods used in the market-share demand model and the micro-simulation model were as follows:

- AM0 – AM Pre-Peak Shoulder – 5:00-5:30 am
- AM1 – AM Pre-Peak Shoulder – 5:30-6:30 am
- AM2 – AM Peak Period – 6:30 -8:30 am
- AM3 – AM Post Peak Shoulder – 8:30 -9:30 am
- MD – Midday Period – 9:30 am - 2:30 pm
- PM1 – PM Pre-Peak Shoulder - 2:30 - 3:30 pm
- PM2 – PM Peak Period - 3:30 - 5:30 pm
- PM3 – PM Post-Peak Shoulder - 5:30- 6 :30 pm
- PM4 – PM Post-Peak Shoulder - 6:30- 7 :00 pm
- PM5 – Evening - 7:00- 7:30 pm
- PM6 – Evening - 7:30- 8:00 pm

The overnight period from 8:00 pm to 5:00 am was not analyzed explicitly. It was assumed that no tolls would be collected during this time period. The demand modeling was performed for weekday conditions. The traffic and toll revenue forecasts presented later in this report assume a certain fixed percentage of traffic and revenue will occur during the weekends.

Future-year (2020, 2035 and 2045) traffic assignments, using the regional model, were made to identify potential changes in travel patterns in the corridor. Among other things, these travel patterns are likely to be affected by:

- Forecast growth in the region;
- The addition of new capacity to the highways in the form of the Express Toll Lanes being studied herein;
- Improvements to other highways in the region; and
- Changes to the ramp configurations as part of these improvements.

Trip tables representing the micro-model subarea were extracted from each set of runs and provided to WSA by the I-405 Team for the traffic and revenue analysis.

TRAVEL TIME SIMULATION MODEL (VISSIM)

Traditional traffic assignment models do not well replicate the impact of merging and weaving maneuvers on highway capacity, nor can they reflect the impact of downstream queuing on highway segments. A

microscopic simulation model, VISSIM, was used to assist in estimating the impacts of the project travel speeds on different segments of the highway. VISSIM models each vehicle as a separate entity. The roadway geometry and interaction with other vehicles influences the behavior of each vehicle in the model. A certain level of randomness in vehicle behavior is also introduced due to assumed speed distributions of desired free flow speeds rather than using fixed speeds and various vehicle behavior parameters.

A series of VISSIM runs were made using differing assumptions on traffic shifts to the managed lanes, for each of the eleven demand model time periods, at 2020, 2035 and 2045 levels. As traffic shifts into the Express Toll lanes, the amount of traffic in the general purpose lanes would decrease, resulting in lower congestion levels in the general purpose lanes. A total of ten runs were made for each of the eleven primary analysis periods, for each direction. Within each time period, for each general purpose lane link, a relationship was developed between the "traffic demand" on the link and its modeled travel speed. By graphing the relationship between traffic demand and travel speed for all ten runs for each mainline segment, volume-delay curves were developed for each mainline link on the general purpose lanes. The infrastructure configuration and the demand data for the micros-simulations were provided by the I-405 Team.

MARKET SHARE DEMAND MODEL

The extracted micro-model subarea, used for this study, covers the extents of the micro-simulation model and also includes alternative routes providing traffic in the corridor with the following major routing possibilities:

- General Purpose Lanes;
- Express Toll Lanes;
- Local arterials; or
- Routes using a combination of these three choices.

The market-share model included network configurations for the five Base Case study options, with five sets of alternative trip tables that were used to estimate traffic and revenue for the various combinations of project configuration, sensitivity to changes in growth of demand, and/or changes in tolling operation (sensitivity tests).

During the assignment process, travel time between a path using the tolled managed lanes was compared to travel time on a path using the next best free routes (most likely the general purpose lanes). For each travel

movement, the proportion of motorists expected to use the managed lanes is a function of the computed time savings and the cost to use the lanes vs. the value placed on time savings by the motorist value of time (VOT).

The micro-model relies on developing an equilibrium condition between the toll cost and the estimated time savings. If more traffic uses the managed lanes, there is less congestion in the free lanes and lower time savings. Less time savings would result in less traffic choosing the managed lanes. For each toll rate level, there exists an equilibrium point between the level of traffic congestion in the free lanes (time savings) and the amount of traffic willing to pay a toll to save that same amount of time. At low toll levels, there is a higher propensity to use the managed lanes resulting in lower traffic volumes on the toll-free lanes which leads to lower congestion levels in the toll-free lanes and reduced time savings in the Express Toll Lanes. At higher toll levels, there is less traffic in the managed lanes and more traffic remains in the toll-free lanes leading to more congestion in the toll-free lanes and increased time savings on the tolled lanes. For each toll rate level, the toll diversion modeling process goes through a series of iterations to find the equilibrium between the calculated time savings and the resulting congestion levels, replicating the interdependencies between the traffic volumes in the toll-free and the Express Toll lanes.

A full range of toll rates were tested, from $0.05 per mile to $2.00 per mile, for each time period and travel direction with a minimum charge of at least $1.00. This per mile rate was translated into toll charges at each tolling zone by direction.

Managed lanes projects, such as that being contemplated on The I-405/SR 167 corridor, typically make use of variable tolls based on traffic congestion levels. In general, tolls are increased during periods of high congestion while lower tolls are used when volumes are lower.
The determination of optimum toll rates of a managed lanes facility is considerably different than that of a typical toll facility. Optimum rates for managed lanes can be dictated by three, sometimes conflicting criteria:

- Maximizing toll revenue potential;
- Maximizing demand in the managed lanes yet assuring a congestion free ride; and
- Optimizing the distribution of traffic between the toll-free general purpose lanes and the tolled, managed lanes.

For purposes of this study, traffic and revenue estimates have typically been based on toll rates which reflect a tolling policy to primarily optimize

the utilization of the Express Toll Lanes. Revenue was not the primary goal when setting toll rates. The transaction and revenue numbers, shown later in this report, reflect this strategy.

VEHICLE CATEGORIES

The micro-model, for each of the trip tables, was separated into five components (Trucks, SOV work trips, SOV non-work trips, HOV-2 and HOV3+ vehicles). These were assigned simultaneously until an equilibrium condition was reached for a particular toll rate. Depending on the assumed tolling regulations for each study option, either HOV2 and/or HOV3+ vehicles were allowed free access to the Express Toll Lanes. Before the analysis began, WSDOT determined that heavy trucks would not be allowed to use the Express Toll Lanes. As a result, a portion of the market-share model trip tables was separated out to represent truck traffic. This portion was assigned to the arterial streets and general purpose lanes, only.

It should be noted that the shares of HOV2 and HOV3+ vehicles are based on data obtained from the official PSRC regional model forecast. The real amount of traffic in these vehicle categories might vary due to future changes in transportation policies to increase the amount of shared travel or to decrease vehicle miles travelled. A significant change in these assumptions could result in a significant change in revenue estimates.

Any significant increase, in one of these components of potentially toll-free traffic, will not only affect toll revenue but will also reduce the ability to manage demand in the managed lanes, as toll-free traffic will not react to toll increases, and the share of tolled traffic in Express Toll Lanes will decrease.

The assumptions for the shares of HOV2 and HOV3+ trips of all passenger car trips for the 5:00 AM to 8:00 PM demand trip tables are shown in Table 3-1.

Table 3-1

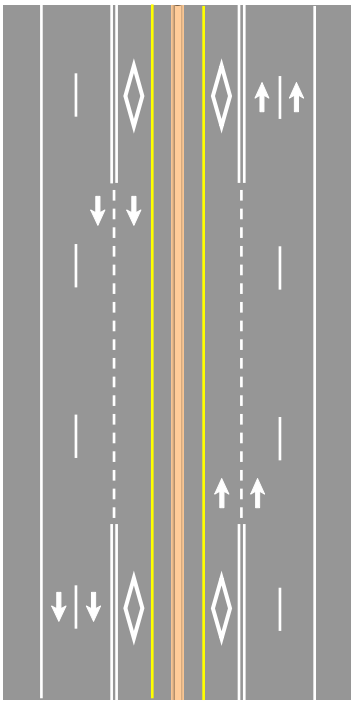
Share of HOV2 and HOV3+ Traffic as Percentage of Total Amount of Passenger Car Trips

	2020		2035		2045	
Study Option	HOV2	HOV3+	HOV2	HOV3+	HOV2	HOV3+
Option 1 HOV 3+, no toll cap	12.2%	7.2%	12.8%	7.0%	12.9%	7.2%
Option 2 HOV 3+, no toll cap	12.2%	7.2%	12.8%	7.0%	12.9%	7.2%
Option 3 HOV 3+, no toll cap	12.2%	7.2%	12.8%	7.0%	12.9%	7.2%
Option 4 HOV 3+, no toll cap	12.1%	7.1%	12.5%	7.0%	12.4%	7.2%
Option 5 HOV 3+, no toll cap	12.0%	6.8%	12.8%	6.6%	12.6%	6.8%

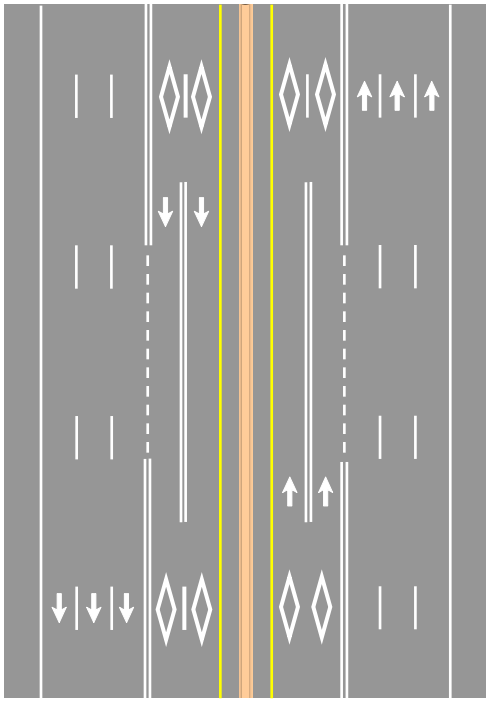
CAPACITY ASSUMPTIONS

In order to keep the Express Toll Lanes operating in free-flow conditions, the demand using the facility has to be limited by charging appropriate toll rates. The capacity assumptions used to determine the necessary toll charges, are dependent on the specific configuration of the Express Toll Lanes and the location and type of ingress and egress points. Four different types of ingress and egress configurations (Figure 3-2) are used to provide access to and from the Express Toll Lanes, in the various study options. When determining the toll charges, the available room for toll-free and tolled traffic is not only determined by the number of toll lanes and the corresponding capacity threshold (1,500 vehicles per lane per hour on single lane sections and 1,600 vehicles per lane per hour on two-lane sections), but also on the ratio of traffic exiting, entering and passing through, at the ingress and egress points. It was assumed that the connecting ramps provide a capacity threshold of up to 1,500 vehicles per hour. If the upstream volume is close to the capacity threshold and the number of exiting vehicles exceeds the number of entering vehicles, the downstream volumes will have to be below the available capacity threshold. On sections with a single Express Toll Lane, the volume continuing through the ingress/egress locations would have to be the

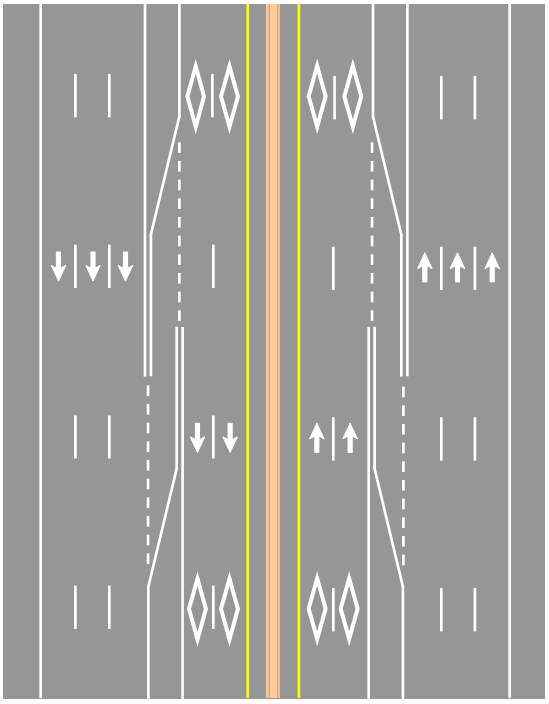
Combined Ingress/Egress At Locations
With A Single Express Toll Lane



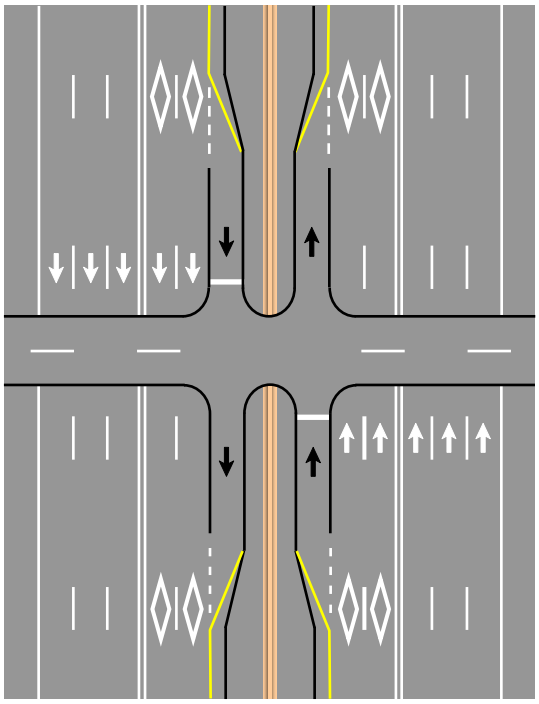
Combined Ingress/Egress Points On
Segments With Two Express Toll Lanes



Separated Ingress/Egress Points With
Acceleration And Deceleration Lanes



Direct Access Configuration



FINAL DRAFT

WilburSmith
ASSOCIATES

TYPES OF INGRESS/EGRESS CONFIGURATIONS

FIGURE 3-2

capacity threshold on the adjacent sections of the toll lanes minus the balance of entering and exiting vehicles as shown in Figure 3-3.

This may result in sections of Express Toll Lanes where the volumes are actually below the allowable capacity thresholds due to imbalanced entering and exiting volumes.

Due to the length of the project corridor, the traffic passing through one tolling zone obviously will be influenced by tolls in other tolling zones and a change in tolls, in one tolling zone, will have impacts on the usage of various segments upstream and/or downstream.

This complex set of interactions required several iterations to determine optimal toll rates meeting the goal of optimizing the usage of the Express Toll Lanes. This process was performed for each tolling zone and direction, modeling time period, forecast horizon and study option. In total 4,488 toll rates were determined based on the various combinations of demand data, study options and tolling concepts.

Annual revenue forecasts were developed for each option and adjusted in the early years to reflect the "ramp-up" phenomena usually experienced on most new toll facilities. Revenues were prepared in current year dollars, over the projection period, which extended from 2013/2020 to 2060. The time horizon, after the last modeling year, assumed a constant amount of tolled and toll-free traffic and revenue growth of 2.5 percent per year.

The revenue estimates are gross toll revenues in future (current) year dollars and do not reflect deductions for operating and maintenance costs or capital costs.

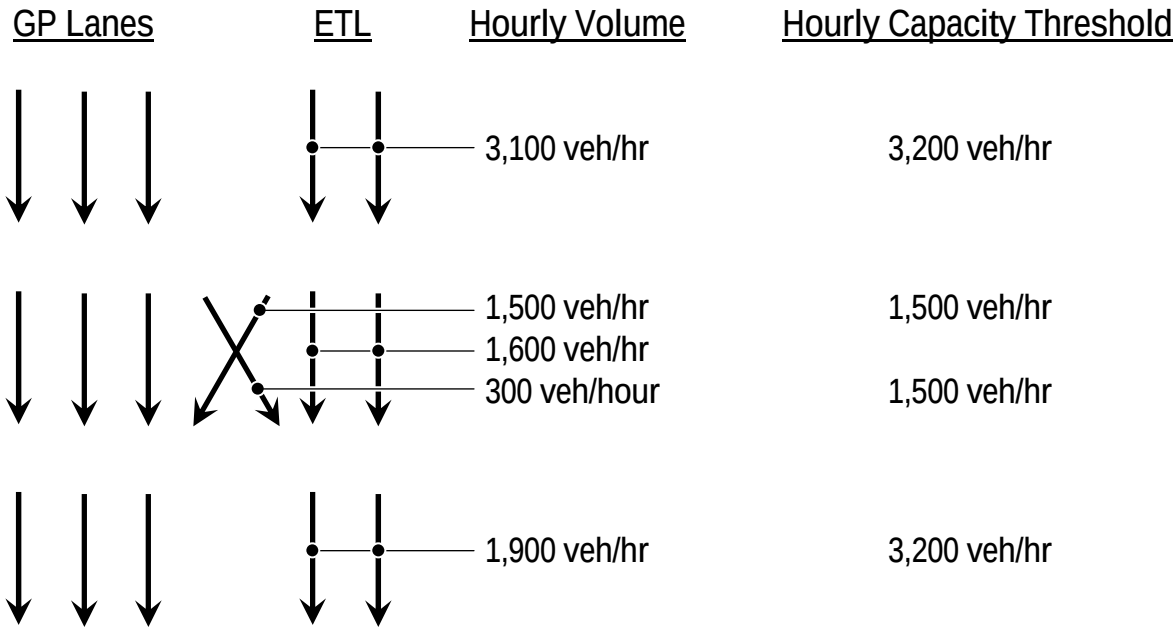
BASIC ASSUMPTIONS

Estimates of traffic and revenue for the proposed I-405/SR 167 Express Toll Lane alternatives, included in this report, are predicated on the following basic assumptions, all of which are considered reasonable for purposes of this analysis:

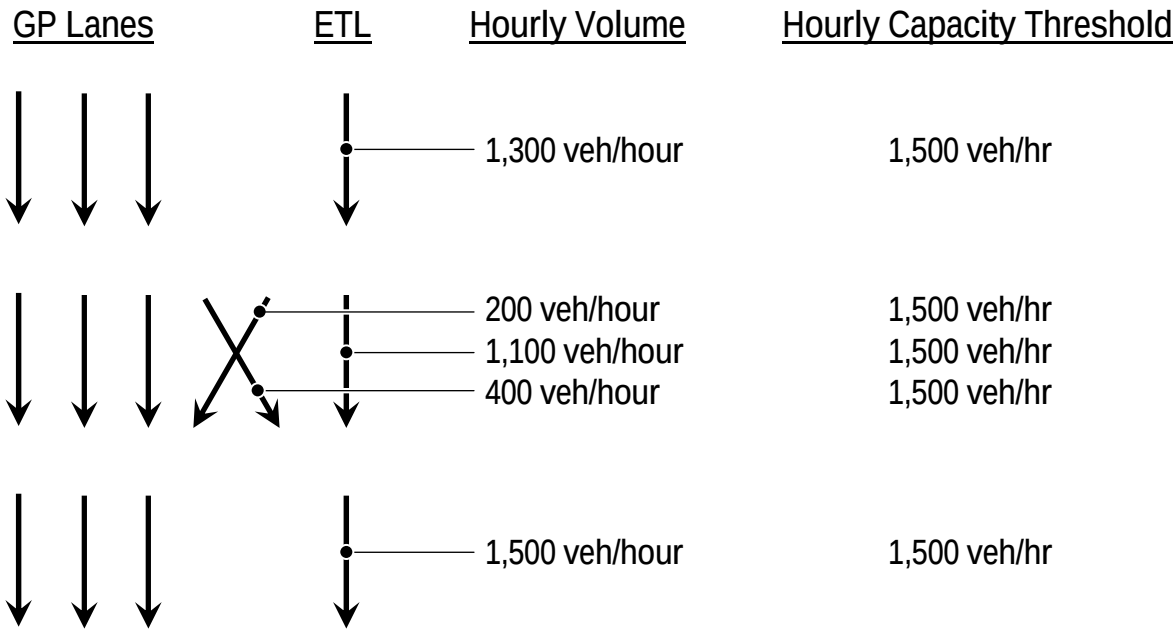
1. The project configurations, vehicle restrictions, proposed access locations and toll rates will be as described in this report;

2. Heavy Trucks will be prohibited from using the Express Toll Lanes under all alternatives;

Two Lane Express Toll Lane Section



Single Lane Express Toll Lane Section



FINAL DRAFT

WilburSmith ASSOCIATES

EXAMPLES FOR VOLUME RESTRICTIONS
FOR FREE-FLOW OPERATION

FIGURE 3-3

3. Tolls would be collected by means of electronic toll collection, presumably using the existing Good To Go transponder technology. No cash collection would be provided. Electronic tolls would be assessed based on the tolling zones that a vehicle passes through, with a minimum toll of at least $1.00 per trip;

4. The toll charged per tolling zone is independent from the actual distance travelled, within this tolling zone, and will be set to meet the tolling concepts, as described above;

5. Electronic toll operations are assumed to be actively monitored and strictly enforced to minimize potential revenue loss due to toll evasion. No adjustments have been made to toll revenue estimates, included in this report, for toll evasion and it is assumed that losses due to evasion are compensated by fines and charges for violations;

6. Estimates of annual toll revenue included in this report have been adjusted to reflect "ramp-up" during the first two years of operation;

7. An inflation rate of 2.5 percent per year from a base of 2008 was assumed to inflate minimum toll rates and toll caps, if applicable, to future-year levels;

8. It was assumed that transportation improvements included in the PSRC model networks would be implemented. No other competing routes, or capacity improvements other than the study option improvements, described in this report, would be implemented, within the forecast period. No additional general purpose lane capacity would be provided along the Express Toll Lane corridor;

9. Economic growth in the study corridor will generally follow the assumed patterns of the socio-economic data in the PSRC model. In addition, no significant departure from the future demand levels provided to WSA for use in the traffic and revenue analysis will occur;

10. The proportion of HOV2 and HOV3+ vehicles and transit mode choice will remain within the PSRC forecast and the data provided by the I-405 Team;

11. Other non-revenue vehicles permitted to use the managed lanes, including various types such as motorcycles, transit buses, etc., will not be a significant portion of the Express Toll Lane traffic;

12. The proposed Express Toll Lanes would be well-maintained, efficiently operated and effectively signed and promoted to encourage maximum usage;

13. No limiting policy would be in effect to drastically reduce vehicle traffic and/or vehicle usage;

14. Motor fuel will remain in adequate supply and increases in price will not substantially exceed the overall rate of inflation over the long term; and

15. No local, regional or national emergency will arise which would abnormally restrict the use of motor vehicles.

Any significant departure from these basic assumptions could impact estimated traffic and toll revenue for the proposed Express Toll Lane facility; and such impacts could be significant.

CHAPTER 4

ESTIMATED TRAFFIC AND REVENUE

TRAFFIC AND REVENUE ANALYSIS

This section of the report describes the detailed traffic and revenue analysis. It will discuss the optimum toll rate analysis, detailed estimates of weekday traffic for various future years and estimated annual transactions and revenue.

OPTIMUM RATE ANALYSIS

Managed lanes projects, such as the Express Toll Lanes being contemplated on the I-405 corridor and already in operation on the SR 167 corridor, make use of variable tolls based on traffic congestion levels. Tolls are increased during periods of high congestion while lower tolls are used when demand levels are lower.

The determination of optimum toll rates of a managed lanes facility is considerably different than that of a typical toll facility. Optimum rates for managed lanes can be dictated by three, sometimes conflicting criteria:

- Maximizing toll revenue potential;
- Maximizing demand in the managed lanes, yet assuring a congestion free ride; and
- Optimizing the distribution of traffic between the non-tolled general purpose lanes and the tolled managed lanes.

Most times, the objectives of revenue maximization and demand management generally function in concert, although the demand management objective usually controls in the event of a conflict. That is, in some cases it may be necessary to use rates beyond the revenue maximizing point to effectively manage demand in the managed lanes. This is more likely to occur under high congestion conditions, typically later in the forecast period.

However, the objectives of revenue maximization and optimization of demand between free and tolled lanes may well be in conflict. Revenue maximization may occur at one toll rate, but may result in traffic on the tolled managed lanes that is well below the capacity of those lanes. It may be an objective to increase the amount of traffic served by the managed lanes, thereby reducing demand and congestion in the general purpose lanes. This optimum distribution is often attained at toll rates below those which would produce maximum revenue.

For purposes of this study, traffic and revenue estimates have typically been based on toll rates which meet the third objective, which is, primarily managing the distribution of demand between the Express Toll Lanes and the toll-free general purpose lanes.

TOLLING CONCEPT

Under the tolling concept assumed for the I-405/SR 167 corridor, a trip passing through a tolling zone, which has multiple entry and exit points, is charged a single, flat toll rate, independent of the actual distance travelled within this zone. Therefore, the per mile toll rates used in the toll sensitivity analysis are being converted into toll charges for each zone by multiplying the per–mile rates times the longest distance covered by each tolling zone. This zone pricing is common on managed lane facilities and tends to increase the share of long-distance trips, due to a relatively higher price for trips using only a short portion of a tolling zone. It was also assumed that any trip would have to pay a minimum toll, from $1.00 in 2020 to $2.15 in 2045 (Table 4-1). This minimum toll is intended to cover operating costs and to discourage short distance trips, which could potentially create operational issues by weaving in and out of the Express Toll Lanes, and therefore reduce the throughput in the corridor. The minimum toll was assumed to be inflated by 2.5 % from 2021 on.

All tolling zones have multiple entry and exit points. Therefore, the total number of transactions, in a particular tolling zone, can be higher than the desirable 1,600 vehicles per lane per hour. Take, for example, a two-lane tolling zone with a mid-point exit and entrance point. If, in an hour, 3,100 vehicles enter the zone upstream and 1,500 get off at the mid-point exit and 1,000 vehicles enter the tolling zone, from the mid-point entrance, there will be a total of 4,100 transactions in that tolling zone for the hour, but the capacity threshold of 3,200 vehicles will not be exceeded. The volume of transactions in the upstream section will be 3,100 vehicles per hour and the volume will be 2,600 vehicles per hour in the downstream section. All 4,100 vehicles would be charged the same toll.

Table 4-1
Composition of Toll-Free Designation and Mininum Toll Requirements for study Option 1 through 5

	2020		
	Toll-Free Designation		Minimum Toll Requirements
Option	SR 167	I-405	
Option 1 – HOV 3+, no toll cap	HOV 2 + Free	HOV 3 + Free	$1.00
Option 2 – HOV 3+, no toll cap	HOV 2 + Free	HOV 3 + Free	$1.00
Option 3 – HOV 3+, no toll cap	HOV 3 + Free	HOV 3 + Free	$1.00
Option 4 – HOV 3+, no toll cap	HOV 3 + Free	HOV 3 + Free	$1.00
Option 5 – HOV 3+, no toll cap	HOV 3 + Free	HOV 3 + Free	$1.00

	2035		
	Toll-Free Designation		Minimum Toll Requirements
Option	SR 167	I-405 South	
Option 1 – HOV 3+, no toll cap	HOV 2 + Free	HOV 3 + Free	$1.60
Option 2 – HOV 3+, no toll cap	HOV 2 + Free	HOV 3 + Free	$1.60
Option 3 – HOV 3+, no toll cap	HOV 3 + Free	HOV 3 + Free	$1.60
Option 4 – HOV 3+, no toll cap	HOV 3 + Free	HOV 3 + Free	$1.60
Option 5 – HOV 3+, no toll cap	HOV 3 + Free	HOV 3 + Free	$1.60

	2045		
	Toll-Free Designation		Minimum Toll Requirements
Option	SR 167	I-405 South	
Option 1 – HOV 3+, no toll cap	HOV 2 + Free	HOV 3 + Free	$2.15
Option 2 – HOV 3+, no toll cap	HOV 2 + Free	HOV 3 + Free	$2.15
Option 3 – HOV 3+, no toll cap	HOV 3 + Free	HOV 3 + Free	$2.15
Option 4 – HOV 3+, no toll cap	HOV 3 + Free	HOV 3 + Free	$2.15
Option 5 – HOV 3+, no toll cap	HOV 3 + Free	HOV 3 + Free	$2.15

Note: HOV 2 +: Vehicles with two or more occupants travel free of charge on Express Toll Lanes

HOV 3 +: Vehicles with three or more occupants travel free of charge on Express Toll Lanes

RATE SENSITIVITY ANALYSIS

A wide range of typical toll rates were tested for each tolling zone and each analysis period, in each travel direction, for all five Study Options. As noted previously, there were eleven analysis periods used in the study, generally extending from 5:00 AM to 8:00 PM. Separate traffic assignments were run, at up to 27 different toll rates, for each of these analysis periods. Toll sensitivity curves were produced for each alternative, for each tolling zone, for each analysis period, for each analysis year, for the full range of rates. An illustrative example of the toll sensitivity results for 2020, Study Option 5, Tolling Zone H, southbound, AM Peak Period is shown on the left side of Figure 4-1. The sample on the right hand side represents the sensitivity curves for Tolling Zone B, northbound, AM Peak Period. In the sample for zone H, the optimum toll rate was determined to be $0.65 per mile which is to the left of the revenue optimal point ($0.90 per mile), but was determined primarily to increase the amount of vehicles passing through the tolling zone. The tolling zone B example selected per mile rate, $1.90, is beyond the revenue optimal point ($1.25 per mile) and was necessary to limit the total volume within this zone. Depending on the demand, directional split and traffic patterns, the toll rates will vary significantly and might have to be raised beyond revenue optimal points to manage the demand in the various toll zones as well as the ingress and egress locations. The capacity thresholds used to determine the toll rates were described in Chapter 3.

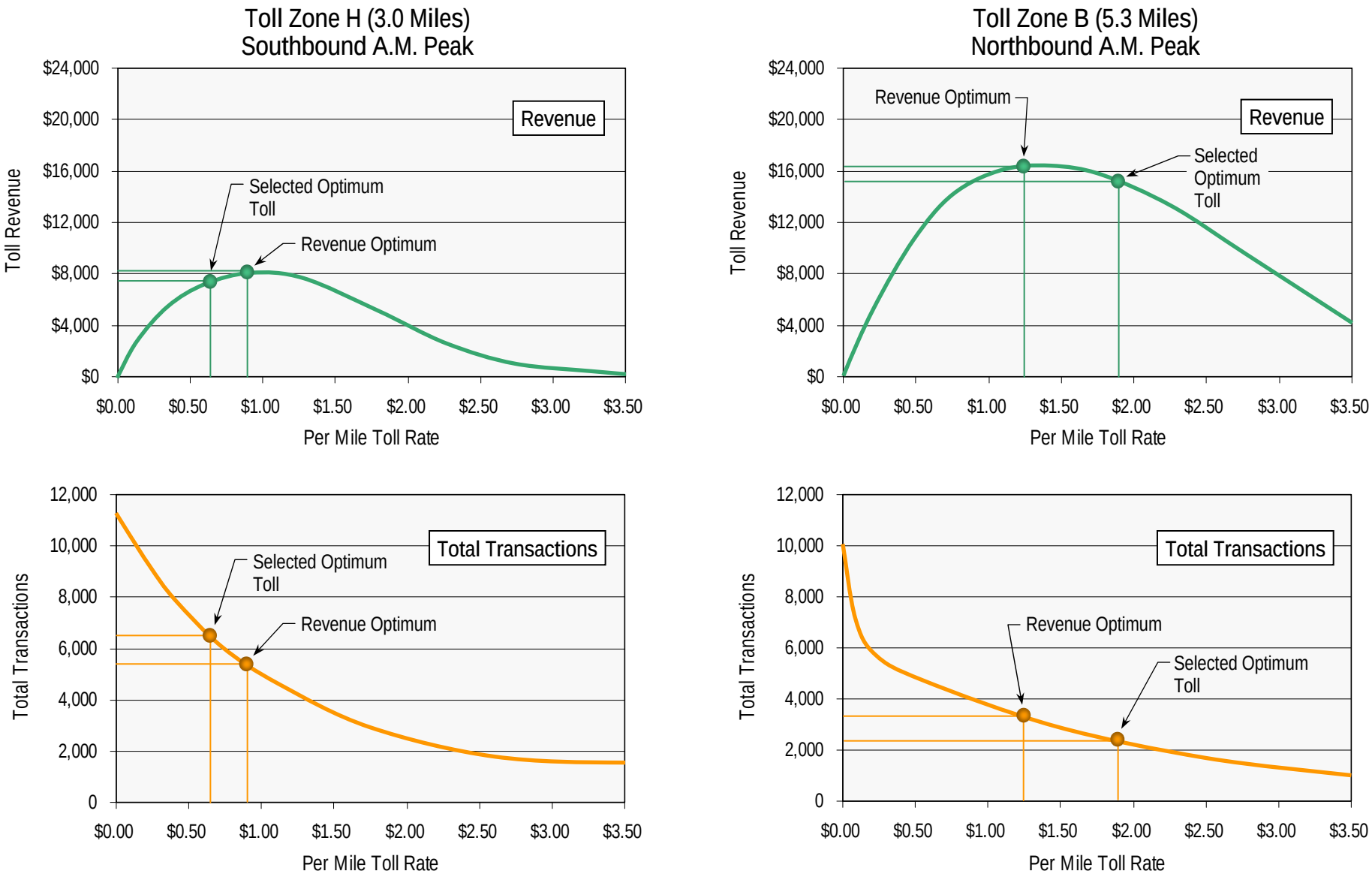
TRAFFIC AND REVENUE RESULTS

Detailed tables showing the results of the traffic and revenue analysis for Study Options 1 through 5 are shown in Appendix A. The tables contain the following information:

- Per-mile toll rates for each tolling zone;
- Zone-to-zone toll rate matrices showing toll charges by period;
- Transaction and revenue data by toll zone and period;
- Total traffic and revenue estimates by period;
- Annual revenue streams; and
- Traffic volumes per period on the Express Toll Lanes.

Per-mile rates, toll charges per tolling zone and revenue estimates shown in this report are expressed in current dollars.[1]

[1] "current dollars" is the dollar value in the future year of the estimate.



FINAL DRAFT

WilburSmith ASSOCIATES

STUDY OPTION 5

2020 A.M. PEAK WEEKDAY TOLL RATE SENSITIVITY CURVES

FIGURE 4-1

PER-MILE TOLL RATES

Detailed tables containing the per mile toll rates for each tolling zone, direction, modeling time period, and forecast year are shown in Tables A-1 through A-5, which can be found in the Appendix to this report. The per-mile rate increase over time does not follow the growth pattern of the demand data. This is typical for any managed lane project and is caused by a more than proportional increase of congestion in the general purpose lanes. This increases the time savings when using the Express Toll Lanes and therefore increases the pressure for traffic to buy into the Express Toll Lanes. This effect follows a non-linear relationship. A relatively small growth of demand usually results in a significant increase in toll rates to manage demand. In contrast, a relatively small drop in corridor demand or lower growth estimates can have a significant effect on toll rates and thus toll revenue potential for an express toll lane project. As mentioned before, the per-mile toll rates were determined in an interactive process, where all parts of the infrastructure had to meet the demand management requirements.

ZONE TO ZONE TOLL RATE MATRICES

A unique toll charge was calculated for each toll segment, based on the per-mile rate multiplied by the corresponding longest distance traveled, in each zone. In each direction, depending on the study option, toll charges for up to nine toll zones were applied in the demand modeling process. Tables A-6-1 through A-10-11, in the Appendix, show toll charge matrices for each study option, time period, and forecast year. The matrix contains the total cost for a trip entering the Express Toll Lane system, at a certain toll zone, travelling on the Express Toll Lanes, and exiting at another tolling zone (or the terminus of the system). If the toll charge values are lower than the appropriate minimum toll charge, the minimum toll charge would be applied. The toll modeling process and the revenue calculations were done using the minimum toll charges.

TRANSACTIONS AND REVENUE BY ZONE AND PERIOD

In Tables A-11-1 through A-15-4 in Appendix A, the amount of transactions and the resulting revenue are shown for each project alternative and by the three major corridor sections:

- I-405 North (From Northern Terminus at Lynnwood to Bellevue);
- I-405 South (Bellevue to Renton); and
- SR 167 (Renton to Southern Terminus)

The estimates were split by direction and were aggregated into the following major time-of-day periods shown on Table 4.2.

Table 4-2

Aggregated Time-of-Day Periods for Traffic and Revenue Estimates

Period	Time Slices	Time of Day
AM Shoulder	AM0+AM1+AM3	5:00 am - 6:30 am / 8:30 am - 9:30 am
AM Peak	AM2	6:30 am - 8:30 am
Midday	MD1	9:30 am - 2:30 pm
PM Shoulder	PM1+PM4	2:30 pm - 3:30 pm / 6:30 pm -7:00 pm
PM Peak	PM2+PM3	3:30 pm - 6:30 pm
Evening	PM5+PM6	7:00 pm - 8:00 pm
Total		5:00 am - 8:00 pm

A trip passing through a tolling zone will generate a transaction and subsequently, a trip that passes through more than one toll zone will result in two or more transactions.

The tables in the appendix contain information on tolled, toll-free and total transactions, as well as gross toll revenue. Revenue from a trip that would cover more than one of the major project sections (I-405 North, I-405 South and SR 167) was split proportionally according to the distance travelled, in each of the major segments. The transactions were associated with the major segments based on the location of the tolling zones that a vehicle passes through.

A comparison of the average amount of transactions (number of tolling zones passed through) per tolled and toll-free trip is shown in Table 4-3. On average, for the five options, toll-free trips are passing through 1.70 to 1.99 toll zones per trip in 2020; 1.70 to 2.02 toll zones in 2035; and 1.70 to 2.10 toll zones in 2045. Tolled vehicles travel through 2.06 to 2.92 zones per trip in 2020; 2.04 to 2.71 zones per trip in 2035; and 2.00 to 2.62 zones per trip in 2045. The variation between the study options is due to differences in the expansion of the toll lane system, with Option 1 having the least lane miles and the lowest transactions per trip. Options 4 and 5 are the longest systems with the highest Express Toll Lane capacity. Option 4 has the highest tolled transactions per trip because Option 5 includes an increase in general purpose lane capacity which reduces the number of vehicles buying into the Express Toll Lanes.

Table 4-3
Comparison of Weekday Transactions versus Trips

2020

Option	Tolled Transactions	Tolled Trips	Tolled Transactions Per Trip	Toll-Free Transactions	Toll-Free Trips	Toll-Free Transactions Per Trip
Option 1 – HOV 3+, no toll cap	153,173	74,529	2.06	90,664	53,441	1.70
Option 2 – HOV 3+, no toll cap	209,936	90,030	2.33	115,139	63,112	1.82
Option 3 – HOV 3+, no toll cap	239,397	93,990	2.55	72,236	37,329	1.94
Option 4 – HOV 3+, no toll cap	360,242	123,209	2.92	76,723	40,707	1.88
Option 5 – HOV 3+, no toll cap	492,128	173,347	2.84	79,388	39,948	1.99

2035

Option	Tolled Transactions	Tolled Trips	Tolled Transactions Per Trip	Toll-Free Transactions	Toll-Free Trips	Toll-Free Transactions Per Trip
Option 1 – HOV 3+, no toll cap	153,688	75,357	2.04	106,770	62,845	1.70
Option 2 – HOV 3+, no toll cap	207,470	91,694	2.26	142,296	78,673	1.81
Option 3 – HOV 3+, no toll cap	249,915	103,541	2.41	88,406	46,690	1.89
Option 4 – HOV 3+, no toll cap	355,886	131,105	2.71	88,625	46,687	1.90
Option 5 – HOV 3+, no toll cap	491,008	188,157	2.61	90,519	44,864	2.02

2045

Option	Tolled Transactions	Tolled Trips	Tolled Transactions Per Trip	Toll-Free Transactions	Toll-Free Trips	Toll-Free Transactions Per Trip
Option 1 – HOV 3+, no toll cap	147,948	73,989	2.00	116,887	68,905	1.70
Option 2 – HOV 3+, no toll cap	211,438	95,992	2.20	157,928	87,026	1.81
Option 3 – HOV 3+, no toll cap	244,988	104,571	2.34	105,359	54,982	1.92
Option 4 – HOV 3+, no toll cap	369,526	140,976	2.62	103,692	54,069	1.92
Option 5 – HOV 3+, no toll cap	496,455	193,746	2.56	105,637	50,220	2.10

Over time, the average amount of zones covered, per tolled trip, decreases, due to higher than proportional increases in toll rates. The amount of toll zones covered by toll-free trips changes slightly, over time. The slight variations are caused by changes in trip patterns.

Generally speaking, trips in Options with the direct connect link between the SR 167 and the I-405 Express Toll Lanes show an increased average amount of travelled zones because of the bigger time savings introduced by the direct connection. Option 1, with the two separate Express Toll Lane sections on SR 167 and I-405, shows the lowest average value.

The distribution of transactions between the three major toll lane sections is illustrated in Table 4-4. In Option 1, roughly 60 percent of the total transactions are performed on the I-405 North section due to the two lanes of capacity available in this section. The larger amount of toll-free transactions is associated with the SR 167 section due to the HOV2+free designation. Option 2 and 3 are showing similar splits of total transactions between the major segments with slightly lower total transactions on the SR 167 portion in Option 3 due to the change from an HOV2+ free to an HOV3+ free designation. This change is also reflected in the amount of tolled versus toll-free transactions on SR 167.

Option 5 shows an increase of total transactions on I-405 North caused by the addition of a second Express Toll Lane in each direction between SR 522 and the northern terminus. Options 4 and 5 result in almost twice as many transactions on the I-405 South segment compared to Options 2 and 3. The additional capacity from widening to two Express Toll lanes in this section is utilized as well as the single lane capacity in the other options. The amount of tolled and toll-free transactions on SR 167 in the Option 5 scenario increases due to the extension of the Express Toll Lanes to SR 512.

Table 4-5 shows the market shares of tolled and toll-free transactions for the five base case scenarios. In Option 1, tolled traffic accounts for 62.8 percent (2020) to 55.9 percent (2045) of total Express Lane traffic. The market share of tolled traffic in Options 2 through 5 is higher than in Option 1 due to the longer toll lane system, the additional direct connect link at the SR 167 interchange and/or all HOV3+ free designation. In any of the alternatives, the market share of tolled traffic decreases, over time, since the amount of free traffic increases and in most of the time periods the total amount of traffic remains constant due to the traffic management policy. This results in a decreasing amount of tolled trips and consequently leads to a lower market share. Option 5 shows the highest

Table 4-4
Share of Total Weekday Transactions on Express Toll Lane Segments

2020

Option	Tolled Transactions						Toll-Free Transactions						Total Transactions					
	SR-167		I-405 South		I-405 North		SR-167		I-405 South		I-405 North		SR-167		I-405 South		I-405 North	
Option 1 – HOV 3+, no toll cap	35,005	22.9%	--	--	118,169	77.1%	60,277	66.5%	--	--	30,387	33.5%	95,282	39.1%	--	--	148,555	60.9%
Option 2 – HOV 3+, no toll cap	34,431	16.4%	61,556	29.3%	113,949	54.3%	60,274	52.3%	24,159	21.0%	30,707	26.7%	94,704	29.1%	85,715	26.4%	144,655	44.5%
Option 3 – HOV 3+, no toll cap	63,231	26.4%	64,300	26.9%	111,866	46.7%	16,679	23.1%	24,905	34.5%	30,652	42.4%	79,910	25.6%	89,205	28.6%	142,518	45.7%
Option 4 – HOV 3+, no toll cap	74,762	20.8%	164,069	45.5%	121,412	33.7%	17,547	22.9%	26,627	34.7%	32,550	42.4%	92,308	21.1%	190,695	43.6%	153,962	35.2%
Option 5 – HOV 3+, no toll cap	85,575	17.4%	199,635	40.6%	206,918	42.0%	17,251	21.7%	27,083	34.1%	35,053	44.2%	102,826	18.0%	226,718	39.7%	241,971	42.3%

2035

Option	Tolled Transactions						Toll-Free Transactions						Total Transactions					
	SR-167		I-405 South		I-405 North		SR-167		I-405 South		I-405 North		SR-167		I-405 South		I-405 North	
Option 1 – HOV 3+, no toll cap	33,763	22.0%	--	--	119,925	78.0%	68,704	64.3%	--	--	38,066	35.7%	102,467	39.3%	--	--	157,991	60.7%
Option 2 – HOV 3+, no toll cap	30,875	14.9%	65,961	31.8%	110,634	53.3%	68,702	48.3%	35,046	24.6%	38,549	27.1%	99,577	28.5%	101,006	28.9%	149,183	42.7%
Option 3 – HOV 3+, no toll cap	70,215	28.1%	68,685	27.5%	111,014	44.4%	15,072	17.0%	35,157	39.8%	38,177	43.2%	85,287	25.2%	103,842	30.7%	149,191	44.1%
Option 4 – HOV 3+, no toll cap	67,683	19.0%	165,298	46.4%	122,905	34.5%	15,856	17.9%	34,159	38.5%	38,609	43.6%	83,539	18.8%	199,458	44.9%	161,514	36.3%
Option 5 – HOV 3+, no toll cap	81,613	16.6%	201,436	41.0%	207,959	42.4%	14,192	15.7%	36,243	40.0%	40,084	44.3%	95,805	16.5%	237,679	40.9%	248,043	42.7%

2045

Option	Tolled Transactions						Toll-Free Transactions						Total Transactions					
	SR-167		I-405 South		I-405 North		SR-167		I-405 South		I-405 North		SR-167		I-405 South		I-405 North	
Option 1 – HOV 3+, no toll cap	34,172	23.1%	--	--	113,775	76.9%	68,204	58.3%	--	--	48,684	41.7%	102,376	38.7%	--	--	162,459	61.3%
Option 2 – HOV 3+, no toll cap	35,531	16.8%	60,693	28.7%	115,215	54.5%	68,223	43.2%	40,299	25.5%	49,406	31.3%	103,754	28.1%	100,992	27.3%	164,621	44.6%
Option 3 – HOV 3+, no toll cap	68,774	28.1%	65,227	26.6%	110,987	45.3%	15,388	14.6%	40,455	38.4%	49,516	47.0%	84,162	24.0%	105,682	30.2%	160,503	45.8%
Option 4 – HOV 3+, no toll cap	78,515	21.2%	162,435	44.0%	128,576	34.8%	16,052	15.5%	38,207	36.8%	49,432	47.7%	94,568	20.0%	200,643	42.4%	178,008	37.6%
Option 5 – HOV 3+, no toll cap	94,723	19.1%	197,793	39.8%	203,939	41.1%	14,072	13.3%	42,852	40.6%	48,713	46.1%	108,796	18.1%	240,645	40.0%	252,652	42.0%

Table 4-5
Market Share of Weekday Toll-Free and Tolled Traffic on Express Toll Lane

	2020									
	Option 1 –		Option 2 –		Option 3 –		Option 4 –		Option 5 –	
Period	Tolled	Toll-Free	Tolled	Toll-Free	Tolled	Toll-Free	Tolled	Toll-Free	Tolled	Toll-Free
AM Shoulder	62.7%	37.3%	64.8%	35.2%	70.7%	29.3%	80.5%	19.5%	84.2%	15.8%
AM Peak	56.5%	43.5%	59.6%	40.4%	66.3%	33.7%	75.3%	24.7%	81.7%	18.3%
Midday	64.0%	36.0%	65.4%	34.6%	79.2%	20.8%	81.5%	18.5%	86.4%	13.6%
PM Shoulder	64.7%	35.3%	67.1%	32.9%	81.6%	18.4%	87.1%	12.9%	88.5%	11.5%
PM Peak	64.2%	35.8%	65.8%	34.2%	80.0%	20.0%	85.7%	14.3%	87.2%	12.8%
Evening	60.5%	39.5%	60.7%	39.3%	79.0%	21.0%	87.5%	12.5%	90.6%	9.4%
Total	62.8%	37.2%	64.6%	35.4%	76.8%	23.2%	82.4%	17.6%	86.1%	13.9%

	2035									
	Option 1 –		Option 2 –		Option 3 –		Option 4 –		Option 5 –	
Period	Tolled	Toll-Free	Tolled	Toll-Free	Tolled	Toll-Free	Tolled	Toll-Free	Tolled	Toll-Free
AM Shoulder	58.3%	41.7%	62.0%	38.0%	71.3%	28.7%	80.4%	19.6%	84.4%	15.6%
AM Peak	52.9%	47.1%	58.1%	41.9%	68.3%	31.7%	73.9%	26.1%	82.3%	17.7%
Midday	61.8%	38.2%	58.1%	41.9%	72.7%	27.3%	80.6%	19.4%	85.4%	14.6%
PM Shoulder	59.2%	40.8%	59.6%	40.4%	77.7%	22.3%	80.9%	19.1%	84.4%	15.6%
PM Peak	58.1%	41.9%	59.2%	40.8%	76.7%	23.3%	81.8%	18.2%	83.9%	16.1%
Evening	60.0%	40.0%	61.6%	38.4%	77.9%	22.1%	80.8%	19.2%	86.1%	13.9%
Total	59.0%	41.0%	59.3%	40.7%	73.9%	26.1%	80.1%	19.9%	84.4%	15.6%

	2045									
	Option 1 –		Option 2 –		Option 3 –		Option 4 –		Option 5 –	
Period	Tolled	Toll-Free	Tolled	Toll-Free	Tolled	Toll-Free	Tolled	Toll-Free	Tolled	Toll-Free
AM Shoulder	57.7%	42.3%	61.3%	38.7%	67.5%	32.5%	77.7%	22.3%	83.6%	16.4%
AM Peak	54.8%	45.2%	58.1%	41.9%	64.7%	35.3%	73.4%	26.6%	80.5%	19.5%
Midday	59.5%	40.5%	57.9%	42.1%	70.9%	29.1%	79.2%	20.8%	83.0%	17.0%
PM Shoulder	53.4%	46.6%	55.5%	44.5%	72.0%	28.0%	79.5%	20.5%	82.8%	17.2%
PM Peak	52.0%	48.0%	54.9%	45.1%	70.5%	29.5%	78.3%	21.7%	81.7%	18.3%
Evening	54.1%	45.9%	55.8%	44.2%	73.5%	26.5%	78.9%	21.1%	83.2%	16.8%
Total	55.9%	44.1%	57.2%	42.8%	69.9%	30.1%	78.1%	21.9%	82.5%	17.5%

market share of tolled traffic since this alternative is the one with the most Express Toll Lane capacity.

TRAFFIC AND REVENUE PER PERIOD

Weekday traffic (toll-free, tolled and total values) by direction and aggregated operating periods, is shown in Appendix A in Tables A-16-1 through A-20-3, for each forecast year and aggregated time period. The tables also contain average toll rates, weekday revenue, and annual revenue estimates. The average toll rates are calculated as the ratio between the weekday revenue and the total daily tolled trips. All values are expressed in current dollars.[(2)] The estimates for annual revenue are based on 250 weekdays per year and 115 weekend days and holidays. It is assumed that the holiday and weekend day revenues represent 2 percent of the weekday revenue. These assumptions are identical to the ones used in previous studies for the I-405 corridor.

Table 4-6 contains a summary of weekday traffic and revenue as well as average tolls, lane miles of Express Toll Lanes, weekday trips per lane mile, and weekday revenue per lane mile. All currency values are expressed in current dollars.

Option 5, for 2035 and 2045, shows the lowest average toll charges for tolled trips compared to any other alternative since this option includes the biggest capacity improvements, not only on the Express Toll Lanes, but also on the general purpose lanes between Renton and Bellevue, on I-405. These improvements result in relatively lower tolls compared to the other options since the pressure to buy into the toll lanes is lower (less time savings due to additional general purpose lane capacity) and the necessity to set tolls at high levels to manage demand is reduced due to the widening to two lanes of the Express Toll Lanes in the northern segment of I-405. The average toll increase over the forecast period shows a higher than proportional increase as compared to the growth of demand. As described earlier, this effect is caused by a non-linear relationship of change in time savings versus change in demand.

The amount of weekday trips per lane mile is the highest in Option 1. This is due to HOV2+ designation of the SR 167 portion of the system, in this alternative, and a relatively high share of single lane segments. Options with an HOV3+ designation have lower amounts of trips in the off-peak directions and/or off-peak time periods, since a lower amount of trips can use the Express Toll Lanes free of charge. The additional

[(2)] "current dollars" is the dollar value in the future year of the estimate

Table 4-6
Comparison of Weekday Traffic and Revenue

2020

Study Option	Weekday Traffic: Toll-Free	% Difference vs. Option 1	Tolled	% Difference vs. Option 1	Total	% Difference vs. Option 1	Average Toll Rate	% Difference vs. Option 1	Daily Revenue	% Difference vs. Option 1	Lane Miles	% Difference vs. Option 1	Trips per Lane Mile	% Difference vs. Option 1	Revenue per Lane Mile	% Difference vs. Option 1
Option 1 HOV 3+, no toll cap	53,441		74,529		127,970		$5.03		$374,935		75.37		1,698		$4,975	
Option 2 HOV 3+, no toll cap	63,112	+18.1%	90,030	+20.8%	153,142	+19.7%	$5.06	+0.6%	$455,525	+21.5%	101.20	+34.3%	1,513	-10.9%	$4,501	-9.5%
Option 3 HOV 3+, no toll cap	37,329	-30.1%	93,990	+26.1%	131,319	+2.6%	$5.47	+8.7%	$514,021	+37.1%	102.54	+36.0%	1,281	-24.6%	$5,013	+0.8%
Option 4 HOV 3+, no toll cap	40,707	-23.8%	123,209	+65.3%	163,916	+28.1%	$10.37	+106.2%	$1,278,095	+240.9%	128.56	+70.6%	1,275	-24.9%	$9,942	+99.8%
Option 5 HOV 3+, no toll cap	39,948	-25.2%	173,347	+132.6%	213,295	+66.7%	$5.53	+9.8%	$957,843	+155.5%	147.10	+95.2%	1,450	-14.6%	$6,512	+30.9%

2035

Study Option	Weekday Traffic: Toll-Free	% Difference vs. Option 1	Tolled	% Difference vs. Option 1	Total	% Difference vs. Option 1	Average Toll Rate	% Difference vs. Option 1	Daily Revenue	% Difference vs. Option 1	Lane Miles	% Difference vs. Option 1	Trips per Lane Mile	% Difference vs. Option 1	Revenue per Lane Mile	% Difference vs. Option 1
Option 1 HOV 3+, no toll cap	62,845		75,357		138,202		$11.38		$857,769		75.37		1,834		$11,381	
Option 2 HOV 3+, no toll cap	78,673	+25.2%	91,694	+21.7%	170,367	+23.3%	$12.78	+12.3%	$1,171,670	+36.6%	101.20	+34.3%	1,683	-8.2%	$11,578	+1.7%
Option 3 HOV 3+, no toll cap	46,690	-25.7%	103,541	+37.4%	150,231	+8.7%	$12.81	+12.5%	$1,326,336	+54.6%	102.54	+36.0%	1,465	-20.1%	$12,935	+13.7%
Option 4 HOV 3+, no toll cap	46,687	-25.7%	131,105	+74.0%	177,792	+28.6%	$17.14	+50.6%	$2,247,133	+162.0%	128.56	+70.6%	1,383	-24.6%	$17,479	+53.6%
Option 5 HOV 3+, no toll cap	44,864	-28.6%	188,157	+149.7%	233,021	+68.6%	$9.86	-13.4%	$1,854,857	+116.2%	147.10	+95.2%	1,584	-13.6%	$12,609	+10.8%

2045

Study Option	Weekday Traffic: Toll-Free	% Difference vs. Option 1	Tolled	% Difference vs. Option 1	Total	% Difference vs. Option 1	Average Toll Rate	% Difference vs. Option 1	Daily Revenue	% Difference vs. Option 1	Lane Miles	% Difference vs. Option 1	Trips per Lane Mile	% Difference vs. Option 1	Revenue per Lane Mile	% Difference vs. Option 1
Option 1 HOV 3+, no toll cap	68,905		73,989		142,894		$19.48		$1,441,198		75.37		1,896		$19,122	
Option 2 HOV 3+, no toll cap	87,026	+26.3%	95,992	+29.7%	183,018	+28.1%	$19.58	+0.5%	$1,879,166	+30.4%	101.20	+34.3%	1,808	-4.6%	$18,569	-2.9%
Option 3 HOV 3+, no toll cap	54,982	-20.2%	104,571	+41.3%	159,553	+11.7%	$20.69	+6.2%	$2,163,315	+50.1%	102.54	+36.0%	1,556	-17.9%	$21,097	+10.3%
Option 4 HOV 3+, no toll cap	54,069	-21.5%	140,976	+90.5%	195,045	+36.5%	$23.77	+22.0%	$3,350,916	+132.5%	128.56	+70.6%	1,517	-20.0%	$26,065	+36.3%
Option 5 HOV 3+, no toll cap	50,220	-27.1%	193,746	+161.9%	243,966	+70.7%	$16.98	-12.8%	$3,290,279	+128.3%	147.10	+95.2%	1,659	-12.5%	$22,368	+17.0%

capacity in Options with a higher share of two-lane segments usually can't be used to the full extent due to ingress/egress capacity limitations. Nevertheless it is desirable to build double lane express lanes to minimize operational issues caused by slow vehicles or breakdowns and to increase operational flexibility. From a user perspective, a single toll lane is also perceived as less desirable than a segment with two lanes, which allows for opportunities to pass other vehicles.

The usage per lane mile increases over time as shoulder hours and off-peak directions show higher levels of congestion and more vehicles are willing to pay for using the tolled lanes.

Revenue per lane-mile is the highest in Study Option 4, since there are no general purpose lane improvements planned and the alternative provides almost the full extent of Option 5 lanes. The Option 5 revenue per lane mile is also lower since the widening on the northern segment on I-405 of the Express Toll Lanes significantly reduces the toll rates necessary to manage demand, which contributes to the lower revenue in Option 5 compared to Option 4.

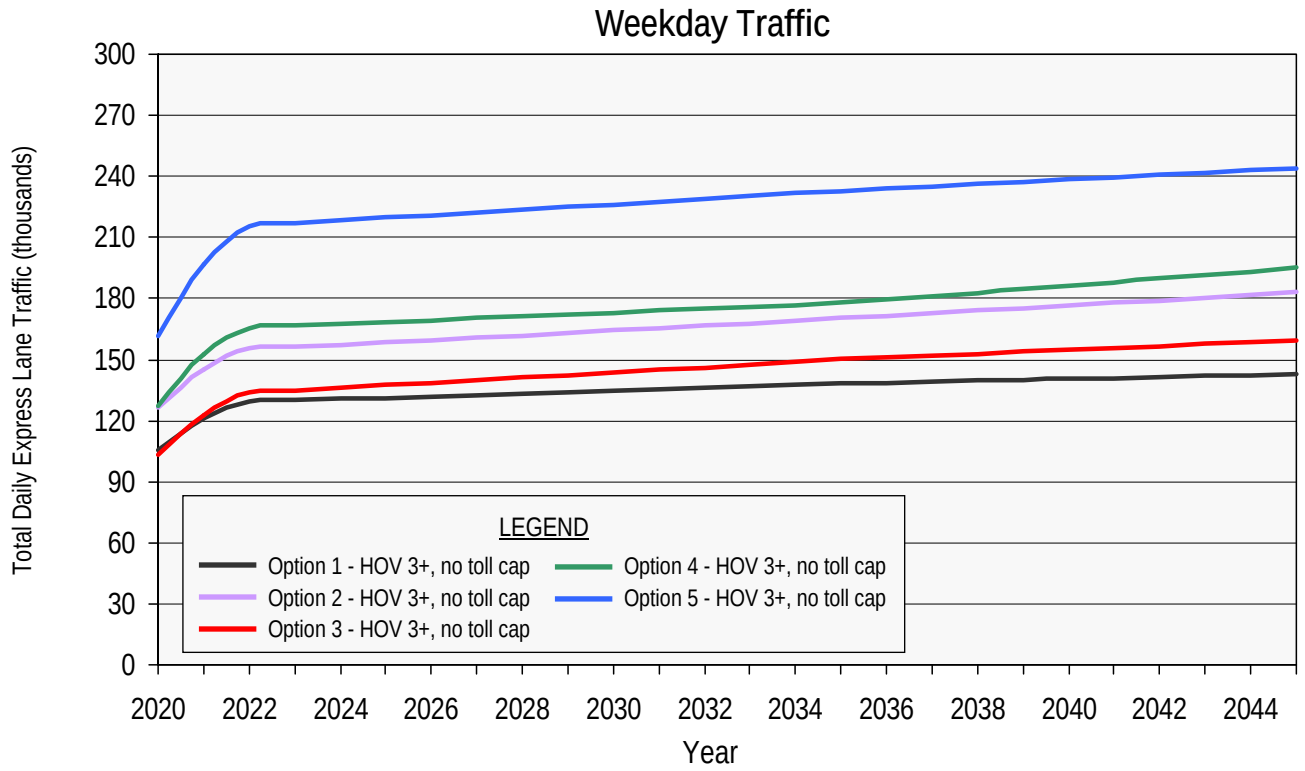
Annual Revenue Streams

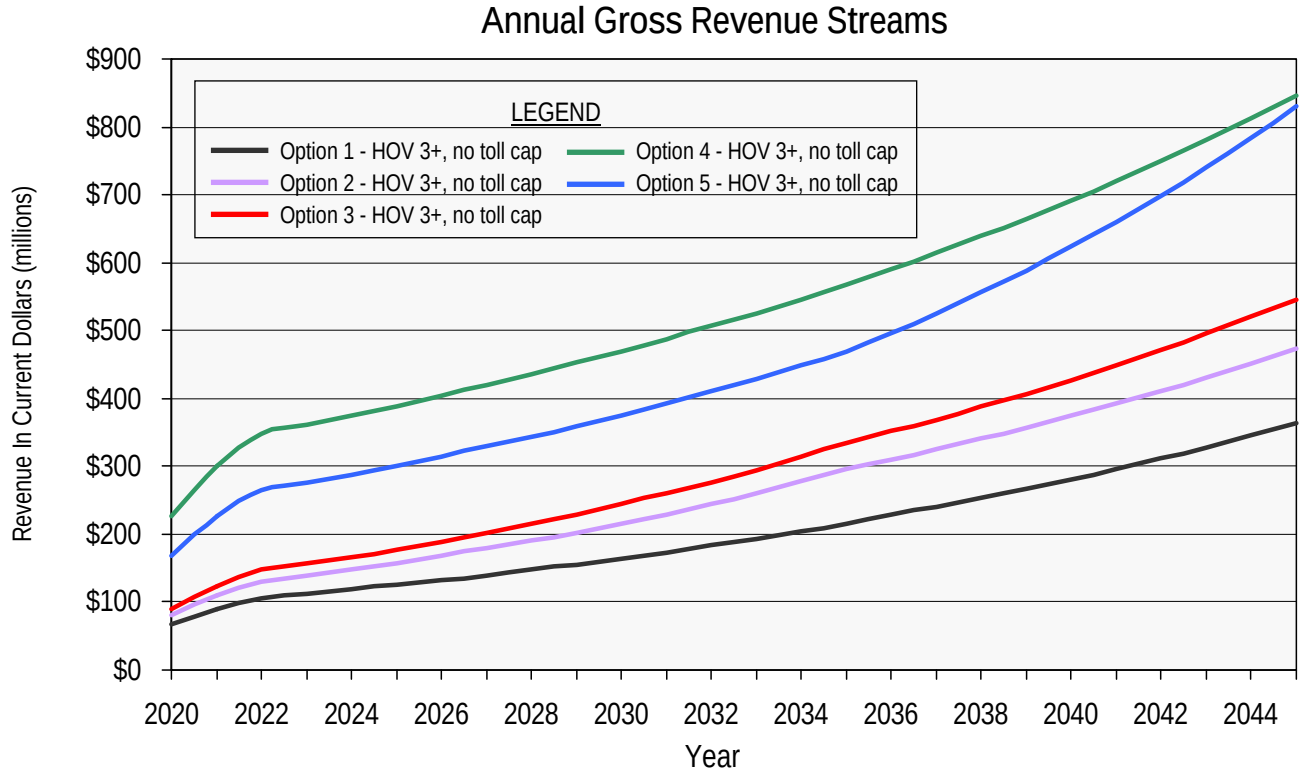
Tables A-21 through A-25 in Appendix A provide estimates of annual toll revenue streams and the change in estimated toll and toll-free weekday traffic volumes between 2020 and 2060. The demand model estimates were produced for 2020, 2035, and 2045 time horizons. The projection from 2046 forward, assumed that the weekday toll lane volumes remain constant with a 2.5 percent annual increase in revenue. Annual revenue is expressed in current dollars[(3)] and ramp-up has been assumed for the first two years of operation. The assumed adjustment factor is 70% of the modeled revenue and volume estimates for 2020 and 90% for 2021, respectively.

The revenue estimates represent gross revenue; no deductions for operating and maintenance cost, transaction fees, or capital costs were applied.

A comparison of the expected weekday traffic and the annual revenue, based on the projected demand data for the five base case study options, is shown in Figure 4-2.

[(3)] "current dollars" is the dollar value in the future year of the estimate





FINAL DRAFT

WilburSmith ASSOCIATES

COMPARISON OF TOTAL WEEKDAY TRAFFIC AND ANNUAL GROSS REVENUE STREAMS

FIGURE 4-2

ESTIMATED WEEKDAY TRAFFIC

Figures A-1-1A through A-5-3-C in Appendix A contain expected traffic volumes for the project corridor. The volumes on the Express Toll Lane sections are shown for the major aggregated operation periods (peaks, shoulders, midday and evening) and the ramp volumes are shown as day-time totals during the hours of operation from 5:00 AM to 8:00 PM. The volumes on the general purpose lanes are shown as 24-hour totals and are based on estimates for nighttime demand used in the toll assignment process. The nighttime trip tables were derived using relationships of demand between day and nighttime periods from previous studies and applying those to the demand data provided by the I-405 Team, which covered the time periods from 5:00 AM to 11:00 AM and 2:00 PM to 8:00 PM.

A comparison of AM and PM peak-hour volumes at the following cross sections are provided in Figure 4-3 and Figure 4-4, respectively. The volumes shown are peak-hour directional volumes for the 2035 time horizon at the following three locations:

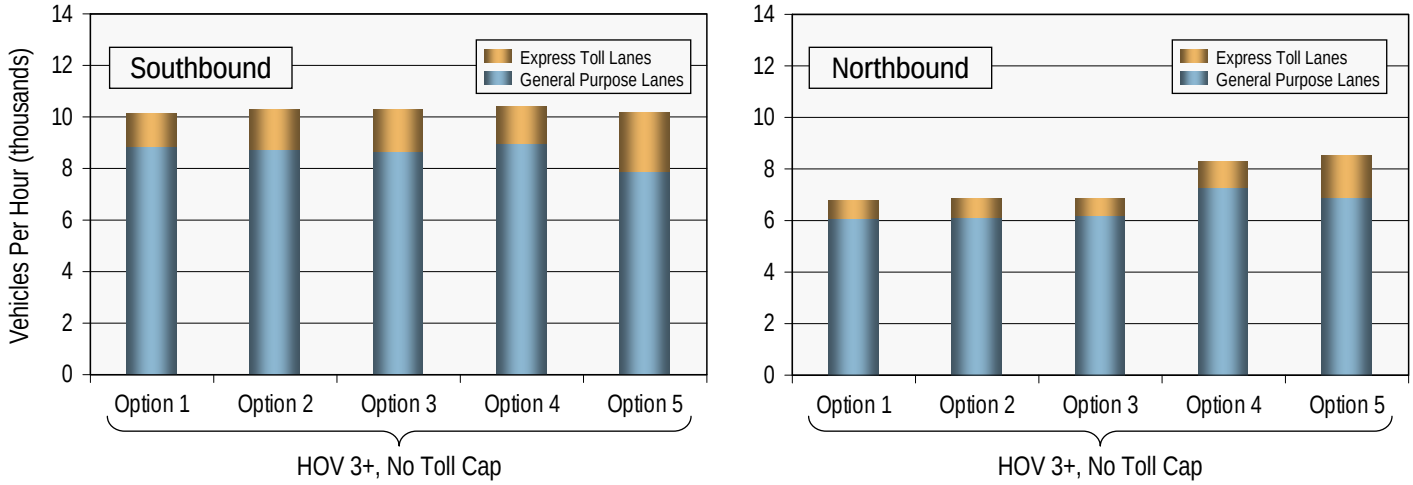
- I-405, North of SR 520
- I-405, South of Coal Creek Parkway
- SR 167, South of South 277th Street

The volumes, at the three cross sections shown, do not demonstrate significant differences in total volume, between Study Options 1, 2 and 3, since the infrastructure, at these locations, does not vary between these options. The market share of the Express Toll Lanes does vary due to differences in project configuration and toll-free designation.

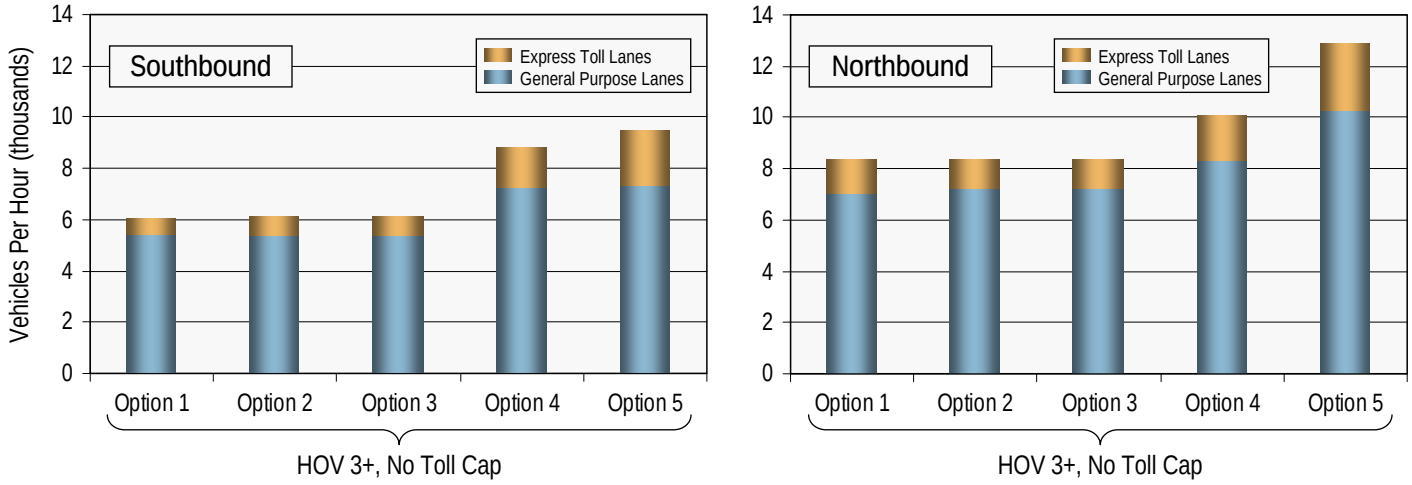
Options 4 and 5 do show higher total volumes, South of Coal Creek Parkway, due to the widening to two Express Toll Lanes (Option 4) and the addition of a general purpose lane in each direction (Option 5). These capacity improvements result in a higher total demand on the I-405 South portion of the Express Toll Lane system. The available capacity on the I-405 North section south of SR 522 and the SR 167 portion remains constant, between alternatives, and therefore total volumes, at these locations, do not vary significantly between Options 1 through 3 and/or Option 4 and 5.

The volumes shown, for the 2035 time horizon, are based on global demand model data and tend to reflect a situation showing high levels of congestion in the regional demand model, for the project corridor, especially in the outer years. If the future growth in demand levels are

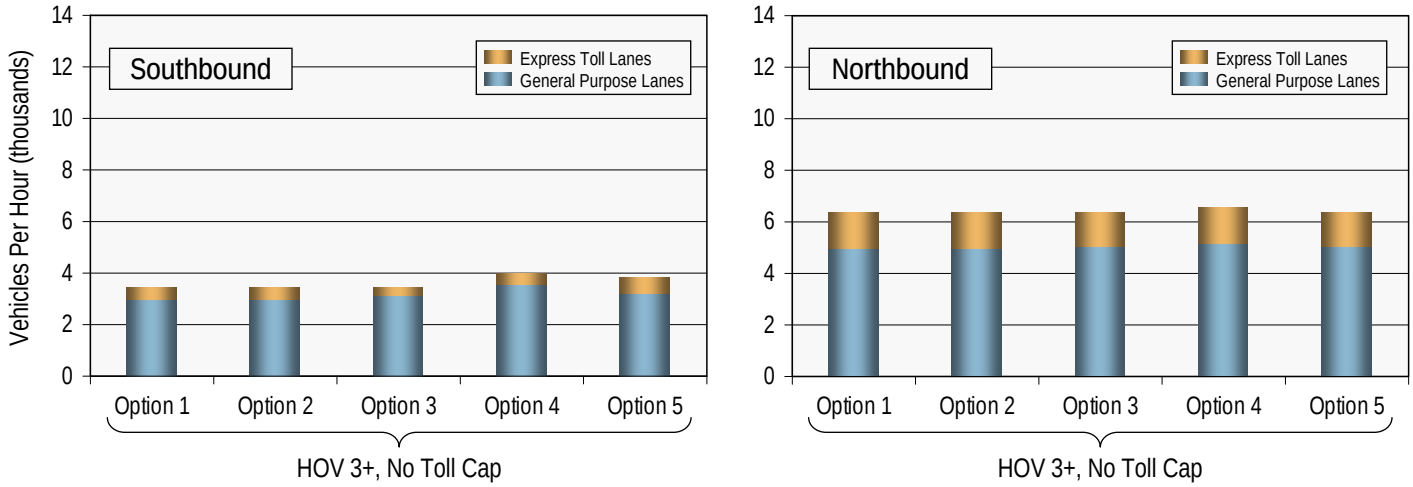
I-405 North of SR 520



South of Coal Creek Parkway



South of S. 277th Street



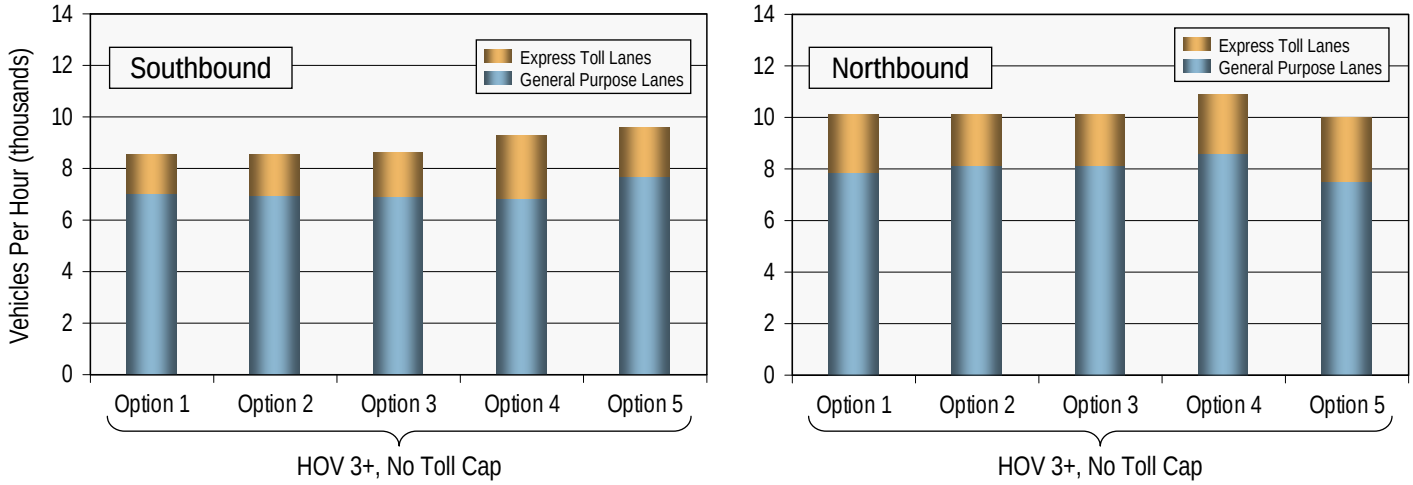
FINAL DRAFT

WilburSmith ASSOCIATES

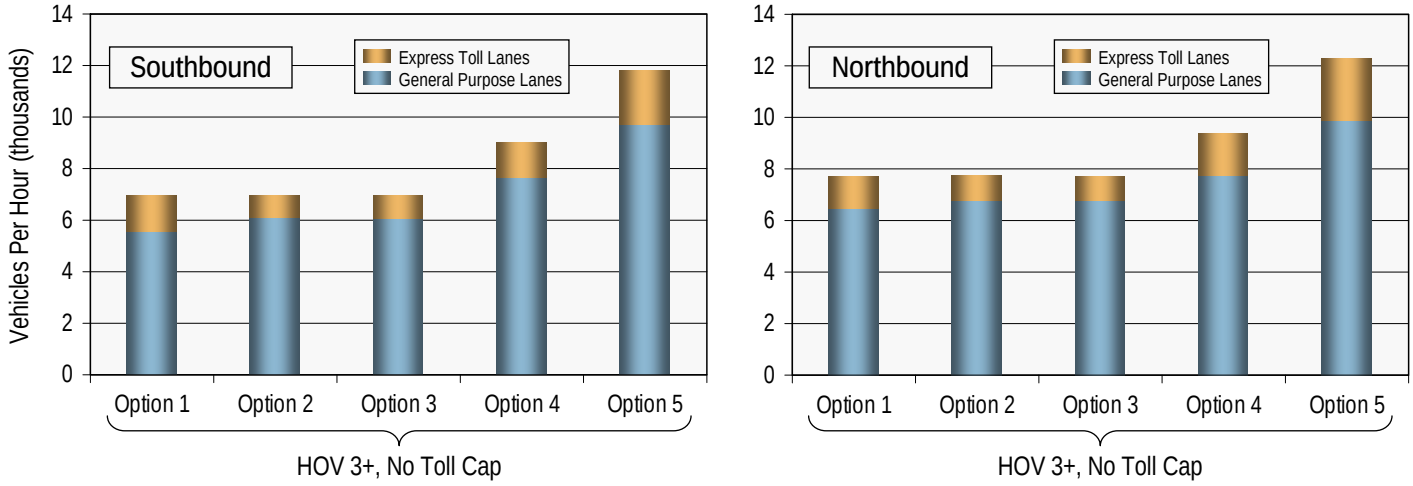
2035 A.M. PEAK HOUR TRAFFIC VOLUMES

FIGURE 4-3

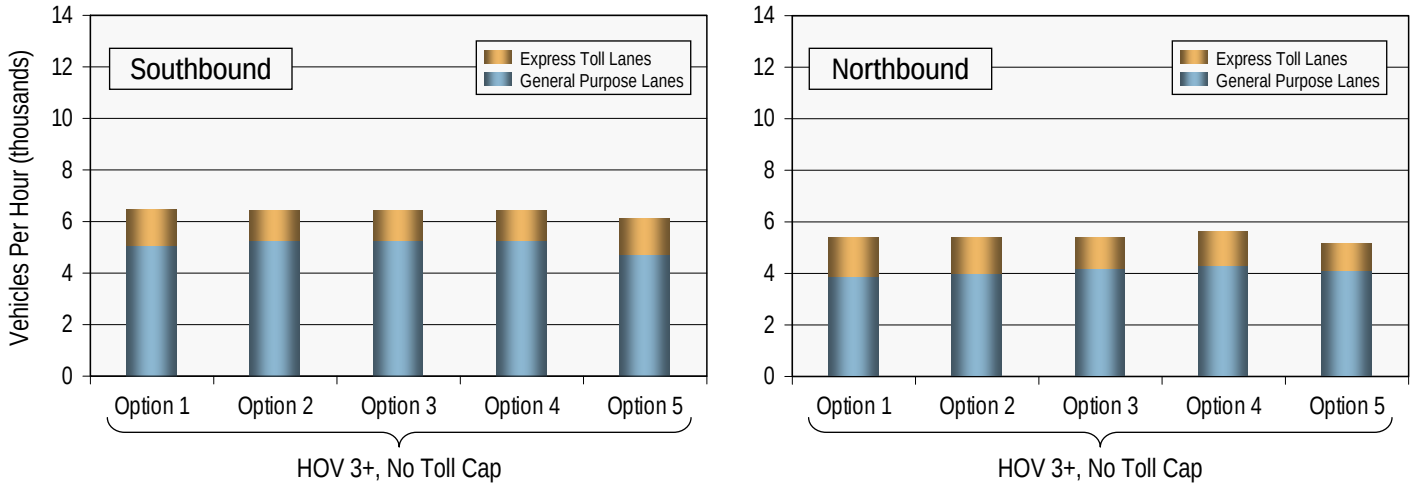
I-405 North of SR 520



South of Coal Creek Parkway



South of S. 277th Street



FINAL DRAFT

WilburSmith ASSOCIATES

2035 P.M. PEAK HOUR TRAFFIC VOLUMES

FIGURE 4-4

lower than expected growth rates, and/or regulatory policies or restrictions on road usage will be implemented, the global travel demand forecast, as well as the I-405/SR 167 traffic and revenue estimates, will have to be revised to take such changes into consideration.

A more detailed study would have to be established to reflect such changes in policy, resulting in drastically reduced congestion levels and therefore, reduced Express Toll Lane usage and a corresponding significant decrease in traffic and revenue.

CHAPTER 5

SENSITIVITY TESTS

The traffic and revenue estimates presented in Chapter 4 for the proposed I-405/SR 167 Express Toll Lanes are based on various assumptions regarding time horizons and tolling policy. In order to estimate the effects of a variation of these parameters, the following sensitivity tests were performed in this study:

- Early implementation of Option 1 in 2013 (project phasing);
- Option 1 with HOV2+ free designation ;
- Option 1, HOV3+ free designation with toll cap;
- Early implementation of Option 4 in 2013 (project phasing); and
- Option 4 with HOV2+ free designation ;

DESCRIPTION OF SENSITIVITY TESTS

All other parameters were identical to the ones used for the five Base Case alternatives. Detailed tables, showing the results of the sensitivity tests, may be found in Appendix B. Table 5-1 gives an overview of the various input parameters for the sensitivity tests.

EARLY IMPLEMENTATION OF OPTION 1 IN 2013

For this test, it was assumed that Option 1 will be implemented in 2013. This scenario would reflect early implementation (project phasing) in contrast to the assumed opening of the base case scenarios in 2020). The demand data was developed by the I-405 Team by extracting the growth between an existing 2008 demand data set and the Option 1, 2020 trip tables, by using linear interpolation. All other modeling parameters and inputs were identical to the assumptions for the Option 1 estimates for the 2020 time horizon.

OPTION 1 WITH HOV2+ FREE DESIGNATION

Based on the 2020, 2035 and 2045 Option 1 Base Case assignments, a sensitivity test was performed assuming a HOV2+ free designation for both the SR167 and the I-405 portion of the Express Toll Lane corridor.

Table 5-1
Composition of Toll-Free Designation and Mininum Toll Requirements for Sensitivity Tests

	2013			
	Toll-Free Designation		Minimum Toll Requirements	Toll Cap
Option	SR 167	I-405		
Option 1 – HOV 3+, no toll cap, project phasing	HOV 2 + Free	HOV 3 + Free	$1.00	--
Option 1 – HOV 2+, no toll cap	N/A	N/A	N/A	N/A
Option 1 – HOV 3+, toll cap	HOV 2 + Free	HOV 3 + Free	$1.00	$12.00
Option 4 – HOV 3+, no toll cap	N/A	N/A	N/A	N/A
Option 4 – HOV 2+, no toll cap	N/A	N/A	N/A	N/A

	2020			
	Toll-Free Designation		Minimum Toll Requirements	Toll Cap
Option	SR 167	I-405		
Option 1 – HOV 3+, no toll cap, base case	HOV 2 + Free	HOV 3 + Free	$1.00	--
Option 1 – HOV 2+, no toll cap	HOV 2 + Free	HOV 2 + Free	$1.00	--
Option 1 – HOV 3+, toll cap	HOV 2 + Free	HOV 3 + Free	$1.00	$14.26
Option 4 – HOV 3+, no toll cap, base case	HOV 3 + Free	HOV 3 + Free	$1.00	--
Option 4 – HOV 2+, no toll cap	HOV 2 + Free	HOV 2 + Free	$1.00	--

	2035			
	Toll-Free Designation		Minimum Toll Requirements	Toll Cap
Option	SR 167	I-405 South		
Option 1 – HOV 3+, no toll cap, base case	HOV 2 + Free	HOV 3 + Free	$1.60	--
Option 1 – HOV 2+, no toll cap	HOV 2 + Free	HOV 2 + Free	$1.60	--
Option 1 – HOV 3+, toll cap	HOV 2 + Free	HOV 3 + Free	$1.60	$20.66
Option 4 – HOV 3+, no toll cap, base case	HOV 3 + Free	HOV 3 + Free	$1.60	--
Option 4 – HOV 2+, no toll cap	HOV 2 + Free	HOV 2 + Free	$1.60	--

	2045			
	Toll-Free Designation		Minimum Toll Requirements	Toll Cap
Option	SR 167	I-405 South		
Option 1 – HOV 3+, no toll cap, base case	HOV 2 + Free	HOV 3 + Free	$2.15	--
Option 1 – HOV 2+, no toll cap	HOV 2 + Free	HOV 2 + Free	$2.15	--
Option 1 – HOV 3+, toll cap	N/A	N/A	N/A	N/A
Option 4 – HOV 3+, no toll cap, base case	HOV 3 + Free	HOV 3 + Free	$2.15	--
Option 4 – HOV 2+, no toll cap	HOV 2 + Free	HOV 2 + Free	$2.15	--

Note: HOV 2 +: Vehicles with two or more occupants travel free of charge on Express Toll Lanes
HOV 3 +: Vehicles with three or more occupants travel free of charge on Express Toll Lanes
N/A: Sensitivity Test was not performed for the specified time horizion

OPTION 1, HOV3+ FREE DESIGNATION WITH TOLL CAP

This sensitivity test is based on the parameters of the Option 1 Base Case scenario, but assumes a separate toll cap of $12.00 in 2013 for the SR 167 section and the I-405 section of the corridor. A vehicle travelling through both sections would be paying a maximum of $24.00 Dollars. The toll caps were inflated over time at 2.5 percent per year starting from 2014 on. All other parameters were identical to the ones used for the 2020 and 2035 Option 1 Base Case scenarios.

EARLY IMPLEMENTATION OF OPTION 4 IN 2013

Similar to the Option 1 Scenario, an early implementation of Option 4 was assumed for 2013 to evaluate potential traffic and revenue under this project phasing assumption. The trip tables were developed by the I-405 Team using linear interpolation between the existing 2008 demand data set and the Option 4 2020 trip tables. All other modeling parameters and inputs were identical to the assumptions for the Option 4 estimates for the 2020 time horizon.

OPTION 4 WITH HOV2+ FREE DESIGNATION

This sensitivity test utilizes the 2020, 2035 and 2045 Option 4 Base Case data, but assumed an HOV2+ free designation for the entire Express Toll Lane corridor. All other parameters were identical to the original Option 4.

SENSITIVITY TEST RESULTS

The following tables are summaries of the tests, presenting key impacts of each scenario. Table 5-2 presents a comparison of tolled and toll-free transactions, tolled and toll-free trips, as well as transactions per trip.

The Option 1 toll cap sensitivity test shows a slight decrease in tolled trips but an increase in tolled transactions per trip in 2013. In 2020 and 2035 the number of trips decrease compared to the Option 1 scenario without the toll cap. The number of transactions per trip decreases slightly in 2020 and 2035. This is due to closures of certain toll Lane segments to SOV and HOV2 traffic which reduces the length of tolled trips during peak demand periods especially in 2035.

These closures become necessary since the toll cap policy virtually makes long distance trips non-sensitive to toll rate increases. Due to increased demand levels (growth of demand in the corridor) resulting in higher time savings in the outer years and an increase of toll-free traffic (reduced amount of capacity for SOV and HOV2+ toll paying vehicles), traffic

Table 5-2
Comparison of Weekday Transactions versus Trips

Option	2013 Tolled	2013 Tolled Trips	2013 Tolled	2013 Toll-Free	2013 Toll-Free Trips	2013 Toll-Free
Option 1 – HOV 3+, no toll cap, project phasing	108,069	51,453	2.10	75,759	45,956	1.65
Option 1 – HOV 2+, no toll cap	N/A	N/A	N/A	N/A	N/A	N/A
Option 1 – HOV 3+, toll cap	105,981	50,104	2.12	76,672	46,848	1.64
Option 4 – HOV 3+, no toll cap	N/A	N/A	N/A	N/A	N/A	N/A
Option 4 – HOV 2+, no toll cap	N/A	N/A	N/A	N/A	N/A	N/A

Option	2020 Tolled	2020 Tolled Trips	2020 Tolled	2020 Toll-Free	2020 Toll-Free Trips	2020 Toll-Free
Option 1 – HOV 3+, no toll cap, base case	153,173	74,529	2.06	90,664	53,441	1.70
Option 1 – HOV 2+, no toll cap	111,094	52,872	2.10	151,195	90,701	1.67
Option 1 – HOV 3+, toll cap	148,644	72,779	2.04	91,752	54,485	1.68
Option 4 – HOV 3+, no toll cap, base case	360,242	123,209	2.92	76,723	40,707	1.88
Option 4 – HOV 2+, no toll cap	251,833	80,748	3.12	239,627	120,401	1.99

Option	2035 Tolled	2035 Tolled Trips	2035 Tolled	2035 Toll-Free	2035 Toll-Free Trips	2035 Toll-Free
Option 1 – HOV 3+, no toll cap, base case	153,688	75,357	2.04	106,770	62,845	1.70
Option 1 – HOV 2+, no toll cap	88,985	42,014	2.12	188,660	111,835	1.69
Option 1 – HOV 3+, toll cap	137,164	67,610	2.03	106,608	63,226	1.69
Option 4 – HOV 3+, no toll cap, base case	355,886	131,105	2.71	88,625	46,687	1.90
Option 4 – HOV 2+, no toll cap	234,951	80,398	2.92	284,405	145,357	1.96

Option	2045 Tolled	2045 Tolled Trips	2045 Tolled	2045 Toll-Free	2045 Toll-Free Trips	2045 Toll-Free
Option 1 – HOV 3+, no toll cap, base case	147,948	73,989	2.00	116,887	68,905	1.70
Option 1 – HOV 2+, no toll cap	80,971	39,235	2.06	207,381	123,349	1.68
Option 1 – HOV 3+, toll cap	N/A	N/A	N/A	N/A	N/A	N/A
Option 4 – HOV 3+, no toll cap, base case	369,526	140,976	2.62	103,692	54,069	1.92
Option 4 – HOV 2+, no toll cap	221,730	80,813	2.74	305,446	157,503	1.94

Note: N/A: Sensitivity Test was not performed for the specified time horizion

demand cannot be managed appropriately, any more, by increasing toll charges. The market principle of pricing the available capacity will not work under the toll cap scenario in the outer forecast years. The majority of trips would not be sensitive enough to use pricing to limit the usage of the Express Toll Lanes to ensure free-flow conditions. Applying a toll cap will result in the operation of certain segments, during peak periods, to be HOV3+ only.

A similar effect on tolled traffic can be seen under the Option 1, HOV2+ free sensitivity test. Only SOV traffic would be sensitive to toll charges. In the outer years, certain segments will have to be closed to SOV traffic during peak demand periods since the available capacity for tolled traffic decreases over time due to the increase of toll-free traffic. Since the rates to manage demand would exceed reasonable levels, certain segments will have to be closed to SOV traffic.

The Option 4, HOV2+ sensitivity test shows similar results. The amount of tolled trips remains virtually constant over time, with toll-free trips increasing significantly over time. The amount of transactions per trip (tolling zones passed per trip) decreases over time due to the necessary closing of various segments during peak demand periods for SOV traffic. The number of transactions for toll-free trips remains fairly constant.

Similar results have been observed, around the country, in various other managed lane corridors with high levels of congestion.

Table 5-3 shows the split of tolled, toll-free and total transactions between the three major sections of the Express Toll Lane corridor. As noted earlier, transactions are passages of a vehicle through tolling zones. The share of the total amount of transactions between the major corridor sections varies only slightly when comparing against the appropriate Base Case Study Option results. The share of tolled and toll-free transactions on the major corridor segments for the sensitivity test scenarios varies due to the different toll-free designation assumptions and the application of closures for tolled traffic.

The market share of tolled and toll-free traffic is shown in Table 5-4. The share of daily tolled traffic in Option 1, HOV2+ free decreases over time from 42 5% in 2020 to 28% in 2045. A similar effect can be seen for Option 4, HOV2+ free where the market share drops from 51% in 2020 to 42% in 2045. This shows the reduced ability to manage demand over time. Compared to the base cases, the HOV2+ free scenarios show a 20 to 27 percentage point (Option 1) and 30 to 36 percentage point (Option 4) lower market share for tolled trips. This results in a significant reduction

Table 5-3
Share of Total Weekday Transactions on Express Toll Lane Segments

2013

Option	Tolled Transactions						Toll-Free Transactions						Total Transactions					
	SR-167		I-405 South		I-405 North		SR-167		I-405 South		I-405 North		SR-167		I-405 South		I-405 North	
Option 1 – HOV 3+, no toll cap, project phasing	21,760	20.1%	--	--	86,309	79.9%	49,297	65.1%	--	--	26,462	34.9%	71,057	38.7%	--	--	112,771	61.3%
Option 1 – HOV 2+, no toll cap	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Option 1 – HOV 3+, toll cap	21,736	20.5%	--	--	84,245	79.5%	49,298	64.3%	--	--	27,374	35.7%	71,034	38.9%	--	--	111,619	61.1%
Option 4 – HOV 3+, no toll cap	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Option 4 – HOV 2+, no toll cap	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

2020

Option	Tolled Transactions						Toll-Free Transactions						Total Transactions					
	SR-167		I-405 South		I-405 North		SR-167		I-405 South		I-405 North		SR-167		I-405 South		I-405 North	
Option 1 – HOV 3+, no toll cap, base case	35,005	22.9%	--	--	118,169	77.1%	60,277	66.5%	--	--	30,387	33.5%	95,282	39.1%	--	--	148,555	60.9%
Option 1 – HOV 2+, no toll cap	34,616	31.2%	--	--	76,478	68.8%	60,276	39.9%	--	--	90,920	60.1%	94,892	36.2%	--	--	167,398	63.8%
Option 1 – HOV 3+, toll cap	33,258	22.4%	--	--	115,386	77.6%	60,279	65.7%	--	--	31,474	34.3%	93,537	38.9%	--	--	146,859	61.1%
Option 4 – HOV 3+, no toll cap, base case	74,762	20.8%	164,069	45.5%	121,412	33.7%	17,547	22.9%	26,627	34.7%	32,550	42.4%	92,308	21.1%	190,695	43.6%	153,962	35.2%
Option 4 – HOV 2+, no toll cap	48,467	19.2%	123,718	49.1%	79,648	31.6%	62,476	26.1%	82,838	34.6%	94,313	39.4%	110,943	22.6%	206,557	42.0%	173,960	35.4%

2035

Option	Tolled Transactions						Toll-Free Transactions						Total Transactions					
	SR-167		I-405 South		I-405 North		SR-167		I-405 South		I-405 North		SR-167		I-405 South		I-405 North	
Option 1 – HOV 3+, no toll cap, base case	33,763	22.0%	--	--	119,925	78.0%	68,704	64.3%	--	--	38,066	35.7%	102,467	39.3%	--	--	157,991	60.7%
Option 1 – HOV 2+, no toll cap	32,687	36.7%	--	--	56,298	63.3%	68,704	36.4%	--	--	119,956	63.6%	101,391	36.5%	--	--	176,254	63.5%
Option 1 – HOV 3+, toll cap	30,398	22.2%	--	--	106,766	77.8%	68,687	64.4%	--	--	37,922	35.6%	99,085	40.6%	--	--	144,687	59.4%
Option 4 – HOV 3+, no toll cap, base case	67,683	19.0%	165,298	46.4%	122,905	34.5%	15,856	17.9%	34,159	38.5%	38,609	43.6%	83,539	18.8%	199,458	44.9%	161,514	36.3%
Option 4 – HOV 2+, no toll cap	39,702	16.9%	118,063	50.2%	77,186	32.9%	69,919	24.6%	101,947	35.8%	112,539	39.6%	109,622	21.1%	220,010	42.4%	189,725	36.5%

2045

Option	Tolled Transactions						Toll-Free Transactions						Total Transactions					
	SR-167		I-405 South		I-405 North		SR-167		I-405 South		I-405 North		SR-167		I-405 South		I-405 North	
Option 1 – HOV 3+, no toll cap, base case	34,172	23.1%	--	--	113,775	76.9%	68,204	58.3%	--	--	48,684	41.7%	102,376	38.7%	--	--	162,459	61.3%
Option 1 – HOV 2+, no toll cap	33,587	41.5%	--	--	47,384	58.5%	68,207	32.9%	--	--	139,174	67.1%	101,794	35.3%	--	--	186,558	64.7%
Option 1 – HOV 3+, toll cap	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Option 4 – HOV 3+, no toll cap, base case	78,515	21.2%	162,435	44.0%	128,576	34.8%	16,052	15.5%	38,207	36.8%	49,432	47.7%	94,568	20.0%	200,643	42.4%	178,008	37.6%
Option 4 – HOV 2+, no toll cap	46,179	20.8%	111,128	50.1%	64,423	29.1%	70,033	22.9%	104,264	34.1%	131,149	42.9%	116,212	22.0%	215,392	40.9%	195,571	37.1%

Note: N/A: Sensitivity Test was not performed for the specified time horizion

Table 5-4
Market Share of Weekday Toll-Free and Tolled Traffic on Express Toll Lane

2013

Period	Option 1 – HOV 3+, no toll cap				Option 1 – HOV 2+, no toll cap				Option 1 – HOV 3+, toll cap				Option 4 – HOV 3+, no toll cap				Option 4 – HOV 2+, no toll cap			
	Tolled		Toll-Free		Tolled		Toll-Free		Tolled		Toll-Free		Tolled		Toll-Free		Tolled		Toll-Free	
AM Shoulder	14,208	55.7%	11,322	44.3%	N/A	N/A	N/A	N/A	14,207	55.0%	11,623	45.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AM Peak	13,581	52.7%	12,168	47.3%	N/A	N/A	N/A	N/A	13,562	52.3%	12,388	47.7%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Midday	27,712	53.8%	23,782	46.2%	N/A	N/A	N/A	N/A	27,675	53.6%	23,999	46.4%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PM Shoulder	14,368	65.0%	7,745	35.0%	N/A	N/A	N/A	N/A	13,955	64.2%	7,766	35.8%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PM Peak	33,892	66.3%	17,192	33.7%	N/A	N/A	N/A	N/A	32,303	65.1%	17,337	34.9%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Evening	4,308	54.8%	3,549	45.2%	N/A	N/A	N/A	N/A	4,279	54.6%	3,559	45.4%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	108,069	58.8%	75,759	41.2%	N/A	N/A	N/A	N/A	105,981	58.0%	76,672	42.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

2020

Period	Option 1 – HOV 3+, no toll cap				Option 1 – HOV 2+, no toll cap				Option 1 – HOV 3+, toll cap				Option 4 – HOV 3+, no toll cap				Option 4 – HOV 2+, no toll cap			
	Tolled		Toll-Free		Tolled		Toll-Free		Tolled		Toll-Free		Tolled		Toll-Free		Tolled		Toll-Free	
AM Shoulder	20,881	62.7%	12,427	37.3%	16,253	45.2%	19,686	54.8%	19,749	60.7%	12,810	39.3%	55,145	80.5%	13,397	19.5%	43,364	58.0%	31,341	42.0%
AM Peak	17,461	56.5%	13,442	43.5%	11,094	34.2%	21,332	65.8%	15,865	53.6%	13,730	46.4%	44,877	75.3%	14,757	24.7%	32,144	49.0%	33,395	51.0%
Midday	49,711	64.0%	27,914	36.0%	39,539	47.1%	44,357	52.9%	49,688	63.8%	28,182	36.2%	108,787	81.5%	24,713	18.5%	79,687	52.5%	72,138	47.5%
PM Shoulder	18,464	64.7%	10,087	35.3%	12,809	41.8%	17,867	58.2%	18,014	64.0%	10,123	36.0%	43,593	87.1%	6,442	12.9%	27,955	50.2%	27,717	49.8%
PM Peak	38,690	64.2%	21,603	35.8%	25,848	40.0%	38,743	60.0%	37,550	63.4%	21,695	36.6%	84,520	85.7%	14,070	14.3%	51,723	46.5%	59,568	53.5%
Evening	7,967	60.5%	5,191	39.5%	5,551	37.6%	9,211	62.4%	7,778	59.9%	5,212	40.1%	23,321	87.5%	3,344	12.5%	16,960	52.3%	15,468	47.7%
Total	153,173	62.8%	90,664	37.2%	111,094	42.4%	151,195	57.6%	148,644	61.8%	91,752	38.2%	360,242	82.4%	76,723	17.6%	251,833	51.2%	239,627	48.8%

2035

Period	Option 1 – HOV 3+, no toll cap				Option 1 – HOV 2+, no toll cap				Option 1 – HOV 3+, toll cap				Option 4 – HOV 3+, no toll cap				Option 4 – HOV 2+, no toll cap			
	Tolled		Toll-Free		Tolled		Toll-Free		Tolled		Toll-Free		Tolled		Toll-Free		Tolled		Toll-Free	
AM Shoulder	18,487	58.3%	13,241	41.7%	13,946	39.0%	21,849	61.0%	18,596	58.0%	13,465	42.0%	55,732	80.4%	13,554	19.6%	42,191	53.8%	36,188	46.2%
AM Peak	16,046	52.9%	14,288	47.1%	12,138	36.2%	21,367	63.8%	17,785	56.8%	13,548	43.2%	40,852	73.9%	14,412	26.1%	30,253	45.9%	35,619	54.1%
Midday	54,076	61.8%	33,410	38.2%	37,553	39.7%	56,951	60.3%	53,944	61.5%	33,762	38.5%	116,057	80.6%	27,908	19.4%	79,789	48.2%	85,840	51.8%
PM Shoulder	18,165	59.2%	12,529	40.8%	8,023	24.9%	24,136	75.1%	17,898	58.7%	12,571	41.3%	37,456	80.9%	8,868	19.1%	22,471	39.5%	34,407	60.5%
PM Peak	36,915	58.1%	26,628	41.9%	11,621	18.4%	51,403	81.6%	19,244	42.0%	26,551	58.0%	84,928	81.8%	18,918	18.2%	47,190	39.4%	72,535	60.6%
Evening	9,999	60.0%	6,673	40.0%	5,704	30.6%	12,953	69.4%	9,698	59.1%	6,712	40.9%	20,860	80.8%	4,965	19.2%	13,057	39.7%	19,816	60.3%
Total	153,688	59.0%	106,770	41.0%	88,985	32.1%	188,660	67.9%	137,164	56.3%	106,608	43.7%	355,886	80.1%	88,625	19.9%	234,951	45.2%	284,405	54.8%

2045

Period	Option 1 – HOV 3+, no toll cap				Option 1 – HOV 2+, no toll cap				Option 1 – HOV 3+, toll cap				Option 4 – HOV 3+, no toll cap				Option 4 – HOV 2+, no toll cap			
	Tolled		Toll-Free		Tolled		Toll-Free		Tolled		Toll-Free		Tolled		Toll-Free		Tolled		Toll-Free	
AM Shoulder	18,353	57.7%	13,461	42.3%	14,073	38.2%	22,775	61.8%	N/A	N/A	N/A	N/A	53,221	77.7%	15,238	22.3%	42,250	53.0%	37,420	47.0%
AM Peak	16,982	54.8%	13,990	45.2%	12,835	36.9%	21,965	63.1%	N/A	N/A	N/A	N/A	41,529	73.4%	15,060	26.6%	30,620	46.1%	35,741	53.9%
Midday	53,368	59.5%	36,264	40.5%	36,153	36.1%	64,055	63.9%	N/A	N/A	N/A	N/A	123,741	79.2%	32,569	20.8%	85,287	48.0%	92,228	52.0%
PM Shoulder	16,706	53.4%	14,583	46.6%	5,976	18.2%	26,949	81.8%	N/A	N/A	N/A	N/A	42,912	79.5%	11,098	20.5%	16,691	30.5%	38,071	69.5%
PM Peak	32,938	52.0%	30,437	48.0%	7,196	11.3%	56,616	88.7%	N/A	N/A	N/A	N/A	84,061	78.3%	23,297	21.7%	32,928	29.2%	79,696	70.8%
Evening	9,602	54.1%	8,152	45.9%	4,738	24.0%	15,022	76.0%	N/A	N/A	N/A	N/A	24,062	78.9%	6,429	21.1%	13,953	38.5%	22,290	61.5%
Total	147,948	55.9%	116,887	44.1%	80,971	28.1%	207,381	71.9%	N/A	N/A	N/A	N/A	369,526	78.1%	103,692	21.9%	221,730	42.1%	305,446	57.9%

Note: N/A: Sensitivity Test was not performed for the specified time horizion

in the amount of traffic being subjected to tolls, and therefore a reduced ability to manage the volumes on the Express Toll Lane system.

COMPARISON OF IMPACTS ON TRAFFIC AND REVENUE

The various impacts of the HOV2+free designation in Option 1 and 4 as well as the toll cap for Option 1 are illustrated in Tables 5-5 and 5-6.

The Option 1, HOV2+ scenario results in a 11 to 14 percent increase in total trips and increasingly lower revenue over time. By 2045 the revenue estimate is less than half of the revenue from the Option 1 Base Case.

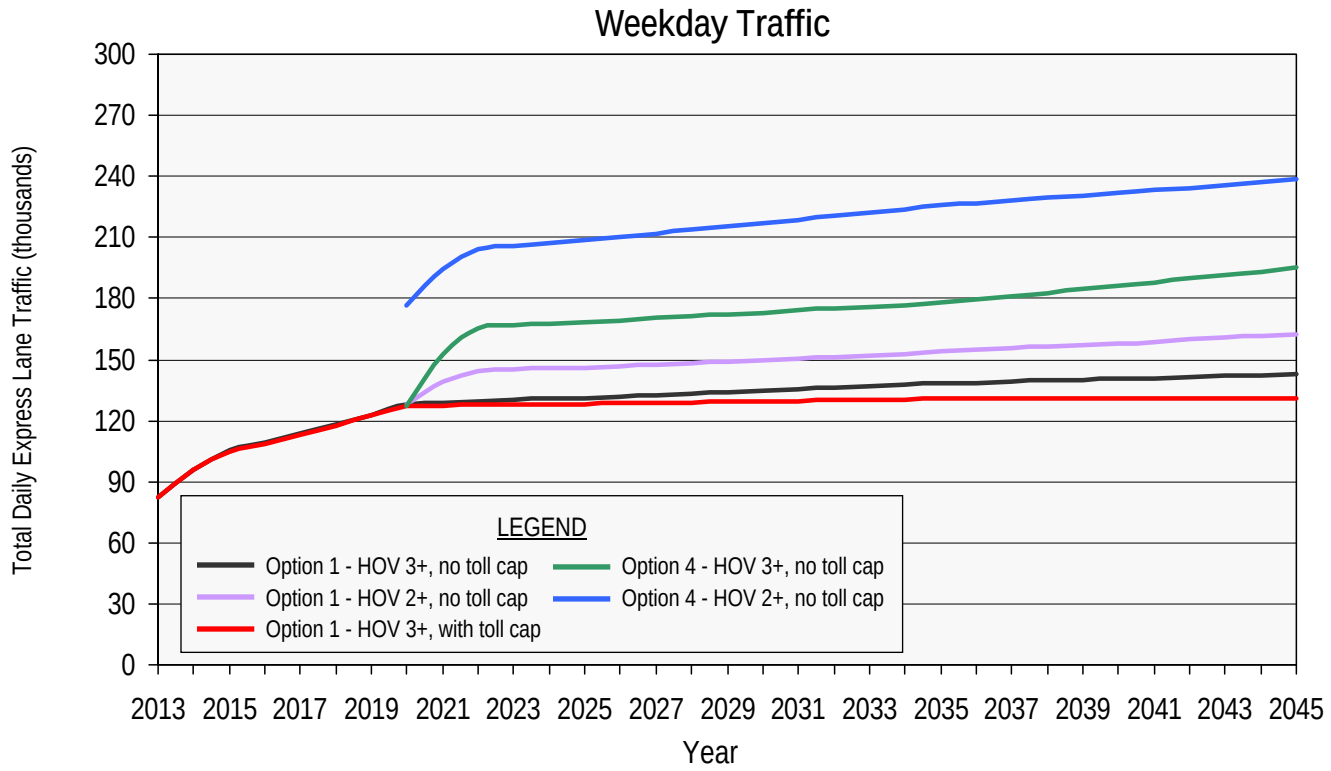
A toll cap applied to the Option 1, HOV3+ scenario for the 2013, 2020 and 2035 time horizons results in a slight reduction of total trips (-0.5 to –5.3 percent) and an increasingly reduced amount of revenue over time (-0.7 to -23.3 percent) when compared to the Option 1 Base Case.

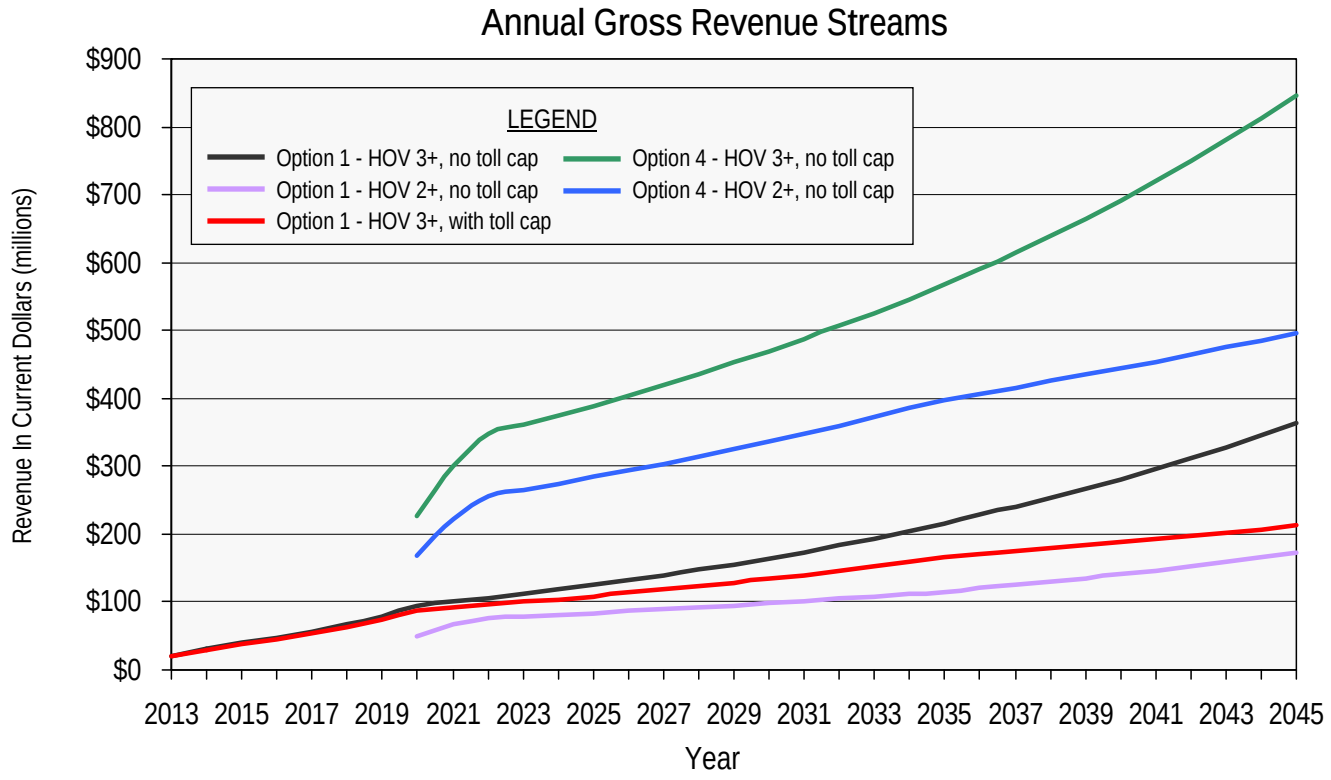
The Option 4, HOV2+ sensitivity test shows similar effects on traffic and revenue. The total traffic increases by roughly 22% due to a drastic increase in toll-free trips. The toll-free volumes are almost three times the toll free volumes for the Option 4 Base Case, showing a larger impact than in the Option 1, HOV2+ scenario. The SR 167 portion of the toll lanes in Option 1 is assumed to be operating under an HOV2+ free designation. The change in Option 4 from an HOV3+ free to an HOV2+ free toll operation results in a 26 to 41 percent reduction in revenue. The average tolls increase with the HOV2+ free operation, because higher toll charges are necessary to maintain free flowing traffic, compared to the Option 4 Base Case.

Based on the results for the Option 1 toll cap scenario, as well as the Option 1 and Option 4 HOV2+ free scenarios, it appears that a scenario with an HOV3+ free designation may be best suited to meet the goal to operate the Express Toll Lanes under free-flow conditions without having to limit the usage to HOV traffic only, or to charge excessively high toll rates for SOV traffic, in periods of peak demand. In addition, the negative impacts on revenue due to an HOV2+ policy increase over time and result in a 50 to 60 percent loss in revenue compared to the Base Cases.

A comparison of total weekday trips and annual revenue estimates is presented in Figure 5-1.

The principle of the Express Toll Lanes is to guarantee a trip on the Express Toll lanes, under free-flow conditions, by applying variable





FINAL DRAFT

WilburSmith ASSOCIATES

COMPARISON OF TOTAL WEEKDAY TRAFFIC AND ANNUAL GROSS REVENUE STREAMS

FIGURE 5-1

Table 5-5
Comparison of Weekday Traffic and Revenue to Option 1

2013

Study Option	Weekday Traffic: Toll-Free Trips	Percent Difference vs. Option 1	Tolled Trips	Percent Difference vs. Option 1	Total Trips	Percent Difference vs. Option 1	Average Toll Rate	Percent Difference vs. Option 1	Daily Revenue	Percent Difference vs. Option 1	Lane Miles	Percent Difference vs. Option 1	Trips per Lane Mile	Percent Difference vs. Option 1	Revenue per Lane Mile	Percent Difference vs. Option 1
Option 1 – HOV 3+, no toll cap, project phasing	45,956	–	51,453	--	97,409	--	$2.19	–	$112,621	--	75.37	--	1,292	–	$1,494	--
Option 1 – HOV 2+, no toll cap	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Option 1 – HOV 3+, toll cap	46,848	+1.9%	50,104	-2.6%	96,952	-0.5%	$2.23	+2.0%	$111,866	-0.7%	102.54	+36.0%	946	-26.8%	$1,091	-27.0%

2020

Study Option	Weekday Traffic: Toll-Free Trips	Percent Difference vs. Option 1	Tolled Trips	Percent Difference vs. Option 1	Total Trips	Percent Difference vs. Option 1	Average Toll Rate	Percent Difference vs. Option 1	Daily Revenue	Percent Difference vs. Option 1	Lane Miles	Percent Difference vs. Option 1	Trips per Lane Mile	Percent Difference vs. Option 1	Revenue per Lane Mile	Percent Difference vs. Option 1
Option 1 – HOV 3+, no toll cap, base case	53,441	–	74,529	--	127,970	--	$5.03	--	$374,935	--	75.37	--	1,698	–	$4,975	--
Option 1 – HOV 2+, no toll cap	90,701	+69.7%	52,872	-29.1%	143,573	+12.2%	$5.37	+6.7%	$283,751	-24.3%	101.20	+34.3%	1,419	-16.4%	$2,804	-43.6%
Option 1 – HOV 3+, toll cap	54,485	+2.0%	72,779	-2.3%	127,264	-0.6%	$4.79	-4.8%	$348,697	-7.0%	102.54	+36.0%	1,241	-26.9%	$3,401	-31.6%

2035

Study Option	Weekday Traffic: Toll-Free Trips	Percent Difference vs. Option 1	Tolled Trips	Percent Difference vs. Option 1	Total Trips	Percent Difference vs. Option 1	Average Toll Rate	Percent Difference vs. Option 1	Daily Revenue	Percent Difference vs. Option 1	Lane Miles	Percent Difference vs. Option 1	Trips per Lane Mile	Percent Difference vs. Option 1	Revenue per Lane Mile	Percent Difference vs. Option 1
Option 1 – HOV 3+, no toll cap, base case	62,845	–	75,357	--	138,202	--	$11.38	--	$857,769	--	75.37	--	1,834	–	$11,381	--
Option 1 – HOV 2+, no toll cap	111,835	+78.0%	42,014	-44.2%	153,849	+11.3%	$10.89	-4.3%	$457,483	-46.7%	101.20	+34.3%	1,520	-17.1%	$4,521	-60.3%
Option 1 – HOV 3+, toll cap	63,226	+0.6%	67,610	-10.3%	130,836	-5.3%	$9.73	-14.5%	$657,912	-23.3%	102.54	+36.0%	1,276	-30.4%	$6,416	-43.6%

2045

Study Option	Weekday Traffic: Toll-Free Trips	Percent Difference vs. Option 1	Tolled Trips	Percent Difference vs. Option 1	Total Trips	Percent Difference vs. Option 1	Average Toll Rate	Percent Difference vs. Option 1	Daily Revenue	Percent Difference vs. Option 1	Lane Miles	Percent Difference vs. Option 1	Trips per Lane Mile	Percent Difference vs. Option 1	Revenue per Lane Mile	Percent Difference vs. Option 1
Option 1 – HOV 3+, no toll cap, base case	68,905	–	73,989	--	142,894	--	$19.48	--	$1,441,198	--	75.37	--	1,896	–	$19,122	--
Option 1 – HOV 2+, no toll cap	123,349	+79.0%	39,235	-47.0%	162,584	+13.8%	$17.44	-10.5%	$684,141	-52.5%	101.20	+34.3%	1,607	-15.3%	$6,760	-64.6%
Option 1 – HOV 3+, toll cap	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 5-6
Comparison of Weekday Traffic and Revenue to Option 4

2013

Study Option	Weekday Traffic: Toll-Free Trips	Percent Difference vs. Option 4	Tolled Trips	Percent Difference vs. Option 4	Total Trips	Percent Difference vs. Option 4	Average Toll Rate	Percent Difference vs. Option 4	Daily Revenue	Percent Difference vs. Option 4	Lane Miles	Percent Difference vs. Option 4	Trips per Lane Mile	Percent Difference vs. Option 4	Revenue per Lane Mile	Percent Difference vs. Option 4
Option 4 – HOV 3+, no toll cap	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Option 4 – HOV 2+, no toll cap	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

2020

Study Option	Weekday Traffic: Toll-Free Trips	Percent Difference vs. Option 4	Tolled Trips	Percent Difference vs. Option 4	Total Trips	Percent Difference vs. Option 4	Average Toll Rate	Percent Difference vs. Option 4	Daily Revenue	Percent Difference vs. Option 4	Lane Miles	Percent Difference vs. Option 4	Trips per Lane Mile	Percent Difference vs. Option 4	Revenue per Lane Mile	Percent Difference vs. Option 4
Option 4 – HOV 3+, no toll cap, base case	40,707	--	123,209	--	163,916	--	$10.37	--	$1,278,095	--	128.56	--	1,275	--	$9,942	--
Option 4 – HOV 2+, no toll cap	120,401	+195.8%	80,748	-34.5%	201,149	+22.7%	$11.77	+13.4%	$950,056	-25.7%	147.10	+14.4%	1,367	+7.2%	$6,459	-35.0%

2035

Study Option	Weekday Traffic: Toll-Free Trips	Percent Difference vs. Option 4	Tolled Trips	Percent Difference vs. Option 4	Total Trips	Percent Difference vs. Option 4	Average Toll Rate	Percent Difference vs. Option 4	Daily Revenue	Percent Difference vs. Option 4	Lane Miles	Percent Difference vs. Option 4	Trips per Lane Mile	Percent Difference vs. Option 4	Revenue per Lane Mile	Percent Difference vs. Option 4
Option 4 – HOV 3+, no toll cap, base case	46,687	--	131,105	--	177,792	--	$17.14	--	$2,247,133	--	128.56	+70.6%	1,383	--	$17,479	--
Option 4 – HOV 2+, no toll cap	145,357	+211.3%	80,398	-38.7%	225,755	+27.0%	$19.64	+14.6%	$1,578,983	-29.7%	147.10	+95.2%	1,535	+11.0%	$10,734	-38.6%

2045

Study Option	Weekday Traffic: Toll-Free Trips	Percent Difference vs. Option 4	Tolled Trips	Percent Difference vs. Option 4	Total Trips	Percent Difference vs. Option 4	Average Toll Rate	Percent Difference vs. Option 4	Daily Revenue	Percent Difference vs. Option 4	Lane Miles	Percent Difference vs. Option 4	Trips per Lane Mile	Percent Difference vs. Option 4	Revenue per Lane Mile	Percent Difference vs. Option 4
Option 4 – HOV 3+, no toll cap, base case	54,069	--	140,976	--	195,045	--	$23.77	--	$3,350,916	--	128.56	--	1,517	--	$26,065	--
Option 4 – HOV 2+, no toll cap	157,503	+191.3%	80,813	-42.7%	238,316	+22.2%	$24.33	+2.4%	$1,966,369	-41.3%	147.10	+14.4%	1,620	+6.8%	$13,368	-48.7%

Note: N/A: Sensitivity Test was not performed for the specified time horizion

pricing to a certain market segment of the traffic. Due to growth in corridor demand and the resulting increase of toll-free traffic, the amount of available capacity for tolled trips decreases over time. In order to provide the guaranteed travel times on the express lanes, especially in the outer forecast years, the toll operation needs to be able to apply variable pricing to the biggest market possible, without price limitations. As shown in the previous tables, and in the detailed data in Appendix B, any restriction in the amount of tolled traffic (HOV2+ free designation) and potential toll rates (toll cap) will result, over time, in a non-optimal usage of the Express Lane capacity and significant reductions in revenue.

DISCLAIMER

Traffic and revenue estimates for the I-405/SR167 Express Toll Lanes project, included in this report, are based on travel demand data provided by the I-405 Team. The estimates are generated using generally accepted reasonable analytical procedures, as described herein. However, any forecast of the future is subject to considerably uncertainty, and no assurance can be made that forecast traffic and revenue will actually be achieved. Actual traffic and revenue on the I-405/SR167 Express Toll Lanes may well differ from forecasts, due to economic conditions, operational conditions, unusual circumstances and other factors outside the control of the forecasters. Such differences could be material.

All estimates and projections in our report are based on experience and judgment and a review of information provided by the I-405 Team, data and information collected during previous studies of the project corridor, by WSA; additional information provided to WSA; limited visual observation of conditions at the relevant sites; and a review of other publicly available reports and information. These estimates and projections are not necessarily indicative of actual values or predictive of future results, which may ultimately be more or less favorable than those suggested by our report and are therefore subject to substantial uncertainty.

In addition, annual revenue forecasts, included in this report, are intended to represent a general trend over the long-term of the project life, and not necessarily the revenue in any given year. Traffic and revenue in any given year may well vary from the forecast, based on circumstances which cannot be known at this time.

Certain statements made in the report that are not historical facts may constitute estimates, projections, or other forward-looking statements and

even though it is believed that such forward-looking statements are reasonable and are based on reasonable assumptions, as of the date in this report, such forward-looking statements, by their nature, involve risks and uncertainties that could cause actual results to differ materially from the results predicted.

This report is necessarily based upon scientific, governmental, market, economic, demographic, and other conditions as in effect on, and information made available to us, as of the date of our report. It should be understood that subsequent developments may affect the estimates or projections expressed in the report and cannot be predicted with certainty. We specifically do not guarantee or warrant any estimate or projections, contained in our report.

Appendix A

Results of Study Options 1-5

Appendix A
Table of Contents
1of 3

Table A-1	Option 1 - HOV 3+, no toll cap	2020-2045 Per-Mile Toll Rates
Table A-2	Option 2 - HOV 3+, no toll cap	2020-2045 Per-Mile Toll Rates
Table A-3	Option 3 - HOV 3+, no toll cap	2020-2045 Per-Mile Toll Rates
Table A-4	Option 4 - HOV 3+, no toll cap	2020-2045 Per-Mile Toll Rates
Table A-5	Option 5 - HOV 3+, no toll cap	2020-2045 Per-Mile Toll Rates
Table A-6-1	Option 1 - HOV 3+, no toll cap	2020-2045 AM0 Zone to Zone Toll Charge Matrix
Table A-6-2	Option 1 - HOV 3+, no toll cap	2020-2045 AM1 Zone to Zone Toll Charge Matrix
Table A-6-3	Option 1 - HOV 3+, no toll cap	2020-2045 AM2 Zone to Zone Toll Charge Matrix
Table A-6-4	Option 1 - HOV 3+, no toll cap	2020-2045 AM3 Zone to Zone Toll Charge Matrix
Table A-6-5	Option 1 - HOV 3+, no toll cap	2020-2045 MD1 Zone to Zone Toll Charge Matrix
Table A-6-6	Option 1 - HOV 3+, no toll cap	2020-2045 PM1 Zone to Zone Toll Charge Matrix
Table A-6-7	Option 1 - HOV 3+, no toll cap	2020-2045 PM2 Zone to Zone Toll Charge Matrix
Table A-6-8	Option 1 - HOV 3+, no toll cap	2020-2045 PM3 Zone to Zone Toll Charge Matrix
Table A-6-9	Option 1 - HOV 3+, no toll cap	2020-2045 PM4 Zone to Zone Toll Charge Matrix
Table A-6-10	Option 1 - HOV 3+, no toll cap	2020-2045 PM5 Zone to Zone Toll Charge Matrix
Table A-6-11	Option 1 - HOV 3+, no toll cap	2020-2045 PM6 Zone to Zone Toll Charge Matrix
Table A-7-1	Option 2 - HOV 3+, no toll cap	2020-2045 AM0 Zone to Zone Toll Charge Matrix
Table A-7-2	Option 2 - HOV 3+, no toll cap	2020-2045 AM1 Zone to Zone Toll Charge Matrix
Table A-7-3	Option 2 - HOV 3+, no toll cap	2020-2045 AM2 Zone to Zone Toll Charge Matrix
Table A-7-4	Option 2 - HOV 3+, no toll cap	2020-2045 AM3 Zone to Zone Toll Charge Matrix
TableA-7-5	Option 2 - HOV 3+, no toll cap	2020-2045 MD1 Zone to Zone Toll Charge Matrix
TableA-7-6	Option 2 - HOV 3+, no toll cap	2020-2045 PM1 Zone to Zone Toll Charge Matrix
Table A-7-7	Option 2 - HOV 3+, no toll cap	2020-2045 PM2 Zone to Zone Toll Charge Matrix
Table A-7-8	Option 2 - HOV 3+, no toll cap	2020-2045 PM3 Zone to Zone Toll Charge Matrix
Table A-7-9	Option 2 - HOV 3+, no toll cap	2020-2045 PM4 Zone to Zone Toll Charge Matrix
Table A-7-10	Option 2 - HOV 3+, no toll cap	2020-2045 PM5 Zone to Zone Toll Charge Matrix
Table A-7-11	Option 2 - HOV 3+, no toll cap	2020-2045 PM6 Zone to Zone Toll Charge Matrix
Table A-8-1	Option 3 - HOV 3+, no toll cap	2020-2045 AM0 Zone to Zone Toll Charge Matrix
Table A-8-2	Option 3 - HOV 3+, no toll cap	2020-2045 AM1 Zone to Zone Toll Charge Matrix
Table A-8-3	Option 3 - HOV 3+, no toll cap	2020-2045 AM2 Zone to Zone Toll Charge Matrix
Table A-8-4	Option 3 - HOV 3+, no toll cap	2020-2045 AM3 Zone to Zone Toll Charge Matrix
Table A-8-5	Option 3 - HOV 3+, no toll cap	2020-2045 MD1 Zone to Zone Toll Charge Matrix
Table A-8-6	Option 3 - HOV 3+, no toll cap	2020-2045 PM1 Zone to Zone Toll Charge Matrix
Table A-8-7	Option 3 - HOV 3+, no toll cap	2020-2045 PM2 Zone to Zone Toll Charge Matrix
Table A-8-8	Option 3 - HOV 3+, no toll cap	2020-2045 PM3 Zone to Zone Toll Charge Matrix
Table A-8-9	Option 3 - HOV 3+, no toll cap	2020-2045 PM4 Zone to Zone Toll Charge Matrix
Table A-8-10	Option 3 - HOV 3+, no toll cap	2020-2045 PM5 Zone to Zone Toll Charge Matrix
Table A-8-11	Option 3 - HOV 3+, no toll cap	2020-2045 PM6 Zone to Zone Toll Charge Matrix
Table A-9-1	Option 4 - HOV 3+, no toll cap	2020-2045 AM0 Zone to Zone Toll Charge Matrix
Table A-9-2	Option 4 - HOV 3+, no toll cap	2020-2045 AM1 Zone to Zone Toll Charge Matrix
Table A-9-3	Option 4 - HOV 3+, no toll cap	2020-2045 AM2 Zone to Zone Toll Charge Matrix
Table A-9-4	Option 4 - HOV 3+, no toll cap	2020-2045 AM3 Zone to Zone Toll Charge Matrix
Table A-9-5	Option 4 - HOV 3+, no toll cap	2020-2045 MD1 Zone to Zone Toll Charge Matrix
Table A-9-6	Option 4 - HOV 3+, no toll cap	2020-2045 PM1 Zone to Zone Toll Charge Matrix
Table A-9-7	Option 4 - HOV 3+, no toll cap	2020-2045 PM2 Zone to Zone Toll Charge Matrix
Table A-9-8	Option 4 - HOV 3+, no toll cap	2020-2045 PM3 Zone to Zone Toll Charge Matrix
Table A-9-9	Option 4 - HOV 3+, no toll cap	2020-2045 PM4 Zone to Zone Toll Charge Matrix
Table A-9-10	Option 4 - HOV 3+, no toll cap	2020-2045 PM5 Zone to Zone Toll Charge Matrix

Appendix A
Table of Contents
2 of 3

Table A-9-11	Option 4 - HOV 3+, no toll cap	2020-2045 PM6 Zone to Zone Toll Charge Matrix
Table A-10-1	Option 5 - HOV 3+, no toll cap	2020-2045 AM0 Zone to Zone Toll Charge Matrix
Table A-10-2	Option 5 - HOV 3+, no toll cap	2020-2045 AM1 Zone to Zone Toll Charge Matrix
Table A-10-3	Option 5 - HOV 3+, no toll cap	2020-2045 AM2 Zone to Zone Toll Charge Matrix
Table A-10-4	Option 5 - HOV 3+, no toll cap	2020-2045 AM3 Zone to Zone Toll Charge Matrix
Table A-10-5	Option 5 - HOV 3+, no toll cap	2020-2045 MD1 Zone to Zone Toll Charge Matrix
Table A-10-6	Option 5 - HOV 3+, no toll cap	2020-2045 PM1 Zone to Zone Toll Charge Matrix
Table A-10-7	Option 5 - HOV 3+, no toll cap	2020-2045 PM2 Zone to Zone Toll Charge Matrix
Table A-10-8	Option 5 - HOV 3+, no toll cap	2020-2045 PM3 Zone to Zone Toll Charge Matrix
Table A-10-9	Option 5 - HOV 3+, no toll cap	2020-2045 PM4 Zone to Zone Toll Charge Matrix
Table A-10-10	Option 5 - HOV 3+, no toll cap	2020-2045 PM5 Zone to Zone Toll Charge Matrix
Table A-10-11	Option 5 - HOV 3+, no toll cap	2020-2045 PM6 Zone to Zone Toll Charge Matrix
Table A-11-1	Option 1 - HOV 3+, no toll cap	2020-2045 Estimated Gross Toll Revenue per Segment
Table A-11-2	Option 1 - HOV 3+, no toll cap	2020-2045 Estimated Total Transactions per Segment
Table A-11-3	Option 1 - HOV 3+, no toll cap	2020-2045 Estimated Tolled Transactions per Segment
Table A-11-4	Option 1 - HOV 3+, no toll cap	2020-2045 Estimated Toll-Free Transactions per Segment
Table A-12-1	Option 2 - HOV 3+, no toll cap	2020-2045 Estimated Gross Toll Revenue per Segment
Table A-12-2	Option 2 - HOV 3+, no toll cap	2020-2045 Estimated Total Transactions per Segment
Table A-12-3	Option 2 - HOV 3+, no toll cap	2020-2045 Estimated Tolled Transactions per Segment
Table A-12-4	Option 2 - HOV 3+, no toll cap	2020-2045 Estimated Toll-Free Transactions per Segment
Table A-13-1	Option 3 - HOV 3+, no toll cap	2020-2045 Estimated Gross Toll Revenue per Segment
Table A-13-2	Option 3 - HOV 3+, no toll cap	2020-2045 Estimated Total Transactions per Segment
Table A-13-3	Option 3 - HOV 3+, no toll cap	2020-2045 Estimated Tolled Transactions per Segment
Table A-13-4	Option 3 - HOV 3+, no toll cap	2020-2045 Estimated Toll-Free Transactions per Segment
Table A-14-1	Option 4 - HOV 3+, no toll cap	2020-2045 Estimated Gross Toll Revenue per Segment
Table A-14-2	Option 4 - HOV 3+, no toll cap	2020-2045 Estimated Total Transactions per Segment
Table A-14-3	Option 4 - HOV 3+, no toll cap	2020-2045 Estimated Tolled Transactions per Segment
Table A-14-4	Option 4 - HOV 3+, no toll cap	2020-2045 Estimated Toll-Free Transactions per Segment
Table A-15-1	Option 5 - HOV 3+, no toll cap	2020-2045 Estimated Gross Toll Revenue per Segment
Table A-15-2	Option 5 - HOV 3+, no toll cap	2020-2045 Estimated Total Transactions per Segment
Table A-15-3	Option 5 - HOV 3+, no toll cap	2020-2045 Estimated Tolled Transactions per Segment
Table A-15-4	Option 5 - HOV 3+, no toll cap	2020-2045 Estimated Toll-Free Transactions per Segment
Table A-16-1	Option 1 - HOV 3+, no toll cap	2020 Estimated Traffic and Gross Toll Revenue
Table A-16-2	Option 1 - HOV 3+, no toll cap	2035 Estimated Traffic and Gross Toll Revenue
Table A-16-3	Option 1 - HOV 3+, no toll cap	2045 Estimated Traffic and Gross Toll Revenue
Table A-17-1	Option 2 - HOV 3+, no toll cap	2020 Estimated Traffic and Gross Toll Revenue
Table A-17-2	Option 2 - HOV 3+, no toll cap	2035 Estimated Traffic and Gross Toll Revenue
Table A-17-3	Option 2 - HOV 3+, no toll cap	2045 Estimated Traffic and Gross Toll Revenue
Table A-18-1	Option 3 - HOV 3+, no toll cap	2020 Estimated Traffic and Gross Toll Revenue
Table A-18-2	Option 3 - HOV 3+, no toll cap	2035 Estimated Traffic and Gross Toll Revenue
Table A-18-3	Option 3 - HOV 3+, no toll cap	2045 Estimated Traffic and Gross Toll Revenue
Table A-19-1	Option 4 - HOV 3+, no toll cap	2020 Estimated Traffic and Gross Toll Revenue
Table A-19-2	Option 4 - HOV 3+, no toll cap	2035 Estimated Traffic and Gross Toll Revenue
Table A-19-3	Option 4 - HOV 3+, no toll cap	2045 Estimated Traffic and Gross Toll Revenue
Table A-20-1	Option 5 - HOV 3+, no toll cap	2020 Estimated Traffic and Gross Toll Revenue
Table A-20-2	Option 5 - HOV 3+, no toll cap	2035 Estimated Traffic and Gross Toll Revenue
Table A-20-3	Option 5 - HOV 3+, no toll cap	2045 Estimated Traffic and Gross Toll Revenue
Table A-21	Option 1 - HOV 3+, no toll cap	Estimated Traffic and Toll Revenue for the Express Toll Lanes

Appendix A
Table of Contents
3 of 3

Table A-22	Option 2 - HOV 3+, no toll cap	Estimated Traffic and Toll Revenue for the Express Toll Lanes
Table A-23	Option 3 - HOV 3+, no toll cap	Estimated Traffic and Toll Revenue for the Express Toll Lanes
Table A-24	Option 4 - HOV 3+, no toll cap	Estimated Traffic and Toll Revenue for the Express Toll Lanes
Table A-25	Option 5 - HOV 3+, no toll cap	Estimated Traffic and Toll Revenue for the Express Toll Lanes
Figure A-1-1A	Option 1 - HOV 3+, no toll cap	2020 Estimated Average Weekday Traffic Volumes - SR 167
Figure A-1-1B	Option 1 - HOV 3+, no toll cap	2020 Estimated Average Weekday Traffic Volumes - I-405 Southern Section
Figure A-1-1C	Option 1 - HOV 3+, no toll cap	2020 Estimated Average Weekday Traffic Volumes - I-405 Northern Section
Figure A-1-2A	Option 1 - HOV 3+, no toll cap	2035 Estimated Average Weekday Traffic Volumes - SR 167
Figure A-1-2B	Option 1 - HOV 3+, no toll cap	2035 Estimated Average Weekday Traffic Volumes - I-405 Southern Section
Figure A-1-2C	Option 1 - HOV 3+, no toll cap	2035 Estimated Average Weekday Traffic Volumes - I-405 Northern Section
Figure A-1-3A	Option 1 - HOV 3+, no toll cap	2045 Estimated Average Weekday Traffic Volumes - SR 167
Figure A-1-3B	Option 1 - HOV 3+, no toll cap	2045 Estimated Average Weekday Traffic Volumes - I-405 Southern Section
Figure A-1-3C	Option 1 - HOV 3+, no toll cap	2045 Estimated Average Weekday Traffic Volumes - I-405 Northern Section
Figure A-2-1A	Option 2 - HOV 3+, no toll cap	2020 Estimated Average Weekday Traffic Volumes - SR 167
Figure A-2-1B	Option 2 - HOV 3+, no toll cap	2020 Estimated Average Weekday Traffic Volumes - I-405 Southern Section
Figure A-2-1C	Option 2 - HOV 3+, no toll cap	2020 Estimated Average Weekday Traffic Volumes - I-405 Northern Section
Figure A-2-2A	Option 2 - HOV 3+, no toll cap	2035 Estimated Average Weekday Traffic Volumes - SR 167
Figure A-2-2B	Option 2 - HOV 3+, no toll cap	2035 Estimated Average Weekday Traffic Volumes - I-405 Southern Section
Figure A-2-2C	Option 2 - HOV 3+, no toll cap	2035 Estimated Average Weekday Traffic Volumes - I-405 Northern Section
Figure A-2-3A	Option 2 - HOV 3+, no toll cap	2045 Estimated Average Weekday Traffic Volumes - SR 167
Figure A-2-3B	Option 2 - HOV 3+, no toll cap	2045 Estimated Average Weekday Traffic Volumes - I-405 Southern Section
Figure A-2-3C	Option 2 - HOV 3+, no toll cap	2045 Estimated Average Weekday Traffic Volumes - I-405 Northern Section
Figure A-3-1A	Option 3 - HOV 3+, no toll cap	2020 Estimated Average Weekday Traffic Volumes - SR 167
Figure A-3-1B	Option 3 - HOV 3+, no toll cap	2020 Estimated Average Weekday Traffic Volumes - I-405 Southern Section
Figure A-3-1C	Option 3 - HOV 3+, no toll cap	2020 Estimated Average Weekday Traffic Volumes - I-405 Northern Section
Figure A-3-2A	Option 3 - HOV 3+, no toll cap	2035 Estimated Average Weekday Traffic Volumes - SR 167
Figure A-3-2B	Option 3 - HOV 3+, no toll cap	2035 Estimated Average Weekday Traffic Volumes - I-405 Southern Section
Figure A-3-2C	Option 3 - HOV 3+, no toll cap	2035 Estimated Average Weekday Traffic Volumes - I-405 Northern Section
Figure A-3-3A	Option 3 - HOV 3+, no toll cap	2045 Estimated Average Weekday Traffic Volumes - SR 167
Figure A-3-3B	Option 3 - HOV 3+, no toll cap	2045 Estimated Average Weekday Traffic Volumes - I-405 Southern Section
Figure A-3-3C	Option 3 - HOV 3+, no toll cap	2045 Estimated Average Weekday Traffic Volumes - I-405 Northern Section
Figure A-4-1A	Option 4 - HOV 3+, no toll cap	2020 Estimated Average Weekday Traffic Volumes - SR 167
Figure A-4-1B	Option 4 - HOV 3+, no toll cap	2020 Estimated Average Weekday Traffic Volumes - I-405 Southern Section
Figure A-4-1C	Option 4 - HOV 3+, no toll cap	2020 Estimated Average Weekday Traffic Volumes - I-405 Northern Section
Figure A-4-2A	Option 4 - HOV 3+, no toll cap	2035 Estimated Average Weekday Traffic Volumes - SR 167
Figure A-4-2B	Option 4 - HOV 3+, no toll cap	2035 Estimated Average Weekday Traffic Volumes - I-405 Southern Section
Figure A-4-2C	Option 4 - HOV 3+, no toll cap	2035 Estimated Average Weekday Traffic Volumes - I-405 Northern Section
Figure A-4-3A	Option 4 - HOV 3+, no toll cap	2045 Estimated Average Weekday Traffic Volumes - SR 167
Figure A-4-3B	Option 4 - HOV 3+, no toll cap	2045 Estimated Average Weekday Traffic Volumes - I-405 Southern Section
Figure A-4-3C	Option 4 - HOV 3+, no toll cap	2045 Estimated Average Weekday Traffic Volumes - I-405 Northern Section
Figure A-5-1A	Option 5 - HOV 3+, no toll cap	2020 Estimated Average Weekday Traffic Volumes - SR 167
Figure A-5-1B	Option 5 - HOV 3+, no toll cap	2020 Estimated Average Weekday Traffic Volumes - I-405 Southern Section
Figure A-5-1C	Option 5 - HOV 3+, no toll cap	2020 Estimated Average Weekday Traffic Volumes - I-405 Northern Section
Figure A-5-2A	Option 5 - HOV 3+, no toll cap	2035 Estimated Average Weekday Traffic Volumes - SR 167
Figure A-5-2B	Option 5 - HOV 3+, no toll cap	2035 Estimated Average Weekday Traffic Volumes - I-405 Southern Section
Figure A-5-2C	Option 5 - HOV 3+, no toll cap	2035 Estimated Average Weekday Traffic Volumes - I-405 Northern Section
Figure A-5-3A	Option 5 - HOV 3+, no toll cap	2045 Estimated Average Weekday Traffic Volumes - SR 167
Figure A-5-3B	Option 5 - HOV 3+, no toll cap	2045 Estimated Average Weekday Traffic Volumes - I-405 Southern Section
Figure A-5-3C	Option 5 - HOV 3+, no toll cap	2045 Estimated Average Weekday Traffic Volumes - I-405 Northern Section

Table A-1

Per Mile Toll Rates

Study Option 1 - HOV 3+,no toll cap

All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	1.20	1.85	1.00				0.05	0.05	0.05
AM1	1.35	2.00	1.35				0.05	0.05	0.05
AM2	1.35	2.30	1.45				0.10	0.10	0.05
AM3	0.90	1.80	0.95				0.05	0.05	0.05
Mid	0.20	0.25	0.15				0.05	0.05	0.05
PM1	0.05	0.25	0.05				0.70	0.80	0.55
PM2	0.30	0.60	0.30				0.95	1.25	1.20
PM3	0.05	0.05	0.05				0.80	0.95	0.70
PM4	0.05	0.05	0.05				0.70	0.80	0.70
PM5	0.05	0.05	0.05				0.55	0.65	0.40
PM6	0.05	0.05	0.05				0.25	0.20	0.15

2020 Southbound - Minimum Toll $1.00

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	0.05	0.05	0.05				0.05	0.05	0.05
AM1	0.65	0.80	0.80				0.05	0.05	0.05
AM2	1.05	1.05	1.05				0.05	0.05	0.05
AM3	0.65	0.75	0.85				0.05	0.05	0.05
Mid	0.20	0.25	0.25				0.05	0.05	0.05
PM1	0.25	0.30	0.55				0.30	0.75	0.15
PM2	0.55	0.45	0.65				0.65	0.95	0.30
PM3	0.35	0.35	0.40				0.20	0.25	0.10
PM4	0.05	0.05	0.05				0.05	0.05	0.05
PM5	0.05	0.05	0.05				0.05	0.05	0.05
PM6	0.05	0.05	0.05				0.05	0.05	0.05

2035 Northbound - Minimum Toll $1.60

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	0.90	0.90	0.90				0.05	0.05	0.05
AM1	1.75	2.00	1.65				0.05	0.05	0.10
AM2	1.80	2.70	1.85				0.10	0.15	0.15
AM3	1.25	1.60	0.90				0.10	0.10	0.10
Mid	0.30	0.40	0.30				0.10	0.10	0.10
PM1	0.50	1.45	0.60				1.40	1.50	1.20
PM2	0.90	1.80	1.35				1.75	2.30	2.35
PM3	0.30	0.80	0.65				1.80	2.10	1.50
PM4	0.15	0.20	0.15				1.45	1.70	1.35
PM5	0.05	0.05	0.05				1.00	1.40	0.85
PM6	0.05	0.05	0.05				0.70	0.70	0.50

2035 Southbound - Minimum Toll $1.60

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	0.60	0.80	0.80				0.05	0.05	0.05
AM1	1.60	1.80	1.40				0.05	0.05	0.05
AM2	1.90	2.30	3.00				0.05	0.05	0.05
AM3	1.80	2.00	2.30				0.05	0.05	0.05
Mid	1.20	1.20	1.20				0.05	0.05	0.05
PM1	1.40	1.20	2.20				1.25	2.70	1.10
PM2	1.90	1.75	2.35				1.70	2.90	1.40
PM3	1.75	1.50	1.70				0.70	1.70	0.50
PM4	0.80	0.80	1.20				0.20	0.35	0.20
PM5	0.40	0.50	0.70				0.20	0.35	0.20
PM6	0.20	0.25	0.25				0.05	0.05	0.05

2045 Northbound - Minimum Toll $2.15

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	2.75	4.00	2.75				0.05	0.05	0.05
AM1	3.30	4.50	3.00				0.05	0.05	0.05
AM2	3.50	4.70	3.60				0.15	0.25	0.60
AM3	3.20	4.55	2.85				0.10	0.15	0.45
Mid	1.90	3.00	1.90				0.20	0.30	0.40
PM1	1.35	2.70	1.20				2.60	2.85	2.05
PM2	1.80	3.50	1.90				2.65	3.40	3.90
PM3	1.20	1.45	1.20				2.40	3.10	3.40
PM4	0.45	0.55	0.45				2.40	2.75	2.50
PM5	0.10	0.10	0.05				1.75	2.50	2.20
PM6	0.05	0.05	0.05				1.20	1.45	0.95

2045 Southbound - Minimum Toll $2.15

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	0.80	1.70	2.00				0.05	0.05	0.05
AM1	2.50	2.50	2.20				0.05	0.05	0.05
AM2	3.20	3.50	3.75				0.05	0.05	0.05
AM3	2.80	3.15	3.25				0.05	0.05	0.05
Mid	2.25	2.65	2.50				0.25	0.30	0.05
PM1	3.35	2.35	4.10				2.25	4.35	2.25
PM2	3.85	2.55	4.65				2.65	4.75	2.25
PM3	3.80	2.45	3.90				2.25	4.00	2.10
PM4	2.25	2.00	1.75				1.05	1.90	0.80
PM5	1.85	1.75	1.50				1.05	1.70	0.80
PM6	0.85	0.85	0.80				0.50	0.50	0.40

NOTE: The time periods are defined as:

AM0 = 5:00 - 5:30 AM	AM3 = 8:30 - 9:30 AM	PM2 = 15:30 - 17:30 PM	PM5 = 19:00 - 19:30 PM
AM1= 5:30 - 6:30 AM	MD1 = 9:30 - 14:30 PM	PM3 = 17:30 - 18:30 PM	PM6 = 19:30 - 20:00 PM
AM2 = 6:30 - 8:30 AM	PM1 = 14:30 - 15:30 PM	PM4 = 18:30 - 19:00 PM	

Table A-2

Per Mile Toll Rates

Study Option 2 - HOV 3+,no toll cap

All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	1.20	1.80	1.30	0.05	0.05	0.05	0.05	0.05	0.05
AM1	1.25	1.90	1.40	0.30	0.65	0.30	0.05	0.05	0.05
AM2	1.50	2.25	1.50	0.25	0.75	0.60	0.05	0.05	0.05
AM3	1.25	1.75	1.25	0.25	0.55	0.15	0.05	0.05	0.05
Mid	0.10	0.30	0.25	0.05	0.15	0.15	0.05	0.05	0.05
PM1	0.10	0.25	0.15	0.65	0.75	0.55	0.60	0.60	0.50
PM2	0.30	0.45	0.45	0.80	1.10	0.90	0.95	1.15	1.10
PM3	0.25	0.35	0.35	0.80	1.00	0.70	0.90	1.00	0.70
PM4	0.05	0.05	0.05	0.25	0.35	0.35	0.80	0.90	0.65
PM5	0.05	0.05	0.05	0.15	0.25	0.30	0.65	0.65	0.50
PM6	0.05	0.05	0.05	0.10	0.10	0.10	0.25	0.25	0.15

2020 Southbound - Minimum Toll $1.00

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
AM1	0.75	0.85	0.85	0.30	0.05	0.05	0.05	0.05	0.05
AM2	0.95	1.10	1.05	0.60	0.60	0.40	0.05	0.05	0.05
AM3	0.85	1.05	1.00	0.30	0.05	0.05	0.05	0.05	0.05
Mid	0.25	0.25	0.15	0.10	0.05	0.05	0.05	0.05	0.05
PM1	0.40	0.35	0.35	0.20	0.25	0.15	0.45	0.55	0.20
PM2	0.60	0.55	0.55	0.40	0.40	0.50	0.60	0.75	0.25
PM3	0.45	0.45	0.45	0.30	0.30	0.25	0.20	0.30	0.20
PM4	0.10	0.15	0.10	0.10	0.10	0.05	0.05	0.05	0.05
PM5	0.05	0.10	0.10	0.10	0.10	0.05	0.05	0.05	0.05
PM6	0.05	0.05	0.05	0.05	0.10	0.05	0.05	0.05	0.05

2035 Northbound - Minimum Toll $1.60

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	0.90	1.00	0.80	0.70	1.00	0.70	0.05	0.05	0.05
AM1	1.85	1.95	1.55	1.15	1.85	1.65	0.15	0.25	0.10
AM2	1.85	2.80	1.80	1.15	1.50	1.65	0.25	0.15	0.40
AM3	1.60	1.60	1.25	1.55	1.70	1.20	0.10	0.25	0.15
Mid	0.35	0.45	0.45	1.10	1.75	1.10	0.25	0.25	0.45
PM1	0.95	1.45	0.75	1.60	1.80	1.50	1.80	2.00	1.45
PM2	1.25	2.20	1.20	1.80	1.85	1.80	2.00	2.00	2.75
PM3	0.70	0.90	0.95	1.60	2.10	1.95	1.60	1.80	1.65
PM4	0.40	0.45	0.45	1.50	1.80	1.60	1.50	1.65	1.15
PM5	0.05	0.05	0.05	0.85	1.30	1.10	1.20	1.20	1.05
PM6	0.05	0.05	0.05	0.30	0.30	0.30	0.80	0.85	0.55

2035 Southbound - Minimum Toll $1.60

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	0.40	0.75	0.75	0.05	0.05	0.05	0.05	0.05	0.05
AM1	1.55	1.65	1.65	1.15	1.00	1.00	0.05	0.05	0.05
AM2	2.15	2.10	1.60	1.50	1.30	1.30	0.05	0.05	0.05
AM3	1.70	1.90	1.55	1.20	1.15	1.00	0.05	0.05	0.05
Mid	1.20	1.45	1.45	0.80	0.55	0.35	0.05	0.05	0.05
PM1	1.55	1.55	1.50	1.00	1.40	0.95	1.30	2.60	1.10
PM2	1.80	1.80	1.75	1.50	2.00	1.55	4.35	2.95	1.60
PM3	1.65	1.40	1.40	1.15	1.15	1.45	0.90	1.70	0.50
PM4	0.95	0.70	0.70	0.80	0.90	0.65	0.40	0.40	0.30
PM5	0.30	0.25	0.25	0.70	0.80	0.60	0.35	0.35	0.20
PM6	0.20	0.10	0.10	0.45	0.55	0.45	0.05	0.10	0.05

2045 Northbound - Minimum Toll $2.15

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	2.90	4.30	2.50	1.00	2.40	1.80	0.10	0.05	0.05
AM1	3.15	4.45	3.65	1.00	2.50	2.35	0.20	0.20	0.15
AM2	3.40	4.65	4.05	1.55	2.10	3.60	0.40	0.40	0.30
AM3	3.20	4.40	3.15	1.50	2.10	2.90	0.30	0.25	0.25
Mid	2.15	2.90	2.15	2.00	2.00	2.00	0.20	0.30	0.30
PM1	1.25	2.70	1.20	2.25	2.45	2.40	2.50	2.50	2.10
PM2	1.80	3.45	1.75	2.45	2.65	2.65	3.00	3.40	3.50
PM3	1.35	1.30	1.50	2.35	2.60	2.60	2.60	2.85	3.30
PM4	0.45	0.55	0.80	2.10	2.20	2.10	2.40	2.50	2.50
PM5	0.05	0.05	0.05	1.75	1.85	1.75	2.05	2.15	2.00
PM6	0.05	0.05	0.05	0.80	1.10	0.80	1.20	1.45	1.20

2045 Southbound - Minimum Toll $2.15

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	1.15	1.30	1.30	0.10	0.10	0.05	0.05	0.05	0.05
AM1	2.15	2.50	1.85	1.90	1.40	1.20	0.05	0.05	0.05
AM2	3.15	3.00	2.10	2.10	1.75	1.75	0.05	0.05	0.05
AM3	2.65	2.80	2.05	2.05	1.70	1.70	0.05	0.05	0.05
Mid	2.40	2.25	2.20	1.85	1.60	1.75	0.05	0.05	0.05
PM1	3.50	2.25	2.25	3.00	2.75	2.25	3.15	4.40	2.15
PM2	4.00	2.45	2.50	3.45	3.00	2.75	3.25	4.50	2.20
PM3	3.85	2.30	2.25	2.75	2.50	2.50	2.05	3.85	2.10
PM4	2.25	1.75	1.75	1.75	1.75	2.25	1.05	1.90	0.80
PM5	1.65	1.15	1.05	1.35	1.75	1.75	1.00	1.80	0.75
PM6	1.20	0.70	0.65	1.00	1.60	1.50	0.35	0.55	0.45

NOTE: The time periods are defined as:

AM0 = 5:00 - 5:30 AM	AM3 = 8:30 - 9:30 AM	PM2 = 15:30 - 17:30 PM	PM5 = 19:00 - 19:30 PM
AM1= 5:30 - 6:30 AM	MD1 = 9:30 - 14:30 PM	PM3 = 17:30 - 18:30 PM	PM6 = 19:30 - 20:00 PM
AM2 = 6:30 - 8:30 AM	PM1 = 14:30 - 15:30 PM	PM4 = 18:30 - 19:00 PM	

Table A-3

Per Mile Toll Rates

Study Option 3 - HOV 3+,no toll cap

All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	1.10	1.30	1.10	0.25	0.15	0.15	0.05	0.05	0.05
AM1	1.20	1.40	1.20	0.80	0.60	0.60	0.10	0.10	0.10
AM2	1.25	1.50	1.25	0.85	0.65	0.65	0.20	0.20	0.20
AM3	1.15	1.20	0.90	0.65	0.50	0.45	0.10	0.10	0.10
Mid	0.25	0.30	0.15	0.10	0.10	0.05	0.05	0.05	0.05
PM1	0.15	0.20	0.25	0.50	0.70	0.60	0.70	0.70	0.65
PM2	0.30	0.30	0.35	0.80	0.95	0.90	1.05	1.15	1.10
PM3	0.15	0.10	0.20	0.85	0.90	0.85	0.95	1.00	0.85
PM4	0.05	0.05	0.05	0.30	0.30	0.35	0.70	0.85	0.85
PM5	0.05	0.05	0.05	0.20	0.20	0.25	0.60	0.70	0.60
PM6	0.05	0.05	0.05	0.05	0.05	0.05	0.30	0.35	0.15

2020 Southbound - Minimum Toll $1.00

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
AM1	0.70	0.80	0.80	0.35	0.40	0.30	0.10	0.10	0.10
AM2	1.05	1.10	1.10	0.80	0.70	0.50	0.15	0.15	0.15
AM3	0.85	0.95	0.85	0.60	0.55	0.45	0.05	0.05	0.05
Mid	0.10	0.15	0.15	0.05	0.05	0.05	0.05	0.05	0.05
PM1	0.50	0.45	0.50	0.35	0.30	0.35	0.55	0.50	0.30
PM2	0.75	0.75	0.70	0.60	0.60	0.60	0.65	0.65	0.35
PM3	0.70	0.70	0.65	0.45	0.45	0.40	0.30	0.30	0.30
PM4	0.05	0.10	0.10	0.15	0.20	0.15	0.05	0.05	0.05
PM5	0.05	0.05	0.05	0.05	0.15	0.10	0.05	0.05	0.05
PM6	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05

2035 Northbound - Minimum Toll $1.60

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	1.00	1.00	1.00	1.00	1.15	0.70	0.15	0.10	0.10
AM1	1.80	1.90	1.75	2.00	1.80	1.45	0.25	0.20	0.20
AM2	2.10	1.95	1.75	2.15	1.90	1.50	0.40	0.45	0.40
AM3	1.65	1.55	1.20	2.15	1.70	1.25	0.35	0.40	0.35
Mid	0.15	0.20	0.20	1.30	1.60	1.10	0.30	0.35	0.30
PM1	0.75	0.85	0.85	1.60	1.70	1.65	1.70	1.55	1.20
PM2	0.95	1.70	1.10	1.70	1.95	2.15	2.00	2.10	2.40
PM3	0.75	0.70	0.85	1.70	1.95	2.10	1.75	2.00	1.65
PM4	0.10	0.15	0.25	1.25	1.45	1.45	1.50	1.50	1.25
PM5	0.10	0.10	0.10	0.85	0.95	0.90	1.20	1.20	1.10
PM6	0.05	0.05	0.05	0.15	0.30	0.15	0.70	0.70	0.50

2035 Southbound - Minimum Toll $1.60

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	0.60	0.85	0.95	0.60	0.40	0.10	0.05	0.05	0.05
AM1	1.55	1.60	1.65	1.30	1.30	1.20	0.10	0.15	0.10
AM2	1.60	1.80	1.80	1.50	1.35	1.60	0.20	0.20	0.15
AM3	1.55	1.70	1.45	1.40	1.40	1.20	0.15	0.15	0.10
Mid	1.50	1.50	1.40	1.10	0.70	0.40	0.05	0.05	0.05
PM1	1.25	1.15	1.15	1.30	1.25	1.20	1.25	1.45	0.70
PM2	1.45	1.55	1.55	1.70	1.80	1.50	1.30	2.20	1.10
PM3	1.50	1.40	1.45	1.25	1.25	1.25	1.00	1.10	0.45
PM4	0.90	0.90	0.95	0.75	0.90	0.80	0.30	0.40	0.20
PM5	0.50	0.60	0.60	0.60	0.70	0.70	0.25	0.30	0.15
PM6	0.10	0.20	0.20	0.40	0.50	0.55	0.10	0.05	0.05

2045 Northbound - Minimum Toll $2.15

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	2.20	3.90	2.30	2.20	1.95	1.95	0.20	0.20	0.20
AM1	2.65	4.70	3.20	2.25	2.50	2.25	0.40	0.40	0.40
AM2	2.70	4.95	3.30	2.30	2.90	3.55	0.80	0.80	0.75
AM3	2.60	4.40	2.65	2.10	2.55	2.85	0.60	0.60	0.55
Mid	1.70	2.00	1.70	2.00	1.85	1.65	0.40	0.40	0.40
PM1	1.05	2.05	1.20	2.30	2.40	2.40	2.50	2.50	2.00
PM2	1.40	2.90	1.60	2.70	2.75	2.80	2.50	3.40	3.75
PM3	1.05	1.00	1.25	2.70	2.70	2.75	2.25	3.00	3.15
PM4	0.40	0.55	0.75	2.15	2.20	2.20	2.20	2.75	2.25
PM5	0.15	0.15	0.35	1.40	1.45	1.40	1.65	1.80	2.15
PM6	0.05	0.05	0.10	0.60	0.65	0.65	1.15	1.15	0.95

2045 Southbound - Minimum Toll $2.15

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	1.40	1.65	1.75	1.00	0.50	0.30	0.05	0.05	0.05
AM1	2.40	2.70	2.15	1.90	1.65	1.75	0.15	0.20	0.15
AM2	2.95	3.00	2.35	2.15	1.75	1.80	0.25	0.25	0.25
AM3	2.65	2.80	2.15	2.00	1.65	1.70	0.15	0.15	0.15
Mid	2.20	2.25	2.00	1.90	1.55	1.55	0.20	0.15	0.10
PM1	3.75	2.00	2.40	2.65	2.50	2.25	2.00	4.05	1.65
PM2	4.60	3.25	2.45	3.20	2.75	2.65	2.30	4.50	2.00
PM3	4.30	2.80	2.25	2.75	2.50	2.20	1.75	3.50	1.60
PM4	2.25	1.75	1.50	1.65	1.90	1.80	1.15	1.65	0.40
PM5	1.65	1.25	1.25	1.60	1.70	1.40	1.10	1.40	0.55
PM6	0.80	0.70	0.60	1.00	1.30	1.35	0.40	0.40	0.30

NOTE: The time periods are defined as:

AM0 = 5:00 - 5:30 AM	AM3 = 8:30 - 9:30 AM	PM2 = 15:30 - 17:30 PM	PM5 = 19:00 - 19:30 PM
AM1= 5:30 - 6:30 AM	MD1 = 9:30 - 14:30 PM	PM3 = 17:30 - 18:30 PM	PM6 = 19:30 - 20:00 PM
AM2 = 6:30 - 8:30 AM	PM1 = 14:30 - 15:30 PM	PM4 = 18:30 - 19:00 PM	

Table A-4

Per Mile Toll Rates

Study Option 4 - HOV 3+,no toll cap

All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	0.80	1.10	1.00	0.70	0.80	0.70	0.40	0.30	0.40
AM1	1.15	1.55	1.35	0.75	0.75	0.35	0.35	0.35	0.25
AM2	1.20	1.75	1.40	0.50	0.50	0.90	0.60	0.50	0.50
AM3	1.10	1.15	1.15	0.50	0.50	0.45	0.30	0.40	0.40
Mid	0.70	0.85	0.70	0.70	0.30	0.90	0.50	0.30	0.10
PM1	0.40	0.55	0.55	0.60	1.00	1.05	1.10	1.00	0.85
PM2	0.75	0.85	0.85	0.85	1.15	1.20	1.15	1.50	1.90
PM3	0.60	0.70	0.70	1.15	1.15	1.15	0.85	1.40	1.30
PM4	0.40	0.40	0.45	0.70	0.90	1.00	0.95	1.00	1.10
PM5	0.40	0.40	0.45	0.70	0.90	1.00	0.95	1.00	1.00
PM6	0.40	0.40	0.45	0.70	0.90	1.00	0.95	1.00	1.00

2020 Southbound - Minimum Toll $1.00

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	0.05	0.05	0.05	0.15	0.25	0.10	0.05	0.05	0.05
AM1	0.60	0.80	0.70	0.50	0.50	0.40	0.10	0.10	0.05
AM2	1.10	1.00	1.00	0.70	0.70	0.60	0.45	0.25	0.25
AM3	0.85	0.85	0.80	0.80	0.80	0.50	0.20	0.15	0.05
Mid	0.65	0.75	0.75	0.50	0.60	0.50	0.40	0.50	0.45
PM1	0.85	0.90	0.90	1.10	0.95	0.95	1.05	1.05	0.70
PM2	0.95	0.85	0.85	1.05	1.05	1.05	1.25	1.25	1.20
PM3	0.85	0.90	0.90	1.00	1.15	1.15	0.90	0.90	0.90
PM4	0.50	0.50	0.50	0.80	0.80	0.80	0.65	0.65	0.65
PM5	0.50	0.50	0.50	0.80	0.80	0.80	0.65	0.65	0.65
PM6	0.40	0.40	0.40	0.70	0.70	0.70	0.55	0.55	0.55

2035 Northbound - Minimum Toll $1.60

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	1.50	1.65	1.65	1.30	0.70	1.15	0.70	0.70	0.65
AM1	1.65	2.15	1.95	0.85	1.10	1.30	0.80	0.80	0.70
AM2	1.80	2.15	2.05	1.15	1.95	2.15	0.80	0.75	0.75
AM3	1.50	1.75	1.05	0.70	1.75	2.05	0.40	0.55	0.55
Mid	1.05	1.40	1.25	1.10	1.10	1.15	0.90	0.80	0.60
PM1	1.05	1.50	1.50	1.05	1.80	1.80	1.80	1.80	2.00
PM2	1.25	1.50	1.50	1.05	1.90	2.00	1.80	2.10	2.90
PM3	1.05	1.05	0.95	1.20	1.40	1.40	1.80	1.90	1.95
PM4	1.00	1.05	1.00	1.30	1.25	1.20	1.75	1.85	1.80
PM5	0.95	1.05	1.20	1.10	1.10	1.55	1.40	1.65	1.30
PM6	0.95	1.05	1.20	1.10	1.05	1.45	1.30	1.50	1.05

2035 Southbound - Minimum Toll $1.60

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	1.00	1.20	1.20	0.85	0.90	0.90	0.40	0.40	0.40
AM1	1.50	2.00	1.50	0.95	1.15	1.30	0.60	0.60	0.60
AM2	2.00	3.00	2.50	0.95	1.20	1.40	0.70	0.70	0.70
AM3	1.60	2.75	2.10	0.95	1.20	1.45	0.75	0.75	0.75
Mid	1.30	1.65	1.40	1.15	1.15	1.10	1.05	0.90	0.90
PM1	1.35	1.55	1.70	1.90	1.90	1.65	2.05	2.05	2.00
PM2	2.00	1.70	0.80	1.90	2.00	1.65	2.00	2.00	1.95
PM3	1.60	1.55	1.65	1.65	1.70	1.10	1.70	1.70	1.65
PM4	1.40	1.30	1.30	1.15	1.55	1.30	1.45	1.40	1.30
PM5	0.90	1.00	1.00	1.15	1.45	1.10	1.50	1.45	1.10
PM6	0.60	0.80	0.80	1.25	1.30	1.25	1.10	1.10	0.40

2045 Northbound - Minimum Toll $2.15

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	3.00	3.45	3.00	1.50	1.20	1.30	1.10	1.00	0.85
AM1	3.10	3.55	3.20	1.55	1.30	1.40	1.20	1.10	0.90
AM2	3.15	3.65	3.30	1.60	2.20	3.40	1.30	1.30	0.95
AM3	3.00	3.40	2.40	1.80	2.00	3.20	0.80	0.80	0.75
Mid	1.75	2.25	2.10	1.50	1.40	1.30	1.20	1.20	0.80
PM1	1.50	1.60	1.50	1.75	1.60	1.40	2.00	2.25	2.30
PM2	1.60	2.10	1.70	2.55	2.15	1.75	2.40	3.40	3.85
PM3	1.35	1.45	1.40	2.40	2.00	1.70	2.20	3.10	3.75
PM4	1.15	1.20	1.20	2.10	1.80	1.60	1.80	2.80	3.60
PM5	1.00	1.10	1.10	1.90	1.50	1.40	1.70	2.50	2.65
PM6	0.80	0.90	0.90	1.80	1.50	1.30	1.60	2.25	1.75

2045 Southbound - Minimum Toll $2.15

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	1.85	1.85	1.85	1.40	1.25	1.40	0.70	0.70	0.70
AM1	2.80	2.85	2.40	1.40	1.30	1.80	0.80	0.80	0.80
AM2	3.20	3.30	2.70	1.50	1.50	2.50	0.90	0.90	0.90
AM3	3.10	2.90	2.20	1.45	1.45	2.45	0.80	0.80	0.80
Mid	2.15	2.40	2.40	2.05	2.05	1.90	1.00	0.95	0.85
PM1	4.00	2.25	1.90	1.90	1.90	2.00	2.70	3.20	2.50
PM2	4.50	2.50	1.95	2.10	2.10	2.50	2.85	3.25	2.55
PM3	4.25	2.50	2.15	1.80	1.75	2.25	2.55	2.55	2.20
PM4	2.80	2.40	2.05	1.70	1.60	1.65	2.40	2.40	1.80
PM5	1.90	1.80	1.80	1.95	1.50	1.40	2.00	2.30	1.70
PM6	1.65	1.30	1.70	1.70	1.45	1.40	1.80	2.15	1.50

NOTE: The time periods are defined as:

AM0 = 5:00 - 5:30 AM	AM3 = 8:30 - 9:30 AM	PM2 = 15:30 - 17:30 PM	PM5 = 19:00 - 19:30 PM
AM1= 5:30 - 6:30 AM	MD1 = 9:30 - 14:30 PM	PM3 = 17:30 - 18:30 PM	PM6 = 19:30 - 20:00 PM
AM2 = 6:30 - 8:30 AM	PM1 = 14:30 - 15:30 PM	PM4 = 18:30 - 19:00 PM	

Table A-5

Per Mile Toll Rates

Study Option 5 - HOV 3+,no toll cap

All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	0.35	1.00	0.90	0.15	0.20	0.30	0.05	0.05	0.05
AM1	0.40	1.40	1.20	0.35	0.35	0.45	0.10	0.10	0.10
AM2	0.45	1.90	1.70	0.40	0.40	0.65	0.20	0.10	0.10
AM3	0.45	1.50	1.00	0.35	0.35	0.40	0.10	0.05	0.05
Mid	0.15	0.50	0.40	0.40	0.40	0.25	0.10	0.10	0.10
PM1	0.20	0.15	0.20	0.70	0.70	0.80	0.75	0.70	0.30
PM2	0.25	0.30	0.30	0.90	1.00	1.00	0.85	0.80	0.40
PM3	0.20	0.20	0.20	0.80	0.90	0.80	0.80	0.70	0.30
PM4	0.05	0.05	0.05	0.50	0.80	0.70	0.75	0.50	0.25
PM5	0.05	0.05	0.05	0.40	0.65	0.40	0.55	0.40	0.20
PM6	0.05	0.05	0.05	0.50	0.60	0.35	0.35	0.35	0.15

2020 Southbound - Minimum Toll $1.00

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	0.05	0.10	0.05	0.05	0.05	0.05	0.05	0.05	0.05
AM1	0.40	0.60	0.50	0.25	0.25	0.15	0.05	0.05	0.05
AM2	0.70	0.65	0.60	0.45	0.45	0.45	0.05	0.05	0.05
AM3	0.65	0.60	0.45	0.35	0.35	0.25	0.05	0.05	0.05
Mid	0.25	0.35	0.35	0.30	0.30	0.20	0.05	0.05	0.05
PM1	0.30	0.40	0.45	0.50	0.75	0.80	0.55	0.40	0.15
PM2	0.35	0.45	0.55	0.55	0.80	0.90	0.65	0.50	0.25
PM3	0.30	0.40	0.45	0.50	0.75	0.80	0.50	0.40	0.20
PM4	0.20	0.30	0.30	0.40	0.65	0.70	0.25	0.15	0.10
PM5	0.15	0.20	0.20	0.35	0.60	0.60	0.20	0.15	0.05
PM6	0.10	0.15	0.15	0.25	0.60	0.45	0.10	0.10	0.05

2035 Northbound - Minimum Toll $1.60

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	0.75	1.70	1.70	0.60	0.45	0.75	0.15	0.15	0.05
AM1	0.75	1.85	1.90	0.70	0.90	1.25	0.45	0.35	0.15
AM2	0.75	2.00	2.10	0.75	0.90	1.30	0.45	0.30	0.15
AM3	0.65	1.20	1.00	0.65	0.75	1.00	0.20	0.20	0.10
Mid	0.30	0.70	0.65	1.40	0.75	0.85	0.20	0.20	0.10
PM1	0.30	0.60	0.65	1.85	0.85	1.35	0.80	0.80	0.50
PM2	0.75	0.80	0.65	2.25	1.10	1.50	1.00	1.00	0.70
PM3	0.25	0.35	0.40	2.00	1.05	1.00	1.00	0.95	0.50
PM4	0.10	0.35	0.25	1.55	0.85	0.60	0.70	0.85	0.50
PM5	0.10	0.15	0.10	1.45	0.75	0.60	0.60	0.85	0.30
PM6	0.05	0.10	0.10	1.00	0.70	0.50	0.55	0.75	0.30

2035 Southbound - Minimum Toll $1.60

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	0.25	0.50	0.45	0.45	0.35	0.85	0.05	0.05	0.05
AM1	1.20	1.00	0.65	0.65	0.75	1.20	0.05	0.05	0.05
AM2	1.25	1.30	0.80	0.70	0.95	1.80	0.10	0.10	0.10
AM3	0.85	1.10	0.75	0.60	0.60	1.60	0.05	0.05	0.05
Mid	0.50	0.65	0.75	0.70	0.70	0.90	0.05	0.05	0.05
PM1	1.70	1.00	1.10	1.60	1.45	2.20	0.85	0.80	0.60
PM2	2.00	0.80	1.40	0.85	1.00	2.30	0.85	1.00	0.70
PM3	1.50	0.75	1.10	0.90	0.90	1.80	0.80	0.80	0.45
PM4	0.90	0.75	1.00	0.70	0.75	1.35	0.40	0.30	0.20
PM5	0.55	0.60	0.90	0.65	0.80	1.30	0.30	0.25	0.10
PM6	0.20	0.40	0.40	0.55	0.80	1.30	0.15	0.15	0.10

2045 Northbound - Minimum Toll $2.15

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	2.00	1.80	1.75	0.70	0.90	1.50	0.25	0.25	0.15
AM1	2.05	2.40	2.60	0.80	1.50	2.60	0.50	0.40	0.20
AM2	2.10	2.60	2.60	1.00	1.10	2.90	0.80	0.80	0.65
AM3	2.00	1.80	1.55	1.00	1.10	2.00	0.50	0.50	0.55
Mid	0.60	1.20	1.05	1.80	1.50	2.00	0.70	0.60	0.50
PM1	0.75	0.80	0.75	2.40	2.00	1.50	1.00	1.20	1.10
PM2	1.40	1.50	1.00	2.80	2.50	2.00	1.50	1.60	1.80
PM3	0.80	0.70	0.70	2.70	2.40	1.80	1.30	1.60	1.00
PM4	0.30	0.35	0.50	2.15	1.60	1.60	1.00	1.60	1.00
PM5	0.15	0.25	0.40	2.00	1.50	1.10	0.90	1.10	0.90
PM6	0.10	0.15	0.30	1.75	1.10	1.00	0.80	1.00	0.40

2045 Southbound - Minimum Toll $2.15

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	0.70	1.50	0.85	0.70	1.00	1.00	0.05	0.05	0.05
AM1	1.30	1.50	0.80	0.80	1.25	1.20	0.05	0.05	0.05
AM2	1.55	2.20	1.30	0.80	1.50	2.70	0.15	0.10	0.10
AM3	1.45	1.40	1.05	0.75	1.15	2.30	0.10	0.10	0.10
Mid	1.60	1.25	1.10	1.20	1.70	1.60	0.15	0.15	0.15
PM1	2.00	1.05	1.10	1.60	2.35	3.90	1.10	1.00	1.20
PM2	2.30	1.10	1.50	1.60	2.40	4.10	1.20	1.20	1.00
PM3	1.95	1.30	1.50	1.60	2.30	3.95	1.20	1.30	0.80
PM4	2.00	1.20	1.20	1.70	2.25	3.50	0.55	1.00	0.75
PM5	1.95	0.80	1.20	1.70	2.20	3.40	0.80	0.95	0.70
PM6	1.80	0.90	1.10	1.70	2.10	3.40	0.70	0.90	0.25

NOTE: The time periods are defined as:

AM0 = 5:00 - 5:30 AM	AM3 = 8:30 - 9:30 AM	PM2 = 15:30 - 17:30 PM	PM5 = 19:00 - 19:30 PM
AM1= 5:30 - 6:30 AM	MD1 = 9:30 - 14:30 PM	PM3 = 17:30 - 18:30 PM	PM6 = 19:30 - 20:00 PM
AM2 = 6:30 - 8:30 AM	PM1 = 14:30 - 15:30 PM	PM4 = 18:30 - 19:00 PM	

Table A-6-1

Toll Charge Matrix AM0 (5:00 am - 5:30 am)

Study Option 1 - HOV 3+,no toll cap

All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.55	11.35	16.55						
	B		9.80	15.00						
	C			5.20						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.15	5.90	10.60						
	B		4.75	9.45						
	C			4.70						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2035 Southbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	4.10	6.50	11.20						
	H		2.40	7.10						
	G			4.70						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2045 Northbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	3.60	24.80	39.10						
	B		21.20	35.50						
	C			14.30						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2045 Southbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	5.45	10.55	22.35						
	H		5.10	16.90						
	G			11.80						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Table A-6-2

Toll Charge Matrix AM1 (5:30 am - 5:30 am)

Study Option 1 - HOV 3+,no toll cap

All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.75	12.35	19.35						
	B		10.60	17.60						
	C			7.00						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	4.40	6.80	11.50						
	H		2.40	7.10						
	G			4.70						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.25	12.85	21.45						
	B		10.60	19.20						
	C			8.60						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	1.15
	H								0.15	0.90
	I									0.75

2035 Southbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	10.90	16.30	24.55						
	H		5.40	13.65						
	G			8.25						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2045 Northbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.30	28.15	43.75						
	B		23.85	39.45						
	C			15.60						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2045 Southbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	17.00	24.50	37.50						
	H		7.50	20.50						
	G			13.00						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Table A-6-3
Toll Charge Matrix AM2 (6:30 am - 8:30 am)
Study Option 1 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.75	13.95	21.50						
	B		12.20	19.75						
	C			7.55						
I-405 South	D									
	E									
	F									
I-405 North	G							0.50	0.80	1.20
	H								0.30	0.70
	I									0.40

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	7.15	10.30	16.50						
	H		3.15	9.35						
	G			6.20						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.35	16.65	26.25						
	B		14.30	23.90						
	C			9.60						
I-405 South	D									
	E									
	F									
I-405 North	G							0.50	0.95	2.10
	H								0.45	1.60
	I									1.15

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	12.90	19.80	37.50						
	H		6.90	24.60						
	G			17.70						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.55	29.45	48.15						
	B		24.90	43.60						
	C			18.70						
I-405 South	D									
	E									
	F									
I-405 North	G							0.75	1.50	6.05
	H								0.75	5.30
	I									4.55

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	21.75	32.25	54.40						
	H		10.50	32.65						
	G			22.15						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Table A-6-4

Toll Charge Matrix AM3 (8:30 am - 9:30 am)

Study Option 1 - HOV 3+,no toll cap

All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.15	10.70	15.65						
	B		9.55	14.50						
	C			4.95						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	4.40	6.65	11.65						
	H		2.25	7.25						
	G			5.00						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.65	10.15	14.85						
	B		8.50	13.20						
	C			4.70						
I-405 South	D									
	E									
	F									
I-405 North	G							0.50	0.80	1.55
	H								0.30	1.05
	I									0.75

2035 Southbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	12.25	18.25	31.80						
	H		6.00	19.55						
	G			13.55						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2045 Northbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.15	28.25	43.05						
	B		24.10	38.90						
	C			14.80						
I-405 South	D									
	E									
	F									
I-405 North	G							0.50	0.95	4.35
	H								0.45	3.85
	I									3.40

2045 Southbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	19.05	28.50	47.70						
	H		9.45	28.65						
	G			19.20						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Table A-6-5
Toll Charge Matrix MD (9:30 am - 2:30 pm)
Study Option 1 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.25	1.60	2.40						
	B		1.35	2.15						
	C			0.80						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	1.35	2.10	3.60						
	H		0.75	2.25						
	G			1.50						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.40	2.50	4.05						
	B		2.10	3.65						
	C			1.55						
I-405 South	D									
	E									
	F									
I-405 North	G							0.50	0.80	1.55
	H								0.30	1.05
	I									0.75

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	8.15	11.75	18.85						
	H		3.60	10.70						
	G			7.10						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.45	18.35	28.25						
	B		15.90	25.80						
	C			9.90						
I-405 South	D									
	E									
	F									
I-405 North	G							1.00	1.90	4.95
	H								0.90	3.95
	I									3.05

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	15.30	23.25	38.00						
	H		7.95	22.70						
	G			14.75						
I-405 South	F									
	E									
	D									
SR 167	C							1.30	2.90	3.10
	B								1.60	1.80
	A									0.20

Table A-6-6

Toll Charge Matrix PM1 (2:30 pm - 3:30 pm)

Study Option 1 - HOV 3+,no toll cap

All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	1.40	1.65						
	B		1.35	1.60						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							3.55	5.95	10.15
	H								2.40	6.60
	I									4.20

2020 Southbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	1.70	2.60	5.85						
	H		0.90	4.15						
	G			3.25						
I-405 South	F									
	E									
	D									
SR 167	C							1.55	5.50	6.15
	B								3.95	4.60
	A									0.65

2035 Northbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.65	8.35	11.45						
	B		7.70	10.80						
	C			3.10						
I-405 South	D									
	E									
	F									
I-405 North	G							7.15	11.65	20.75
	H								4.50	13.60
	I									9.10

2035 Southbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	9.50	13.10	26.10						
	H		3.60	16.60						
	G			13.00						
I-405 South	F									
	E									
	D									
SR 167	C							6.50	20.80	25.55
	B								14.30	19.05
	A									4.75

2045 Northbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.75	16.05	22.30						
	B		14.30	20.55						
	C			6.25						
I-405 South	D									
	E									
	F									
I-405 North	G							13.25	21.80	37.40
	H								8.55	24.15
	I									15.60

2045 Southbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	22.80	29.85	54.05						
	H		7.05	31.25						
	G			24.20						
I-405 South	F									
	E									
	D									
SR 167	C							11.70	34.75	44.40
	B								23.05	32.70
	A									9.65

Table A-6-7

Toll Charge Matrix PM2 (3:30 pm - 5:30 pm)

Study Option 1 - HOV 3+,no toll cap

All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.40	3.60	5.15						
	B		3.20	4.75						
	C			1.55						
I-405 South	D									
	E									
	F									
I-405 North	G							4.85	8.60	17.70
	H								3.75	12.85
	I									9.10

2020 Southbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	3.75	5.10	8.95						
	H		1.35	5.20						
	G			3.85						
I-405 South	F									
	E									
	D									
SR 167	C							3.40	8.45	9.75
	B								5.05	6.35
	A									1.30

2035 Northbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.15	10.70	17.70						
	B		9.55	16.55						
	C			7.00						
I-405 South	D									
	E									
	F									
I-405 North	G							8.90	15.80	33.65
	H								6.90	24.75
	I									17.85

2035 Southbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	12.90	18.15	32.00						
	H		5.25	19.10						
	G			13.85						
I-405 South	F									
	E									
	D									
SR 167	C							8.85	24.20	30.20
	B								15.35	21.35
	A									6.00

2045 Northbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.35	20.90	30.80						
	B		18.55	28.45						
	C			9.90						
I-405 South	D									
	E									
	F									
I-405 North	G							13.50	23.70	53.35
	H								10.20	39.85
	I									29.65

2045 Southbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	26.20	33.85	61.30						
	H		7.65	35.10						
	G			27.45						
I-405 South	F									
	E									
	D									
SR 167	C							13.80	39.00	48.65
	B								25.20	34.85
	A									9.65

Table A-6-8
Toll Charge Matrix PM3 (5:30 pm - 6:30 pm)
Study Option 1 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							4.10	6.95	12.25
	H								2.85	8.15
	I									5.30

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	2.40	3.45	5.80						
	H		1.05	3.40						
	G			2.35						
I-405 South	F									
	E									
	D									
SR 167	C							1.05	2.40	2.85
	B								1.35	1.80
	A									0.45

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.40	4.65	8.05						
	B		4.25	7.65						
	C			3.40						
I-405 South	D									
	E									
	F									
I-405 North	G							9.20	15.50	26.90
	H								6.30	17.70
	I									11.40

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	11.90	16.40	26.45						
	H		4.50	14.55						
	G			10.05						
I-405 South	F									
	E									
	D									
SR 167	C							3.65	12.65	14.80
	B								9.00	11.15
	A									2.15

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.55	9.25	15.50						
	B		7.70	13.95						
	C			6.25						
I-405 South	D									
	E									
	F									
I-405 North	G							12.25	21.55	47.40
	H								9.30	35.15
	I									25.85

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	25.85	33.20	56.20						
	H		7.35	30.35						
	G			23.00						
I-405 South	F									
	E									
	D									
SR 167	C							11.70	32.90	41.95
	B								21.20	30.25
	A									9.05

Table A-6-9
Toll Charge Matrix PM4 (6:30 pm - 7:00 pm)
Study Option 1 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							3.55	5.95	11.25
	H								2.40	7.70
	I									5.30

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.20	1.25	2.05						
	B		1.05	1.85						
	C			0.80						
I-405 South	D									
	E									
	F									
I-405 North	G							7.40	12.50	22.75
	H								5.10	15.35
	I									10.25

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	5.45	7.85	14.95						
	H		2.40	9.50						
	G			7.10						
I-405 South	F									
	E									
	D									
SR 167	C							1.05	2.90	3.75
	B								1.85	2.70
	A									0.85

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.60	3.50	5.85						
	B		2.90	5.25						
	C			2.35						
I-405 South	D									
	E									
	F									
I-405 North	G							12.25	20.50	39.50
	H								8.25	27.25
	I									19.00

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	15.30	21.30	31.65						
	H		6.00	16.35						
	G			10.35						
I-405 South	F									
	E									
	D									
SR 167	C							5.45	15.50	18.95
	B								10.05	13.50
	A									3.45

Table A-6-10
Toll Charge Matrix PM5 (7:00 pm - 7:30 pm)
Study Option 1 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							2.80	4.75	7.80
	H								1.95	5.00
	I									3.05

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							5.10	9.30	15.75
	H								4.20	10.65
	I									6.45

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	2.70	4.20	8.35						
	H		1.50	5.65						
	G			4.15						
I-405 South	F									
	E									
	D									
SR 167	C							1.05	2.90	3.75
	B								1.85	2.70
	A									0.85

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.15	0.70	0.95						
	B		0.55	0.80						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							8.90	16.40	33.10
	H								7.50	24.20
	I									16.70

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	12.60	17.85	26.70						
	H		5.25	14.10						
	G			8.85						
I-405 South	F									
	E									
	D									
SR 167	C							5.45	14.45	17.90
	B								9.00	12.45
	A									3.45

Table A-6-11

Toll Charge Matrix PM6 (7:30 am - 8:00 pm)

Study Option 1 - HOV 3+,no toll cap

All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							1.30	1.90	3.05
	H								0.60	1.75
	I									1.15

2020 Southbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							3.55	5.65	9.45
	H								2.10	5.90
	I									3.80

2035 Southbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	1.35	2.10	3.60						
	H		0.75	2.25						
	G			1.50						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2045 Northbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							6.10	10.45	17.65
	H								4.35	11.55
	I									7.20

2045 Southbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	5.80	8.35	13.05						
	H		2.55	7.25						
	G			4.70						
I-405 South	F									
	E									
	D									
SR 167	C							2.60	5.25	6.95
	B								2.65	4.35
	A									1.70

Table A-7-1
Toll Charge Matrix AM0 (5:00 am - 5:30 am)
Study Option 2 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.55	11.10	17.85	18.05	18.25	18.50	18.75	18.90	19.30
	B		9.55	16.30	16.50	16.70	16.95	17.20	17.35	17.75
	C			6.75	6.95	7.15	7.40	7.65	7.80	8.20
I-405 South	D				0.20	0.40	0.65	0.90	1.05	1.45
	E					0.20	0.45	0.70	0.85	1.25
	F						0.25	0.50	0.65	1.05
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80	1.05	1.25	1.45	1.70	1.95	2.15
	H		0.15	0.45	0.70	0.90	1.10	1.35	1.60	1.80
	G			0.30	0.55	0.75	0.95	1.20	1.45	1.65
I-405 South	F				0.25	0.45	0.65	0.90	1.15	1.35
	E					0.20	0.40	0.65	0.90	1.10
	D						0.20	0.45	0.70	0.90
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.15	6.45	10.60	13.25	17.05	20.25	20.50	20.65	21.05
	B		5.30	9.45	12.10	15.90	19.10	19.35	19.50	19.90
	C			4.15	6.80	10.60	13.80	14.05	14.20	14.60
I-405 South	D				2.65	6.45	9.65	9.90	10.05	10.45
	E					3.80	7.00	7.25	7.40	7.80
	F						3.20	3.45	3.60	4.00
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	2.70	4.95	9.40	9.65	9.85	10.05	10.30	10.55	10.75
	H		2.25	6.70	6.95	7.15	7.35	7.60	7.85	8.05
	G			4.45	4.70	4.90	5.10	5.35	5.60	5.80
I-405 South	F				0.25	0.45	0.65	0.90	1.15	1.35
	E					0.20	0.40	0.65	0.90	1.10
	D						0.20	0.45	0.70	0.90
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	3.75	26.55	39.55	43.35	52.45	60.75	61.25	61.40	61.80
	B		22.80	35.80	39.60	48.70	57.00	57.50	57.65	58.05
	C			13.00	16.80	25.90	34.20	34.70	34.85	35.25
I-405 South	D				3.80	12.90	21.20	21.70	21.85	22.25
	E					9.10	17.40	17.90	18.05	18.45
	F						8.30	8.80	8.95	9.35
I-405 North	G							0.50	0.65	1.05
	H								0.15	0.55
	I									0.40

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	7.80	11.70	19.35	19.80	20.20	20.40	20.65	20.90	21.10
	H		3.90	11.55	12.00	12.40	12.60	12.85	13.10	13.30
	G			7.65	8.10	8.50	8.70	8.95	9.20	9.40
I-405 South	F				0.45	0.85	1.05	1.30	1.55	1.75
	E					0.40	0.60	0.85	1.10	1.30
	D						0.20	0.45	0.70	0.90
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Table A-7-2
Toll Charge Matrix AM1 (5:30 am - 5:30 am)
Study Option 2 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.65	11.70	19.00	20.15	22.60	24.00	24.25	24.40	24.80
	B		10.05	17.35	18.50	20.95	22.35	22.60	22.75	23.15
	C			7.30	8.45	10.90	12.30	12.55	12.70	13.10
I-405 South	D				1.15	3.60	5.00	5.25	5.40	5.80
	E					2.45	3.85	4.10	4.25	4.65
	F						1.40	1.65	1.80	2.20
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	5.10	7.65	12.65	14.05	14.25	14.45	14.70	14.95	15.15
	H		2.55	7.55	8.95	9.15	9.35	9.60	9.85	10.05
	G			5.00	6.40	6.60	6.80	7.05	7.30	7.50
I-405 South	F				1.40	1.60	1.80	2.05	2.30	2.50
	E					0.20	0.40	0.65	0.90	1.10
	D						0.20	0.45	0.70	0.90
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.40	12.75	20.80	25.15	32.20	39.80	40.55	41.30	42.05
	B		10.35	18.40	22.75	29.80	37.40	38.15	38.90	39.65
	C			8.05	12.40	19.45	27.05	27.80	28.55	29.30
I-405 South	D				4.35	11.40	19.00	19.75	20.50	21.25
	E					7.05	14.65	15.40	16.15	16.90
	F						7.60	8.35	9.10	9.85
I-405 North	G							0.75	1.50	2.25
	H								0.75	1.50
	I									0.75

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	10.55	15.50	25.25	30.55	34.35	38.15	38.40	38.65	38.85
	H		4.95	14.70	20.00	23.80	27.60	27.85	28.10	28.30
	G			9.75	15.05	18.85	22.65	22.90	23.15	23.35
I-405 South	F				5.30	9.10	12.90	13.15	13.40	13.60
	E					3.80	7.60	7.85	8.10	8.30
	D						3.80	4.05	4.30	4.50
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.10	27.70	46.70	50.50	60.00	70.80	71.80	72.40	73.55
	B		23.60	42.60	46.40	55.90	66.70	67.70	68.30	69.45
	C			19.00	22.80	32.30	43.10	44.10	44.70	45.85
I-405 South	D				3.80	13.30	24.10	25.10	25.70	26.85
	E					9.50	20.30	21.30	21.90	23.05
	F						10.80	11.80	12.40	13.55
I-405 North	G							1.00	1.60	2.75
	H								0.60	1.75
	I									1.15

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	14.60	22.10	33.00	41.75	47.05	51.60	51.85	52.10	52.30
	H		7.50	18.40	27.15	32.45	37.00	37.25	37.50	37.70
	G			10.90	19.65	24.95	29.50	29.75	30.00	30.20
I-405 South	F				8.75	14.05	18.60	18.85	19.10	19.30
	E					5.30	9.85	10.10	10.35	10.55
	D						4.55	4.80	5.05	5.25
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Table A-7-3
Toll Charge Matrix AM2 (6:30 am - 8:30 am)
Study Option 2 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.95	13.85	21.65	22.60	25.45	28.20	28.45	28.60	29.00
	B		11.90	19.70	20.65	23.50	26.25	26.50	26.65	27.05
	C			7.80	8.75	11.60	14.35	14.60	14.75	15.15
I-405 South	D				0.95	3.80	6.55	6.80	6.95	7.35
	E					2.85	5.60	5.85	6.00	6.40
	F						2.75	3.00	3.15	3.55
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	6.45	9.75	15.95	18.70	21.00	22.50	22.75	23.00	23.20
	H		3.30	9.50	12.25	14.55	16.05	16.30	16.55	16.75
	G			6.20	8.95	11.25	12.75	13.00	13.25	13.45
I-405 South	F				2.75	5.05	6.55	6.80	7.05	7.25
	E					2.30	3.80	4.05	4.30	4.50
	D						1.50	1.75	2.00	2.20
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.40	17.25	26.60	30.95	36.65	44.25	45.55	46.00	49.05
	B		14.85	24.20	28.55	34.25	41.85	43.15	43.60	46.65
	C			9.35	13.70	19.40	27.00	28.30	28.75	31.80
I-405 South	D				4.35	10.05	17.65	18.95	19.40	22.45
	E					5.70	13.30	14.60	15.05	18.10
	F						7.60	8.90	9.35	12.40
I-405 North	G							1.30	1.75	4.80
	H								0.45	3.50
	I									3.05

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	14.60	20.90	30.35	37.25	42.20	47.15	47.40	47.65	47.85
	H		6.30	15.75	22.65	27.60	32.55	32.80	33.05	33.25
	G			9.45	16.35	21.30	26.25	26.50	26.75	26.95
I-405 South	F				6.90	11.85	16.80	17.05	17.30	17.50
	E					4.95	9.90	10.15	10.40	10.60
	D						4.95	5.20	5.45	5.65
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.40	29.05	50.10	56.00	64.00	80.55	82.60	83.80	86.10
	B		24.65	45.70	51.60	59.60	76.15	78.20	79.40	81.70
	C			21.05	26.95	34.95	51.50	53.55	54.75	57.05
I-405 South	D				5.90	13.90	30.45	32.50	33.70	36.00
	E					8.00	24.55	26.60	27.80	30.10
	F						16.55	18.60	19.80	22.10
I-405 North	G							2.05	3.25	5.55
	H								1.20	3.50
	I									2.30

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	21.40	30.40	42.80	52.45	59.10	65.75	66.00	66.25	66.45
	H		9.00	21.40	31.05	37.70	44.35	44.60	44.85	45.05
	G			12.40	22.05	28.70	35.35	35.60	35.85	36.05
I-405 South	F				9.65	16.30	22.95	23.20	23.45	23.65
	E					6.65	13.30	13.55	13.80	14.00
	D						6.65	6.90	7.15	7.35
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Table A-7-4
Toll Charge Matrix AM3 (8:30 am - 9:30 am)
Study Option 2 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.65	10.95	17.45	18.40	20.50	21.20	21.45	21.60	22.00
	B		9.30	15.80	16.75	18.85	19.55	19.80	19.95	20.35
	C			6.50	7.45	9.55	10.25	10.50	10.65	11.05
I-405 South	D				0.95	3.05	3.75	4.00	4.15	4.55
	E					2.10	2.80	3.05	3.20	3.60
	F						0.70	0.95	1.10	1.50
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	5.80	8.95	14.85	16.25	16.45	16.65	16.90	17.15	17.35
	H		3.15	9.05	10.45	10.65	10.85	11.10	11.35	11.55
	G			5.90	7.30	7.50	7.70	7.95	8.20	8.40
I-405 South	F				1.40	1.60	1.80	2.05	2.30	2.50
	E					0.20	0.40	0.65	0.90	1.10
	D						0.20	0.45	0.70	0.90
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.10	10.60	17.10	23.00	29.45	34.95	35.45	36.20	37.35
	B		8.50	15.00	20.90	27.35	32.85	33.35	34.10	35.25
	C			6.50	12.40	18.85	24.35	24.85	25.60	26.75
I-405 South	D				5.90	12.35	17.85	18.35	19.10	20.25
	E					6.45	11.95	12.45	13.20	14.35
	F						5.50	6.00	6.75	7.90
I-405 North	G							0.50	1.25	2.40
	H								0.75	1.90
	I									1.15

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	11.55	17.25	26.40	31.90	36.25	40.05	40.30	40.55	40.75
	H		5.70	14.85	20.35	24.70	28.50	28.75	29.00	29.20
	G			9.15	14.65	19.00	22.80	23.05	23.30	23.50
I-405 South	F				5.50	9.85	13.65	13.90	14.15	14.35
	E					4.35	8.15	8.40	8.65	8.85
	D						3.80	4.05	4.30	4.50
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.15	27.45	43.85	49.55	57.55	70.90	72.45	73.20	75.10
	B		23.30	39.70	45.40	53.40	66.75	68.30	69.05	70.95
	C			16.40	22.10	30.10	43.45	45.00	45.75	47.65
I-405 South	D				5.70	13.70	27.05	28.60	29.35	31.25
	E					8.00	21.35	22.90	23.65	25.55
	F						13.35	14.90	15.65	17.55
I-405 North	G							1.55	2.30	4.20
	H								0.75	2.65
	I									1.90

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	18.00	26.40	38.50	47.95	54.40	60.85	61.10	61.35	61.55
	H		8.40	20.50	29.95	36.40	42.85	43.10	43.35	43.55
	G			12.10	21.55	28.00	34.45	34.70	34.95	35.15
I-405 South	F				9.45	15.90	22.35	22.60	22.85	23.05
	E					6.45	12.90	13.15	13.40	13.60
	D						6.45	6.70	6.95	7.15
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Table A-7-5
Toll Charge Matrix MD (9:30 am - 2:30 pm)
Study Option 2 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.15	1.75	3.05	3.25	3.80	4.50	4.75	4.90	5.30
	B		1.60	2.90	3.10	3.65	4.35	4.60	4.75	5.15
	C			1.30	1.50	2.05	2.75	3.00	3.15	3.55
I-405 South	D				0.20	0.75	1.45	1.70	1.85	2.25
	E					0.55	1.25	1.50	1.65	2.05
	F						0.70	0.95	1.10	1.50
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	1.70	2.45	3.35	3.80	4.00	4.20	4.45	4.70	4.90
	H		0.75	1.65	2.10	2.30	2.50	2.75	3.00	3.20
	G			0.90	1.35	1.55	1.75	2.00	2.25	2.45
I-405 South	F				0.45	0.65	0.85	1.10	1.35	1.55
	E					0.20	0.40	0.65	0.90	1.10
	D						0.20	0.45	0.70	0.90
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.45	2.85	5.20	9.40	16.05	21.10	22.40	23.15	26.55
	B		2.40	4.75	8.95	15.60	20.65	21.95	22.70	26.10
	C			2.35	6.55	13.20	18.25	19.55	20.30	23.70
I-405 South	D				4.20	10.85	15.90	17.20	17.95	21.35
	E					6.65	11.70	13.00	13.75	17.15
	F						5.05	6.35	7.10	10.50
I-405 North	G							1.30	2.05	5.45
	H								0.75	4.15
	I									3.40

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	8.15	12.50	21.05	24.75	26.85	28.20	28.45	28.70	28.90
	H		4.35	12.90	16.60	18.70	20.05	20.30	20.55	20.75
	G			8.55	12.25	14.35	15.70	15.95	16.20	16.40
I-405 South	F				3.70	5.80	7.15	7.40	7.65	7.85
	E					2.10	3.45	3.70	3.95	4.15
	D						1.35	1.60	1.85	2.05
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.80	18.15	29.35	36.95	44.55	53.75	54.75	55.65	57.95
	B		15.35	26.55	34.15	41.75	50.95	51.95	52.85	55.15
	C			11.20	18.80	26.40	35.60	36.60	37.50	39.80
I-405 South	D				7.60	15.20	24.40	25.40	26.30	28.60
	E					7.60	16.80	17.80	18.70	21.00
	F						9.20	10.20	11.10	13.40
I-405 North	G							1.00	1.90	4.20
	H								0.90	3.20
	I									2.30

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	16.30	23.05	36.05	44.55	50.65	57.30	57.55	57.80	58.00
	H		6.75	19.75	28.25	34.35	41.00	41.25	41.50	41.70
	G			13.00	21.50	27.60	34.25	34.50	34.75	34.95
I-405 South	F				8.50	14.60	21.25	21.50	21.75	21.95
	E					6.10	12.75	13.00	13.25	13.45
	D						6.65	6.90	7.15	7.35
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Table A-7-6
Toll Charge Matrix PM1 (2:30 pm - 3:30 pm)
Study Option 2 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.15	1.50	2.30	4.75	7.60	10.15	13.20	15.00	18.80
	B		1.35	2.15	4.60	7.45	10.00	13.05	14.85	18.65
	C			0.80	3.25	6.10	8.65	11.70	13.50	17.30
I-405 South	D				2.45	5.30	7.85	10.90	12.70	16.50
	E					2.85	5.40	8.45	10.25	14.05
	F						2.55	5.60	7.40	11.20
I-405 North	G							3.05	4.85	8.65
	H								1.80	5.60
	I									3.80

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	2.70	3.75	5.80	6.70	7.65	8.20	10.55	13.45	14.30
	H		1.05	3.10	4.00	4.95	5.50	7.85	10.75	11.60
	G			2.05	2.95	3.90	4.45	6.80	9.70	10.55
I-405 South	F				0.90	1.85	2.40	4.75	7.65	8.50
	E					0.95	1.50	3.85	6.75	7.60
	D						0.55	2.90	5.80	6.65
SR 167	C							2.35	5.25	6.10
	B								2.90	3.75
	A									0.85

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.25	8.95	12.85	18.95	25.80	32.70	41.90	47.90	58.90
	B		7.70	11.60	17.70	24.55	31.45	40.65	46.65	57.65
	C			3.90	10.00	16.85	23.75	32.95	38.95	49.95
I-405 South	D				6.10	12.95	19.85	29.05	35.05	46.05
	E					6.85	13.75	22.95	28.95	39.95
	F						6.90	16.10	22.10	33.10
I-405 North	G							9.20	15.20	26.20
	H								6.00	17.00
	I									11.00

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	10.55	15.20	24.05	28.65	33.95	37.55	44.30	58.10	62.85
	H		4.65	13.50	18.10	23.40	27.00	33.75	47.55	52.30
	G			8.85	13.45	18.75	22.35	29.10	42.90	47.65
I-405 South	F				4.60	9.90	13.50	20.25	34.05	38.80
	E					5.30	8.90	15.65	29.45	34.20
	D						3.60	10.35	24.15	28.90
SR 167	C							6.75	20.55	25.30
	B								13.80	18.55
	A									4.75

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.65	15.95	22.20	30.75	40.05	51.10	63.85	71.35	87.30
	B		14.30	20.55	29.10	38.40	49.45	62.20	69.70	85.65
	C			6.25	14.80	24.10	35.15	47.90	55.40	71.35
I-405 South	D				8.55	17.85	28.90	41.65	49.15	65.10
	E					9.30	20.35	33.10	40.60	56.55
	F						11.05	23.80	31.30	47.25
I-405 North	G							12.75	20.25	36.20
	H								7.50	23.45
	I									15.95

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	23.80	30.55	43.85	57.65	68.10	76.65	93.05	116.35	125.60
	H		6.75	20.05	33.85	44.30	52.85	69.25	92.55	101.80
	G			13.30	27.10	37.55	46.10	62.50	85.80	95.05
I-405 South	F				13.80	24.25	32.80	49.20	72.50	81.75
	E					10.45	19.00	35.40	58.70	67.95
	D						8.55	24.95	48.25	57.50
SR 167	C							16.40	39.70	48.95
	B								23.30	32.55
	A									9.25

Table A-7-7
Toll Charge Matrix PM2 (3:30 pm - 5:30 pm)
Study Option 2 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.40	2.80	5.15	8.20	12.40	16.55	21.40	24.85	33.20
	B		2.40	4.75	7.80	12.00	16.15	21.00	24.45	32.80
	C			2.35	5.40	9.60	13.75	18.60	22.05	30.40
I-405 South	D				3.05	7.25	11.40	16.25	19.70	28.05
	E					4.20	8.35	13.20	16.65	25.00
	F						4.15	9.00	12.45	20.80
I-405 North	G							4.85	8.30	16.65
	H								3.45	11.80
	I									8.35

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	4.10	5.75	9.00	10.85	12.35	14.25	17.35	21.30	22.40
	H		1.65	4.90	6.75	8.25	10.15	13.25	17.20	18.30
	G			3.25	5.10	6.60	8.50	11.60	15.55	16.65
I-405 South	F				1.85	3.35	5.25	8.35	12.30	13.40
	E					1.50	3.40	6.50	10.45	11.55
	D						1.90	5.00	8.95	10.05
SR 167	C							3.10	7.05	8.15
	B								3.95	5.05
	A									1.10

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.65	13.30	19.55	26.40	33.45	41.75	51.95	57.95	78.85
	B		11.65	17.90	24.75	31.80	40.10	50.30	56.30	77.20
	C			6.25	13.10	20.15	28.45	38.65	44.65	65.55
I-405 South	D				6.85	13.90	22.20	32.40	38.40	59.30
	E					7.05	15.35	25.55	31.55	52.45
	F						8.30	18.50	24.50	45.40
I-405 North	G							10.20	16.20	37.10
	H								6.00	26.90
	I									20.90

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	12.25	17.65	28.00	34.90	42.50	48.40	71.00	86.65	93.55
	H		5.40	15.75	22.65	30.25	36.15	58.75	74.40	81.30
	G			10.35	17.25	24.85	30.75	53.35	69.00	75.90
I-405 South	F				6.90	14.50	20.40	43.00	58.65	65.55
	E					7.60	13.50	36.10	51.75	58.65
	D						5.90	28.50	44.15	51.05
SR 167	C							22.60	38.25	45.15
	B								15.65	22.55
	A									6.90

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.35	20.65	29.75	39.05	49.10	61.30	76.60	86.80	113.40
	B		18.30	27.40	36.70	46.75	58.95	74.25	84.45	111.05
	C			9.10	18.40	28.45	40.65	55.95	66.15	92.75
I-405 South	D				9.30	19.35	31.55	46.85	57.05	83.65
	E					10.05	22.25	37.55	47.75	74.35
	F						12.20	27.50	37.70	64.30
I-405 North	G							15.30	25.50	52.10
	H								10.20	36.80
	I									26.60

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	27.20	34.55	49.30	65.15	76.55	87.00	103.90	127.75	137.20
	H		7.35	22.10	37.95	49.35	59.80	76.70	100.55	110.00
	G			14.75	30.60	42.00	52.45	69.35	93.20	102.65
I-405 South	F				15.85	27.25	37.70	54.60	78.45	87.90
	E					11.40	21.85	38.75	62.60	72.05
	D						10.45	27.35	51.20	60.65
SR 167	C							16.90	40.75	50.20
	B								23.85	33.30
	A									9.45

Table A-7-8
Toll Charge Matrix PM3 (5:30 pm - 6:30 pm)
Study Option 2 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.35	2.20	4.00	7.05	10.85	14.05	18.65	21.65	26.95
	B		1.85	3.65	6.70	10.50	13.70	18.30	21.30	26.60
	C			1.80	4.85	8.65	11.85	16.45	19.45	24.75
I-405 South	D				3.05	6.85	10.05	14.65	17.65	22.95
	E					3.80	7.00	11.60	14.60	19.90
	F						3.20	7.80	10.80	16.10
I-405 North	G							4.60	7.60	12.90
	H								3.00	8.30
	I									5.30

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	3.05	4.40	7.05	8.45	9.60	10.55	11.60	13.20	14.05
	H		1.35	4.00	5.40	6.55	7.50	8.55	10.15	11.00
	G			2.65	4.05	5.20	6.15	7.20	8.80	9.65
I-405 South	F				1.40	2.55	3.50	4.55	6.15	7.00
	E					1.15	2.10	3.15	4.75	5.60
	D						0.95	2.00	3.60	4.45
SR 167	C							1.05	2.65	3.50
	B								1.60	2.45
	A									0.85

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.90	5.65	10.60	16.70	24.70	33.65	41.80	47.20	59.75
	B		4.75	9.70	15.80	23.80	32.75	40.90	46.30	58.85
	C			4.95	11.05	19.05	28.00	36.15	41.55	54.10
I-405 South	D				6.10	14.10	23.05	31.20	36.60	49.15
	E					8.00	16.95	25.10	30.50	43.05
	F						8.95	17.10	22.50	35.05
I-405 North	G							8.15	13.55	26.10
	H								5.40	17.95
	I									12.55

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	11.20	15.40	23.65	28.95	33.30	38.80	43.50	52.50	54.65
	H		4.20	12.45	17.75	22.10	27.60	32.30	41.30	43.45
	G			8.25	13.55	17.90	23.40	28.10	37.10	39.25
I-405 South	F				5.30	9.65	15.15	19.85	28.85	31.00
	E					4.35	9.85	14.55	23.55	25.70
	D						5.50	10.20	19.20	21.35
SR 167	C							4.70	13.70	15.85
	B								9.00	11.15
	A									2.15

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.75	8.65	16.45	25.40	35.30	47.25	60.50	69.05	94.15
	B		6.90	14.70	23.65	33.55	45.50	58.75	67.30	92.40
	C			7.80	16.75	26.65	38.60	51.85	60.40	85.50
I-405 South	D				8.95	18.85	30.80	44.05	52.60	77.70
	E					9.90	21.85	35.10	43.65	68.75
	F						11.95	25.20	33.75	58.85
I-405 North	G							13.25	21.80	46.90
	H								8.55	33.65
	I									25.10

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	26.20	33.10	46.40	59.05	68.55	78.05	88.70	109.10	118.15
	H		6.90	20.20	32.85	42.35	51.85	62.50	82.90	91.95
	G			13.30	25.95	35.45	44.95	55.60	76.00	85.05
I-405 South	F				12.65	22.15	31.65	42.30	62.70	71.75
	E					9.50	19.00	29.65	50.05	59.10
	D						9.50	20.15	40.55	49.60
SR 167	C							10.65	31.05	40.10
	B								20.40	29.45
	A									9.05

Table A-7-9
Toll Charge Matrix PM4 (6:30 pm - 7:00 pm)
Study Option 2 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55	1.50	2.85	4.45	8.55	11.25	16.20
	B		0.25	0.50	1.45	2.80	4.40	8.50	11.20	16.15
	C			0.25	1.20	2.55	4.15	8.25	10.95	15.90
I-405 South	D				0.95	2.30	3.90	8.00	10.70	15.65
	E					1.35	2.95	7.05	9.75	14.70
	F						1.60	5.70	8.40	13.35
I-405 North	G							4.10	6.80	11.75
	H								2.70	7.65
	I									4.95

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.70	1.15	1.75	2.20	2.60	2.80	3.05	3.30	3.50
	H		0.45	1.05	1.50	1.90	2.10	2.35	2.60	2.80
	G			0.60	1.05	1.45	1.65	1.90	2.15	2.35
I-405 South	F				0.45	0.85	1.05	1.30	1.55	1.75
	E					0.40	0.60	0.85	1.10	1.30
	D						0.20	0.45	0.70	0.90
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.50	2.90	5.25	10.95	17.80	25.15	32.80	37.75	46.50
	B		2.40	4.75	10.45	17.30	24.65	32.30	37.25	46.00
	C			2.35	8.05	14.90	22.25	29.90	34.85	43.60
I-405 South	D				5.70	12.55	19.90	27.55	32.50	41.25
	E					6.85	14.20	21.85	26.80	35.55
	F						7.35	15.00	19.95	28.70
I-405 North	G							7.65	12.60	21.35
	H								4.95	13.70
	I									8.75

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	6.45	8.55	12.70	16.40	19.80	22.25	24.35	26.45	27.75
	H		2.10	6.25	9.95	13.35	15.80	17.90	20.00	21.30
	G			4.15	7.85	11.25	13.70	15.80	17.90	19.20
I-405 South	F				3.70	7.10	9.55	11.65	13.75	15.05
	E					3.40	5.85	7.95	10.05	11.35
	D						2.45	4.55	6.65	7.95
SR 167	C							2.10	4.20	5.50
	B								2.10	3.40
	A									1.30

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.60	3.50	7.65	15.65	24.00	33.65	45.90	53.40	72.40
	B		2.90	7.05	15.05	23.40	33.05	45.30	52.80	71.80
	C			4.15	12.15	20.50	30.15	42.40	49.90	68.90
I-405 South	D				8.00	16.35	26.00	38.25	45.75	64.75
	E					8.35	18.00	30.25	37.75	56.75
	F						9.65	21.90	29.40	48.40
I-405 North	G							12.25	19.75	38.75
	H								7.50	26.50
	I									19.00

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	15.30	20.55	30.90	38.95	45.60	54.15	59.60	69.65	73.10
	H		5.25	15.60	23.65	30.30	38.85	44.30	54.35	57.80
	G			10.35	18.40	25.05	33.60	39.05	49.10	52.55
I-405 South	F				8.05	14.70	23.25	28.70	38.75	42.20
	E					6.65	15.20	20.65	30.70	34.15
	D						8.55	14.00	24.05	27.50
SR 167	C							5.45	15.50	18.95
	B								10.05	13.50
	A									3.45

Table A-7-10
Toll Charge Matrix PM5 (7:00 pm - 7:30 pm)
Study Option 2 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55	1.10	2.05	3.45	6.75	8.70	12.50
	B		0.25	0.50	1.05	2.00	3.40	6.70	8.65	12.45
	C			0.25	0.80	1.75	3.15	6.45	8.40	12.20
I-405 South	D				0.55	1.50	2.90	6.20	8.15	11.95
	E					0.95	2.35	5.65	7.60	11.40
	F						1.40	4.70	6.65	10.45
I-405 North	G							3.30	5.25	9.05
	H								1.95	5.75
	I									3.80

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.65	1.25	1.70	2.10	2.30	2.55	2.80	3.00
	H		0.30	0.90	1.35	1.75	1.95	2.20	2.45	2.65
	G			0.60	1.05	1.45	1.65	1.90	2.15	2.35
I-405 South	F				0.45	0.85	1.05	1.30	1.55	1.75
	E					0.40	0.60	0.85	1.10	1.30
	D						0.20	0.45	0.70	0.90
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55	3.80	8.75	13.80	19.90	23.50	31.50
	B		0.25	0.50	3.75	8.70	13.75	19.85	23.45	31.45
	C			0.25	3.50	8.45	13.50	19.60	23.20	31.20
I-405 South	D				3.25	8.20	13.25	19.35	22.95	30.95
	E					4.95	10.00	16.10	19.70	27.70
	F						5.05	11.15	14.75	22.75
I-405 North	G							6.10	9.70	17.70
	H								3.60	11.60
	I									8.00

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	2.05	2.80	4.30	7.50	10.55	12.85	14.65	16.50	17.35
	H		0.75	2.25	5.45	8.50	10.80	12.60	14.45	15.30
	G			1.50	4.70	7.75	10.05	11.85	13.70	14.55
I-405 South	F				3.20	6.25	8.55	10.35	12.20	13.05
	E					3.05	5.35	7.15	9.00	9.85
	D						2.30	4.10	5.95	6.80
SR 167	C							1.80	3.65	4.50
	B								1.85	2.70
	A									0.85

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55	7.20	14.25	22.30	32.75	39.20	54.40
	B		0.25	0.50	7.15	14.20	22.25	32.70	39.15	54.35
	C			0.25	6.90	13.95	22.00	32.45	38.90	54.10
I-405 South	D				6.65	13.70	21.75	32.20	38.65	53.85
	E					7.05	15.10	25.55	32.00	47.20
	F						8.05	18.50	24.95	40.15
I-405 North	G							10.45	16.90	32.10
	H								6.45	21.65
	I									15.20

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	11.20	14.65	20.85	27.05	33.70	40.35	45.55	55.10	58.30
	H		3.45	9.65	15.85	22.50	29.15	34.35	43.90	47.10
	G			6.20	12.40	19.05	25.70	30.90	40.45	43.65
I-405 South	F				6.20	12.85	19.50	24.70	34.25	37.45
	E					6.65	13.30	18.50	28.05	31.25
	D						6.65	11.85	21.40	24.60
SR 167	C							5.20	14.75	17.95
	B								9.55	12.75
	A									3.20

Table A-7-11
Toll Charge Matrix PM6 (7:30 am - 8:00 pm)
Study Option 2 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55	0.95	1.35	1.80	3.10	3.85	5.00
	B		0.25	0.50	0.90	1.30	1.75	3.05	3.80	4.95
	C			0.25	0.65	1.05	1.50	2.80	3.55	4.70
I-405 South	D				0.40	0.80	1.25	2.55	3.30	4.45
	E					0.40	0.85	2.15	2.90	4.05
	F						0.45	1.75	2.50	3.65
I-405 North	G							1.30	2.05	3.20
	H								0.75	1.90
	I									1.15

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80	1.05	1.45	1.65	1.90	2.15	2.35
	H		0.15	0.45	0.70	1.10	1.30	1.55	1.80	2.00
	G			0.30	0.55	0.95	1.15	1.40	1.65	1.85
I-405 South	F				0.25	0.65	0.85	1.10	1.35	1.55
	E					0.40	0.60	0.85	1.10	1.30
	D						0.20	0.45	0.70	0.90
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55	1.70	2.85	4.25	8.35	10.90	15.10
	B		0.25	0.50	1.65	2.80	4.20	8.30	10.85	15.05
	C			0.25	1.40	2.55	3.95	8.05	10.60	14.80
I-405 South	D				1.15	2.30	3.70	7.80	10.35	14.55
	E					1.15	2.55	6.65	9.20	13.40
	F						1.40	5.50	8.05	12.25
I-405 North	G							4.10	6.65	10.85
	H								2.55	6.75
	I									4.20

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	1.35	1.65	2.25	4.30	6.40	8.10	8.35	8.90	9.10
	H		0.30	0.90	2.95	5.05	6.75	7.00	7.55	7.75
	G			0.60	2.65	4.75	6.45	6.70	7.25	7.45
I-405 South	F				2.05	4.15	5.85	6.10	6.65	6.85
	E					2.10	3.80	4.05	4.60	4.80
	D						1.70	1.95	2.50	2.70
SR 167	C							0.25	0.80	1.00
	B								0.55	0.75
	A									0.20

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55	3.60	7.80	11.50	17.60	21.95	31.05
	B		0.25	0.50	3.55	7.75	11.45	17.55	21.90	31.00
	C			0.25	3.30	7.50	11.20	17.30	21.65	30.75
I-405 South	D				3.05	7.25	10.95	17.05	21.40	30.50
	E					4.20	7.90	14.00	18.35	27.45
	F						3.70	9.80	14.15	23.25
I-405 North	G							6.10	10.45	19.55
	H								4.35	13.45
	I									9.10

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	8.15	10.25	14.10	18.70	24.80	30.50	32.30	35.20	37.15
	H		2.10	5.95	10.55	16.65	22.35	24.15	27.05	29.00
	G			3.85	8.45	14.55	20.25	22.05	24.95	26.90
I-405 South	F				4.60	10.70	16.40	18.20	21.10	23.05
	E					6.10	11.80	13.60	16.50	18.45
	D						5.70	7.50	10.40	12.35
SR 167	C							1.80	4.70	6.65
	B								2.90	4.85
	A									1.95

Table A-8-1

Toll Charge Matrix AM0 (5:00 am - 5:30 am)

Study Option 3 - HOV 3+, no toll cap

All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.45	8.35	14.05	15.00	15.55	16.25	16.50	16.65	17.05
	B		6.90	12.60	13.55	14.10	14.80	15.05	15.20	15.60
	C			5.70	6.65	7.20	7.90	8.15	8.30	8.70
I-405 South	D				0.95	1.50	2.20	2.45	2.60	3.00
	E					0.55	1.25	1.50	1.65	2.05
	F						0.70	0.95	1.10	1.50
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80	1.05	1.25	1.45	1.70	1.95	2.15
	H		0.15	0.45	0.70	0.90	1.10	1.35	1.60	1.80
	G			0.30	0.55	0.75	0.95	1.20	1.45	1.65
I-405 South	F				0.25	0.45	0.65	0.90	1.15	1.35
	E					0.20	0.40	0.65	0.90	1.10
	D						0.20	0.45	0.70	0.90
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.30	6.60	11.80	15.60	19.95	23.15	23.90	24.20	24.95
	B		5.30	10.50	14.30	18.65	21.85	22.60	22.90	23.65
	C			5.20	9.00	13.35	16.55	17.30	17.60	18.35
I-405 South	D				3.80	8.15	11.35	12.10	12.40	13.15
	E					4.35	7.55	8.30	8.60	9.35
	F						3.20	3.95	4.25	5.00
I-405 North	G							0.75	1.05	1.80
	H								0.30	1.05
	I									0.75

2035 Southbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	4.10	6.65	12.25	15.00	16.50	16.90	17.15	17.40	17.60
	H		2.55	8.15	10.90	12.40	12.80	13.05	13.30	13.50
	G			5.60	8.35	9.85	10.25	10.50	10.75	10.95
I-405 South	F				2.75	4.25	4.65	4.90	5.15	5.35
	E					1.50	1.90	2.15	2.40	2.60
	D						0.40	0.65	0.90	1.10
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2045 Northbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.85	23.50	35.45	43.80	51.20	60.15	61.15	61.75	63.25
	B		20.65	32.60	40.95	48.35	57.30	58.30	58.90	60.40
	C			11.95	20.30	27.70	36.65	37.65	38.25	39.75
I-405 South	D				8.35	15.75	24.70	25.70	26.30	27.80
	E					7.40	16.35	17.35	17.95	19.45
	F						8.95	9.95	10.55	12.05
I-405 North	G							1.00	1.60	3.10
	H								0.60	2.10
	I									1.50

2045 Southbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	9.50	14.45	24.80	29.40	31.30	32.45	32.70	32.95	33.15
	H		4.95	15.30	19.90	21.80	22.95	23.20	23.45	23.65
	G			10.35	14.95	16.85	18.00	18.25	18.50	18.70
I-405 South	F				4.60	6.50	7.65	7.90	8.15	8.35
	E					1.90	3.05	3.30	3.55	3.75
	D						1.15	1.40	1.65	1.85
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Table A-8-2
Toll Charge Matrix AM1 (5:30 am - 5:30 am)
Study Option 3 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.55	8.95	15.20	18.25	20.55	23.30	23.80	24.10	24.85
	B		7.40	13.65	16.70	19.00	21.75	22.25	22.55	23.30
	C			6.25	9.30	11.60	14.35	14.85	15.15	15.90
I-405 South	D				3.05	5.35	8.10	8.60	8.90	9.65
	E					2.30	5.05	5.55	5.85	6.60
	F						2.75	3.25	3.55	4.30
I-405 North	G							0.50	0.80	1.55
	H								0.30	1.05
	I									0.75

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	4.75	7.15	11.85	13.45	14.95	16.10	16.60	17.15	17.60
	H		2.40	7.10	8.70	10.20	11.35	11.85	12.40	12.85
	G			4.70	6.30	7.80	8.95	9.45	10.00	10.45
I-405 South	F				1.60	3.10	4.25	4.75	5.30	5.75
	E					1.50	2.65	3.15	3.70	4.15
	D						1.15	1.65	2.20	2.65
SR 167	C							0.50	1.05	1.50
	B								0.55	1.00
	A									0.45

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.35	12.40	21.50	29.10	35.95	42.60	43.90	44.50	46.00
	B		10.05	19.15	26.75	33.60	40.25	41.55	42.15	43.65
	C			9.10	16.70	23.55	30.20	31.50	32.10	33.60
I-405 South	D				7.60	14.45	21.10	22.40	23.00	24.50
	E					6.85	13.50	14.80	15.40	16.90
	F						6.65	7.95	8.55	10.05
I-405 North	G							1.30	1.90	3.40
	H								0.60	2.10
	I									1.50

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	10.55	15.35	25.10	31.10	36.05	40.60	41.10	41.90	42.35
	H		4.80	14.55	20.55	25.50	30.05	30.55	31.35	31.80
	G			9.75	15.75	20.70	25.25	25.75	26.55	27.00
I-405 South	F				6.00	10.95	15.50	16.00	16.80	17.25
	E					4.95	9.50	10.00	10.80	11.25
	D						4.55	5.05	5.85	6.30
SR 167	C							0.50	1.30	1.75
	B								0.80	1.25
	A									0.45

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	3.45	28.35	45.00	53.55	63.05	73.40	75.45	76.65	79.70
	B		24.90	41.55	50.10	59.60	69.95	72.00	73.20	76.25
	C			16.65	25.20	34.70	45.05	47.10	48.30	51.35
I-405 South	D				8.55	18.05	28.40	30.45	31.65	34.70
	E					9.50	19.85	21.90	23.10	26.15
	F						10.35	12.40	13.60	16.65
I-405 North	G							2.05	3.25	6.30
	H								1.20	4.25
	I									3.05

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	16.30	24.40	37.10	45.85	52.10	58.75	59.55	60.60	61.25
	H		8.10	20.80	29.55	35.80	42.45	43.25	44.30	44.95
	G			12.70	21.45	27.70	34.35	35.15	36.20	36.85
I-405 South	F				8.75	15.00	21.65	22.45	23.50	24.15
	E					6.25	12.90	13.70	14.75	15.40
	D						6.65	7.45	8.50	9.15
SR 167	C							0.80	1.85	2.50
	B								1.05	1.70
	A									0.65

Table A-8-3
Toll Charge Matrix AM2 (6:30 am - 8:30 am)
Study Option 3 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.65	9.60	16.10	19.35	21.80	24.80	25.80	26.40	27.90
	B		7.95	14.45	17.70	20.15	23.15	24.15	24.75	26.25
	C			6.50	9.75	12.20	15.20	16.20	16.80	18.30
I-405 South	D				3.25	5.70	8.70	9.70	10.30	11.80
	E					2.45	5.45	6.45	7.05	8.55
	F						3.00	4.00	4.60	6.10
I-405 North	G							1.00	1.60	3.10
	H								0.60	2.10
	I									1.50

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	7.15	10.45	16.95	20.65	23.30	25.20	26.00	26.80	27.45
	H		3.30	9.80	13.50	16.15	18.05	18.85	19.65	20.30
	G			6.50	10.20	12.85	14.75	15.55	16.35	17.00
I-405 South	F				3.70	6.35	8.25	9.05	9.85	10.50
	E					2.65	4.55	5.35	6.15	6.80
	D						1.90	2.70	3.50	4.15
SR 167	C							0.80	1.60	2.25
	B								0.80	1.45
	A									0.65

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.75	13.10	22.20	30.35	37.55	44.45	46.50	47.85	50.90
	B		10.35	19.45	27.60	34.80	41.70	43.75	45.10	48.15
	C			9.10	17.25	24.45	31.35	33.40	34.75	37.80
I-405 South	D				8.15	15.35	22.25	24.30	25.65	28.70
	E					7.20	14.10	16.15	17.50	20.55
	F						6.90	8.95	10.30	13.35
I-405 North	G							2.05	3.40	6.45
	H								1.35	4.40
	I									3.05

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	10.90	16.30	26.90	33.80	38.95	45.05	46.10	47.15	47.80
	H		5.40	16.00	22.90	28.05	34.15	35.20	36.25	36.90
	G			10.60	17.50	22.65	28.75	29.80	30.85	31.50
I-405 South	F				6.90	12.05	18.15	19.20	20.25	20.90
	E					5.15	11.25	12.30	13.35	14.00
	D						6.10	7.15	8.20	8.85
SR 167	C							1.05	2.10	2.75
	B								1.05	1.70
	A									0.65

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	3.50	29.75	46.90	55.65	66.65	83.00	87.10	89.50	95.20
	B		26.25	43.40	52.15	63.15	79.50	83.60	86.00	91.70
	C			17.15	25.90	36.90	53.25	57.35	59.75	65.45
I-405 South	D				8.75	19.75	36.10	40.20	42.60	48.30
	E					11.00	27.35	31.45	33.85	39.55
	F						16.35	20.45	22.85	28.55
I-405 North	G							4.10	6.50	12.20
	H								2.40	8.10
	I									5.70

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	20.05	29.05	42.90	52.80	59.45	66.30	67.60	68.95	70.05
	H		9.00	22.85	32.75	39.40	46.25	47.55	48.90	50.00
	G			13.85	23.75	30.40	37.25	38.55	39.90	41.00
I-405 South	F				9.90	16.55	23.40	24.70	26.05	27.15
	E					6.65	13.50	14.80	16.15	17.25
	D						6.85	8.15	9.50	10.60
SR 167	C							1.30	2.65	3.75
	B								1.35	2.45
	A									1.10

Table A-8-4
Toll Charge Matrix AM3 (8:30 am - 9:30 am)
Study Option 3 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.50	7.85	12.55	15.00	16.90	18.95	19.45	19.75	20.50
	B		6.35	11.05	13.50	15.40	17.45	17.95	18.25	19.00
	C			4.70	7.15	9.05	11.10	11.60	11.90	12.65
I-405 South	D				2.45	4.35	6.40	6.90	7.20	7.95
	E					1.90	3.95	4.45	4.75	5.50
	F						2.05	2.55	2.85	3.60
I-405 North	G							0.50	0.80	1.55
	H								0.30	1.05
	I									0.75

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	5.80	8.65	13.65	16.40	18.50	20.20	20.45	20.70	20.90
	H		2.85	7.85	10.60	12.70	14.40	14.65	14.90	15.10
	G			5.00	7.75	9.85	11.55	11.80	12.05	12.25
I-405 South	F				2.75	4.85	6.55	6.80	7.05	7.25
	E					2.10	3.80	4.05	4.30	4.50
	D						1.70	1.95	2.20	2.40
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.15	10.35	16.60	24.75	31.20	36.95	38.75	39.95	42.60
	B		8.20	14.45	22.60	29.05	34.80	36.60	37.80	40.45
	C			6.25	14.40	20.85	26.60	28.40	29.60	32.25
I-405 South	D				8.15	14.60	20.35	22.15	23.35	26.00
	E					6.45	12.20	14.00	15.20	17.85
	F						5.75	7.55	8.75	11.40
I-405 North	G							1.80	3.00	5.65
	H								1.20	3.85
	I									2.65

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	10.55	15.65	24.20	30.65	35.95	40.50	41.30	42.10	42.55
	H		5.10	13.65	20.10	25.40	29.95	30.75	31.55	32.00
	G			8.55	15.00	20.30	24.85	25.65	26.45	26.90
I-405 South	F				6.45	11.75	16.30	17.10	17.90	18.35
	E					5.30	9.85	10.65	11.45	11.90
	D						4.55	5.35	6.15	6.60
SR 167	C							0.80	1.60	2.05
	B								0.80	1.25
	A									0.45

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	3.40	26.70	40.50	48.50	58.20	71.30	74.35	76.15	80.35
	B		23.30	37.10	45.10	54.80	67.90	70.95	72.75	76.95
	C			13.80	21.80	31.50	44.60	47.65	49.45	53.65
I-405 South	D				8.00	17.70	30.80	33.85	35.65	39.85
	E					9.70	22.80	25.85	27.65	31.85
	F						13.10	16.15	17.95	22.15
I-405 North	G							3.05	4.85	9.05
	H								1.80	6.00
	I									4.20

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	18.00	26.40	39.10	48.30	54.55	61.00	61.80	62.60	63.25
	H		8.40	21.10	30.30	36.55	43.00	43.80	44.60	45.25
	G			12.70	21.90	28.15	34.60	35.40	36.20	36.85
I-405 South	F				9.20	15.45	21.90	22.70	23.50	24.15
	E					6.25	12.70	13.50	14.30	14.95
	D						6.45	7.25	8.05	8.70
SR 167	C							0.80	1.60	2.25
	B								0.80	1.45
	A									0.65

Table A-8-5
Toll Charge Matrix MD (9:30 am - 2:30 pm)
Study Option 3 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.35	1.95	2.75	3.15	3.55	3.80	4.05	4.20	4.60
	B		1.60	2.40	2.80	3.20	3.45	3.70	3.85	4.25
	C			0.80	1.20	1.60	1.85	2.10	2.25	2.65
I-405 South	D				0.40	0.80	1.05	1.30	1.45	1.85
	E					0.40	0.65	0.90	1.05	1.45
	F						0.25	0.50	0.65	1.05
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.70	1.15	2.05	2.30	2.50	2.70	2.95	3.20	3.40
	H		0.45	1.35	1.60	1.80	2.00	2.25	2.50	2.70
	G			0.90	1.15	1.35	1.55	1.80	2.05	2.25
I-405 South	F				0.25	0.45	0.65	0.90	1.15	1.35
	E					0.20	0.40	0.65	0.90	1.10
	D						0.20	0.45	0.70	0.90
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.20	1.25	2.30	7.25	13.35	18.40	19.95	21.00	23.30
	B		1.05	2.10	7.05	13.15	18.20	19.75	20.80	23.10
	C			1.05	6.00	12.10	17.15	18.70	19.75	22.05
I-405 South	D				4.95	11.05	16.10	17.65	18.70	21.00
	E					6.10	11.15	12.70	13.75	16.05
	F						5.05	6.60	7.65	9.95
I-405 North	G							1.55	2.60	4.90
	H								1.05	3.35
	I									2.30

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	10.20	14.70	22.95	28.00	30.65	32.15	32.40	32.65	32.85
	H		4.50	12.75	17.80	20.45	21.95	22.20	22.45	22.65
	G			8.25	13.30	15.95	17.45	17.70	17.95	18.15
I-405 South	F				5.05	7.70	9.20	9.45	9.70	9.90
	E					2.65	4.15	4.40	4.65	4.85
	D						1.50	1.75	2.00	2.20
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.20	12.80	21.65	29.25	36.30	43.90	45.95	47.15	50.20
	B		10.60	19.45	27.05	34.10	41.70	43.75	44.95	48.00
	C			8.85	16.45	23.50	31.10	33.15	34.35	37.40
I-405 South	D				7.60	14.65	22.25	24.30	25.50	28.55
	E					7.05	14.65	16.70	17.90	20.95
	F						7.60	9.65	10.85	13.90
I-405 North	G							2.05	3.25	6.30
	H								1.20	4.25
	I									3.05

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	14.95	21.70	33.50	42.25	48.15	54.05	55.10	55.90	56.35
	H		6.75	18.55	27.30	33.20	39.10	40.15	40.95	41.40
	G			11.80	20.55	26.45	32.35	33.40	34.20	34.65
I-405 South	F				8.75	14.65	20.55	21.60	22.40	22.85
	E					5.90	11.80	12.85	13.65	14.10
	D						5.90	6.95	7.75	8.20
SR 167	C							1.05	1.85	2.30
	B								0.80	1.25
	A									0.45

Table A-8-6
Toll Charge Matrix PM1 (2:30 pm - 3:30 pm)
Study Option 3 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.20	1.25	2.55	4.45	7.10	9.85	13.40	15.50	20.45
	B		1.05	2.35	4.25	6.90	9.65	13.20	15.30	20.25
	C			1.30	3.20	5.85	8.60	12.15	14.25	19.20
I-405 South	D				1.90	4.55	7.30	10.85	12.95	17.90
	E					2.65	5.40	8.95	11.05	16.00
	F						2.75	6.30	8.40	13.35
I-405 North	G							3.55	5.65	10.60
	H								2.10	7.05
	I									4.95

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	3.40	4.75	7.70	9.30	10.45	11.80	14.65	17.30	18.60
	H		1.35	4.30	5.90	7.05	8.40	11.25	13.90	15.20
	G			2.95	4.55	5.70	7.05	9.90	12.55	13.85
I-405 South	F				1.60	2.75	4.10	6.95	9.60	10.90
	E					1.15	2.50	5.35	8.00	9.30
	D						1.35	4.20	6.85	8.15
SR 167	C							2.85	5.50	6.80
	B								2.65	3.95
	A									1.30

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.00	5.50	9.90	16.00	22.45	30.05	38.70	43.35	52.45
	B		4.50	8.90	15.00	21.45	29.05	37.70	42.35	51.45
	C			4.40	10.50	16.95	24.55	33.20	37.85	46.95
I-405 South	D				6.10	12.55	20.15	28.80	33.45	42.55
	E					6.45	14.05	22.70	27.35	36.45
	F						7.60	16.25	20.90	30.00
I-405 North	G							8.65	13.30	22.40
	H								4.65	13.75
	I									9.10

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	8.50	11.95	18.75	24.75	29.50	34.05	40.55	48.25	51.25
	H		3.45	10.25	16.25	21.00	25.55	32.05	39.75	42.75
	G			6.80	12.80	17.55	22.10	28.60	36.30	39.30
I-405 South	F				6.00	10.75	15.30	21.80	29.50	32.50
	E					4.75	9.30	15.80	23.50	26.50
	D						4.55	11.05	18.75	21.75
SR 167	C							6.50	14.20	17.20
	B								7.70	10.70
	A									3.00

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.35	12.20	18.45	27.20	36.30	47.35	60.10	67.60	82.80
	B		10.85	17.10	25.85	34.95	46.00	58.75	66.25	81.45
	C			6.25	15.00	24.10	35.15	47.90	55.40	70.60
I-405 South	D				8.75	17.85	28.90	41.65	49.15	64.35
	E					9.10	20.15	32.90	40.40	55.60
	F						11.05	23.80	31.30	46.50
I-405 North	G							12.75	20.25	35.45
	H								7.50	22.70
	I									15.20

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	25.50	31.50	45.65	57.85	67.35	75.90	86.30	107.75	114.85
	H		6.00	20.15	32.35	41.85	50.40	60.80	82.25	89.35
	G			14.15	26.35	35.85	44.40	54.80	76.25	83.35
I-405 South	F				12.20	21.70	30.25	40.65	62.10	69.20
	E					9.50	18.05	28.45	49.90	57.00
	D						8.55	18.95	40.40	47.50
SR 167	C							10.40	31.85	38.95
	B								21.45	28.55
	A									7.10

Table A-8-7
Toll Charge Matrix PM2 (3:30 pm - 5:30 pm)
Study Option 3 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.40	2.00	3.80	6.85	10.45	14.60	19.95	23.40	31.75
	B		1.60	3.40	6.45	10.05	14.20	19.55	23.00	31.35
	C			1.80	4.85	8.45	12.60	17.95	21.40	29.75
I-405 South	D				3.05	6.65	10.80	16.15	19.60	27.95
	E					3.60	7.75	13.10	16.55	24.90
	F						4.15	9.50	12.95	21.30
I-405 North	G							5.35	8.80	17.15
	H								3.45	11.80
	I									8.35

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	5.10	7.35	11.50	14.25	16.55	18.85	22.25	25.70	27.20
	H		2.25	6.40	9.15	11.45	13.75	17.15	20.60	22.10
	G			4.15	6.90	9.20	11.50	14.90	18.35	19.85
I-405 South	F				2.75	5.05	7.35	10.75	14.20	15.70
	E					2.30	4.60	8.00	11.45	12.95
	D						2.30	5.70	9.15	10.65
SR 167	C							3.40	6.85	8.35
	B								3.45	4.95
	A									1.50

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.25	10.25	15.95	22.40	29.80	39.70	49.90	56.20	74.45
	B		9.00	14.70	21.15	28.55	38.45	48.65	54.95	73.20
	C			5.70	12.15	19.55	29.45	39.65	45.95	64.20
I-405 South	D				6.45	13.85	23.75	33.95	40.25	58.50
	E					7.40	17.30	27.50	33.80	52.05
	F						9.90	20.10	26.40	44.65
I-405 North	G							10.20	16.50	34.75
	H								6.30	24.55
	I									18.25

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	9.85	14.50	23.65	31.45	38.30	44.00	50.75	62.40	67.15
	H		4.65	13.80	21.60	28.45	34.15	40.90	52.55	57.30
	G			9.15	16.95	23.80	29.50	36.25	47.90	52.65
I-405 South	F				7.80	14.65	20.35	27.10	38.75	43.50
	E					6.85	12.55	19.30	30.95	35.70
	D						5.70	12.45	24.10	28.85
SR 167	C							6.75	18.40	23.15
	B								11.65	16.40
	A									4.75

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.80	17.15	25.45	35.70	46.15	59.05	71.80	82.00	110.50
	B		15.35	23.65	33.90	44.35	57.25	70.00	80.20	108.70
	C			8.30	18.55	29.00	41.90	54.65	64.85	93.35
I-405 South	D				10.25	20.70	33.60	46.35	56.55	85.05
	E					10.45	23.35	36.10	46.30	74.80
	F						12.90	25.65	35.85	64.35
I-405 North	G							12.75	22.95	51.45
	H								10.20	38.70
	I									28.50

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	31.30	41.05	55.50	70.20	80.65	90.70	102.65	126.50	135.10
	H		9.75	24.20	38.90	49.35	59.40	71.35	95.20	103.80
	G			14.45	29.15	39.60	49.65	61.60	85.45	94.05
I-405 South	F				14.70	25.15	35.20	47.15	71.00	79.60
	E					10.45	20.50	32.45	56.30	64.90
	D						10.05	22.00	45.85	54.45
SR 167	C							11.95	35.80	44.40
	B								23.85	32.45
	A									8.60

Table A-8-8
Toll Charge Matrix PM3 (5:30 pm - 6:30 pm)
Study Option 3 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.20	0.75	1.80	5.05	8.45	12.35	17.20	20.20	26.65
	B		0.55	1.60	4.85	8.25	12.15	17.00	20.00	26.45
	C			1.05	4.30	7.70	11.60	16.45	19.45	25.90
I-405 South	D				3.25	6.65	10.55	15.40	18.40	24.85
	E					3.40	7.30	12.15	15.15	21.60
	F						3.90	8.75	11.75	18.20
I-405 North	G							4.85	7.85	14.30
	H								3.00	9.45
	I									6.45

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	4.75	6.85	10.70	12.75	14.45	15.95	17.50	19.10	20.40
	H		2.10	5.95	8.00	9.70	11.20	12.75	14.35	15.65
	G			3.85	5.90	7.60	9.10	10.65	12.25	13.55
I-405 South	F				2.05	3.75	5.25	6.80	8.40	9.70
	E					1.70	3.20	4.75	6.35	7.65
	D						1.50	3.05	4.65	5.95
SR 167	C							1.55	3.15	4.45
	B								1.60	2.90
	A									1.30

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.00	4.70	9.10	15.55	22.95	32.60	41.50	47.50	60.05
	B		3.70	8.10	14.55	21.95	31.60	40.50	46.50	59.05
	C			4.40	10.85	18.25	27.90	36.80	42.80	55.35
I-405 South	D				6.45	13.85	23.50	32.40	38.40	50.95
	E					7.40	17.05	25.95	31.95	44.50
	F						9.65	18.55	24.55	37.10
I-405 North	G							8.90	14.90	27.45
	H								6.00	18.55
	I									12.55

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	10.20	14.40	22.95	28.70	33.45	38.20	43.40	49.25	51.20
	H		4.20	12.75	18.50	23.25	28.00	33.20	39.05	41.00
	G			8.55	14.30	19.05	23.80	29.00	34.85	36.80
I-405 South	F				5.75	10.50	15.25	20.45	26.30	28.25
	E					4.75	9.50	14.70	20.55	22.50
	D						4.75	9.95	15.80	17.75
SR 167	C							5.20	11.05	13.00
	B								5.85	7.80
	A									1.95

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.35	6.65	13.15	23.40	33.65	46.30	57.75	66.75	90.70
	B		5.30	11.80	22.05	32.30	44.95	56.40	65.40	89.35
	C			6.50	16.75	27.00	39.65	51.10	60.10	84.05
I-405 South	D				10.25	20.50	33.15	44.60	53.60	77.55
	E					10.25	22.90	34.35	43.35	67.30
	F						12.65	24.10	33.10	57.05
I-405 North	G							11.45	20.45	44.40
	H								9.00	32.95
	I									23.95

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	29.25	37.65	50.95	63.60	73.10	81.45	90.55	109.10	116.00
	H		8.40	21.70	34.35	43.85	52.20	61.30	79.85	86.75
	G			13.30	25.95	35.45	43.80	52.90	71.45	78.35
I-405 South	F				12.65	22.15	30.50	39.60	58.15	65.05
	E					9.50	17.85	26.95	45.50	52.40
	D						8.35	17.45	36.00	42.90
SR 167	C							9.10	27.65	34.55
	B								18.55	25.45
	A									6.90

Table A-8-9
Toll Charge Matrix PM4 (6:30 pm - 7:00 pm)
Study Option 3 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55	1.70	2.85	4.45	8.00	10.55	17.00
	B		0.25	0.50	1.65	2.80	4.40	7.95	10.50	16.95
	C			0.25	1.40	2.55	4.15	7.70	10.25	16.70
I-405 South	D				1.15	2.30	3.90	7.45	10.00	16.45
	E					1.15	2.75	6.30	8.85	15.30
	F						1.60	5.15	7.70	14.15
I-405 North	G							3.55	6.10	12.55
	H								2.55	9.00
	I									6.45

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.65	1.25	1.95	2.70	3.25	3.50	3.75	3.95
	H		0.30	0.90	1.60	2.35	2.90	3.15	3.40	3.60
	G			0.60	1.30	2.05	2.60	2.85	3.10	3.30
I-405 South	F				0.70	1.45	2.00	2.25	2.50	2.70
	E					0.75	1.30	1.55	1.80	2.00
	D						0.55	0.80	1.05	1.25
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.15	0.95	2.25	7.00	12.50	19.15	26.80	31.30	40.80
	B		0.80	2.10	6.85	12.35	19.00	26.65	31.15	40.65
	C			1.30	6.05	11.55	18.20	25.85	30.35	39.85
I-405 South	D				4.75	10.25	16.90	24.55	29.05	38.55
	E					5.50	12.15	19.80	24.30	33.80
	F						6.65	14.30	18.80	28.30
I-405 North	G							7.65	12.15	21.65
	H								4.50	14.00
	I									9.50

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	6.10	8.80	14.40	17.85	21.25	24.30	25.85	27.95	28.80
	H		2.70	8.30	11.75	15.15	18.20	19.75	21.85	22.70
	G			5.60	9.05	12.45	15.50	17.05	19.15	20.00
I-405 South	F				3.45	6.85	9.90	11.45	13.55	14.40
	E					3.40	6.45	8.00	10.10	10.95
	D						3.05	4.60	6.70	7.55
SR 167	C							1.55	3.65	4.50
	B								2.10	2.95
	A									0.85

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.50	3.40	7.30	15.45	23.80	33.90	45.10	53.35	70.45
	B		2.90	6.80	14.95	23.30	33.40	44.60	52.85	69.95
	C			3.90	12.05	20.40	30.50	41.70	49.95	67.05
I-405 South	D				8.15	16.50	26.60	37.80	46.05	63.15
	E					8.35	18.45	29.65	37.90	55.00
	F						10.10	21.30	29.55	46.65
I-405 North	G							11.20	19.45	36.55
	H								8.25	25.35
	I									17.10

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	15.30	20.55	29.40	37.00	44.20	51.05	57.05	65.80	67.50
	H		5.25	14.10	21.70	28.90	35.75	41.75	50.50	52.20
	G			8.85	16.45	23.65	30.50	36.50	45.25	46.95
I-405 South	F				7.60	14.80	21.65	27.65	36.40	38.10
	E					7.20	14.05	20.05	28.80	30.50
	D						6.85	12.85	21.60	23.30
SR 167	C							6.00	14.75	16.45
	B								8.75	10.45
	A									1.70

Table A-8-10
Toll Charge Matrix PM5 (7:00 pm - 7:30 pm)
Study Option 3 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55	1.30	2.05	3.20	6.25	8.35	12.90
	B		0.25	0.50	1.25	2.00	3.15	6.20	8.30	12.85
	C			0.25	1.00	1.75	2.90	5.95	8.05	12.60
I-405 South	D				0.75	1.50	2.65	5.70	7.80	12.35
	E					0.75	1.90	4.95	7.05	11.60
	F						1.15	4.20	6.30	10.85
I-405 North	G							3.05	5.15	9.70
	H								2.10	6.65
	I									4.55

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80	1.05	1.60	2.00	2.25	2.50	2.70
	H		0.15	0.45	0.70	1.25	1.65	1.90	2.15	2.35
	G			0.30	0.55	1.10	1.50	1.75	2.00	2.20
I-405 South	F				0.25	0.80	1.20	1.45	1.70	1.90
	E					0.55	0.95	1.20	1.45	1.65
	D						0.40	0.65	0.90	1.10
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.15	0.70	1.20	4.45	8.05	12.20	18.30	21.90	30.25
	B		0.55	1.05	4.30	7.90	12.05	18.15	21.75	30.10
	C			0.50	3.75	7.35	11.50	17.60	21.20	29.55
I-405 South	D				3.25	6.85	11.00	17.10	20.70	29.05
	E					3.60	7.75	13.85	17.45	25.80
	F						4.15	10.25	13.85	22.20
I-405 North	G							6.10	9.70	18.05
	H								3.60	11.95
	I									8.35

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	3.40	5.20	8.75	11.50	14.15	16.80	18.10	19.70	20.35
	H		1.80	5.35	8.10	10.75	13.40	14.70	16.30	16.95
	G			3.55	6.30	8.95	11.60	12.90	14.50	15.15
I-405 South	F				2.75	5.40	8.05	9.35	10.95	11.60
	E					2.65	5.30	6.60	8.20	8.85
	D						2.65	3.95	5.55	6.20
SR 167	C							1.30	2.90	3.55
	B								1.60	2.25
	A									0.65

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.20	1.00	2.80	8.10	13.60	20.05	28.45	33.85	50.20
	B		0.80	2.60	7.90	13.40	19.85	28.25	33.65	50.00
	C			1.80	7.10	12.60	19.05	27.45	32.85	49.20
I-405 South	D				5.30	10.80	17.25	25.65	31.05	47.40
	E					5.50	11.95	20.35	25.75	42.10
	F						6.45	14.85	20.25	36.60
I-405 North	G							8.40	13.80	30.15
	H								5.40	21.75
	I									16.35

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	11.20	14.95	22.35	29.70	36.15	41.45	47.15	54.55	56.90
	H		3.75	11.15	18.50	24.95	30.25	35.95	43.35	45.70
	G			7.40	14.75	21.20	26.50	32.20	39.60	41.95
I-405 South	F				7.35	13.80	19.10	24.80	32.20	34.55
	E					6.45	11.75	17.45	24.85	27.20
	D						5.30	11.00	18.40	20.75
SR 167	C							5.70	13.10	15.45
	B								7.40	9.75
	A									2.35

Table A-8-11
Toll Charge Matrix PM6 (7:30 am - 8:00 pm)
Study Option 3 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55	0.75	0.95	1.20	2.75	3.80	4.95
	B		0.25	0.50	0.70	0.90	1.15	2.70	3.75	4.90
	C			0.25	0.45	0.65	0.90	2.45	3.50	4.65
I-405 South	D				0.20	0.40	0.65	2.20	3.25	4.40
	E					0.20	0.45	2.00	3.05	4.20
	F						0.25	1.80	2.85	4.00
I-405 North	G							1.55	2.60	3.75
	H								1.05	2.20
	I									1.15

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80	1.05	1.25	1.45	1.70	1.95	2.15
	H		0.15	0.45	0.70	0.90	1.10	1.35	1.60	1.80
	G			0.30	0.55	0.75	0.95	1.20	1.45	1.65
I-405 South	F				0.25	0.45	0.65	0.90	1.15	1.35
	E					0.20	0.40	0.65	0.90	1.10
	D						0.20	0.45	0.70	0.90
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55	1.10	2.25	2.95	6.50	8.60	12.40
	B		0.25	0.50	1.05	2.20	2.90	6.45	8.55	12.35
	C			0.25	0.80	1.95	2.65	6.20	8.30	12.10
I-405 South	D				0.55	1.70	2.40	5.95	8.05	11.85
	E					1.15	1.85	5.40	7.50	11.30
	F						0.70	4.25	6.35	10.15
I-405 North	G							3.55	5.65	9.45
	H								2.10	5.90
	I									3.80

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.70	1.30	2.50	4.35	6.25	8.35	8.85	9.10	9.30
	H		0.60	1.80	3.65	5.55	7.65	8.15	8.40	8.60
	G			1.20	3.05	4.95	7.05	7.55	7.80	8.00
I-405 South	F				1.85	3.75	5.85	6.35	6.60	6.80
	E					1.90	4.00	4.50	4.75	4.95
	D						2.10	2.60	2.85	3.05
SR 167	C							0.50	0.75	0.95
	B								0.25	0.45
	A									0.20

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.80	3.10	5.55	8.55	14.40	17.85	25.05
	B		0.25	0.75	3.05	5.50	8.50	14.35	17.80	25.00
	C			0.50	2.80	5.25	8.25	14.10	17.55	24.75
I-405 South	D				2.30	4.75	7.75	13.60	17.05	24.25
	E					2.45	5.45	11.30	14.75	21.95
	F						3.00	8.85	12.30	19.50
I-405 North	G							5.85	9.30	16.50
	H								3.45	10.65
	I									7.20

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	5.45	7.55	11.10	15.70	20.65	25.80	27.90	30.00	31.30
	H		2.10	5.65	10.25	15.20	20.35	22.45	24.55	25.85
	G			3.55	8.15	13.10	18.25	20.35	22.45	23.75
I-405 South	F				4.60	9.55	14.70	16.80	18.90	20.20
	E					4.95	10.10	12.20	14.30	15.60
	D						5.15	7.25	9.35	10.65
SR 167	C							2.10	4.20	5.50
	B								2.10	3.40
	A									1.30

Table A-9-1
Toll Charge Matrix AM0 (5:00 am - 5:30 am)
Study Option 4 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	3.45	9.30	14.50	17.15	20.20	23.40	25.45	26.35	29.40
	B		5.85	11.05	13.70	16.75	19.95	22.00	22.90	25.95
	C			5.20	7.85	10.90	14.10	16.15	17.05	20.10
I-405 South	D				2.65	5.70	8.90	10.95	11.85	14.90
	E					3.05	6.25	8.30	9.20	12.25
	F						3.20	5.25	6.15	9.20
I-405 North	G							2.05	2.95	6.00
	H								0.90	3.95
	I									3.05

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80	1.50	2.45	2.85	3.10	3.35	3.55
	H		0.15	0.45	1.15	2.10	2.50	2.75	3.00	3.20
	G			0.30	1.00	1.95	2.35	2.60	2.85	3.05
I-405 South	F				0.70	1.65	2.05	2.30	2.55	2.75
	E					0.95	1.35	1.60	1.85	2.05
	D						0.40	0.65	0.90	1.10
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	6.45	15.20	23.80	28.75	31.40	36.70	40.25	42.35	47.30
	B		8.75	17.35	22.30	24.95	30.25	33.80	35.90	40.85
	C			8.60	13.55	16.20	21.50	25.05	27.15	32.10
I-405 South	D				4.95	7.60	12.90	16.45	18.55	23.50
	E					2.65	7.95	11.50	13.60	18.55
	F						5.30	8.85	10.95	15.90
I-405 North	G							3.55	5.65	10.60
	H								2.10	7.05
	I									4.95

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	6.80	10.40	17.50	21.40	24.80	28.20	30.30	32.40	34.10
	H		3.60	10.70	14.60	18.00	21.40	23.50	25.60	27.30
	G			7.10	11.00	14.40	17.80	19.90	22.00	23.70
I-405 South	F				3.90	7.30	10.70	12.80	14.90	16.60
	E					3.40	6.80	8.90	11.00	12.70
	D						3.40	5.50	7.60	9.30
SR 167	C							2.10	4.20	5.90
	B								2.10	3.80
	A									1.70

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	12.90	31.20	46.80	52.50	57.05	63.05	68.65	71.65	78.10
	B		18.30	33.90	39.60	44.15	50.15	55.75	58.75	65.20
	C			15.60	21.30	25.85	31.85	37.45	40.45	46.90
I-405 South	D				5.70	10.25	16.25	21.85	24.85	31.30
	E					4.55	10.55	16.15	19.15	25.60
	F						6.00	11.60	14.60	21.05
I-405 North	G							5.60	8.60	15.05
	H								3.00	9.45
	I									6.45

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	12.60	18.15	29.05	35.50	40.25	45.55	49.20	52.90	55.90
	H		5.55	16.45	22.90	27.65	32.95	36.60	40.30	43.30
	G			10.90	17.35	22.10	27.40	31.05	34.75	37.75
I-405 South	F				6.45	11.20	16.50	20.15	23.85	26.85
	E					4.75	10.05	13.70	17.40	20.40
	D						5.30	8.95	12.65	15.65
SR 167	C							3.65	7.35	10.35
	B								3.70	6.70
	A									3.00

Table A-9-2
Toll Charge Matrix AM1 (5:30 am - 5:30 am)
Study Option 4 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.95	13.15	20.15	23.00	25.85	27.45	29.25	30.30	32.20
	B		8.20	15.20	18.05	20.90	22.50	24.30	25.35	27.25
	C			7.00	9.85	12.70	14.30	16.10	17.15	19.05
I-405 South	D				2.85	5.70	7.30	9.10	10.15	12.05
	E					2.85	4.45	6.25	7.30	9.20
	F						1.60	3.40	4.45	6.35
I-405 North	G							1.80	2.85	4.75
	H								1.05	2.95
	I									1.90

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	4.10	6.50	10.65	12.95	14.85	16.35	16.85	17.40	17.60
	H		2.40	6.55	8.85	10.75	12.25	12.75	13.30	13.50
	G			4.15	6.45	8.35	9.85	10.35	10.90	11.10
I-405 South	F				2.30	4.20	5.70	6.20	6.75	6.95
	E					1.90	3.40	3.90	4.45	4.65
	D						1.50	2.00	2.55	2.75
SR 167	C							0.50	1.05	1.25
	B								0.55	0.75
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	7.10	18.50	28.65	31.90	36.10	42.10	46.20	48.60	53.90
	B		11.40	21.55	24.80	29.00	35.00	39.10	41.50	46.80
	C			10.15	13.40	17.60	23.60	27.70	30.10	35.40
I-405 South	D				3.25	7.45	13.45	17.55	19.95	25.25
	E					4.20	10.20	14.30	16.70	22.00
	F						6.00	10.10	12.50	17.80
I-405 North	G							4.10	6.50	11.80
	H								2.40	7.70
	I									5.30

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	10.20	16.20	25.05	29.40	33.75	38.70	41.80	45.00	47.60
	H		6.00	14.85	19.20	23.55	28.50	31.60	34.80	37.40
	G			8.85	13.20	17.55	22.50	25.60	28.80	31.40
I-405 South	F				4.35	8.70	13.65	16.75	19.95	22.55
	E					4.35	9.30	12.40	15.60	18.20
	D						4.95	8.05	11.25	13.85
SR 167	C							3.10	6.30	8.90
	B								3.20	5.80
	A									2.60

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	13.35	32.15	48.80	54.70	59.65	66.10	72.20	75.50	82.35
	B		18.80	35.45	41.35	46.30	52.75	58.85	62.15	69.00
	C			16.65	22.55	27.50	33.95	40.05	43.35	50.20
I-405 South	D				5.90	10.85	17.30	23.40	26.70	33.55
	E					4.95	11.40	17.50	20.80	27.65
	F						6.45	12.55	15.85	22.70
I-405 North	G							6.10	9.40	16.25
	H								3.30	10.15
	I									6.85

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	19.05	27.60	41.75	48.20	53.15	60.00	64.15	68.40	71.85
	H		8.55	22.70	29.15	34.10	40.95	45.10	49.35	52.80
	G			14.15	20.60	25.55	32.40	36.55	40.80	44.25
I-405 South	F				6.45	11.40	18.25	22.40	26.65	30.10
	E					4.95	11.80	15.95	20.20	23.65
	D						6.85	11.00	15.25	18.70
SR 167	C							4.15	8.40	11.85
	B								4.25	7.70
	A									3.45

Table A-9-3
Toll Charge Matrix AM2 (6:30 am - 8:30 am)
Study Option 4 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	5.15	14.45	21.75	23.65	25.55	29.70	32.75	34.25	38.05
	B		9.30	16.60	18.50	20.40	24.55	27.60	29.10	32.90
	C			7.30	9.20	11.10	15.25	18.30	19.80	23.60
I-405 South	D				1.90	3.80	7.95	11.00	12.50	16.30
	E					1.90	6.05	9.10	10.60	14.40
	F						4.15	7.20	8.70	12.50
I-405 North	G							3.05	4.55	8.35
	H								1.50	5.30
	I									3.80

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	7.50	10.50	16.40	19.60	22.25	24.55	26.90	28.25	29.35
	H		3.00	8.90	12.10	14.75	17.05	19.40	20.75	21.85
	G			5.90	9.10	11.75	14.05	16.40	17.75	18.85
I-405 South	F				3.20	5.85	8.15	10.50	11.85	12.95
	E					2.65	4.95	7.30	8.65	9.75
	D						2.30	4.65	6.00	7.10
SR 167	C							2.35	3.70	4.80
	B								1.35	2.45
	A									1.10

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	7.75	19.15	29.80	34.15	41.55	51.45	55.55	57.80	63.50
	B		11.40	22.05	26.40	33.80	43.70	47.80	50.05	55.75
	C			10.65	15.00	22.40	32.30	36.40	38.65	44.35
I-405 South	D				4.35	11.75	21.65	25.75	28.00	33.70
	E					7.40	17.30	21.40	23.65	29.35
	F						9.90	14.00	16.25	21.95
I-405 North	G							4.10	6.35	12.05
	H								2.25	7.95
	I									5.70

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	13.60	22.60	37.35	41.70	46.25	51.55	55.20	58.90	61.90
	H		9.00	23.75	28.10	32.65	37.95	41.60	45.30	48.30
	G			14.75	19.10	23.65	28.95	32.60	36.30	39.30
I-405 South	F				4.35	8.90	14.20	17.85	21.55	24.55
	E					4.55	9.85	13.50	17.20	20.20
	D						5.30	8.95	12.65	15.65
SR 167	C							3.65	7.35	10.35
	B								3.70	6.70
	A									3.00

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	13.55	32.90	50.05	56.15	64.50	80.15	86.80	90.70	97.90
	B		19.35	36.50	42.60	50.95	66.60	73.25	77.15	84.35
	C			17.15	23.25	31.60	47.25	53.90	57.80	65.00
I-405 South	D				6.10	14.45	30.10	36.75	40.65	47.85
	E					8.35	24.00	30.65	34.55	41.75
	F						15.65	22.30	26.20	33.40
I-405 North	G							6.65	10.55	17.75
	H								3.90	11.10
	I									7.20

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	21.75	31.65	47.60	54.50	60.20	69.70	74.40	79.15	83.00
	H		9.90	25.85	32.75	38.45	47.95	52.65	57.40	61.25
	G			15.95	22.85	28.55	38.05	42.75	47.50	51.35
I-405 South	F				6.90	12.60	22.10	26.80	31.55	35.40
	E					5.70	15.20	19.90	24.65	28.50
	D						9.50	14.20	18.95	22.80
SR 167	C							4.70	9.45	13.30
	B								4.75	8.60
	A									3.85

Table A-9-4
Toll Charge Matrix AM3 (8:30 am - 9:30 am)
Study Option 4 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.75	10.85	16.85	18.75	20.65	22.70	24.25	25.45	28.50
	B		6.10	12.10	14.00	15.90	17.95	19.50	20.70	23.75
	C			6.00	7.90	9.80	11.85	13.40	14.60	17.65
I-405 South	D				1.90	3.80	5.85	7.40	8.60	11.65
	E					1.90	3.95	5.50	6.70	9.75
	F						2.05	3.60	4.80	7.85
I-405 North	G							1.55	2.75	5.80
	H								1.20	4.25
	I									3.05

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	5.80	8.35	13.05	16.75	19.80	21.70	22.75	23.55	23.75
	H		2.55	7.25	10.95	14.00	15.90	16.95	17.75	17.95
	G			4.70	8.40	11.45	13.35	14.40	15.20	15.40
I-405 South	F				3.70	6.75	8.65	9.70	10.50	10.70
	E					3.05	4.95	6.00	6.80	7.00
	D						1.90	2.95	3.75	3.95
SR 167	C							1.05	1.85	2.05
	B								0.80	1.00
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	6.45	15.75	21.20	23.85	30.50	39.95	42.00	43.65	47.85
	B		9.30	14.75	17.40	24.05	33.50	35.55	37.20	41.40
	C			5.45	8.10	14.75	24.20	26.25	27.90	32.10
I-405 South	D				2.65	9.30	18.75	20.80	22.45	26.65
	E					6.65	16.10	18.15	19.80	24.00
	F						9.45	11.50	13.15	17.35
I-405 North	G							2.05	3.70	7.90
	H								1.65	5.85
	I									4.20

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	10.90	19.15	31.55	35.90	40.45	45.95	49.85	53.80	57.00
	H		8.25	20.65	25.00	29.55	35.05	38.95	42.90	46.10
	G			12.40	16.75	21.30	26.80	30.70	34.65	37.85
I-405 South	F				4.35	8.90	14.40	18.30	22.25	25.45
	E					4.55	10.05	13.95	17.90	21.10
	D						5.50	9.40	13.35	16.55
SR 167	C							3.90	7.85	11.05
	B								3.95	7.15
	A									3.20

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	12.90	30.90	43.40	50.25	57.85	72.55	76.65	79.05	84.75
	B		18.00	30.50	37.35	44.95	59.65	63.75	66.15	71.85
	C			12.50	19.35	26.95	41.65	45.75	48.15	53.85
I-405 South	D				6.85	14.45	29.15	33.25	35.65	41.35
	E					7.60	22.30	26.40	28.80	34.50
	F						14.70	18.80	21.20	26.90
I-405 North	G							4.10	6.50	12.20
	H								2.40	8.10
	I									5.70

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	21.10	29.80	42.80	49.45	54.95	64.25	68.40	72.65	76.10
	H		8.70	21.70	28.35	33.85	43.15	47.30	51.55	55.00
	G			13.00	19.65	25.15	34.45	38.60	42.85	46.30
I-405 South	F				6.65	12.15	21.45	25.60	29.85	33.30
	E					5.50	14.80	18.95	23.20	26.65
	D						9.30	13.45	17.70	21.15
SR 167	C							4.15	8.40	11.85
	B								4.25	7.70
	A									3.45

Table A-9-5
Toll Charge Matrix MD (9:30 am - 2:30 pm)
Study Option 4 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	3.00	7.50	11.15	13.80	14.95	19.10	21.65	22.55	23.30
	B		4.50	8.15	10.80	11.95	16.10	18.65	19.55	20.30
	C			3.65	6.30	7.45	11.60	14.15	15.05	15.80
I-405 South	D				2.65	3.80	7.95	10.50	11.40	12.15
	E					1.15	5.30	7.85	8.75	9.50
	F						4.15	6.70	7.60	8.35
I-405 North	G							2.55	3.45	4.20
	H								0.90	1.65
	I									0.75

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	4.40	6.65	11.10	13.40	15.70	17.60	19.70	22.35	24.30
	H		2.25	6.70	9.00	11.30	13.20	15.30	17.95	19.90
	G			4.45	6.75	9.05	10.95	13.05	15.70	17.65
I-405 South	F				2.30	4.60	6.50	8.60	11.25	13.20
	E					2.30	4.20	6.30	8.95	10.90
	D						1.90	4.00	6.65	8.60
SR 167	C							2.10	4.75	6.70
	B								2.65	4.60
	A									1.95

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.50	11.90	18.40	22.60	26.80	32.10	36.70	39.10	43.65
	B		7.40	13.90	18.10	22.30	27.60	32.20	34.60	39.15
	C			6.50	10.70	14.90	20.20	24.80	27.20	31.75
I-405 South	D				4.20	8.40	13.70	18.30	20.70	25.25
	E					4.20	9.50	14.10	16.50	21.05
	F						5.30	9.90	12.30	16.85
I-405 North	G							4.60	7.00	11.55
	H								2.40	6.95
	I									4.55

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	8.85	13.80	22.05	27.35	31.70	35.90	41.35	46.10	49.95
	H		4.95	13.20	18.50	22.85	27.05	32.50	37.25	41.10
	G			8.25	13.55	17.90	22.10	27.55	32.30	36.15
I-405 South	F				5.30	9.65	13.85	19.30	24.05	27.90
	E					4.35	8.55	14.00	18.75	22.60
	D						4.20	9.65	14.40	18.25
SR 167	C							5.45	10.20	14.05
	B								4.75	8.60
	A									3.85

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	7.50	19.40	30.30	36.00	41.30	47.30	53.40	57.00	63.10
	B		11.90	22.80	28.50	33.80	39.80	45.90	49.50	55.60
	C			10.90	16.60	21.90	27.90	34.00	37.60	43.70
I-405 South	D				5.70	11.00	17.00	23.10	26.70	32.80
	E					5.30	11.30	17.40	21.00	27.10
	F						6.00	12.10	15.70	21.80
I-405 North	G							6.10	9.70	15.80
	H								3.60	9.70
	I									6.10

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	14.60	21.80	35.95	45.40	53.20	60.40	65.60	70.65	74.30
	H		7.20	21.35	30.80	38.60	45.80	51.00	56.05	59.70
	G			14.15	23.60	31.40	38.60	43.80	48.85	52.50
I-405 South	F				9.45	17.25	24.45	29.65	34.70	38.35
	E					7.80	15.00	20.20	25.25	28.90
	D						7.20	12.40	17.45	21.10
SR 167	C							5.20	10.25	13.90
	B								5.05	8.70
	A									3.65

Table A-9-6
Toll Charge Matrix PM1 (2:30 pm - 3:30 pm)
Study Option 4 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.70	4.60	7.45	9.75	13.55	18.40	24.00	27.00	33.45
	B		2.90	5.75	8.05	11.85	16.70	22.30	25.30	31.75
	C			2.85	5.15	8.95	13.80	19.40	22.40	28.85
I-405 South	D				2.30	6.10	10.95	16.55	19.55	26.00
	E					3.80	8.65	14.25	17.25	23.70
	F						4.85	10.45	13.45	19.90
I-405 North	G							5.60	8.60	15.05
	H								3.00	9.45
	I									6.45

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	5.80	8.50	13.80	18.85	22.45	26.05	31.50	37.05	40.05
	H		2.70	8.00	13.05	16.65	20.25	25.70	31.25	34.25
	G			5.30	10.35	13.95	17.55	23.00	28.55	31.55
I-405 South	F				5.05	8.65	12.25	17.70	23.25	26.25
	E					3.60	7.20	12.65	18.20	21.20
	D						3.60	9.05	14.60	17.60
SR 167	C							5.45	11.00	14.00
	B								5.55	8.55
	A									3.00

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.50	12.45	20.25	24.25	31.10	39.40	48.60	54.00	69.20
	B		7.95	15.75	19.75	26.60	34.90	44.10	49.50	64.70
	C			7.80	11.80	18.65	26.95	36.15	41.55	56.75
I-405 South	D				4.00	10.85	19.15	28.35	33.75	48.95
	E					6.85	15.15	24.35	29.75	44.95
	F						8.30	17.50	22.90	38.10
I-405 North	G							9.20	14.60	29.80
	H								5.40	20.60
	I									15.20

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	9.20	13.85	23.90	32.65	39.85	46.10	56.75	67.60	76.20
	H		4.65	14.70	23.45	30.65	36.90	47.55	58.40	67.00
	G			10.05	18.80	26.00	32.25	42.90	53.75	62.35
I-405 South	F				8.75	15.95	22.20	32.85	43.70	52.30
	E					7.20	13.45	24.10	34.95	43.55
	D						6.25	16.90	27.75	36.35
SR 167	C							10.65	21.50	30.10
	B								10.85	19.45
	A									8.60

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	6.45	14.95	22.75	29.40	35.50	41.95	52.15	58.90	76.40
	B		8.50	16.30	22.95	29.05	35.50	45.70	52.45	69.95
	C			7.80	14.45	20.55	27.00	37.20	43.95	61.45
I-405 South	D				6.65	12.75	19.20	29.40	36.15	53.65
	E					6.10	12.55	22.75	29.50	47.00
	F						6.45	16.65	23.40	40.90
I-405 North	G							10.20	16.95	34.45
	H								6.75	24.25
	I									17.50

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	27.20	33.95	45.15	53.90	61.10	68.70	82.75	99.70	110.45
	H		6.75	17.95	26.70	33.90	41.50	55.55	72.50	83.25
	G			11.20	19.95	27.15	34.75	48.80	65.75	76.50
I-405 South	F				8.75	15.95	23.55	37.60	54.55	65.30
	E					7.20	14.80	28.85	45.80	56.55
	D						7.60	21.65	38.60	49.35
SR 167	C							14.05	31.00	41.75
	B								16.95	27.70
	A									10.75

Table A-9-7
Toll Charge Matrix PM2 (3:30 pm - 5:30 pm)
Study Option 4 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	3.20	7.70	12.10	15.35	19.70	25.20	31.05	35.55	50.00
	B		4.50	8.90	12.15	16.50	22.00	27.85	32.35	46.80
	C			4.40	7.65	12.00	17.50	23.35	27.85	42.30
I-405 South	D				3.25	7.60	13.10	18.95	23.45	37.90
	E					4.35	9.85	15.70	20.20	34.65
	F						5.50	11.35	15.85	30.30
I-405 North	G							5.85	10.35	24.80
	H								4.50	18.95
	I									14.45

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	6.45	9.00	14.00	18.85	22.85	26.85	33.35	40.00	45.15
	H		2.55	7.55	12.40	16.40	20.40	26.90	33.55	38.70
	G			5.00	9.85	13.85	17.85	24.35	31.00	36.15
I-405 South	F				4.85	8.85	12.85	19.35	26.00	31.15
	E					4.00	8.00	14.50	21.15	26.30
	D						4.00	10.50	17.15	22.30
SR 167	C							6.50	13.15	18.30
	B								6.65	11.80
	A									5.15

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	5.40	13.35	21.15	25.15	32.35	41.55	50.75	57.05	79.10
	B		7.95	15.75	19.75	26.95	36.15	45.35	51.65	73.70
	C			7.80	11.80	19.00	28.20	37.40	43.70	65.75
I-405 South	D				4.00	11.20	20.40	29.60	35.90	57.95
	E					7.20	16.40	25.60	31.90	53.95
	F						9.20	18.40	24.70	46.75
I-405 North	G							9.20	15.50	37.55
	H								6.30	28.35
	I									22.05

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	13.60	18.70	23.40	32.15	39.75	46.00	56.40	67.00	75.40
	H		5.10	9.80	18.55	26.15	32.40	42.80	53.40	61.80
	G			4.70	13.45	21.05	27.30	37.70	48.30	56.70
I-405 South	F				8.75	16.35	22.60	33.00	43.60	52.00
	E					7.60	13.85	24.25	34.85	43.25
	D						6.25	16.65	27.25	35.65
SR 167	C							10.40	21.00	29.40
	B								10.60	19.00
	A									8.40

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	6.90	18.05	26.90	36.60	44.75	52.80	65.05	75.25	104.50
	B		11.15	20.00	29.70	37.85	45.90	58.15	68.35	97.60
	C			8.85	18.55	26.70	34.75	47.00	57.20	86.45
I-405 South	D				9.70	17.85	25.90	38.15	48.35	77.60
	E					8.15	16.20	28.45	38.65	67.90
	F						8.05	20.30	30.50	59.75
I-405 North	G							12.25	22.45	51.70
	H								10.20	39.45
	I									29.25

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	30.60	38.10	49.60	59.25	67.25	76.75	91.55	108.75	119.70
	H		7.50	19.00	28.65	36.65	46.15	60.95	78.15	89.10
	G			11.50	21.15	29.15	38.65	53.45	70.65	81.60
I-405 South	F				9.65	17.65	27.15	41.95	59.15	70.10
	E					8.00	17.50	32.30	49.50	60.45
	D						9.50	24.30	41.50	52.45
SR 167	C							14.80	32.00	42.95
	B								17.20	28.15
	A									10.95

Table A-9-8
Toll Charge Matrix PM3 (5:30 pm - 6:30 pm)
Study Option 4 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.60	6.30	9.95	14.30	18.65	23.95	28.30	32.50	42.40
	B		3.70	7.35	11.70	16.05	21.35	25.70	29.90	39.80
	C			3.65	8.00	12.35	17.65	22.00	26.20	36.10
I-405 South	D				4.35	8.70	14.00	18.35	22.55	32.45
	E					4.35	9.65	14.00	18.20	28.10
	F						5.30	9.65	13.85	23.75
I-405 North	G							4.35	8.55	18.45
	H								4.20	14.10
	I									9.90

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	5.80	8.50	13.80	18.40	22.75	27.10	31.80	36.55	40.40
	H		2.70	8.00	12.60	16.95	21.30	26.00	30.75	34.60
	G			5.30	9.90	14.25	18.60	23.30	28.05	31.90
I-405 South	F				4.60	8.95	13.30	18.00	22.75	26.60
	E					4.35	8.70	13.40	18.15	22.00
	D						4.35	9.05	13.80	17.65
SR 167	C							4.70	9.45	13.30
	B								4.75	8.60
	A									3.85

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.50	10.05	15.00	19.55	24.85	31.30	40.50	46.20	61.00
	B		5.55	10.50	15.05	20.35	26.80	36.00	41.70	56.50
	C			4.95	9.50	14.80	21.25	30.45	36.15	50.95
I-405 South	D				4.55	9.85	16.30	25.50	31.20	46.00
	E					5.30	11.75	20.95	26.65	41.45
	F						6.45	15.65	21.35	36.15
I-405 North	G							9.20	14.90	29.70
	H								5.70	20.50
	I									14.80

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	10.90	15.55	25.30	32.90	39.35	43.55	52.40	61.40	68.50
	H		4.65	14.40	22.00	28.45	32.65	41.50	50.50	57.60
	G			9.75	17.35	23.80	28.00	36.85	45.85	52.95
I-405 South	F				7.60	14.05	18.25	27.10	36.10	43.20
	E					6.45	10.65	19.50	28.50	35.60
	D						4.20	13.05	22.05	29.15
SR 167	C							8.85	17.85	24.95
	B								9.00	16.10
	A									7.10

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	5.80	13.50	20.80	29.90	37.50	45.30	56.50	65.80	94.30
	B		7.70	15.00	24.10	31.70	39.50	50.70	60.00	88.50
	C			7.30	16.40	24.00	31.80	43.00	52.30	80.80
I-405 South	D				9.10	16.70	24.50	35.70	45.00	73.50
	E					7.60	15.40	26.60	35.90	64.40
	F						7.80	19.00	28.30	56.80
I-405 North	G							11.20	20.50	49.00
	H								9.30	37.80
	I									28.50

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	28.90	36.40	49.10	57.40	64.05	72.60	85.85	99.35	108.80
	H		7.50	20.20	28.50	35.15	43.70	56.95	70.45	79.90
	G			12.70	21.00	27.65	36.20	49.45	62.95	72.40
I-405 South	F				8.30	14.95	23.50	36.75	50.25	59.70
	E					6.65	15.20	28.45	41.95	51.40
	D						8.55	21.80	35.30	44.75
SR 167	C							13.25	26.75	36.20
	B								13.50	22.95
	A									9.45

Table A-9-9
Toll Charge Matrix PM4 (6:30 pm - 7:00 pm)
Study Option 4 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.70	3.80	6.15	8.80	12.20	16.80	21.65	24.65	33.00
	B		2.10	4.45	7.10	10.50	15.10	19.95	22.95	31.30
	C			2.35	5.00	8.40	13.00	17.85	20.85	29.20
I-405 South	D				2.65	6.05	10.65	15.50	18.50	26.85
	E					3.40	8.00	12.85	15.85	24.20
	F						4.60	9.45	12.45	20.80
I-405 North	G							4.85	7.85	16.20
	H								3.00	11.35
	I									8.35

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	3.40	4.90	7.85	11.55	14.60	17.65	21.05	24.50	27.30
	H		1.50	4.45	8.15	11.20	14.25	17.65	21.10	23.90
	G			2.95	6.65	9.70	12.75	16.15	19.60	22.40
I-405 South	F				3.70	6.75	9.80	13.20	16.65	19.45
	E					3.05	6.10	9.50	12.95	15.75
	D						3.05	6.45	9.90	12.70
SR 167	C							3.40	6.85	9.65
	B								3.45	6.25
	A									2.80

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.30	9.85	15.05	20.00	24.75	30.25	39.15	44.70	58.40
	B		5.55	10.75	15.70	20.45	25.95	34.85	40.40	54.10
	C			5.20	10.15	14.90	20.40	29.30	34.85	48.55
I-405 South	D				4.95	9.70	15.20	24.10	29.65	43.35
	E					4.75	10.25	19.15	24.70	38.40
	F						5.50	14.40	19.95	33.65
I-405 North	G							8.90	14.45	28.15
	H								5.55	19.25
	I									13.70

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	9.50	13.40	21.05	26.35	32.25	37.20	44.75	52.15	57.75
	H		3.90	11.55	16.85	22.75	27.70	35.25	42.65	48.25
	G			7.65	12.95	18.85	23.80	31.35	38.75	44.35
I-405 South	F				5.30	11.20	16.15	23.70	31.10	36.70
	E					5.90	10.85	18.40	25.80	31.40
	D						4.95	12.50	19.90	25.50
SR 167	C							7.55	14.95	20.55
	B								7.40	13.00
	A									5.60

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.95	11.30	17.55	25.55	32.40	39.75	48.95	57.35	84.70
	B		6.35	12.60	20.60	27.45	34.80	44.00	52.40	79.75
	C			6.25	14.25	21.10	28.45	37.65	46.05	73.40
I-405 South	D				8.00	14.85	22.20	31.40	39.80	67.15
	E					6.85	14.20	23.40	31.80	59.15
	F						7.35	16.55	24.95	52.30
I-405 North	G							9.20	17.60	44.95
	H								8.40	35.75
	I									27.35

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	19.05	26.25	38.35	46.15	52.25	58.50	71.00	83.70	91.45
	H		7.20	19.30	27.10	33.20	39.45	51.95	64.65	72.40
	G			12.10	19.90	26.00	32.25	44.75	57.45	65.20
I-405 South	F				7.80	13.90	20.15	32.65	45.35	53.10
	E					6.10	12.35	24.85	37.55	45.30
	D						6.25	18.75	31.45	39.20
SR 167	C							12.50	25.20	32.95
	B								12.70	20.45
	A									7.75

Table A-9-10
Toll Charge Matrix PM5 (7:00 pm - 7:30 pm)
Study Option 4 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.70	3.80	6.15	8.80	12.20	16.80	21.65	24.65	32.25
	B		2.10	4.45	7.10	10.50	15.10	19.95	22.95	30.55
	C			2.35	5.00	8.40	13.00	17.85	20.85	28.45
I-405 South	D				2.65	6.05	10.65	15.50	18.50	26.10
	E					3.40	8.00	12.85	15.85	23.45
	F						4.60	9.45	12.45	20.05
I-405 North	G							4.85	7.85	15.45
	H								3.00	10.60
	I									7.60

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	3.40	4.90	7.85	11.55	14.60	17.65	21.05	24.50	27.30
	H		1.50	4.45	8.15	11.20	14.25	17.65	21.10	23.90
	G			2.95	6.65	9.70	12.75	16.15	19.60	22.40
I-405 South	F				3.70	6.75	9.80	13.20	16.65	19.45
	E					3.05	6.10	9.50	12.95	15.75
	D						3.05	6.45	9.90	12.70
SR 167	C							3.40	6.85	9.65
	B								3.45	6.25
	A									2.80

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.10	9.65	15.90	20.10	24.30	31.45	38.60	43.55	53.45
	B		5.55	11.80	16.00	20.20	27.35	34.50	39.45	49.35
	C			6.25	10.45	14.65	21.80	28.95	33.90	43.80
I-405 South	D				4.20	8.40	15.55	22.70	27.65	37.55
	E					4.20	11.35	18.50	23.45	33.35
	F						7.15	14.30	19.25	29.15
I-405 North	G							7.15	12.10	22.00
	H								4.95	14.85
	I									9.90

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	6.10	9.10	15.00	20.30	25.80	30.00	37.80	45.50	50.25
	H		3.00	8.90	14.20	19.70	23.90	31.70	39.40	44.15
	G			5.90	11.20	16.70	20.90	28.70	36.40	41.15
I-405 South	F				5.30	10.80	15.00	22.80	30.50	35.25
	E					5.50	9.70	17.50	25.20	29.95
	D						4.20	12.00	19.70	24.45
SR 167	C							7.80	15.50	20.25
	B								7.70	12.45
	A									4.75

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.30	10.15	15.85	23.05	28.75	35.20	43.85	51.35	71.50
	B		5.85	11.55	18.75	24.45	30.90	39.55	47.05	67.20
	C			5.70	12.90	18.60	25.05	33.70	41.20	61.35
I-405 South	D				7.20	12.90	19.35	28.00	35.50	55.65
	E					5.70	12.15	20.80	28.30	48.45
	F						6.45	15.10	22.60	42.75
I-405 North	G							8.65	16.15	36.30
	H								7.50	27.65
	I									20.15

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	12.90	18.30	28.90	37.85	43.55	48.85	59.25	71.45	78.75
	H		5.40	16.00	24.95	30.65	35.95	46.35	58.55	65.85
	G			10.60	19.55	25.25	30.55	40.95	53.15	60.45
I-405 South	F				8.95	14.65	19.95	30.35	42.55	49.85
	E					5.70	11.00	21.40	33.60	40.90
	D						5.30	15.70	27.90	35.20
SR 167	C							10.40	22.60	29.90
	B								12.20	19.50
	A									7.30

Table A-9-11
Toll Charge Matrix PM6 (7:30 am - 8:00 pm)
Study Option 4 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.70	3.80	6.15	8.80	12.20	16.80	21.65	24.65	32.25
	B		2.10	4.45	7.10	10.50	15.10	19.95	22.95	30.55
	C			2.35	5.00	8.40	13.00	17.85	20.85	28.45
I-405 South	D				2.65	6.05	10.65	15.50	18.50	26.10
	E					3.40	8.00	12.85	15.85	23.45
	F						4.60	9.45	12.45	20.05
I-405 North	G							4.85	7.85	15.45
	H								3.00	10.60
	I									7.60

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	2.70	3.90	6.25	9.45	12.10	14.75	17.60	20.50	22.85
	H		1.20	3.55	6.75	9.40	12.05	14.90	17.80	20.15
	G			2.35	5.55	8.20	10.85	13.70	16.60	18.95
I-405 South	F				3.20	5.85	8.50	11.35	14.25	16.60
	E					2.65	5.30	8.15	11.05	13.40
	D						2.65	5.50	8.40	10.75
SR 167	C							2.85	5.75	8.10
	B								2.90	5.25
	A									2.35

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.10	9.65	15.90	20.10	24.10	30.75	37.40	41.90	49.90
	B		5.55	11.80	16.00	20.00	26.65	33.30	37.80	45.80
	C			6.25	10.45	14.45	21.10	27.75	32.25	40.25
I-405 South	D				4.20	8.20	14.85	21.50	26.00	34.00
	E					4.00	10.65	17.30	21.80	29.80
	F						6.65	13.30	17.80	25.80
I-405 North	G							6.65	11.15	19.15
	H								4.50	12.50
	I									8.00

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	4.10	6.50	11.20	16.95	21.90	26.65	32.35	38.20	39.90
	H		2.40	7.10	12.85	17.80	22.55	28.25	34.10	35.80
	G			4.70	10.45	15.40	20.15	25.85	31.70	33.40
I-405 South	F				5.75	10.70	15.45	21.15	27.00	28.70
	E					4.95	9.70	15.40	21.25	22.95
	D						4.75	10.45	16.30	18.00
SR 167	C							5.70	11.55	13.25
	B								5.85	7.55
	A									1.70

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	3.45	8.20	12.90	19.75	25.45	31.45	39.60	46.35	59.65
	B		4.75	9.45	16.30	22.00	28.00	36.15	42.90	56.20
	C			4.70	11.55	17.25	23.25	31.40	38.15	51.45
I-405 South	D				6.85	12.55	18.55	26.70	33.45	46.75
	E					5.70	11.70	19.85	26.60	39.90
	F						6.00	14.15	20.90	34.20
I-405 North	G							8.15	14.90	28.20
	H								6.75	20.05
	I									13.30

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	11.20	15.10	25.15	32.95	38.45	43.75	53.10	64.50	70.95
	H		3.90	13.95	21.75	27.25	32.55	41.90	53.30	59.75
	G			10.05	17.85	23.35	28.65	38.00	49.40	55.85
I-405 South	F				7.80	13.30	18.60	27.95	39.35	45.80
	E					5.50	10.80	20.15	31.55	38.00
	D						5.30	14.65	26.05	32.50
SR 167	C							9.35	20.75	27.20
	B								11.40	17.85
	A									6.45

Table A-10-1
Toll Charge Matrix AM0 (5:00 am - 5:30 am)
Study Option 5 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.50	6.80	11.50	12.05	12.80	14.20	14.45	14.60	15.00
	B		5.30	10.00	10.55	11.30	12.70	12.95	13.10	13.50
	C			4.70	5.25	6.00	7.40	7.65	7.80	8.20
I-405 South	D				0.55	1.30	2.70	2.95	3.10	3.50
	E					0.75	2.15	2.40	2.55	2.95
	F						1.40	1.65	1.80	2.20
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.65	0.95	1.20	1.40	1.60	1.85	2.10	2.30
	H		0.30	0.60	0.85	1.05	1.25	1.50	1.75	1.95
	G			0.30	0.55	0.75	0.95	1.20	1.45	1.65
I-405 South	F				0.25	0.45	0.65	0.90	1.15	1.35
	E					0.20	0.40	0.65	0.90	1.10
	D						0.20	0.45	0.70	0.90
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	3.20	12.20	21.05	23.35	25.05	28.50	29.25	29.70	30.10
	B		9.00	17.85	20.15	21.85	25.30	26.05	26.50	26.90
	C			8.85	11.15	12.85	16.30	17.05	17.50	17.90
I-405 South	D				2.30	4.00	7.45	8.20	8.65	9.05
	E					1.70	5.15	5.90	6.35	6.75
	F						3.45	4.20	4.65	5.05
I-405 North	G							0.75	1.20	1.60
	H								0.45	0.85
	I									0.40

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	1.70	3.20	5.85	7.90	9.25	12.50	12.75	13.00	13.20
	H		1.50	4.15	6.20	7.55	10.80	11.05	11.30	11.50
	G			2.65	4.70	6.05	9.30	9.55	9.80	10.00
I-405 South	F				2.05	3.40	6.65	6.90	7.15	7.35
	E					1.35	4.60	4.85	5.10	5.30
	D						3.25	3.50	3.75	3.95
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	8.60	18.15	27.25	29.90	33.30	40.20	41.50	42.25	43.40
	B		9.55	18.65	21.30	24.70	31.60	32.90	33.65	34.80
	C			9.10	11.75	15.15	22.05	23.35	24.10	25.25
I-405 South	D				2.65	6.05	12.95	14.25	15.00	16.15
	E					3.40	10.30	11.60	12.35	13.50
	F						6.90	8.20	8.95	10.10
I-405 North	G							1.30	2.05	3.20
	H								0.75	1.90
	I									1.15

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	4.75	9.25	14.25	17.45	21.25	25.05	25.30	25.55	25.75
	H		4.50	9.50	12.70	16.50	20.30	20.55	20.80	21.00
	G			5.00	8.20	12.00	15.80	16.05	16.30	16.50
I-405 South	F				3.20	7.00	10.80	11.05	11.30	11.50
	E					3.80	7.60	7.85	8.10	8.30
	D						3.80	4.05	4.30	4.50
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Table A-10-2
Toll Charge Matrix AM1 (5:30 am - 5:30 am)
Study Option 5 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.70	9.10	15.35	16.70	18.05	20.10	20.60	20.90	21.65
	B		7.40	13.65	15.00	16.35	18.40	18.90	19.20	19.95
	C			6.25	7.60	8.95	11.00	11.50	11.80	12.55
I-405 South	D				1.35	2.70	4.75	5.25	5.55	6.30
	E					1.35	3.40	3.90	4.20	4.95
	F						2.05	2.55	2.85	3.60
I-405 North	G							0.50	0.80	1.55
	H								0.30	1.05
	I									0.75

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	2.70	4.50	7.45	8.60	9.55	10.10	10.35	10.60	10.80
	H		1.80	4.75	5.90	6.85	7.40	7.65	7.90	8.10
	G			2.95	4.10	5.05	5.60	5.85	6.10	6.30
I-405 South	F				1.15	2.10	2.65	2.90	3.15	3.35
	E					0.95	1.50	1.75	2.00	2.20
	D						0.55	0.80	1.05	1.25
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	3.20	13.00	22.90	25.55	28.95	34.70	37.00	38.05	39.20
	B		9.80	19.70	22.35	25.75	31.50	33.80	34.85	36.00
	C			9.90	12.55	15.95	21.70	24.00	25.05	26.20
I-405 South	D				2.65	6.05	11.80	14.10	15.15	16.30
	E					3.40	9.15	11.45	12.50	13.65
	F						5.75	8.05	9.10	10.25
I-405 North	G							2.30	3.35	4.50
	H								1.05	2.20
	I									1.15

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	8.15	11.15	15.00	18.00	20.85	25.40	25.65	25.90	26.10
	H		3.00	6.85	9.85	12.70	17.25	17.50	17.75	17.95
	G			3.85	6.85	9.70	14.25	14.50	14.75	14.95
I-405 South	F				3.00	5.85	10.40	10.65	10.90	11.10
	E					2.85	7.40	7.65	7.90	8.10
	D						4.55	4.80	5.05	5.25
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	8.80	21.50	35.00	38.05	43.75	55.70	58.25	59.45	60.95
	B		12.70	26.20	29.25	34.95	46.90	49.45	50.65	52.15
	C			13.50	16.55	22.25	34.20	36.75	37.95	39.45
I-405 South	D				3.05	8.75	20.70	23.25	24.45	25.95
	E					5.70	17.65	20.20	21.40	22.90
	F						11.95	14.50	15.70	17.20
I-405 North	G							2.55	3.75	5.25
	H								1.20	2.70
	I									1.50

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	8.85	13.35	18.05	21.75	26.50	31.05	31.30	31.55	31.75
	H		4.50	9.20	12.90	17.65	22.20	22.45	22.70	22.90
	G			4.70	8.40	13.15	17.70	17.95	18.20	18.40
I-405 South	F				3.70	8.45	13.00	13.25	13.50	13.70
	E					4.75	9.30	9.55	9.80	10.00
	D						4.55	4.80	5.05	5.25
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Table A-10-3
Toll Charge Matrix AM2 (6:30 am - 8:30 am)
Study Option 5 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.95	12.00	20.85	22.35	23.85	26.85	27.85	28.15	28.90
	B		10.05	18.90	20.40	21.90	24.90	25.90	26.20	26.95
	C			8.85	10.35	11.85	14.85	15.85	16.15	16.90
I-405 South	D				1.50	3.00	6.00	7.00	7.30	8.05
	E					1.50	4.50	5.50	5.80	6.55
	F						3.00	4.00	4.30	5.05
I-405 North	G							1.00	1.30	2.05
	H								0.30	1.05
	I									0.75

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	4.75	6.70	10.25	12.30	14.00	15.70	15.95	16.20	16.40
	H		1.95	5.50	7.55	9.25	10.95	11.20	11.45	11.65
	G			3.55	5.60	7.30	9.00	9.25	9.50	9.70
I-405 South	F				2.05	3.75	5.45	5.70	5.95	6.15
	E					1.70	3.40	3.65	3.90	4.10
	D						1.70	1.95	2.20	2.40
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	3.20	13.80	24.70	27.55	30.95	36.95	39.25	40.15	41.30
	B		10.60	21.50	24.35	27.75	33.75	36.05	36.95	38.10
	C			10.90	13.75	17.15	23.15	25.45	26.35	27.50
I-405 South	D				2.85	6.25	12.25	14.55	15.45	16.60
	E					3.40	9.40	11.70	12.60	13.75
	F						6.00	8.30	9.20	10.35
I-405 North	G							2.30	3.20	4.35
	H								0.90	2.05
	I									1.15

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	8.50	12.40	17.10	20.30	23.90	30.75	31.25	31.80	32.25
	H		3.90	8.60	11.80	15.40	22.25	22.75	23.30	23.75
	G			4.70	7.90	11.50	18.35	18.85	19.40	19.85
I-405 South	F				3.20	6.80	13.65	14.15	14.70	15.15
	E					3.60	10.45	10.95	11.50	11.95
	D						6.85	7.35	7.90	8.35
SR 167	C							0.50	1.05	1.50
	B								0.55	1.00
	A									0.45

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	9.05	22.85	36.35	40.15	44.35	57.70	61.80	64.20	69.15
	B		13.80	27.30	31.10	35.30	48.65	52.75	55.15	60.10
	C			13.50	17.30	21.50	34.85	38.95	41.35	46.30
I-405 South	D				3.80	8.00	21.35	25.45	27.85	32.80
	E					4.20	17.55	21.65	24.05	29.00
	F						13.35	17.45	19.85	24.80
I-405 North	G							4.10	6.50	11.45
	H								2.40	7.35
	I									4.95

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	10.55	17.15	24.80	28.50	34.20	44.45	45.25	45.80	46.25
	H		6.60	14.25	17.95	23.65	33.90	34.70	35.25	35.70
	G			7.65	11.35	17.05	27.30	28.10	28.65	29.10
I-405 South	F				3.70	9.40	19.65	20.45	21.00	21.45
	E					5.70	15.95	16.75	17.30	17.75
	D						10.25	11.05	11.60	12.05
SR 167	C							0.80	1.35	1.80
	B								0.55	1.00
	A									0.45

Table A-10-4
Toll Charge Matrix AM3 (8:30 am - 9:30 am)
Study Option 5 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.95	9.90	15.10	16.45	17.80	19.65	20.15	20.30	20.70
	B		7.95	13.15	14.50	15.85	17.70	18.20	18.35	18.75
	C			5.20	6.55	7.90	9.75	10.25	10.40	10.80
I-405 South	D				1.35	2.70	4.55	5.05	5.20	5.60
	E					1.35	3.20	3.70	3.85	4.25
	F						1.85	2.35	2.50	2.90
I-405 North	G							0.50	0.65	1.05
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	4.40	6.20	8.85	10.45	11.80	12.75	13.00	13.25	13.45
	H		1.80	4.45	6.05	7.40	8.35	8.60	8.85	9.05
	G			2.65	4.25	5.60	6.55	6.80	7.05	7.25
I-405 South	F				1.60	2.95	3.90	4.15	4.40	4.60
	E					1.35	2.30	2.55	2.80	3.00
	D						0.95	1.20	1.45	1.65
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.80	9.15	14.35	16.80	19.65	24.25	25.25	25.85	26.60
	B		6.35	11.55	14.00	16.85	21.45	22.45	23.05	23.80
	C			5.20	7.65	10.50	15.10	16.10	16.70	17.45
I-405 South	D				2.45	5.30	9.90	10.90	11.50	12.25
	E					2.85	7.45	8.45	9.05	9.80
	F						4.60	5.60	6.20	6.95
I-405 North	G							1.00	1.60	2.35
	H								0.60	1.35
	I									0.75

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	5.80	9.10	13.55	16.30	18.60	24.70	24.95	25.20	25.40
	H		3.30	7.75	10.50	12.80	18.90	19.15	19.40	19.60
	G			4.45	7.20	9.50	15.60	15.85	16.10	16.30
I-405 South	F				2.75	5.05	11.15	11.40	11.65	11.85
	E					2.30	8.40	8.65	8.90	9.10
	D						6.10	6.35	6.60	6.80
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	8.60	18.15	26.20	30.00	34.20	43.40	45.95	47.45	51.65
	B		9.55	17.60	21.40	25.60	34.80	37.35	38.85	43.05
	C			8.05	11.85	16.05	25.25	27.80	29.30	33.50
I-405 South	D				3.80	8.00	17.20	19.75	21.25	25.45
	E					4.20	13.40	15.95	17.45	21.65
	F						9.20	11.75	13.25	17.45
I-405 North	G							2.55	4.05	8.25
	H								1.50	5.70
	I									4.20

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	9.85	14.05	20.25	23.70	28.05	36.80	37.30	37.85	38.30
	H		4.20	10.40	13.85	18.20	26.95	27.45	28.00	28.45
	G			6.20	9.65	14.00	22.75	23.25	23.80	24.25
I-405 South	F				3.45	7.80	16.55	17.05	17.60	18.05
	E					4.35	13.10	13.60	14.15	14.60
	D						8.75	9.25	9.80	10.25
SR 167	C							0.50	1.05	1.50
	B								0.55	1.00
	A									0.45

Table A-10-5
Toll Charge Matrix MD (9:30 am - 2:30 pm)
Study Option 5 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.65	3.30	5.40	6.90	8.40	9.55	10.05	10.35	11.10
	B		2.65	4.75	6.25	7.75	8.90	9.40	9.70	10.45
	C			2.10	3.60	5.10	6.25	6.75	7.05	7.80
I-405 South	D				1.50	3.00	4.15	4.65	4.95	5.70
	E					1.50	2.65	3.15	3.45	4.20
	F						1.15	1.65	1.95	2.70
I-405 North	G							0.50	0.80	1.55
	H								0.30	1.05
	I									0.75

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	1.70	2.75	4.80	6.20	7.35	8.10	8.35	8.60	8.80
	H		1.05	3.10	4.50	5.65	6.40	6.65	6.90	7.10
	G			2.05	3.45	4.60	5.35	5.60	5.85	6.05
I-405 South	F				1.40	2.55	3.30	3.55	3.80	4.00
	E					1.15	1.90	2.15	2.40	2.60
	D						0.75	1.00	1.25	1.45
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.30	5.00	8.40	13.70	16.55	20.45	21.45	22.05	22.80
	B		3.70	7.10	12.40	15.25	19.15	20.15	20.75	21.50
	C			3.40	8.70	11.55	15.45	16.45	17.05	17.80
I-405 South	D				5.30	8.15	12.05	13.05	13.65	14.40
	E					2.85	6.75	7.75	8.35	9.10
	F						3.90	4.90	5.50	6.25
I-405 North	G							1.00	1.60	2.35
	H								0.60	1.35
	I									0.75

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	3.40	5.35	9.80	13.00	15.65	19.05	19.30	19.55	19.75
	H		1.95	6.40	9.60	12.25	15.65	15.90	16.15	16.35
	G			4.45	7.65	10.30	13.70	13.95	14.20	14.40
I-405 South	F				3.20	5.85	9.25	9.50	9.75	9.95
	E					2.65	6.05	6.30	6.55	6.75
	D						3.40	3.65	3.90	4.10
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.60	8.95	14.40	21.25	26.95	36.15	39.70	41.50	45.30
	B		6.35	11.80	18.65	24.35	33.55	37.10	38.90	42.70
	C			5.45	12.30	18.00	27.20	30.75	32.55	36.35
I-405 South	D				6.85	12.55	21.75	25.30	27.10	30.90
	E					5.70	14.90	18.45	20.25	24.05
	F						9.20	12.75	14.55	18.35
I-405 North	G							3.55	5.35	9.15
	H								1.80	5.60
	I									3.80

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	10.90	14.65	21.15	26.65	33.10	39.20	40.00	40.80	41.45
	H		3.75	10.25	15.75	22.20	28.30	29.10	29.90	30.55
	G			6.50	12.00	18.45	24.55	25.35	26.15	26.80
I-405 South	F				5.50	11.95	18.05	18.85	19.65	20.30
	E					6.45	12.55	13.35	14.15	14.80
	D						6.10	6.90	7.70	8.35
SR 167	C							0.80	1.60	2.25
	B								0.80	1.45
	A									0.65

Table A-10-6
Toll Charge Matrix PM1 (2:30 pm - 3:30 pm)
Study Option 5 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.85	1.65	2.70	5.35	8.00	11.70	15.50	17.60	19.90
	B		0.80	1.85	4.50	7.15	10.85	14.65	16.75	19.05
	C			1.05	3.70	6.35	10.05	13.85	15.95	18.25
I-405 South	D				2.65	5.30	9.00	12.80	14.90	17.20
	E					2.65	6.35	10.15	12.25	14.55
	F						3.70	7.50	9.60	11.90
I-405 North	G							3.80	5.90	8.20
	H								2.10	4.40
	I									2.30

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	2.05	3.25	5.90	8.20	11.05	14.10	16.95	19.05	19.70
	H		1.20	3.85	6.15	9.00	12.05	14.90	17.00	17.65
	G			2.65	4.95	7.80	10.85	13.70	15.80	16.45
I-405 South	F				2.30	5.15	8.20	11.05	13.15	13.80
	E					2.85	5.90	8.75	10.85	11.50
	D						3.05	5.90	8.00	8.65
SR 167	C							2.85	4.95	5.60
	B								2.10	2.75
	A									0.65

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.30	4.50	7.90	14.95	18.20	24.40	28.50	30.90	34.70
	B		3.20	6.60	13.65	16.90	23.10	27.20	29.60	33.40
	C			3.40	10.45	13.70	19.90	24.00	26.40	30.20
I-405 South	D				7.05	10.30	16.50	20.60	23.00	26.80
	E					3.25	9.45	13.55	15.95	19.75
	F						6.20	10.30	12.70	16.50
I-405 North	G							4.10	6.50	10.30
	H								2.40	6.20
	I									3.80

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	11.55	14.55	21.05	28.40	33.90	42.25	46.65	50.90	53.50
	H		3.00	9.50	16.85	22.35	30.70	35.10	39.35	41.95
	G			6.50	13.85	19.35	27.70	32.10	36.35	38.95
I-405 South	F				7.35	12.85	21.20	25.60	29.85	32.45
	E					5.50	13.85	18.25	22.50	25.10
	D						8.35	12.75	17.00	19.60
SR 167	C							4.40	8.65	11.25
	B								4.25	6.85
	A									2.60

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	3.20	7.45	11.35	20.45	28.05	34.95	40.05	43.65	52.00
	B		4.25	8.15	17.25	24.85	31.75	36.85	40.45	48.80
	C			3.90	13.00	20.60	27.50	32.60	36.20	44.55
I-405 South	D				9.10	16.70	23.60	28.70	32.30	40.65
	E					7.60	14.50	19.60	23.20	31.55
	F						6.90	12.00	15.60	23.95
I-405 North	G							5.10	8.70	17.05
	H								3.60	11.95
	I									8.35

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	13.60	16.75	23.25	30.60	39.55	54.35	60.05	65.35	70.50
	H		3.15	9.65	17.00	25.95	40.75	46.45	51.75	56.90
	G			6.50	13.85	22.80	37.60	43.30	48.60	53.75
I-405 South	F				7.35	16.30	31.10	36.80	42.10	47.25
	E					8.95	23.75	29.45	34.75	39.90
	D						14.80	20.50	25.80	30.95
SR 167	C							5.70	11.00	16.15
	B								5.30	10.45
	A									5.15

Table A-10-7
Toll Charge Matrix PM2 (3:30 pm - 5:30 pm)
Study Option 5 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.10	2.70	4.25	7.65	11.45	16.05	20.40	22.80	25.85
	B		1.60	3.15	6.55	10.35	14.95	19.30	21.70	24.75
	C			1.55	4.95	8.75	13.35	17.70	20.10	23.15
I-405 South	D				3.40	7.20	11.80	16.15	18.55	21.60
	E					3.80	8.40	12.75	15.15	18.20
	F						4.60	8.95	11.35	14.40
I-405 North	G							4.35	6.75	9.80
	H								2.40	5.45
	I									3.05

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	2.40	3.75	7.00	9.55	12.60	16.00	19.40	22.05	23.15
	H		1.35	4.60	7.15	10.20	13.60	17.00	19.65	20.75
	G			3.25	5.80	8.85	12.25	15.65	18.30	19.40
I-405 South	F				2.55	5.60	9.00	12.40	15.05	16.15
	E					3.05	6.45	9.85	12.50	13.60
	D						3.40	6.80	9.45	10.55
SR 167	C							3.40	6.05	7.15
	B								2.65	3.75
	A									1.10

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	3.20	7.45	10.85	19.40	23.60	30.50	35.60	38.60	43.90
	B		4.25	7.65	16.20	20.40	27.30	32.40	35.40	40.70
	C			3.40	11.95	16.15	23.05	28.15	31.15	36.45
I-405 South	D				8.55	12.75	19.65	24.75	27.75	33.05
	E					4.20	11.10	16.20	19.20	24.50
	F						6.90	12.00	15.00	20.30
I-405 North	G							5.10	8.10	13.40
	H								3.00	8.30
	I									5.30

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	13.60	16.00	24.25	28.15	31.95	40.70	45.10	50.40	53.40
	H		2.40	10.65	14.55	18.35	27.10	31.50	36.80	39.80
	G			8.25	12.15	15.95	24.70	29.10	34.40	37.40
I-405 South	F				3.90	7.70	16.45	20.85	26.15	29.15
	E					3.80	12.55	16.95	22.25	25.25
	D						8.75	13.15	18.45	21.45
SR 167	C							4.40	9.70	12.70
	B								5.30	8.30
	A									3.00

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	6.00	13.95	19.15	29.80	39.30	48.50	56.15	60.95	74.65
	B		7.95	13.15	23.80	33.30	42.50	50.15	54.95	68.65
	C			5.20	15.85	25.35	34.55	42.20	47.00	60.70
I-405 South	D				10.65	20.15	29.35	37.00	41.80	55.50
	E					9.50	18.70	26.35	31.15	44.85
	F						9.20	16.85	21.65	35.35
I-405 North	G							7.65	12.45	26.15
	H								4.80	18.50
	I									13.70

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	15.65	18.95	27.80	35.15	44.25	59.85	66.10	72.45	76.75
	H		3.30	12.15	19.50	28.60	44.20	50.45	56.80	61.10
	G			8.85	16.20	25.30	40.90	47.15	53.50	57.80
I-405 South	F				7.35	16.45	32.05	38.30	44.65	48.95
	E					9.10	24.70	30.95	37.30	41.60
	D						15.60	21.85	28.20	32.50
SR 167	C							6.25	12.60	16.90
	B								6.35	10.65
	A									4.30

Table A-10-8
Toll Charge Matrix PM3 (5:30 pm - 6:30 pm)
Study Option 5 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.85	1.90	2.95	6.00	9.40	13.10	17.20	19.30	21.60
	B		1.05	2.10	5.15	8.55	12.25	16.35	18.45	20.75
	C			1.05	4.10	7.50	11.20	15.30	17.40	19.70
I-405 South	D				3.05	6.45	10.15	14.25	16.35	18.65
	E					3.40	7.10	11.20	13.30	15.60
	F						3.70	7.80	9.90	12.20
I-405 North	G							4.10	6.20	8.50
	H								2.10	4.40
	I									2.30

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	2.05	3.25	5.90	8.20	11.05	14.10	16.70	18.80	19.65
	H		1.20	3.85	6.15	9.00	12.05	14.65	16.75	17.60
	G			2.65	4.95	7.80	10.85	13.45	15.55	16.40
I-405 South	F				2.30	5.15	8.20	10.80	12.90	13.75
	E					2.85	5.90	8.50	10.60	11.45
	D						3.05	5.65	7.75	8.60
SR 167	C							2.60	4.70	5.55
	B								2.10	2.95
	A									0.85

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.10	2.95	5.05	12.65	16.65	21.25	26.35	29.20	33.00
	B		1.85	3.95	11.55	15.55	20.15	25.25	28.10	31.90
	C			2.10	9.70	13.70	18.30	23.40	26.25	30.05
I-405 South	D				7.60	11.60	16.20	21.30	24.15	27.95
	E					4.00	8.60	13.70	16.55	20.35
	F						4.60	9.70	12.55	16.35
I-405 North	G							5.10	7.95	11.75
	H								2.85	6.65
	I									3.80

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	10.20	12.45	18.95	23.10	26.50	33.35	37.50	41.75	43.70
	H		2.25	8.75	12.90	16.30	23.15	27.30	31.55	33.50
	G			6.50	10.65	14.05	20.90	25.05	29.30	31.25
I-405 South	F				4.15	7.55	14.40	18.55	22.80	24.75
	E					3.40	10.25	14.40	18.65	20.60
	D						6.85	11.00	15.25	17.20
SR 167	C							4.15	8.40	10.35
	B								4.25	6.20
	A									1.95

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	3.45	7.15	10.80	21.05	30.15	38.45	45.10	49.90	57.50
	B		3.70	7.35	17.60	26.70	35.00	41.65	46.45	54.05
	C			3.65	13.90	23.00	31.30	37.95	42.75	50.35
I-405 South	D				10.25	19.35	27.65	34.30	39.10	46.70
	E					9.10	17.40	24.05	28.85	36.45
	F						8.30	14.95	19.75	27.35
I-405 North	G							6.65	11.45	19.05
	H								4.80	12.40
	I									7.60

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	13.25	17.15	26.00	33.35	42.10	57.10	63.35	70.25	73.70
	H		3.90	12.75	20.10	28.85	43.85	50.10	57.00	60.45
	G			8.85	16.20	24.95	39.95	46.20	53.10	56.55
I-405 South	F				7.35	16.10	31.10	37.35	44.25	47.70
	E					8.75	23.75	30.00	36.90	40.35
	D						15.00	21.25	28.15	31.60
SR 167	C							6.25	13.15	16.60
	B								6.90	10.35
	A									3.45

Table A-10-9
Toll Charge Matrix PM4 (6:30 pm - 7:00 pm)
Study Option 5 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.20	0.45	0.70	2.60	5.65	8.85	12.65	14.15	16.05
	B		0.25	0.50	2.40	5.45	8.65	12.45	13.95	15.85
	C			0.25	2.15	5.20	8.40	12.20	13.70	15.60
I-405 South	D				1.90	4.95	8.15	11.95	13.45	15.35
	E					3.05	6.25	10.05	11.55	13.45
	F						3.20	7.00	8.50	10.40
I-405 North	G							3.80	5.30	7.20
	H								1.50	3.40
	I									1.90

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	1.35	2.25	4.00	5.85	8.30	10.95	12.25	13.05	13.50
	H		0.90	2.65	4.50	6.95	9.60	10.90	11.70	12.15
	G			1.75	3.60	6.05	8.70	10.00	10.80	11.25
I-405 South	F				1.85	4.30	6.95	8.25	9.05	9.50
	E					2.45	5.10	6.40	7.20	7.65
	D						2.65	3.95	4.75	5.20
SR 167	C							1.30	2.10	2.55
	B								0.80	1.25
	A									0.45

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.45	2.30	3.60	9.50	12.75	15.50	19.05	21.60	25.40
	B		1.85	3.15	9.05	12.30	15.05	18.60	21.15	24.95
	C			1.30	7.20	10.45	13.20	16.75	19.30	23.10
I-405 South	D				5.90	9.15	11.90	15.45	18.00	21.80
	E					3.25	6.00	9.55	12.10	15.90
	F						2.75	6.30	8.85	12.65
I-405 North	G							3.55	6.10	9.90
	H								2.55	6.35
	I									3.80

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	6.10	8.35	14.25	17.45	20.30	25.45	27.55	29.15	30.00
	H		2.25	8.15	11.35	14.20	19.35	21.45	23.05	23.90
	G			5.90	9.10	11.95	17.10	19.20	20.80	21.65
I-405 South	F				3.20	6.05	11.20	13.30	14.90	15.75
	E					2.85	8.00	10.10	11.70	12.55
	D						5.15	7.25	8.85	9.70
SR 167	C							2.10	3.70	4.55
	B								1.60	2.45
	A									0.85

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.30	3.15	5.75	13.90	20.00	27.35	32.45	37.25	44.85
	B		1.85	4.45	12.60	18.70	26.05	31.15	35.95	43.55
	C			2.60	10.75	16.85	24.20	29.30	34.10	41.70
I-405 South	D				8.15	14.25	21.60	26.70	31.50	39.10
	E					6.10	13.45	18.55	23.35	30.95
	F						7.35	12.45	17.25	24.85
I-405 North	G							5.10	9.90	17.50
	H								4.80	12.40
	I									7.60

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	13.60	17.20	24.30	32.10	40.65	53.95	56.80	62.10	65.30
	H		3.60	10.70	18.50	27.05	40.35	43.20	48.50	51.70
	G			7.10	14.90	23.45	36.75	39.60	44.90	48.10
I-405 South	F				7.80	16.35	29.65	32.50	37.80	41.00
	E					8.55	21.85	24.70	30.00	33.20
	D						13.30	16.15	21.45	24.65
SR 167	C							2.85	8.15	11.35
	B								5.30	8.50
	A									3.20

Table A-10-10
Toll Charge Matrix PM5 (7:00 pm - 7:30 pm)
Study Option 5 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.20	0.45	0.70	2.20	4.65	6.50	9.30	10.50	12.00
	B		0.25	0.50	2.00	4.45	6.30	9.10	10.30	11.80
	C			0.25	1.75	4.20	6.05	8.85	10.05	11.55
I-405 South	D				1.50	3.95	5.80	8.60	9.80	11.30
	E					2.45	4.30	7.10	8.30	9.80
	F						1.85	4.65	5.85	7.35
I-405 North	G							2.80	4.00	5.50
	H								1.20	2.70
	I									1.50

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	1.00	1.60	2.80	4.40	6.70	9.00	10.05	10.85	11.05
	H		0.60	1.80	3.40	5.70	8.00	9.05	9.85	10.05
	G			1.20	2.80	5.10	7.40	8.45	9.25	9.45
I-405 South	F				1.60	3.90	6.20	7.25	8.05	8.25
	E					2.30	4.60	5.65	6.45	6.65
	D						2.30	3.35	4.15	4.35
SR 167	C							1.05	1.85	2.05
	B								0.80	1.00
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.45	1.25	1.75	7.25	10.10	12.85	15.90	18.45	20.75
	B		0.80	1.30	6.80	9.65	12.40	15.45	18.00	20.30
	C			0.50	6.00	8.85	11.60	14.65	17.20	19.50
I-405 South	D				5.50	8.35	11.10	14.15	16.70	19.00
	E					2.85	5.60	8.65	11.20	13.50
	F						2.75	5.80	8.35	10.65
I-405 North	G							3.05	5.60	7.90
	H								2.55	4.85
	I									2.30

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	3.75	5.55	10.85	13.85	16.90	21.85	23.40	24.75	25.20
	H		1.80	7.10	10.10	13.15	18.10	19.65	21.00	21.45
	G			5.30	8.30	11.35	16.30	17.85	19.20	19.65
I-405 South	F				3.00	6.05	11.00	12.55	13.90	14.35
	E					3.05	8.00	9.55	10.90	11.35
	D						4.95	6.50	7.85	8.30
SR 167	C							1.55	2.90	3.35
	B								1.35	1.80
	A									0.45

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.65	2.00	4.10	11.70	17.40	22.45	27.05	30.35	37.20
	B		1.35	3.45	11.05	16.75	21.80	26.40	29.70	36.55
	C			2.10	9.70	15.40	20.45	25.05	28.35	35.20
I-405 South	D				7.60	13.30	18.35	22.95	26.25	33.10
	E					5.70	10.75	15.35	18.65	25.50
	F						5.05	9.65	12.95	19.80
I-405 North	G							4.60	7.90	14.75
	H								3.30	10.15
	I									6.85

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	13.25	15.65	22.75	30.55	38.90	51.80	55.95	61.00	64.00
	H		2.40	9.50	17.30	25.65	38.55	42.70	47.75	50.75
	G			7.10	14.90	23.25	36.15	40.30	45.35	48.35
I-405 South	F				7.80	16.15	29.05	33.20	38.25	41.25
	E					8.35	21.25	25.40	30.45	33.45
	D						12.90	17.05	22.10	25.10
SR 167	C							4.15	9.20	12.20
	B								5.05	8.05
	A									3.00

Table A-10-11
Toll Charge Matrix PM6 (7:30 am - 8:00 pm)
Study Option 5 - HOV 3+,no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.20	0.45	0.70	2.60	4.90	6.50	8.30	9.35	10.50
	B		0.25	0.50	2.40	4.70	6.30	8.10	9.15	10.30
	C			0.25	2.15	4.45	6.05	7.85	8.90	10.05
I-405 South	D				1.90	4.20	5.80	7.60	8.65	9.80
	E					2.30	3.90	5.70	6.75	7.90
	F						1.60	3.40	4.45	5.60
I-405 North	G							1.80	2.85	4.00
	H								1.05	2.20
	I									1.15

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.70	1.15	2.05	3.20	5.50	7.20	7.70	8.25	8.45
	H		0.45	1.35	2.50	4.80	6.50	7.00	7.55	7.75
	G			0.90	2.05	4.35	6.05	6.55	7.10	7.30
I-405 South	F				1.15	3.45	5.15	5.65	6.20	6.40
	E					2.30	4.00	4.50	5.05	5.25
	D						1.70	2.20	2.75	2.95
SR 167	C							0.50	1.05	1.25
	B								0.55	0.75
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.20	0.75	1.25	5.05	7.70	10.00	12.80	15.05	17.35
	B		0.55	1.05	4.85	7.50	9.80	12.60	14.85	17.15
	C			0.50	4.30	6.95	9.25	12.05	14.30	16.60
I-405 South	D				3.80	6.45	8.75	11.55	13.80	16.10
	E					2.65	4.95	7.75	10.00	12.30
	F						2.30	5.10	7.35	9.65
I-405 North	G							2.80	5.05	7.35
	H								2.25	4.55
	I									2.30

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	1.35	2.55	4.90	7.45	10.50	15.45	16.25	17.05	17.50
	H		1.20	3.55	6.10	9.15	14.10	14.90	15.70	16.15
	G			2.35	4.90	7.95	12.90	13.70	14.50	14.95
I-405 South	F				2.55	5.60	10.55	11.35	12.15	12.60
	E					3.05	8.00	8.80	9.60	10.05
	D						4.95	5.75	6.55	7.00
SR 167	C							0.80	1.60	2.05
	B								0.80	1.25
	A									0.45

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.45	1.25	2.80	9.45	13.65	18.25	22.35	25.35	28.40
	B		0.80	2.35	9.00	13.20	17.80	21.90	24.90	27.95
	C			1.55	8.20	12.40	17.00	21.10	24.10	27.15
I-405 South	D				6.65	10.85	15.45	19.55	22.55	25.60
	E					4.20	8.80	12.90	15.90	18.95
	F						4.60	8.70	11.70	14.75
I-405 North	G							4.10	7.10	10.15
	H								3.00	6.05
	I									3.05

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	12.25	14.95	21.45	29.25	37.25	50.15	53.80	58.55	59.65
	H		2.70	9.20	17.00	25.00	37.90	41.55	46.30	47.40
	G			6.50	14.30	22.30	35.20	38.85	43.60	44.70
I-405 South	F				7.80	15.80	28.70	32.35	37.10	38.20
	E					8.00	20.90	24.55	29.30	30.40
	D						12.90	16.55	21.30	22.40
SR 167	C							3.65	8.40	9.50
	B								4.75	5.85
	A									1.10

Table A-11-1

Estimated Gross Toll Revenue per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 1 - HOV 3+, no toll cap

All Revenue Values in Current Dollars

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$196	$27,317	$0	$0	$42,891	$710	$71,114
AM Peak	371	21,148	0	0	55,741	1,390	78,651
Midday	2,044	7,805	0	0	26,829	5,863	42,541
PM Shoulder	3,856	903	0	0	9,399	27,827	41,985
PM Peak	12,122	5,064	0	0	32,219	81,002	130,407
Evening	393	70	0	0	695	9,080	10,238
Total	18,983	62,308	0	0	167,774	125,871	374,937

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$244	$22,794	$0	$0	$89,073	$2,146	$114,256
AM Peak	359	26,100	0	0	89,441	4,523	120,423
Midday	4,162	9,881	0	0	129,081	14,433	157,557
PM Shoulder	13,098	5,435	0	0	41,410	54,561	114,504
PM Peak	33,180	20,805	0	0	116,933	152,188	323,107
Evening	1,664	184	0	0	6,085	19,990	27,922
Total	52,708	85,198	0	0	472,023	247,842	857,770

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$531	$54,004	$0	$0	$122,900	$5,390	$182,826
AM Peak	1,487	46,147	0	0	119,410	12,337	179,382
Midday	9,925	51,777	0	0	232,475	33,363	327,540
PM Shoulder	21,726	9,600	0	0	75,080	93,163	199,568
PM Peak	50,770	33,578	0	0	182,435	224,169	490,952
Evening	6,153	386	0	0	17,717	36,674	60,930
Total	90,593	195,492	0	0	750,018	405,096	1,441,198

Table A-11-2

Estimated Total Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 1 - HOV 3+, no toll cap

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,261	9,612	0	0	17,917	3,518	33,307
AM Peak	3,192	7,821	0	0	14,861	5,030	30,904
Midday	13,839	18,744	0	0	27,792	17,249	77,624
PM Shoulder	6,241	4,793	0	0	7,356	10,161	28,551
PM Peak	13,169	10,483	0	0	15,835	20,806	60,292
Evening	3,241	1,885	0	0	2,076	5,955	13,158
Total	41,944	53,338	0	0	85,837	62,719	243,837

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,525	9,719	0	0	14,547	4,937	31,728
AM Peak	3,119	8,473	0	0	11,205	7,538	30,334
Midday	15,870	18,530	0	0	28,998	24,089	87,486
PM Shoulder	6,495	5,881	0	0	7,930	10,389	30,694
PM Peak	13,033	12,258	0	0	17,212	21,039	63,542
Evening	4,118	2,446	0	0	4,105	6,003	16,673
Total	45,160	57,307	0	0	83,997	73,994	260,458

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,639	8,906	0	0	13,944	6,324	31,813
AM Peak	4,136	7,702	0	0	10,920	8,214	30,972
Midday	18,173	16,567	0	0	28,236	26,656	89,632
PM Shoulder	6,351	5,909	0	0	8,699	10,331	31,289
PM Peak	12,775	12,281	0	0	17,342	20,976	63,375
Evening	4,210	2,726	0	0	4,740	6,077	17,754
Total	48,285	54,091	0	0	83,880	78,579	264,835

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table A-11-3

Estimated Tolled Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 1 - HOV 3+, no toll cap

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	460	4,351	0	0	14,637	1,433	20,881
AM Peak	973	2,768	0	0	11,009	2,711	17,461
Midday	5,281	8,460	0	0	22,897	13,073	49,711
PM Shoulder	2,264	1,323	0	0	6,102	8,775	18,464
PM Peak	4,571	3,400	0	0	12,909	17,810	38,690
Evening	1,004	150	0	0	1,512	5,300	7,967
Total	14,553	20,452	0	0	69,066	49,103	153,173

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	352	3,725	0	0	11,602	2,807	18,487
AM Peak	574	2,840	0	0	7,615	5,018	16,046
Midday	6,353	6,520	0	0	22,406	18,797	54,076
PM Shoulder	2,154	1,745	0	0	5,784	8,482	18,165
PM Peak	3,740	3,862	0	0	12,387	16,925	36,915
Evening	1,628	270	0	0	3,048	5,052	9,999
Total	14,801	18,962	0	0	62,843	57,082	153,688

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	613	3,632	0	0	10,360	3,748	18,353
AM Peak	1,718	2,809	0	0	7,080	5,374	16,982
Midday	8,521	4,891	0	0	19,563	20,393	53,368
PM Shoulder	1,776	1,626	0	0	5,289	8,015	16,706
PM Peak	3,083	3,603	0	0	10,154	16,097	32,938
Evening	1,462	437	0	0	2,847	4,855	9,602
Total	17,174	16,999	0	0	55,293	58,483	147,948

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table A-11-4

Estimated Toll-Free Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 1 - HOV 3+, no toll cap

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	1,801	5,261	0	0	3,280	2,085	12,427
AM Peak	2,219	5,053	0	0	3,852	2,319	13,442
Midday	8,558	10,285	0	0	4,895	4,176	27,914
PM Shoulder	3,977	3,470	0	0	1,254	1,386	10,087
PM Peak	8,598	7,083	0	0	2,926	2,996	21,603
Evening	2,237	1,735	0	0	564	655	5,191
Total	27,390	32,886	0	0	16,771	13,616	90,664

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,173	5,994	0	0	2,945	2,130	13,241
AM Peak	2,545	5,633	0	0	3,590	2,520	14,288
Midday	9,517	12,010	0	0	6,591	5,292	33,410
PM Shoulder	4,341	4,136	0	0	2,146	1,906	12,529
PM Peak	9,293	8,396	0	0	4,825	4,114	26,628
Evening	2,490	2,176	0	0	1,057	950	6,673
Total	30,359	38,345	0	0	21,154	16,912	106,770

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,026	5,274	0	0	3,584	2,576	13,461
AM Peak	2,418	4,893	0	0	3,839	2,840	13,990
Midday	9,652	11,675	0	0	8,674	6,263	36,264
PM Shoulder	4,575	4,283	0	0	3,410	2,315	14,583
PM Peak	9,692	8,678	0	0	7,188	4,879	30,437
Evening	2,748	2,289	0	0	1,893	1,222	8,152
Total	31,111	37,092	0	0	28,588	20,096	116,887

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table A-12-1

Estimated Gross Toll Revenue per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 2 - HOV 3+, no toll cap

All Revenue Values in Current Dollars

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$326	$27,929	$3,106	$7,864	$43,562	$716	$83,503
AM Peak	510	21,421	10,924	8,847	53,248	1,170	96,121
Midday	2,115	8,842	2,724	6,327	22,697	4,679	47,384
PM Shoulder	3,901	1,012	2,610	8,373	8,424	25,486	49,806
PM Peak	11,786	5,378	10,977	30,888	31,541	76,351	166,921
Evening	446	70	622	976	631	9,047	11,791
Total	19,083	64,653	30,962	63,275	160,103	117,449	455,525

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$450	$23,611	$22,117	$30,051	$84,507	$2,499	$163,235
AM Peak	649	26,643	32,699	28,211	83,410	6,250	177,862
Midday	4,277	10,357	23,416	49,318	132,304	20,256	239,928
PM Shoulder	13,460	5,575	15,174	24,149	38,839	55,840	153,036
PM Peak	23,150	20,866	42,812	61,639	108,977	143,654	401,097
Evening	1,819	220	5,171	5,594	3,941	19,765	36,510
Total	43,805	87,273	141,388	198,962	451,978	248,263	1,171,669

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$779	$57,160	$32,025	$42,201	$115,371	$4,939	$252,475
AM Peak	1,793	46,032	45,055	35,878	112,691	8,959	250,408
Midday	9,051	52,383	52,962	67,552	208,415	27,749	418,113
PM Shoulder	20,103	9,697	31,663	33,973	69,129	88,175	252,740
PM Peak	49,427	33,411	75,762	80,122	168,732	215,514	622,967
Evening	6,223	409	13,455	11,260	15,673	35,441	82,461
Total	87,377	199,092	250,922	270,987	690,010	380,777	1,879,165

Table A-12-2

Estimated Total Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 2 - HOV 3+, no toll cap

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,504	9,495	5,380	8,205	16,245	4,194	46,023
AM Peak	3,433	7,816	6,790	6,059	14,534	4,898	43,531
Midday	13,966	17,890	10,544	14,305	27,923	17,083	101,712
PM Shoulder	6,333	4,670	4,780	4,840	7,116	10,258	37,998
PM Peak	13,423	9,961	9,897	11,144	14,968	19,943	79,337
Evening	3,326	1,886	2,121	1,649	1,970	5,522	16,474
Total	42,986	51,718	39,512	46,203	82,757	61,898	325,075

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,759	9,722	6,938	8,993	14,871	4,906	48,190
AM Peak	3,470	8,485	7,922	7,948	12,629	6,121	46,575
Midday	15,876	17,419	13,693	15,779	26,702	18,063	107,532
PM Shoulder	6,387	5,498	5,598	5,316	8,236	9,348	40,385
PM Peak	11,617	11,755	11,027	11,732	17,901	20,163	84,195
Evening	4,103	2,485	3,297	2,762	4,702	5,540	22,890
Total	44,212	55,365	48,477	52,530	85,042	64,141	349,766

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,816	9,004	6,849	9,591	15,042	6,202	49,504
AM Peak	4,351	7,626	8,195	7,153	12,679	7,434	47,439
Midday	19,553	16,465	12,686	15,831	28,016	25,598	118,150
PM Shoulder	6,179	5,820	5,753	5,414	9,270	10,303	42,741
PM Peak	12,691	12,292	11,371	11,257	19,211	20,117	86,939
Evening	4,227	2,729	3,874	3,018	4,854	5,893	24,595
Total	49,818	53,936	48,728	52,264	89,072	75,548	369,366

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table A-12-3

Estimated Tolled Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 2 - HOV 3+, no toll cap

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	703	4,234	4,201	5,780	12,919	1,994	29,831
AM Peak	1,214	2,766	4,948	3,851	10,622	2,522	25,923
Midday	5,408	7,606	7,004	10,591	23,033	12,884	66,525
PM Shoulder	2,356	1,200	3,445	3,759	5,862	8,869	25,491
PM Peak	4,825	2,878	7,083	8,412	12,042	16,931	52,171
Evening	1,089	151	1,316	1,167	1,409	4,862	9,994
Total	15,596	18,835	27,996	33,560	65,887	48,061	209,936

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	586	3,729	5,597	5,324	11,969	2,696	29,902
AM Peak	925	2,853	5,873	4,706	9,158	3,538	27,052
Midday	6,360	5,408	9,213	9,033	19,934	12,556	62,503
PM Shoulder	2,046	1,362	3,588	3,625	6,045	7,395	24,061
PM Peak	2,324	3,359	6,873	8,161	13,090	16,050	49,856
Evening	1,613	309	2,094	1,875	3,637	4,567	14,095
Total	13,854	17,021	33,237	32,723	63,833	46,801	207,470

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	790	3,727	5,361	5,234	11,652	3,595	30,359
AM Peak	1,933	2,733	5,966	3,408	8,945	4,583	27,568
Midday	9,901	4,785	7,382	8,379	18,964	18,958	68,369
PM Shoulder	1,589	1,537	3,211	3,621	5,817	7,956	23,732
PM Peak	3,001	3,614	6,295	7,625	11,989	15,167	47,692
Evening	1,479	440	2,239	1,973	2,945	4,643	13,719
Total	18,694	16,836	30,454	30,239	60,314	54,901	211,438

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table A-12-4

Estimated Toll-Free Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 2 - HOV 3+, no toll cap

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	1,801	5,261	1,179	2,425	3,326	2,200	16,192
AM Peak	2,219	5,050	1,842	2,208	3,912	2,377	17,607
Midday	8,558	10,285	3,540	3,714	4,889	4,200	35,186
PM Shoulder	3,977	3,470	1,335	1,081	1,255	1,389	12,507
PM Peak	8,598	7,083	2,815	2,731	2,927	3,012	27,166
Evening	2,237	1,735	805	482	561	660	6,480
Total	27,390	32,883	11,516	12,643	16,869	13,837	115,139

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,173	5,993	1,342	3,669	2,902	2,210	18,288
AM Peak	2,545	5,632	2,050	3,242	3,471	2,583	19,523
Midday	9,517	12,010	4,480	6,746	6,768	5,507	45,028
PM Shoulder	4,341	4,136	2,011	1,692	2,191	1,953	16,323
PM Peak	9,293	8,396	4,154	3,571	4,811	4,114	34,339
Evening	2,490	2,176	1,203	887	1,065	974	8,795
Total	30,359	38,343	15,239	19,806	21,209	17,340	142,296

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,026	5,277	1,488	4,357	3,390	2,607	19,145
AM Peak	2,418	4,893	2,230	3,745	3,734	2,852	19,871
Midday	9,652	11,680	5,304	7,453	9,052	6,640	49,781
PM Shoulder	4,590	4,283	2,542	1,793	3,453	2,347	19,009
PM Peak	9,690	8,678	5,075	3,632	7,222	4,950	39,247
Evening	2,748	2,289	1,635	1,045	1,908	1,250	10,875
Total	31,123	37,100	18,274	22,025	28,759	20,647	157,928

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table A-13-1

Estimated Gross Toll Revenue per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 3 - HOV 3+, no toll cap

All Revenue Values in Current Dollars

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$262	$35,586	$5,599	$9,972	$41,121	$754	$93,294
AM Peak	851	33,669	12,700	10,309	53,898	1,351	112,777
Midday	3,380	13,187	2,259	5,181	18,766	4,895	47,667
PM Shoulder	7,606	2,317	3,699	8,400	9,559	26,689	58,270
PM Peak	22,211	9,394	13,914	31,527	35,199	77,312	189,557
Evening	885	62	620	887	551	9,452	12,457
Total	35,196	94,214	38,790	66,277	159,094	120,453	514,023

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$494	$39,792	$25,749	$35,384	$83,194	$3,132	$187,744
AM Peak	1,060	44,776	34,699	33,641	83,146	6,991	204,313
Midday	6,433	13,324	28,518	53,883	132,705	19,954	254,817
PM Shoulder	23,705	10,939	17,573	25,577	36,992	54,470	169,255
PM Peak	64,944	39,821	48,952	66,136	105,912	145,373	471,138
Evening	3,070	557	5,276	5,228	5,376	19,562	39,068
Total	99,705	149,209	160,766	219,850	447,324	249,481	1,326,335

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$1,001	$84,215	$34,661	$48,454	$116,854	$6,564	$291,749
AM Peak	2,683	72,392	46,631	40,657	113,720	13,801	289,886
Midday	13,675	94,481	58,131	72,898	207,514	35,520	482,219
PM Shoulder	45,194	20,495	33,362	36,324	68,979	87,829	292,183
PM Peak	110,785	62,458	78,387	88,981	165,872	213,386	719,868
Evening	11,923	1,386	13,781	10,717	15,613	33,990	87,410
Total	185,261	335,427	264,953	298,031	688,552	391,090	2,163,315

Table A-13-2

Estimated Total Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 3 - HOV 3+, no toll cap

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	1,657	9,286	4,695	7,123	15,728	3,561	42,050
AM Peak	2,316	7,785	6,441	5,907	14,179	3,721	40,349
Midday	11,934	16,043	13,348	16,930	31,674	17,635	107,564
PM Shoulder	4,892	3,653	4,587	5,078	6,639	9,716	34,563
PM Peak	9,879	9,256	9,193	11,575	12,934	19,363	72,200
Evening	2,580	630	2,484	1,845	2,041	5,327	14,907
Total	33,258	46,651	40,747	48,458	83,195	59,323	311,633

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	1,686	7,957	6,510	9,250	14,805	4,241	44,449
AM Peak	2,297	7,261	7,809	7,811	13,285	5,581	44,045
Midday	13,173	17,606	13,716	16,648	25,729	18,029	104,901
PM Shoulder	5,509	4,913	5,840	5,716	8,848	9,986	40,812
PM Peak	10,314	9,673	11,939	11,925	18,941	19,970	82,761
Evening	3,337	1,560	3,496	3,181	4,035	5,742	21,352
Total	36,317	48,970	49,311	54,532	85,642	63,549	338,320

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,107	7,570	6,585	9,530	14,236	5,189	45,216
AM Peak	3,274	5,974	8,303	7,078	12,521	5,993	43,143
Midday	16,532	14,876	13,772	17,325	29,044	23,664	115,212
PM Shoulder	4,852	4,614	6,199	5,652	9,303	10,398	41,017
PM Peak	8,885	9,950	12,054	11,585	18,116	20,790	81,381
Evening	3,617	1,912	4,093	3,506	4,893	6,356	24,378
Total	39,267	44,895	51,007	54,675	88,113	72,390	350,347

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table A-13-3

Estimated Tolled Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 3 - HOV 3+, no toll cap

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	716	7,073	3,475	4,697	12,403	1,361	29,725
AM Peak	1,104	5,801	4,596	3,682	10,247	1,333	26,764
Midday	9,575	12,643	9,696	12,886	26,947	13,436	85,183
PM Shoulder	4,395	2,906	3,210	3,994	5,383	8,324	28,211
PM Peak	8,740	7,644	6,245	8,814	9,950	16,341	57,733
Evening	2,358	277	1,653	1,351	1,480	4,662	11,780
Total	26,888	36,343	28,875	35,424	66,409	45,457	239,397

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	793	6,261	5,154	5,556	11,899	2,024	31,688
AM Peak	1,099	5,726	5,773	4,570	9,887	3,043	30,099
Midday	10,993	14,665	9,220	9,890	18,959	12,527	76,255
PM Shoulder	5,132	4,027	3,805	4,018	6,684	8,062	31,729
PM Peak	9,429	7,789	7,784	8,342	14,257	15,916	63,517
Evening	3,184	1,116	2,280	2,293	2,963	4,792	16,627
Total	30,631	39,585	34,016	34,669	64,650	46,365	249,915

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	1,215	5,890	5,077	5,151	10,684	2,488	30,506
AM Peak	2,079	4,517	6,075	3,323	8,776	3,127	27,897
Midday	14,242	11,916	8,389	9,878	20,173	17,136	81,734
PM Shoulder	4,358	3,750	3,648	3,856	5,850	8,050	29,512
PM Peak	7,804	8,121	6,972	7,941	10,773	15,799	57,410
Evening	3,412	1,471	2,444	2,472	3,001	5,129	17,929
Total	33,110	35,665	32,604	32,622	59,257	51,730	244,988

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table A-13-4

Estimated Toll-Free Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 3 - HOV 3+, no toll cap

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	941	2,213	1,220	2,426	3,325	2,200	12,326
AM Peak	1,212	1,984	1,844	2,225	3,932	2,388	13,585
Midday	2,359	3,400	3,652	4,044	4,727	4,200	22,381
PM Shoulder	497	747	1,377	1,083	1,256	1,391	6,352
PM Peak	1,139	1,612	2,948	2,761	2,985	3,022	14,467
Evening	222	353	830	494	562	665	3,126
Total	6,370	10,309	11,872	13,033	16,786	13,866	72,236

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	893	1,696	1,356	3,694	2,905	2,217	12,762
AM Peak	1,198	1,535	2,036	3,241	3,398	2,538	13,946
Midday	2,180	2,941	4,496	6,758	6,770	5,502	28,646
PM Shoulder	377	886	2,035	1,698	2,163	1,924	9,083
PM Peak	885	1,884	4,155	3,583	4,683	4,054	19,244
Evening	153	444	1,216	888	1,072	951	4,724
Total	5,686	9,386	15,294	19,863	20,992	17,185	88,406

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	892	1,680	1,508	4,379	3,552	2,700	14,710
AM Peak	1,195	1,457	2,228	3,754	3,746	2,866	15,246
Midday	2,291	2,959	5,384	7,446	8,870	6,528	33,478
PM Shoulder	494	864	2,551	1,796	3,453	2,348	11,505
PM Peak	1,081	1,829	5,082	3,644	7,343	4,991	23,971
Evening	205	441	1,649	1,034	1,893	1,227	6,449
Total	6,158	9,230	18,402	22,053	28,856	20,660	105,359

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table A-14-1

Estimated Gross Toll Revenue per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 4 - HOV 3+, no toll cap

All Revenue Values in Current Dollars

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$1,890	$50,544	$24,420	$35,307	$44,920	$4,539	$161,620
AM Peak	4,844	47,111	29,837	29,337	58,610	5,166	174,905
Midday	20,139	49,735	47,577	75,695	69,384	21,738	284,268
PM Shoulder	23,182	10,938	30,043	35,444	23,559	45,981	169,146
PM Peak	57,699	33,883	65,815	78,302	64,641	110,770	411,110
Evening	8,434	3,631	16,394	21,380	5,285	21,923	77,047
Total	116,187	195,843	214,085	275,465	266,400	210,117	1,278,097

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$8,264	$72,432	$65,806	$70,781	$101,327	$11,149	$329,760
AM Peak	7,992	67,499	54,381	61,810	89,520	17,764	298,967
Midday	35,533	75,334	127,427	136,789	163,163	58,642	596,888
PM Shoulder	36,534	23,018	44,283	50,616	49,295	67,150	270,896
PM Peak	86,282	60,776	101,987	110,611	121,016	159,691	640,361
Evening	10,960	6,016	25,434	29,191	11,497	27,164	110,262
Total	185,564	305,076	419,318	459,798	535,819	341,559	2,247,134

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$10,895	$123,353	$91,742	$90,490	$133,874	$18,399	$468,752
AM Peak	11,337	105,300	80,779	83,592	128,001	27,512	436,522
Midday	52,396	156,309	187,644	179,441	260,600	100,196	936,586
PM Shoulder	61,618	33,051	55,605	65,183	86,050	97,922	399,430
PM Peak	131,723	88,246	128,053	147,128	200,081	232,721	927,952
Evening	27,499	7,251	31,461	39,567	27,058	48,838	181,675
Total	295,468	513,512	575,284	605,401	835,665	525,588	3,350,917

Table A-14-2

Estimated Total Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 4 - HOV 3+, no toll cap

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	4,170	10,759	13,240	18,206	17,159	5,007	68,542
AM Peak	3,835	8,360	13,257	13,779	15,884	4,518	59,633
Midday	11,273	16,625	25,823	35,618	25,433	18,728	133,500
PM Shoulder	5,668	5,160	9,222	10,952	7,567	11,465	50,035
PM Peak	11,260	10,167	17,630	20,016	17,940	21,578	98,590
Evening	2,972	2,059	6,204	6,749	2,943	5,738	26,665
Total	39,177	53,132	85,376	105,320	86,927	67,035	436,965

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	3,495	10,505	16,369	17,735	15,012	6,170	69,286
AM Peak	3,446	8,356	13,545	11,851	10,871	7,195	55,264
Midday	9,436	14,956	32,387	36,230	29,889	21,067	143,965
PM Shoulder	4,264	4,466	8,523	10,199	8,827	10,045	46,324
PM Peak	9,886	11,182	18,272	21,192	21,874	21,440	103,846
Evening	2,013	1,532	6,291	6,863	3,765	5,361	25,826
Total	32,541	50,997	95,388	104,070	90,237	71,277	444,510

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	3,617	9,778	16,131	17,145	14,992	6,796	68,459
AM Peak	3,673	7,832	13,036	12,024	12,527	7,498	56,590
Midday	13,278	18,267	28,402	38,532	31,880	25,951	156,310
PM Shoulder	5,116	5,449	9,657	11,435	10,589	11,764	54,010
PM Peak	10,477	12,182	19,251	21,143	22,216	22,090	107,358
Evening	2,994	1,905	6,471	7,416	5,106	6,599	30,491
Total	39,155	55,412	92,948	107,695	97,310	80,698	473,218

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table A-14-3

Estimated Tolled Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 4 - HOV 3+, no toll cap

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	3,228	8,359	11,568	15,360	13,837	2,792	55,145
AM Peak	2,623	6,283	11,022	11,143	11,817	1,988	44,877
Midday	8,921	12,910	22,061	30,889	19,739	14,267	108,787
PM Shoulder	5,178	4,329	7,984	9,827	6,228	10,046	43,593
PM Peak	10,137	8,386	15,179	17,520	14,800	18,498	84,520
Evening	2,753	1,654	5,426	6,088	2,354	5,046	23,321
Total	32,840	41,922	73,241	90,828	68,775	52,636	360,242

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,602	8,619	14,651	14,094	12,000	3,767	55,732
AM Peak	2,246	6,669	11,463	8,585	7,421	4,468	40,852
Midday	7,264	11,774	27,779	30,135	23,421	15,684	116,057
PM Shoulder	3,870	3,525	6,684	8,604	6,661	8,111	37,456
PM Peak	9,017	9,183	14,619	17,730	17,054	17,325	84,928
Evening	1,859	1,054	5,059	5,895	2,637	4,357	20,860
Total	26,859	40,823	80,255	85,043	69,194	53,711	355,886

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,725	7,909	14,329	12,963	11,351	3,944	53,221
AM Peak	2,483	6,242	10,962	8,374	8,876	4,594	41,529
Midday	10,995	15,085	23,295	31,756	23,144	19,466	123,741
PM Shoulder	4,630	4,534	7,477	9,712	7,117	9,442	42,912
PM Peak	9,435	10,247	14,840	17,390	14,951	17,197	84,061
Evening	2,795	1,435	5,057	6,280	3,153	5,341	24,062
Total	33,064	45,452	75,960	86,475	68,592	59,984	369,526

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table A-14-4

Estimated Toll-Free Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 4 - HOV 3+, no toll cap

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	941	2,401	1,672	2,846	3,322	2,215	13,397
AM Peak	1,212	2,077	2,234	2,636	4,067	2,530	14,757
Midday	2,352	3,715	3,762	4,729	5,694	4,462	24,713
PM Shoulder	490	831	1,238	1,125	1,339	1,419	6,442
PM Peak	1,123	1,781	2,451	2,495	3,140	3,080	14,070
Evening	219	405	778	661	590	693	3,344
Total	6,337	11,210	12,135	14,492	18,151	14,399	76,723

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	893	1,886	1,719	3,640	3,012	2,403	13,554
AM Peak	1,200	1,687	2,082	3,266	3,450	2,727	14,412
Midday	2,172	3,183	4,608	6,095	6,468	5,383	27,908
PM Shoulder	394	941	1,839	1,595	2,165	1,934	8,868
PM Peak	869	1,999	3,653	3,462	4,820	4,115	18,918
Evening	154	478	1,232	968	1,128	1,005	4,965
Total	5,682	10,174	15,132	19,027	21,043	17,566	88,625

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	892	1,868	1,803	4,182	3,641	2,852	15,238
AM Peak	1,190	1,590	2,074	3,650	3,652	2,904	15,060
Midday	2,283	3,182	5,107	6,775	8,736	6,485	32,569
PM Shoulder	486	915	2,179	1,723	3,472	2,323	11,098
PM Peak	1,042	1,935	4,410	3,752	7,265	4,893	23,297
Evening	199	470	1,414	1,136	1,953	1,257	6,429
Total	6,092	9,961	16,988	21,220	28,718	20,714	103,692

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table A-15-1

Estimated Gross Toll Revenue per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 5 - HOV 3+, no toll cap

All Revenue Values in Current Dollars

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$1,133	$45,807	$12,551	$24,714	$46,413	$3,692	$134,310
AM Peak	1,134	47,171	24,514	25,576	58,096	6,777	163,268
Midday	4,543	28,277	31,891	50,273	55,368	18,037	188,390
PM Shoulder	9,356	3,613	29,468	28,215	16,637	33,802	121,092
PM Peak	26,821	14,355	66,629	68,216	47,628	79,372	303,021
Evening	2,438	632	14,779	12,907	3,585	13,417	47,759
Total	45,426	139,856	179,833	209,902	227,728	155,097	957,841

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$1,051	$49,144	$54,987	$59,495	$86,143	$9,897	$260,717
AM Peak	1,821	59,387	63,923	57,838	96,914	15,115	294,998
Midday	7,353	32,731	95,699	131,668	121,159	30,917	419,528
PM Shoulder	19,343	10,003	52,943	49,767	52,729	47,280	232,066
PM Peak	51,085	34,368	107,000	124,134	131,945	116,480	565,011
Evening	3,903	1,274	24,179	21,680	11,258	20,242	82,535
Total	84,556	186,906	398,731	444,582	500,148	239,931	1,854,855

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$2,133	$107,431	$79,466	$101,811	$133,131	$24,576	$448,547
AM Peak	3,258	106,383	88,727	91,608	133,924	40,761	464,660
Midday	16,837	88,808	181,297	234,340	265,358	91,142	877,781
PM Shoulder	34,401	18,078	101,971	83,379	81,704	74,106	393,638
PM Peak	79,715	62,553	207,652	195,650	185,863	182,649	914,082
Evening	14,143	3,304	61,089	39,714	38,043	35,278	191,571
Total	150,486	386,557	720,201	746,503	838,021	448,511	3,290,279

Table A-15-2

Estimated Total Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 5 - HOV 3+, no toll cap

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	4,881	10,743	14,873	19,998	24,739	10,412	85,646
AM Peak	5,311	8,236	15,485	15,490	20,636	11,761	76,920
Midday	16,502	17,239	33,291	40,801	42,097	37,044	186,975
PM Shoulder	5,842	4,983	12,821	10,909	10,966	14,747	60,269
PM Peak	11,543	10,954	26,013	21,135	25,849	29,373	124,867
Evening	3,913	2,677	8,620	7,281	5,011	9,336	36,840
Total	47,993	54,833	111,103	115,615	129,299	112,673	571,516

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	4,666	8,445	18,193	21,249	24,283	11,486	88,323
AM Peak	4,263	7,986	16,093	17,474	20,439	12,811	79,067
Midday	17,395	13,206	35,402	40,375	45,014	39,718	191,110
PM Shoulder	5,847	5,086	11,244	12,145	10,380	15,929	60,631
PM Peak	11,670	11,002	24,874	24,982	21,937	31,293	125,759
Evening	3,771	2,467	8,089	7,557	5,724	9,028	36,636
Total	47,613	48,192	113,896	123,782	127,777	120,266	581,526

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	5,421	10,404	18,518	21,608	25,753	14,075	95,779
AM Peak	5,146	8,734	15,585	17,125	20,269	13,530	80,388
Midday	18,840	19,225	35,342	40,748	45,057	35,483	194,696
PM Shoulder	5,988	5,375	12,535	13,125	13,299	14,887	65,209
PM Peak	12,889	10,428	24,754	25,027	26,392	27,255	126,745
Evening	3,581	2,764	8,022	8,256	6,878	9,774	39,276
Total	51,865	56,931	114,756	125,889	137,648	115,004	602,093

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table A-15-3

Estimated Tolled Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 5 - HOV 3+, no toll cap

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	3,923	8,413	13,590	17,212	21,068	7,930	72,137
AM Peak	4,016	6,154	13,668	12,966	16,937	9,090	62,832
Midday	14,161	13,634	29,428	36,255	35,927	32,097	161,502
PM Shoulder	5,384	4,197	11,288	9,782	9,452	13,262	53,366
PM Peak	10,526	9,186	22,830	18,204	22,129	26,051	108,926
Evening	3,708	2,273	7,713	6,697	4,364	8,610	33,365
Total	41,717	43,858	98,518	101,117	109,878	97,040	492,128

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	3,827	6,875	16,842	17,207	20,819	8,933	74,504
AM Peak	3,208	6,571	14,335	14,006	16,955	10,021	65,097
Midday	15,344	10,402	31,081	33,830	38,322	34,231	163,210
PM Shoulder	5,509	4,206	9,115	10,348	7,985	14,012	51,175
PM Peak	10,885	9,160	20,546	20,686	16,874	27,327	105,478
Evening	3,637	1,988	6,769	6,672	4,494	7,984	31,544
Total	42,410	39,203	98,688	102,748	105,450	102,509	491,008

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	4,553	8,837	17,158	16,616	21,907	10,985	80,057
AM Peak	4,059	7,387	13,828	12,823	16,437	10,208	64,741
Midday	16,708	16,467	30,064	32,597	36,476	29,206	161,518
PM Shoulder	5,606	4,581	9,992	11,027	9,985	12,793	53,985
PM Peak	12,017	8,752	19,605	20,510	19,627	22,986	103,497
Evening	3,415	2,340	6,379	7,195	4,819	8,511	32,658
Total	46,359	48,365	97,025	100,768	109,250	94,689	496,455

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table A-15-4

Estimated Toll-Free Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 5 - HOV 3+, no toll cap

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	958	2,330	1,282	2,786	3,670	2,482	13,508
AM Peak	1,296	2,082	1,817	2,524	3,699	2,670	14,088
Midday	2,342	3,605	3,863	4,546	6,170	4,947	25,473
PM Shoulder	458	786	1,532	1,127	1,514	1,485	6,903
PM Peak	1,017	1,767	3,183	2,931	3,720	3,322	15,941
Evening	206	404	908	584	647	726	3,475
Total	6,277	10,975	12,585	14,498	19,421	15,633	79,388

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	839	1,570	1,351	4,042	3,464	2,553	13,819
AM Peak	1,055	1,414	1,758	3,468	3,485	2,790	13,971
Midday	2,052	2,804	4,321	6,544	6,692	5,487	27,900
PM Shoulder	338	880	2,129	1,797	2,394	1,916	9,456
PM Peak	785	1,842	4,328	4,297	5,063	3,966	20,281
Evening	134	479	1,320	886	1,230	1,044	5,092
Total	5,203	8,989	15,208	21,035	22,327	17,757	90,519

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	867	1,568	1,359	4,991	3,847	3,090	15,722
AM Peak	1,087	1,347	1,757	4,302	3,832	3,322	15,647
Midday	2,133	2,757	5,279	8,152	8,581	6,277	33,178
PM Shoulder	382	794	2,543	2,098	3,314	2,093	11,224
PM Peak	871	1,677	5,149	4,517	6,765	4,269	23,248
Evening	166	424	1,643	1,061	2,060	1,264	6,617
Total	5,506	8,566	17,730	25,121	28,398	20,315	105,637

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table A-16-1
2020 Estimated Traffic and Gross Toll Revenue
I-405 / SR 167 Express Toll Lanes - Study Option 1 - HOV 3+, no toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	4,256	2,747	7,003	$10.20	$28,027	$7,071,200
AM Peak	4,356	2,606	6,962	8.65	22,538	5,686,300
Midday	8,498	9,821	18,319	1.39	13,668	3,448,400
PM Shoulder	2,818	5,198	8,016	5.53	28,730	7,248,600
PM Peak	5,927	10,969	16,896	7.85	86,066	21,714,500
Evening	1,377	2,802	4,179	3.27	9,150	2,308,500
Total	27,232	34,143	61,375	$5.51	$188,179	$47,477,500

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	2,976	7,106	10,082	$6.06	$43,087	$10,870,900
AM Peak	3,487	5,565	9,052	10.08	56,112	14,157,100
Midday	8,237	13,712	21,949	2.11	28,873	7,284,700
PM Shoulder	3,093	4,082	7,175	3.25	13,255	3,344,200
PM Peak	6,739	8,832	15,571	5.02	44,340	11,187,000
Evening	1,677	1,089	2,766	1.00	1,089	274,800
Total	26,209	40,386	66,595	$4.62	$186,756	$47,118,700

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	7,232	9,853	17,085	$7.22	$71,114	$17,942,100
AM Peak	7,843	8,171	16,014	9.63	78,650	19,843,400
Midday	16,735	23,533	40,268	1.81	42,541	10,733,100
PM Shoulder	5,911	9,280	15,191	4.52	41,985	10,592,800
PM Peak	12,666	19,801	32,467	6.59	130,406	32,901,400
Evening	3,054	3,891	6,945	2.63	10,239	2,583,300
Total	53,441	74,529	127,970	$5.03	$374,935	$94,596,100

Table A-16-2
2035 Estimated Traffic and Gross Toll Revenue
I-405 / SR 167 Express Toll Lanes - Study Option 1 - HOV 3+, no toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	4,708	3,135	7,843	$7.96	$24,940	$6,292,400
AM Peak	4,865	3,945	8,810	7.76	30,623	7,726,200
Midday	10,406	12,088	22,494	2.01	24,314	6,134,400
PM Shoulder	3,531	5,343	8,874	11.23	59,996	15,137,000
PM Peak	7,402	10,915	18,317	15.85	172,994	43,646,400
Evening	1,782	2,799	4,581	7.21	20,173	5,089,600
Total	32,694	38,225	70,919	$8.71	$333,040	$84,026,000

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	3,157	5,695	8,852	$15.68	$89,317	$22,534,700
AM Peak	3,623	3,798	7,421	23.64	89,800	22,656,500
Midday	9,590	13,596	23,186	9.80	133,243	33,617,200
PM Shoulder	3,723	3,922	7,645	13.90	54,508	13,752,400
PM Peak	7,985	7,892	15,877	19.02	150,113	37,873,500
Evening	2,073	2,229	4,302	3.48	7,748	1,954,800
Total	30,151	37,132	67,283	$14.13	$524,729	$132,389,100

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	7,865	8,830	16,695	$12.94	$114,257	$28,827,000
AM Peak	8,488	7,743	16,231	15.55	120,423	30,382,700
Midday	19,996	25,684	45,680	6.13	157,557	39,751,600
PM Shoulder	7,254	9,265	16,519	12.36	114,504	28,889,400
PM Peak	15,387	18,807	34,194	17.18	323,107	81,519,900
Evening	3,855	5,028	8,883	5.55	27,921	7,044,500
Total	62,845	75,357	138,202	$11.38	$857,769	$216,415,100

Table A-16-3
2045 Estimated Traffic and Gross Toll Revenue
I-405 / SR 167 Express Toll Lanes - Study Option 1 - HOV 3+, no toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	4,739	3,578	8,317	$16.60	$59,394	$14,985,100
AM Peak	4,714	4,179	8,893	13.99	58,484	14,755,500
Midday	11,096	13,083	24,179	6.51	85,140	21,480,800
PM Shoulder	3,966	5,144	9,110	19.98	102,763	25,927,100
PM Peak	8,177	10,442	18,619	24.68	257,747	65,029,600
Evening	2,072	2,799	4,871	13.24	37,060	9,350,200
Total	34,764	39,225	73,989	$15.31	$600,588	$151,528,300

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	3,369	5,175	8,544	$23.85	$123,431	$31,141,600
AM Peak	3,688	4,018	7,706	30.09	120,898	30,502,600
Midday	10,595	13,356	23,951	18.15	242,401	61,157,800
PM Shoulder	4,470	3,548	8,018	27.28	96,805	24,423,900
PM Peak	9,398	6,534	15,932	35.69	233,205	58,837,600
Evening	2,621	2,133	4,754	11.19	23,870	6,022,400
Total	34,141	34,764	68,905	$24.18	$840,610	$212,085,900

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	8,108	8,753	16,861	$20.89	$182,825	$46,126,700
AM Peak	8,402	8,197	16,599	21.88	179,382	45,258,100
Midday	21,691	26,439	48,130	12.39	327,541	82,638,600
PM Shoulder	8,436	8,692	17,128	22.96	199,568	50,351,000
PM Peak	17,575	16,976	34,551	28.92	490,952	123,867,200
Evening	4,693	4,932	9,625	12.35	60,930	15,372,600
Total	68,905	73,989	142,894	$19.48	$1,441,198	$363,614,200

Table A-17-1
2020 Estimated Traffic and Gross Toll Revenue
I-405 / SR 167 Express Toll Lanes - Study Option 2 - HOV 3+, no toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	5,327	5,235	10,562	$6.97	$36,509	$9,211,200
AM Peak	5,386	4,269	9,655	7.36	31,438	7,931,800
Midday	10,079	12,823	22,902	1.55	19,849	5,007,900
PM Shoulder	3,294	6,127	9,421	5.69	34,871	8,798,000
PM Peak	7,087	12,485	19,572	9.02	112,617	28,413,300
Evening	1,592	2,772	4,364	3.64	10,093	2,546,500
Total	32,765	43,711	76,476	$5.61	$245,377	$61,908,700

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	3,377	7,284	10,661	$6.45	$46,994	$11,856,600
AM Peak	4,180	6,666	10,846	9.70	64,683	16,319,500
Midday	9,501	14,592	24,093	1.89	27,536	6,947,300
PM Shoulder	3,570	5,181	8,751	2.88	14,934	3,767,800
PM Peak	7,749	11,047	18,796	4.92	54,303	13,700,600
Evening	1,970	1,549	3,519	1.10	1,698	428,400
Total	30,347	46,319	76,666	$4.54	$210,148	$53,020,200

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	8,704	12,519	21,223	$6.67	$83,503	$21,067,800
AM Peak	9,566	10,935	20,501	8.79	96,121	24,251,300
Midday	19,580	27,415	46,995	1.73	47,385	11,955,200
PM Shoulder	6,864	11,308	18,172	4.40	49,805	12,565,800
PM Peak	14,836	23,532	38,368	7.09	166,920	42,113,900
Evening	3,562	4,321	7,883	2.73	11,791	2,974,900
Total	63,112	90,030	153,142	$5.06	$455,525	$114,928,900

Table A-17-2
2035 Estimated Traffic and Gross Toll Revenue
I-405 / SR 167 Express Toll Lanes - Study Option 2 - HOV 3+, no toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	6,465	5,473	11,938	$10.26	$56,161	$14,169,400
AM Peak	6,450	5,320	11,770	11.49	61,104	15,416,500
Midday	13,701	12,555	26,256	6.37	79,932	20,166,800
PM Shoulder	4,357	5,556	9,913	15.40	85,564	21,587,800
PM Peak	9,052	12,501	21,553	18.09	226,159	57,059,900
Evening	2,206	3,096	5,302	8.26	25,579	6,453,600
Total	42,231	44,501	86,732	$12.01	$534,499	$134,854,000

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	3,726	7,332	11,058	$14.60	$107,075	$27,015,000
AM Peak	4,605	6,286	10,891	18.57	116,758	29,458,000
Midday	11,526	15,029	26,555	10.65	159,996	40,367,000
PM Shoulder	4,503	5,267	9,770	12.81	67,472	17,023,200
PM Peak	9,542	9,961	19,503	17.56	174,939	44,137,100
Evening	2,540	3,318	5,858	3.29	10,931	2,757,900
Total	36,442	47,193	83,635	$13.50	$637,171	$160,758,200

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	10,191	12,805	22,996	$12.75	$163,236	$41,184,400
AM Peak	11,055	11,606	22,661	15.33	177,862	44,874,600
Midday	25,227	27,584	52,811	8.70	239,928	60,533,800
PM Shoulder	8,860	10,823	19,683	14.14	153,036	38,611,000
PM Peak	18,594	22,462	41,056	17.86	401,098	101,197,000
Evening	4,746	6,414	11,160	5.69	36,510	9,211,500
Total	78,673	91,694	170,367	$12.78	$1,171,670	$295,612,300

Table A-17-3
2045 Estimated Traffic and Gross Toll Revenue
I-405 / SR 167 Express Toll Lanes - Study Option 2 - HOV 3+, no toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	6,642	6,013	12,655	$17.35	$104,301	$26,315,100
AM Peak	6,406	5,471	11,877	16.61	90,869	22,926,200
Midday	14,996	15,638	30,634	9.44	147,685	37,260,900
PM Shoulder	4,899	6,104	11,003	21.60	131,845	33,264,500
PM Peak	10,051	12,136	22,187	27.11	329,047	83,018,600
Evening	2,622	3,306	5,928	14.25	47,110	11,885,900
Total	45,616	48,668	94,284	$17.48	$850,857	$214,671,200

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	4,027	7,376	11,403	$20.09	$148,175	$37,384,600
AM Peak	4,855	6,828	11,683	23.37	159,539	40,251,700
Midday	12,824	15,481	28,305	17.47	270,428	68,229,000
PM Shoulder	5,359	4,886	10,245	24.74	120,895	30,501,800
PM Peak	11,148	9,651	20,799	30.45	293,921	74,156,300
Evening	3,197	3,102	6,299	11.40	35,351	8,919,100
Total	41,410	47,324	88,734	$21.73	$1,028,309	$259,442,500

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	10,669	13,389	24,058	$18.86	$252,476	$63,699,700
AM Peak	11,261	12,299	23,560	20.36	250,408	63,177,900
Midday	27,820	31,119	58,939	13.44	418,113	105,489,900
PM Shoulder	10,258	10,990	21,248	23.00	252,740	63,766,300
PM Peak	21,199	21,787	42,986	28.59	622,968	157,174,800
Evening	5,819	6,408	12,227	12.87	82,461	20,804,900
Total	87,026	95,992	183,018	$19.58	$1,879,166	$474,113,500

Table A-18-1
2020 Estimated Traffic and Gross Toll Revenue
I-405 / SR 167 Express Toll Lanes - Study Option 3 - HOV 3+, no toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	3,561	5,367	8,928	$8.63	$46,312	$11,684,500
AM Peak	3,718	4,631	8,349	9.79	45,328	11,436,300
Midday	6,056	14,057	20,113	1.65	23,262	5,869,000
PM Shoulder	1,751	6,382	8,133	5.86	37,406	9,437,500
PM Peak	3,975	13,975	17,950	8.46	118,234	29,830,400
Evening	836	2,626	3,462	3.96	10,400	2,623,900
Total	19,897	47,038	66,935	$5.97	$280,942	$70,881,600

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	2,731	6,399	9,130	$7.34	$46,982	$11,853,600
AM Peak	3,354	5,889	9,243	11.45	67,449	17,017,400
Midday	5,583	16,872	22,455	1.45	24,405	6,157,400
PM Shoulder	1,531	5,377	6,908	3.88	20,864	5,264,000
PM Peak	3,440	10,539	13,979	6.77	71,323	17,994,800
Evening	793	1,876	2,669	1.10	2,056	518,700
Total	17,432	46,952	64,384	$4.96	$233,079	$58,805,900

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	6,292	11,766	18,058	$7.93	$93,294	$23,538,100
AM Peak	7,072	10,520	17,592	10.72	112,777	28,453,600
Midday	11,639	30,929	42,568	1.54	47,667	12,026,400
PM Shoulder	3,282	11,759	15,041	4.96	58,270	14,701,500
PM Peak	7,415	24,514	31,929	7.73	189,557	47,825,200
Evening	1,629	4,502	6,131	2.77	12,456	3,142,600
Total	37,329	93,990	131,319	$5.47	$514,021	$129,687,400

Table A-18-2
2035 Estimated Traffic and Gross Toll Revenue
I-405 / SR 167 Express Toll Lanes - Study Option 3 - HOV 3+, no toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	4,118	5,548	9,666	$14.11	$78,308	$19,757,100
AM Peak	4,228	5,733	9,961	14.90	85,408	21,548,400
Midday	8,521	15,790	24,311	5.52	87,162	21,991,000
PM Shoulder	2,485	6,941	9,426	13.11	90,985	22,955,500
PM Peak	5,218	13,787	19,005	18.23	251,330	63,410,600
Evening	1,234	3,422	4,656	7.41	25,347	6,395,000
Total	25,804	51,221	77,025	$12.08	$618,540	$156,057,600

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	2,819	6,890	9,709	$15.88	$109,437	$27,611,000
AM Peak	3,517	6,200	9,717	19.18	118,905	29,999,700
Midday	6,843	15,359	22,202	10.92	167,655	42,299,400
PM Shoulder	2,101	6,797	8,898	11.52	78,270	19,747,500
PM Peak	4,481	13,593	18,074	16.17	219,808	55,457,600
Evening	1,125	3,481	4,606	3.94	13,721	3,461,800
Total	20,886	52,320	73,206	$13.53	$707,796	$178,577,000

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	6,937	12,438	19,375	$15.09	$187,745	$47,368,100
AM Peak	7,745	11,933	19,678	17.12	204,313	51,548,200
Midday	15,364	31,149	46,513	8.18	254,817	64,290,300
PM Shoulder	4,586	13,738	18,324	12.32	169,255	42,703,000
PM Peak	9,699	27,380	37,079	17.21	471,138	118,868,100
Evening	2,359	6,903	9,262	5.66	39,068	9,856,900
Total	46,690	103,541	150,231	$12.81	$1,326,336	$334,634,600

Table A-18-3
2045 Estimated Traffic and Gross Toll Revenue
I-405 / SR 167 Express Toll Lanes - Study Option 3 - HOV 3+, no toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	4,658	5,524	10,182	$25.21	$139,233	$35,128,500
AM Peak	4,531	4,804	9,335	26.41	126,851	32,004,500
Midday	9,672	17,379	27,051	11.68	202,900	51,191,700
PM Shoulder	2,878	6,915	9,793	20.92	144,649	36,494,900
PM Peak	5,998	13,959	19,957	26.14	364,824	92,045,100
Evening	1,515	3,984	5,499	11.57	46,092	11,629,000
Total	29,252	52,565	81,817	$19.49	$1,024,549	$258,493,700

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	3,265	6,675	9,940	$22.85	$152,516	$38,479,800
AM Peak	3,870	6,443	10,313	25.30	163,035	41,133,700
Midday	8,094	17,555	25,649	15.91	279,319	70,472,200
PM Shoulder	2,866	6,229	9,095	23.69	147,534	37,222,800
PM Peak	5,986	11,089	17,075	32.02	355,044	89,577,600
Evening	1,649	4,015	5,664	10.29	41,318	10,424,500
Total	25,730	52,006	77,736	$21.90	$1,138,766	$287,310,600

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	7,923	12,199	20,122	$23.92	$291,749	$73,608,300
AM Peak	8,401	11,247	19,648	25.77	289,886	73,138,200
Midday	17,766	34,934	52,700	13.80	482,219	121,663,900
PM Shoulder	5,744	13,144	18,888	22.23	292,183	73,717,800
PM Peak	11,984	25,048	37,032	28.74	719,868	181,622,700
Evening	3,164	7,999	11,163	10.93	87,410	22,053,500
Total	54,982	104,571	159,553	$20.69	$2,163,315	$545,804,400

Table A-19-1
2020 Estimated Traffic and Gross Toll Revenue
I-405 / SR 167 Express Toll Lanes - Study Option 4 - HOV 3+, no toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	3,861	8,934	12,795	$10.12	$90,390	$22,805,400
AM Peak	4,012	6,611	10,623	12.35	81,614	20,591,200
Midday	7,093	20,600	27,693	7.14	147,168	37,130,500
PM Shoulder	1,912	8,611	10,523	10.73	92,363	23,303,200
PM Peak	4,147	15,756	19,903	14.15	222,955	56,251,500
Evening	993	4,415	5,408	10.63	46,934	11,841,400
Total	22,018	64,927	86,945	$10.50	$681,424	$171,923,200

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	3,084	10,062	13,146	$7.08	$71,229	$17,971,100
AM Peak	3,762	8,828	12,590	10.57	93,291	23,537,300
Midday	6,212	16,631	22,843	8.24	137,100	34,590,300
PM Shoulder	1,528	6,330	7,858	12.13	76,783	19,372,400
PM Peak	3,297	13,263	16,560	14.19	188,155	47,471,500
Evening	806	3,168	3,974	9.51	30,113	7,597,500
Total	18,689	58,282	76,971	$10.24	$596,671	$150,540,100

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	6,945	18,996	25,941	$8.51	$161,619	$40,776,500
AM Peak	7,774	15,439	23,213	11.33	174,905	44,128,500
Midday	13,305	37,231	50,536	7.64	284,268	71,720,800
PM Shoulder	3,440	14,941	18,381	11.32	169,146	42,675,500
PM Peak	7,444	29,019	36,463	14.17	411,110	103,723,100
Evening	1,799	7,583	9,382	10.16	77,047	19,439,000
Total	40,707	123,209	163,916	$10.37	$1,278,095	$322,463,400

Table A-19-2
2035 Estimated Traffic and Gross Toll Revenue
I-405 / SR 167 Express Toll Lanes - Study Option 4 - HOV 3+, no toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	4,198	9,300	13,498	$16.60	$154,362	$38,945,500
AM Peak	4,249	7,131	11,380	20.62	147,073	37,106,500
Midday	8,198	21,596	29,794	12.54	270,765	68,314,000
PM Shoulder	2,462	7,738	10,200	18.19	140,785	35,520,100
PM Peak	5,261	17,064	22,325	19.40	331,077	83,530,700
Evening	1,328	4,308	5,636	14.48	62,371	15,736,200
Total	25,696	67,137	92,833	$16.48	$1,106,433	$279,153,000

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	3,101	10,356	13,457	$16.94	$175,397	$44,252,700
AM Peak	3,619	7,173	10,792	21.18	151,894	38,322,900
Midday	6,781	20,969	27,750	15.55	326,123	82,280,800
PM Shoulder	2,043	6,502	8,545	20.01	130,111	32,827,000
PM Peak	4,290	15,474	19,764	19.99	309,284	78,032,400
Evening	1,157	3,494	4,651	13.71	47,891	12,082,900
Total	20,991	63,968	84,959	$17.83	$1,140,700	$287,798,700

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	7,299	19,656	26,955	$16.78	$329,759	$83,198,200
AM Peak	7,868	14,304	22,172	20.90	298,967	75,429,400
Midday	14,979	42,565	57,544	14.02	596,888	150,594,800
PM Shoulder	4,505	14,240	18,745	19.02	270,896	68,347,100
PM Peak	9,551	32,538	42,089	19.68	640,361	161,563,100
Evening	2,485	7,802	10,287	14.13	110,262	27,819,100
Total	46,687	131,105	177,792	$17.14	$2,247,133	$566,951,700

Table A-19-3
2045 Estimated Traffic and Gross Toll Revenue
I-405 / SR 167 Express Toll Lanes - Study Option 4 - HOV 3+, no toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	4,708	8,832	13,540	$26.30	$232,242	$58,594,700
AM Peak	4,569	7,182	11,751	30.13	216,405	54,599,000
Midday	9,373	26,531	35,904	16.43	435,946	109,989,200
PM Shoulder	2,806	9,310	12,116	21.07	196,156	49,490,200
PM Peak	5,883	17,448	23,331	26.83	468,095	118,100,400
Evening	1,601	5,102	6,703	18.75	95,656	24,134,000
Total	28,940	74,405	103,345	$22.10	$1,644,500	$414,907,500

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	3,540	10,439	13,979	$22.66	$236,511	$59,671,700
AM Peak	3,708	7,711	11,419	28.55	220,117	55,535,500
Midday	7,926	21,431	29,357	23.36	500,639	126,311,200
PM Shoulder	2,731	7,565	10,296	26.87	203,273	51,285,800
PM Peak	5,653	15,109	20,762	30.44	459,857	116,021,900
Evening	1,571	4,316	5,887	19.93	86,019	21,702,600
Total	25,129	66,571	91,700	$25.63	$1,706,416	$430,528,700

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	8,248	19,271	27,519	$24.32	$468,753	$118,266,400
AM Peak	8,277	14,893	23,170	29.31	436,522	110,134,500
Midday	17,299	47,962	65,261	19.53	936,585	236,300,400
PM Shoulder	5,537	16,875	22,412	23.67	399,429	100,775,900
PM Peak	11,536	32,557	44,093	28.50	927,952	234,122,300
Evening	3,172	9,418	12,590	19.29	181,675	45,836,600
Total	54,069	140,976	195,045	$23.77	$3,350,916	$845,436,100

Table A-20-1
2020 Estimated Traffic and Gross Toll Revenue
I-405 Express Toll Lanes - Study Option 5 - HOV 3+, no toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	3,780	11,237	15,017	$6.60	$74,213	$18,723,900
AM Peak	3,762	10,819	14,581	7.35	79,524	20,063,900
Midday	6,893	29,362	36,255	3.29	96,588	24,369,200
PM Shoulder	1,767	9,986	11,753	6.57	65,630	16,558,400
PM Peak	3,913	20,120	24,033	8.05	161,943	40,858,200
Evening	934	6,094	7,028	4.42	26,957	6,801,300
Total	21,049	87,618	108,667	$5.76	$504,855	$127,374,900

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	3,036	13,115	16,151	$4.58	$60,097	$15,162,500
AM Peak	3,357	11,663	15,020	7.18	83,745	21,128,900
Midday	6,272	26,612	32,884	3.45	91,803	23,161,900
PM Shoulder	1,668	9,208	10,876	6.02	55,462	13,993,100
PM Peak	3,716	20,023	23,739	7.05	141,079	35,594,200
Evening	850	5,108	5,958	4.07	20,802	5,248,300
Total	18,899	85,729	104,628	$5.28	$452,988	$114,288,900

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	6,816	24,352	31,168	$5.52	$134,310	$33,886,400
AM Peak	7,119	22,482	29,601	7.26	163,269	41,192,800
Midday	13,165	55,974	69,139	3.37	188,391	47,531,000
PM Shoulder	3,435	19,194	22,629	6.31	121,092	30,551,500
PM Peak	7,629	40,143	47,772	7.55	303,022	76,452,500
Evening	1,784	11,202	12,986	4.26	47,759	12,049,600
Total	39,948	173,347	213,295	$5.53	$957,843	$241,663,800

Table A-20-2
2035 Estimated Traffic and Gross Toll Revenue
I-405 Express Toll Lanes - Study Option 5 - HOV 3+, no toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	4,058	12,414	16,472	$9.55	$118,536	$29,906,600
AM Peak	3,948	12,745	16,693	10.38	132,340	33,389,400
Midday	7,967	31,552	39,519	6.19	195,317	49,278,500
PM Shoulder	2,273	11,628	13,901	9.21	107,051	27,009,000
PM Peak	4,756	23,280	28,036	11.81	274,982	69,378,000
Evening	1,284	6,413	7,697	6.74	43,195	10,898,100
Total	24,286	98,032	122,318	$8.89	$871,421	$219,859,600

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	3,040	14,156	17,196	$10.04	$142,182	$35,872,500
AM Peak	3,164	11,579	14,743	14.05	162,659	41,038,900
Midday	6,604	30,702	37,306	7.30	224,211	56,568,400
PM Shoulder	2,139	8,945	11,084	13.98	125,015	31,541,300
PM Peak	4,448	18,895	23,343	15.35	290,029	73,174,300
Evening	1,183	5,848	7,031	6.73	39,340	9,925,500
Total	20,578	90,125	110,703	$10.91	$983,436	$248,120,900

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	7,098	26,570	33,668	$9.81	$260,718	$65,779,200
AM Peak	7,112	24,324	31,436	12.13	294,999	74,428,200
Midday	14,571	62,254	76,825	6.74	419,528	105,846,900
PM Shoulder	4,412	20,573	24,985	11.28	232,066	58,550,300
PM Peak	9,204	42,175	51,379	13.40	565,011	142,552,300
Evening	2,467	12,261	14,728	6.73	82,535	20,823,600
Total	44,864	188,157	233,021	$9.86	$1,854,857	$467,980,500

Table A-20-3
2045 Estimated Traffic and Gross Toll Revenue
I-405 Express Toll Lanes - Study Option 5 - HOV 3+, no toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	4,541	14,345	18,886	$16.30	$233,818	$58,992,300
AM Peak	4,315	12,659	16,974	18.86	238,752	60,237,100
Midday	8,905	33,643	42,548	12.31	414,289	104,525,100
PM Shoulder	2,369	11,453	13,822	15.33	175,563	44,294,500
PM Peak	4,896	21,079	25,975	20.91	440,853	111,227,200
Evening	1,419	7,305	8,724	10.72	78,296	19,754,100
Total	26,445	100,484	126,929	$15.74	$1,581,571	$399,030,300

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	3,227	15,071	18,298	$14.25	$214,730	$54,176,400
AM Peak	3,334	11,676	15,010	19.35	225,908	56,996,600
Midday	7,600	30,421	38,021	15.24	463,491	116,938,800
PM Shoulder	2,637	10,123	12,760	21.54	218,076	55,020,600
PM Peak	5,317	20,086	25,403	23.56	473,229	119,395,700
Evening	1,660	5,885	7,545	19.25	113,274	28,579,000
Total	23,775	93,262	117,037	$18.32	$1,708,708	$431,107,100

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	7,768	29,416	37,184	$15.25	$448,548	$113,168,700
AM Peak	7,649	24,335	31,984	19.09	464,660	117,233,700
Midday	16,505	64,064	80,569	13.70	877,780	221,463,900
PM Shoulder	5,006	21,576	26,582	18.24	393,639	99,315,100
PM Peak	10,213	41,165	51,378	22.21	914,082	230,622,900
Evening	3,079	13,190	16,269	14.52	191,570	48,333,100
Total	50,220	193,746	243,966	$16.98	$3,290,279	$830,137,400

Table A-21

Estimated Traffic and Toll Revenue for the Express Toll Lanes

I-405 / SR 167 Express Toll Lanes - Study Option 1 - HOV 3+, no toll cap

Annual Revenue in Thousands of $

		Average Weekday Trips				
Year		**Toll Trips**	**Toll-Free Trips**	**Total Trips**	**Annual Toll Revenue (2)**	**Average Toll**
2020	(1)	52,170	**53,441**	**105,611**	**$66,217**	**$5.03**
2021	(1)	67,126	54,022	121,147	89,966	5.31
2022		74,639	54,609	129,247	105,632	5.61
2023		74,694	55,202	129,896	111,624	5.92
2024		74,749	55,802	130,551	117,955	6.25
2025		74,804	56,408	131,212	124,646	6.60
2026		74,859	57,021	131,880	131,716	6.97
2027		74,914	57,640	132,555	139,187	7.36
2028		74,969	58,267	133,236	147,082	7.78
2029		75,025	58,900	133,924	155,425	8.21
2030		75,080	59,540	134,620	164,241	8.67
2031		75,135	60,186	135,322	173,558	9.16
2032		75,191	60,840	136,031	183,402	9.67
2033		75,246	61,501	136,747	193,805	10.21
2034		75,302	62,170	137,471	204,798	10.78
2035		**75,357**	**62,845**	**138,202**	**216,415**	**11.38**
2036		75,219	63,426	138,645	227,941	12.01
2037		75,081	64,013	139,094	240,081	12.67
2038		74,944	64,605	139,549	252,868	13.37
2039		74,807	65,202	140,009	266,335	14.11
2040		74,670	65,805	140,475	280,520	14.89
2041		74,533	66,414	140,947	295,461	15.71
2042		74,397	67,028	141,425	311,197	16.58
2043		74,261	67,648	141,909	327,771	17.49
2044		74,125	68,274	142,398	345,228	18.46
2045		**73,989**	**68,905**	**142,894**	**363,614**	**19.48**
2046		73,989	68,905	142,894	372,705	19.97
2047		73,989	68,905	142,894	382,022	20.46
2048		73,989	68,905	142,894	391,573	20.98
2049		73,989	68,905	142,894	401,362	21.50
2050		73,989	68,905	142,894	411,396	22.04
2051		73,989	68,905	142,894	421,681	22.59
2052		73,989	68,905	142,894	432,223	23.15
2053		73,989	68,905	142,894	443,029	23.73
2054		73,989	68,905	142,894	454,104	24.33
2055		73,989	68,905	142,894	465,457	24.93
2056		73,989	68,905	142,894	477,093	25.56
2057		73,989	68,905	142,894	489,021	26.20
2058		73,989	68,905	142,894	501,246	26.85
2059		73,989	68,905	142,894	513,777	27.52
2060		73,989	68,905	142,894	526,622	28.21
Cumulative Revenue					**$11,919,999**	

(1) Ramp-up adjustment factors are applied to transactions and revenue for the first two years of opoeration. Adjustment factors for 2020 and 2021 are as follows: 2020 - 70% and 2021 - 90%.

(2) For the development of annual toll revenue, a nominal amount equal to 2 percent of average weekday toll revenue was added for each weekend day.

Note: All toll revenue is calculated in current dollars.

Table A-22

Estimated Traffic and Toll Revenue for the Express Toll Lanes

I-405 / SR 167 Express Toll Lanes - Study Option 2 - HOV 3+, no toll cap

Annual Revenue in Thousands of $

		Average Weekday Trips				
Year		**Toll Trips**	**Toll-Free Trips**	**Total Trips**	**Annual Toll Revenue (2)**	**Average Toll**
2020	(1)	63,021	**63,112**	**126,133**	**$80,450**	**$5.06**
2021	(1)	81,126	64,046	145,172	110,160	5.38
2022		90,250	64,994	155,244	130,357	5.72
2023		90,360	65,956	156,316	138,832	6.09
2024		90,471	66,932	157,403	147,857	6.48
2025		90,581	67,923	158,504	157,469	6.89
2026		90,692	68,928	159,620	167,705	7.33
2027		90,803	69,948	160,751	178,607	7.80
2028		90,914	70,984	161,897	190,218	8.29
2029		91,025	72,034	163,059	202,584	8.82
2030		91,136	73,101	164,237	215,754	9.38
2031		91,247	74,183	165,430	229,779	9.98
2032		91,359	75,281	166,639	244,717	10.62
2033		91,470	76,395	167,865	260,625	11.29
2034		91,582	77,526	169,108	277,568	12.01
2035		**91,694**	**78,673**	**170,367**	**295,612**	**12.78**
2036		92,115	79,471	171,586	309,912	13.33
2037		92,538	80,277	172,815	324,904	13.92
2038		92,963	81,091	174,054	340,620	14.52
2039		93,390	81,913	175,303	357,097	15.16
2040		93,818	82,744	176,563	374,371	15.82
2041		94,249	83,583	177,832	392,481	16.51
2042		94,682	84,431	179,113	411,466	17.22
2043		95,117	85,287	180,404	431,370	17.98
2044		95,553	86,152	181,706	452,237	18.76
2045		**95,992**	**87,026**	**183,018**	**474,114**	**19.58**
2046		95,992	87,026	183,018	485,966	20.07
2047		95,992	87,026	183,018	498,116	20.57
2048		95,992	87,026	183,018	510,568	21.08
2049		95,992	87,026	183,018	523,333	21.61
2050		95,992	87,026	183,018	536,416	22.15
2051		95,992	87,026	183,018	549,826	22.70
2052		95,992	87,026	183,018	563,572	23.27
2053		95,992	87,026	183,018	577,661	23.85
2054		95,992	87,026	183,018	592,103	24.45
2055		95,992	87,026	183,018	606,905	25.06
2056		95,992	87,026	183,018	622,078	25.69
2057		95,992	87,026	183,018	637,630	26.33
2058		95,992	87,026	183,018	653,571	26.99
2059		95,992	87,026	183,018	669,910	27.66
2060		95,992	87,026	183,018	686,658	28.35
Cumulative Revenue					**$15,611,183**	

(1) Ramp-up adjustment factors are applied to transactions and revenue for the first two years of opoeration. Adjustment factors for 2020 and 2021 are as follows: 2020 - 70% and 2021 - 90%.

(2) For the development of annual toll revenue, a nominal amount equal to 2 percent of average weekday toll revenue was added for each weekend day.

Note: All toll revenue is calculated in current dollars.

Table A-23

Estimated Traffic and Toll Revenue for the Express Toll Lanes

I-405 / SR 167 Express Toll Lanes - Study Option 3 - HOV 3+, no toll cap

Annual Revenue in Thousands of $

		Average Weekday Trips				
Year		**Toll Trips**	**Toll-Free Trips**	**Total Trips**	**Annual Toll Revenue (2)**	**Average Toll**
2020	(1)	65,793	**37,329**	**103,122**	**$90,781**	**$5.47**
2021	(1)	85,139	37,890	123,029	124,333	5.79
2022		95,211	38,459	133,670	147,159	6.13
2023		95,827	39,037	134,864	156,759	6.48
2024		96,447	39,624	136,071	166,985	6.86
2025		97,072	40,220	137,291	177,878	7.26
2026		97,700	40,824	138,524	189,482	7.69
2027		98,332	41,438	139,770	201,842	8.14
2028		98,969	42,060	141,029	215,009	8.61
2029		99,609	42,693	142,302	229,035	9.11
2030		100,254	43,334	143,588	243,976	9.65
2031		100,903	43,986	144,889	259,891	10.21
2032		101,556	44,647	146,203	276,845	10.80
2033		102,214	45,318	147,531	294,904	11.44
2034		102,875	45,999	148,874	314,142	12.10
2035		**103,541**	**46,690**	**150,231**	**334,635**	**12.81**
2036		103,644	47,460	151,103	351,413	13.44
2037		103,746	48,242	151,988	369,032	14.10
2038		103,849	49,037	152,886	387,535	14.79
2039		103,952	49,845	153,797	406,965	15.52
2040		104,055	50,667	154,721	427,370	16.28
2041		104,158	51,502	155,660	448,798	17.08
2042		104,261	52,351	156,612	471,300	17.92
2043		104,364	53,213	157,578	494,930	18.80
2044		104,468	54,090	158,558	519,745	19.72
2045		**104,571**	**54,982**	**159,553**	**545,804**	**20.69**
2046		104,571	54,982	159,553	559,449	21.20
2047		104,571	54,982	159,553	573,436	21.73
2048		104,571	54,982	159,553	587,772	22.28
2049		104,571	54,982	159,553	602,466	22.84
2050		104,571	54,982	159,553	617,528	23.41
2051		104,571	54,982	159,553	632,966	23.99
2052		104,571	54,982	159,553	648,790	24.59
2053		104,571	54,982	159,553	665,010	25.21
2054		104,571	54,982	159,553	681,635	25.84
2055		104,571	54,982	159,553	698,676	26.48
2056		104,571	54,982	159,553	716,143	27.14
2057		104,571	54,982	159,553	734,046	27.82
2058		104,571	54,982	159,553	752,397	28.52
2059		104,571	54,982	159,553	771,207	29.23
2060		104,571	54,982	159,553	790,487	29.96
Cumulative Revenue					**$17,878,554**	

(1) Ramp-up adjustment factors are applied to transactions and revenue for the first two years of opoeration. Adjustment factors for 2020 and 2021 are as follows: 2020 - 70% and 2021 - 90%.

(2) For the development of annual toll revenue, a nominal amount equal to 2 percent of average weekday toll revenue was added for each weekend day.

Note: All toll revenue is calculated in current dollars.

Table A-24

Estimated Traffic and Toll Revenue for the Express Toll Lanes

I-405 / SR 167 Express Toll Lanes - Study Option 4 - HOV 3+, no toll cap

Annual Revenue in Thousands of $

		Average Weekday Trips				
Year		**Toll Trips**	**Toll-Free Trips**	**Total Trips**	**Annual Toll Revenue (2)**	**Average Toll**
2020	(1)	86,246	**40,707**	**126,953**	**$225,724**	**$10.37**
2021	(1)	111,348	41,081	152,429	301,343	10.73
2022		124,234	41,458	165,691	347,661	11.09
2023		124,749	41,838	166,588	360,989	11.47
2024		125,267	42,222	167,489	374,827	11.86
2025		125,787	42,610	168,397	389,197	12.26
2026		126,309	43,001	169,310	404,117	12.68
2027		126,833	43,396	170,229	419,609	13.11
2028		127,359	43,794	171,153	435,694	13.56
2029		127,888	44,196	172,084	452,397	14.02
2030		128,418	44,602	173,020	469,740	14.50
2031		128,951	45,011	173,963	487,748	14.99
2032		129,486	45,425	174,911	506,446	15.50
2033		130,024	45,842	175,865	525,861	16.03
2034		130,563	46,262	176,826	546,020	16.58
2035		**131,105**	**46,687**	**177,792**	**566,952**	**17.14**
2036		132,060	47,377	179,438	590,065	17.71
2037		133,022	48,078	181,100	614,120	18.30
2038		133,991	48,789	182,780	639,155	18.91
2039		134,968	49,510	184,478	665,212	19.53
2040		135,951	50,243	186,194	692,330	20.18
2041		136,941	50,986	187,927	720,555	20.86
2042		137,939	51,740	189,679	749,929	21.55
2043		138,944	52,505	191,449	780,502	22.26
2044		139,956	53,281	193,237	812,320	23.00
2045		**140,976**	**54,069**	**195,045**	**845,436**	**23.77**
2046		140,976	54,069	195,045	866,572	24.36
2047		140,976	54,069	195,045	888,236	24.97
2048		140,976	54,069	195,045	910,442	25.60
2049		140,976	54,069	195,045	933,203	26.24
2050		140,976	54,069	195,045	956,533	26.89
2051		140,976	54,069	195,045	980,447	27.57
2052		140,976	54,069	195,045	1,004,958	28.25
2053		140,976	54,069	195,045	1,030,082	28.96
2054		140,976	54,069	195,045	1,055,834	29.68
2055		140,976	54,069	195,045	1,082,230	30.43
2056		140,976	54,069	195,045	1,109,285	31.19
2057		140,976	54,069	195,045	1,137,018	31.97
2058		140,976	54,069	195,045	1,165,443	32.77
2059		140,976	54,069	195,045	1,194,579	33.59
2060		140,976	54,069	195,045	1,224,444	34.43
Cumulative Revenue					**$29,463,252**	

(1) Ramp-up adjustment factors are applied to transactions and revenue for the first two years of opoeration. Adjustment factors for 2020 and 2021 are as follows: 2020 - 70% and 2021 - 90%.

(2) For the development of annual toll revenue, a nominal amount equal to 2 percent of average weekday toll revenue was added for each weekend day.

Note: All toll revenue is calculated in current dollars.

Table A-25

Estimated Traffic and Toll Revenue for the Express Toll Lanes

I-405 / SR 167 Express Toll Lanes - Study Option 5 - HOV 3+, no toll cap

Annual Revenue in Thousands of $

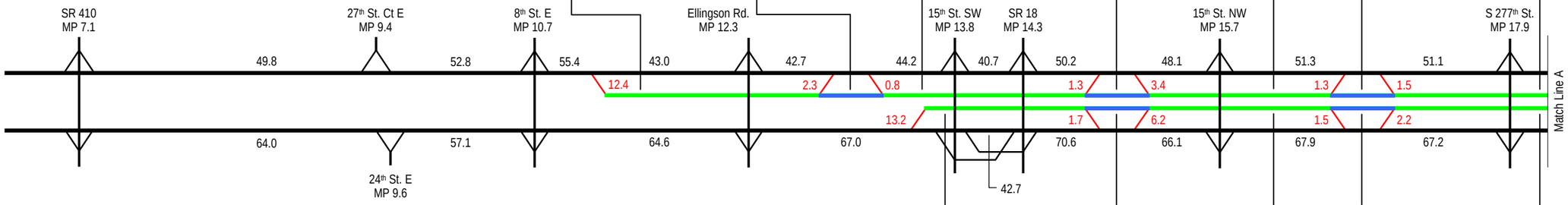
		Average Weekday Trips				
Year		**Toll Trips**	**Toll-Free Trips**	**Total Trips**	**Annual Toll Revenue (2)**	**Average Toll**
2020	(1)	121,343	**39,948**	**161,291**	**$169,165**	**$5.53**
2021	(1)	156,867	40,258	197,126	227,294	5.74
2022		175,252	40,571	215,823	263,925	5.97
2023		176,213	40,886	217,099	275,813	6.20
2024		177,178	41,204	218,382	288,237	6.45
2025		178,149	41,524	219,673	301,220	6.70
2026		179,126	41,846	220,972	314,788	6.97
2027		180,107	42,171	222,279	328,967	7.24
2028		181,094	42,499	223,593	343,785	7.52
2029		182,087	42,829	224,916	359,270	7.82
2030		183,085	43,162	226,246	375,453	8.13
2031		184,088	43,497	227,585	392,365	8.45
2032		185,097	43,835	228,932	410,038	8.78
2033		186,111	44,175	230,287	428,508	9.13
2034		187,131	44,518	231,650	447,809	9.48
2035		**188,157**	**44,864**	**233,021**	**467,980**	**9.86**
2036		188,709	45,373	234,081	495,587	10.41
2037		189,262	45,887	235,149	524,822	10.99
2038		189,817	46,408	236,224	555,782	11.61
2039		190,373	46,934	237,307	588,568	12.25
2040		190,931	47,467	238,398	623,288	12.94
2041		191,491	48,005	239,496	660,056	13.66
2042		192,052	48,549	240,601	698,994	14.43
2043		192,615	49,100	241,715	740,228	15.23
2044		193,180	49,657	242,837	783,895	16.08
2045		**193,746**	**50,220**	**243,966**	**830,137**	**16.98**
2046		193,746	50,220	243,966	850,891	17.41
2047		193,746	50,220	243,966	872,163	17.84
2048		193,746	50,220	243,966	893,967	18.29
2049		193,746	50,220	243,966	916,316	18.75
2050		193,746	50,220	243,966	939,224	19.21
2051		193,746	50,220	243,966	962,705	19.69
2052		193,746	50,220	243,966	986,772	20.19
2053		193,746	50,220	243,966	1,011,442	20.69
2054		193,746	50,220	243,966	1,036,728	21.21
2055		193,746	50,220	243,966	1,062,646	21.74
2056		193,746	50,220	243,966	1,089,212	22.28
2057		193,746	50,220	243,966	1,116,443	22.84
2058		193,746	50,220	243,966	1,144,354	23.41
2059		193,746	50,220	243,966	1,172,962	24.00
2060		193,746	50,220	243,966	1,202,286	24.60
Cumulative Revenue					**$27,154,087**	

(1) Ramp-up adjustment factors are applied to transactions and revenue for the first two years of opoeration. Adjustment factors for 2020 and 2021 are as follows: 2020 - 70% and 2021 - 90%.

(2) For the development of annual toll revenue, a nominal amount equal to 2 percent of average weekday toll revenue was added for each weekend day.

Note: All toll revenue is calculated in current dollars.

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.2	0.2	0.6
AMPK	0.3	0.2	0.3	0.8
MD	1.5	2.0	0.7	4.3
PMSH	0.8	1.9	0.3	3.0
PMPK	1.0	2.4	0.4	3.7
Daily	3.7	6.8	1.9	12.4

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.1	0.1	0.4
AMPK	0.3	0.2	0.2	0.6
MD	1.5	1.6	0.4	3.5
PMSH	0.8	1.5	0.1	2.5
PMPK	1.0	1.9	0.2	3.1
Daily	3.7	5.3	1.1	10.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.2	0.2	0.4
AMPK	0.3	0.2	0.2	0.7
MD	1.6	1.7	0.5	3.8
PMSH	0.9	1.6	0.2	2.7
PMPK	1.0	2.1	0.2	3.4
Daily	3.9	5.8	1.2	10.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.1	0.1	0.4
AMPK	0.3	0.1	0.2	0.6
MD	1.6	1.4	0.4	3.4
PMSH	0.8	1.4	0.1	2.3
PMPK	0.9	1.8	0.2	2.9
Daily	3.7	5.0	1.0	9.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.2	0.3	0.6
AMPK	0.3	0.2	0.3	0.9
MD	1.8	2.0	0.7	4.4
PMSH	1.0	1.8	0.2	3.1
PMPK	1.4	2.4	0.3	4.1
Daily	4.6	6.7	1.8	13.0

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.2	0.2	0.5
AMPK	0.3	0.2	0.3	0.8
MD	1.7	1.7	0.5	4.0
PMSH	1.0	1.6	0.1	2.7
PMPK	1.3	2.1	0.2	3.7
Daily	4.5	5.8	1.4	11.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.3	0.3	0.7
AMPK	0.3	0.3	0.3	0.9
MD	1.8	1.9	0.6	4.4
PMSH	1.1	1.7	0.2	3.0
PMPK	1.6	2.3	0.3	4.2
Daily	5.0	6.5	1.7	13.2

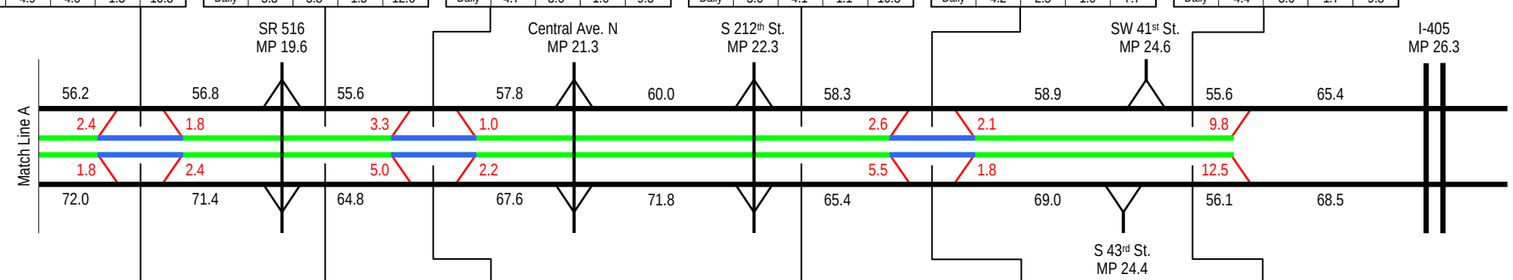
Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.8	0.5	2.6
AMPK	0.8	0.8	0.5	2.1
MD	1.9	1.9	0.8	4.5
PMSH	0.3	1.0	0.3	1.6
PMPK	0.7	1.3	0.4	2.4
Daily	4.9	5.9	2.4	13.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.7	0.4	2.2
AMPK	0.6	0.7	0.4	1.7
MD	1.9	1.5	0.6	4.0
PMSH	0.3	0.8	0.2	1.4
PMPK	0.7	1.1	0.3	2.1
Daily	4.5	5.0	1.9	11.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	1.0	0.7	3.2
AMPK	0.9	0.9	0.6	2.5
MD	3.1	2.1	1.1	6.3
PMSH	0.6	1.2	0.4	2.2
PMPK	1.2	1.7	0.6	3.4
Daily	7.3	6.9	3.4	17.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.8	0.7	3.0
AMPK	0.9	0.8	0.6	2.3
MD	3.1	1.8	0.9	5.8
PMSH	0.6	1.1	0.3	1.9
PMPK	1.2	1.4	0.5	3.1
Daily	7.3	5.9	2.9	16.1

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.9	0.7	3.3
AMPK	1.0	0.9	0.6	2.6
MD	3.4	2.1	1.1	6.7
PMSH	0.6	1.3	0.4	2.2
PMPK	1.3	1.7	0.5	3.5
Daily	8.0	6.9	3.4	18.4



Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.2	0.2	0.5
AMPK	0.3	0.2	0.3	0.7
MD	1.8	1.3	0.5	3.6
PMSH	1.1	1.2	0.1	2.4
PMPK	1.6	1.7	0.2	3.5
Daily	4.9	4.6	1.3	10.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.2	0.2	0.6
AMPK	0.3	0.2	0.3	0.9
MD	1.8	1.7	0.6	4.1
PMSH	1.2	1.5	0.1	2.8
PMPK	1.8	2.1	0.3	4.2
Daily	5.3	5.8	1.5	12.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.1	0.1	0.4
AMPK	0.3	0.1	0.2	0.6
MD	1.6	1.0	0.3	3.0
PMSH	1.0	0.9	0.1	2.1
PMPK	1.5	1.4	0.2	3.2
Daily	4.7	3.6	1.0	9.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.1	0.2	0.5
AMPK	0.3	0.2	0.2	0.7
MD	1.6	1.2	0.4	3.2
PMSH	1.1	1.1	0.1	2.3
PMPK	1.7	1.6	0.3	3.6
Daily	5.0	4.1	1.1	10.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.1	0.1	0.4
AMPK	0.3	0.1	0.2	0.6
MD	1.4	0.7	0.3	2.5
PMSH	0.9	0.6	0.1	1.6
PMPK	1.4	1.0	0.2	2.6
Daily	4.2	2.5	1.0	7.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.2	0.3	0.7
AMPK	0.3	0.3	0.4	1.0
MD	1.5	1.1	0.6	3.1
PMSH	0.9	0.8	0.2	1.9
PMPK	1.4	1.3	0.3	3.0
Daily	4.4	3.6	1.7	9.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.9	0.7	3.3
AMPK	1.0	0.9	0.6	2.6
MD	3.2	1.9	0.8	5.9
PMSH	0.5	1.1	0.3	1.9
PMPK	1.2	1.4	0.4	3.0
Daily	7.5	6.1	2.9	16.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	1.1	0.9	3.7
AMPK	1.0	1.1	0.8	2.9
MD	3.4	2.3	1.0	6.7
PMSH	0.5	1.3	0.3	2.2
PMPK	1.2	1.7	0.5	3.5
Daily	7.9	7.5	3.5	19.0

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.8	0.4	2.5
AMPK	0.8	0.8	0.4	2.1
MD	2.6	1.6	0.7	4.9
PMSH	0.4	1.0	0.2	1.7
PMPK	1.1	1.3	0.4	2.7
Daily	6.2	5.5	2.1	13.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	1.0	0.6	3.0
AMPK	0.9	1.0	0.6	2.5
MD	2.9	1.8	0.8	5.5
PMSH	0.5	1.2	0.3	1.9
PMPK	1.3	1.5	0.4	3.2
Daily	7.0	6.5	2.7	16.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.6	0.4	2.0
AMPK	0.6	0.8	0.4	1.8
MD	1.9	1.1	0.5	3.5
PMSH	0.4	0.7	0.1	1.2
PMPK	1.0	0.9	0.2	2.1
Daily	4.8	4.2	1.7	10.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.7	0.5	2.1
AMPK	0.6	0.8	0.5	1.9
MD	1.9	1.5	0.8	4.2
PMSH	0.4	1.0	0.2	1.6
PMPK	1.1	1.3	0.3	2.7
Daily	5.0	5.2	2.2	12.5

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

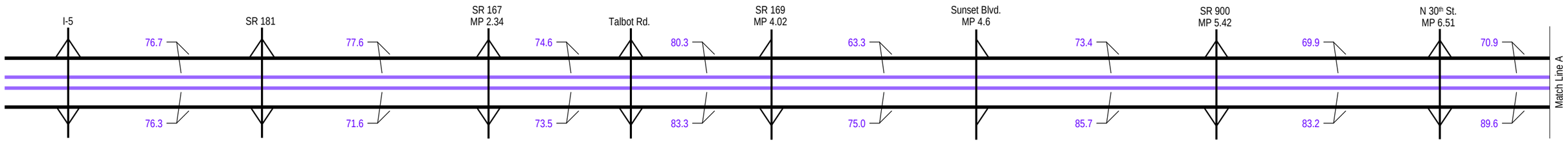
FINAL DRAFT

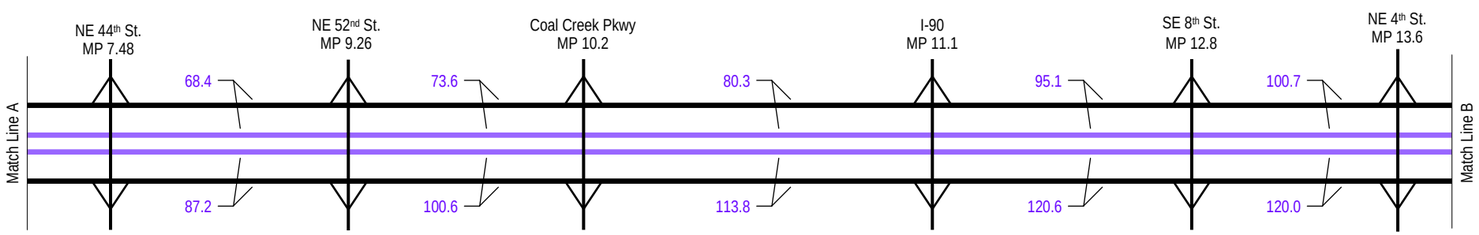
WilburSmith ASSOCIATES

2020 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 1
SR 167

FIGURE A-1-1A

Schematic
Not To Scale





LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0	General Purpose Mainline Total Daily Volumes (includes night)
0.0	Managed Lane Ramp Total Daily Volumes (does not include night)
0.0	General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)
AMSH	(AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK	(AM Peak) 6:30-8:30 AM
MD	(Midday) 9:30 AM-2:30 PM
PMSH	(PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK	(PM Peak) 3:30-6:30 PM
Daily	Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

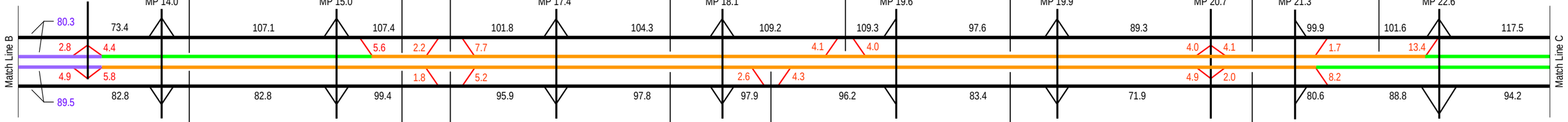
FINAL DRAFT

WilburSmith ASSOCIATES

2020 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 1
I-405 SOUTHERN SECTION

FIGURE A-1-1B

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	2.5	0.4	0.4	3.3
AMPK	1.9	0.4	0.6	3.0
MD	4.7	0.8	0.8	6.4
PMSH	1.8	0.4	0.5	2.7
PMPK	2.8	0.7	0.7	4.2
Daily	13.8	2.7	3.1	19.6

Period	SOV	HOV2	HOV3+	Total
AMSH	3.5	0.5	0.7	4.7
AMPK	2.5	0.5	0.9	3.9
MD	6.1	1.1	1.3	8.4
PMSH	2.1	0.6	0.5	3.2
PMPK	3.3	0.8	0.8	4.9
Daily	17.5	3.5	4.2	25.2

Period	SOV	HOV2	HOV3+	Total
AMSH	3.4	0.5	0.7	4.6
AMPK	2.5	0.5	0.9	3.9
MD	5.6	0.9	0.9	7.4
PMSH	1.9	0.4	0.4	2.7
PMPK	3.1	0.7	0.6	4.4
Daily	16.6	3.0	3.4	23.0

Period	SOV	HOV2	HOV3+	Total
AMSH	4.7	0.7	1.1	6.5
AMPK	3.4	0.7	1.4	5.4
MD	7.4	1.2	1.5	10.0
PMSH	2.3	0.5	0.5	3.4
PMPK	3.8	0.8	0.8	5.5
Daily	21.6	3.9	5.3	30.7

Period	SOV	HOV2	HOV3+	Total
AMSH	4.4	0.6	0.9	5.9
AMPK	3.1	0.6	1.2	4.9
MD	6.5	0.9	1.1	8.6
PMSH	2.1	0.4	0.4	2.9
PMPK	3.2	0.5	0.6	4.4
Daily	19.2	3.1	4.3	26.6

Period	SOV	HOV2	HOV3+	Total
AMSH	4.7	0.7	1.0	6.5
AMPK	3.4	0.7	1.3	5.4
MD	7.5	1.1	1.5	10.1
PMSH	2.3	0.5	0.5	3.3
PMPK	3.9	0.7	0.8	5.4
Daily	21.7	3.7	5.2	30.7

Period	SOV	HOV2	HOV3+	Total
AMSH	4.9	0.8	1.2	6.9
AMPK	3.5	0.7	1.3	5.5
MD	7.0	1.2	1.6	9.8
PMSH	2.0	0.4	0.5	3.0
PMPK	3.8	0.8	1.0	5.7
Daily	21.2	4.0	5.6	30.8

Period	SOV	HOV2	HOV3+	Total
AMSH	4.7	0.7	1.1	6.5
AMPK	3.3	0.7	1.2	5.2
MD	6.6	1.1	1.5	9.3
PMSH	1.9	0.4	0.5	2.8
PMPK	3.6	0.7	0.9	5.3
Daily	20.2	3.7	5.2	29.0

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.1	0.4	1.0
AMPK	0.7	0.2	0.5	1.4
MD	3.5	0.7	0.7	4.9
PMSH	3.6	1.0	0.5	5.1
PMPK	4.5	1.4	0.8	6.7
Daily	12.7	3.4	2.9	19.0

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.1	0.4	1.0
AMPK	0.7	0.2	0.5	1.4
MD	3.5	0.7	0.7	4.9
PMSH	3.6	1.0	0.5	5.1
PMPK	4.5	1.4	0.8	6.7
Daily	12.7	3.4	2.9	19.0

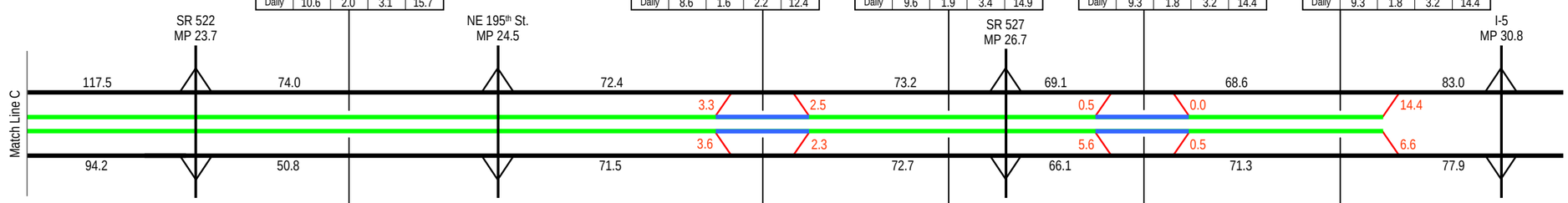
Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.1	0.3	0.8
AMPK	0.6	0.1	0.3	1.0
MD	3.3	0.6	0.5	4.5
PMSH	3.5	1.0	0.4	4.8
PMPK	4.3	1.4	0.6	6.2
Daily	12.0	3.2	2.1	17.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.1	0.6	1.1
AMPK	0.7	0.1	0.6	1.4
MD	4.2	0.9	1.4	6.4
PMSH	4.2	1.2	0.7	6.0
PMPK	5.0	1.6	0.9	7.6
Daily	14.4	4.0	4.1	22.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.1	0.4	0.8
AMPK	0.6	0.1	0.4	1.1
MD	3.9	0.8	1.0	5.6
PMSH	3.9	1.1	0.6	5.5
PMPK	4.6	1.4	0.8	6.8
Daily	13.4	3.4	3.1	19.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.1	0.5	0.9
AMPK	0.7	0.1	0.7	1.5
MD	4.1	0.9	1.3	6.2
PMSH	4.7	1.5	0.8	6.9
PMPK	5.7	1.9	1.0	8.6
Daily	15.5	4.4	4.3	24.2

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.1	0.6	1.1
AMPK	0.7	0.1	0.6	1.5
MD	3.6	0.8	1.2	5.5
PMSH	3.9	1.2	0.6	5.7
PMPK	5.0	1.6	1.0	7.6
Daily	13.5	3.8	4.0	21.3



Period	SOV	HOV2	HOV3+	Total
AMSH	2.4	0.3	0.7	3.4
AMPK	1.7	0.4	0.7	2.9
MD	3.3	0.5	0.9	4.7
PMSH	1.1	0.3	0.3	1.7
PMPK	2.0	0.5	0.5	3.0
Daily	10.6	2.0	3.1	15.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.2	0.4	2.4
AMPK	1.4	0.3	0.6	2.3
MD	2.6	0.4	0.6	3.6
PMSH	1.0	0.2	0.2	1.5
PMPK	1.8	0.4	0.4	2.6
Daily	8.6	1.6	2.2	12.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.2	0.5	2.6
AMPK	1.5	0.3	0.6	2.4
MD	3.0	0.5	1.1	4.7
PMSH	1.2	0.3	0.5	1.9
PMPK	2.0	0.5	0.7	3.3
Daily	9.6	1.9	3.4	14.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.2	0.5	2.6
AMPK	1.5	0.3	0.6	2.4
MD	2.9	0.5	1.0	4.4
PMSH	1.1	0.3	0.4	1.7
PMPK	2.0	0.5	0.7	3.3
Daily	9.3	1.8	3.2	14.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.2	0.5	2.6
AMPK	1.5	0.3	0.6	2.4
MD	2.9	0.5	1.0	4.4
PMSH	1.1	0.3	0.4	1.7
PMPK	2.0	0.5	0.7	3.3
Daily	9.3	1.8	3.2	14.4

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.1	0.4	0.7
AMPK	0.6	0.1	0.4	1.1
MD	2.5	0.5	0.7	3.6
PMSH	2.3	0.6	0.3	3.3
PMPK	3.0	0.9	0.5	4.4
Daily	8.7	2.2	2.2	13.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.1	0.3	0.6
AMPK	0.6	0.1	0.3	1.0
MD	2.1	0.4	0.5	3.1
PMSH	1.4	0.4	0.2	2.0
PMPK	1.9	0.6	0.3	2.8
Daily	6.2	1.6	1.7	9.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.1	0.6	0.9
AMPK	0.7	0.1	0.6	1.4
MD	2.1	0.5	1.1	3.8
PMSH	1.6	0.5	0.4	2.4
PMPK	2.0	0.7	0.6	3.3
Daily	6.6	1.9	3.3	11.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.0	0.3	0.5
AMPK	0.3	0.1	0.3	0.7
MD	0.9	0.3	0.6	1.8
PMSH	0.8	0.3	0.2	1.2
PMPK	1.3	0.4	0.3	2.1
Daily	3.5	1.1	1.6	6.2

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.0	0.4	0.6
AMPK	0.3	0.1	0.4	0.7
MD	0.9	0.3	0.7	1.9
PMSH	0.8	0.3	0.2	1.3
PMPK	1.3	0.4	0.4	2.1
Daily	3.5	1.1	2.1	6.6

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp
- 0.0 General Purpose Mainline Total Daily Volumes (includes night)
- 0.0 Managed Lane Ramp Total Daily Volumes (does not include night)
- 0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH	(AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK	(AM Peak) 6:30-8:30 AM
MD	(Midday) 9:30 AM-2:30 PM
PMSH	(PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK	(PM Peak) 3:30-6:30 PM
Daily	Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

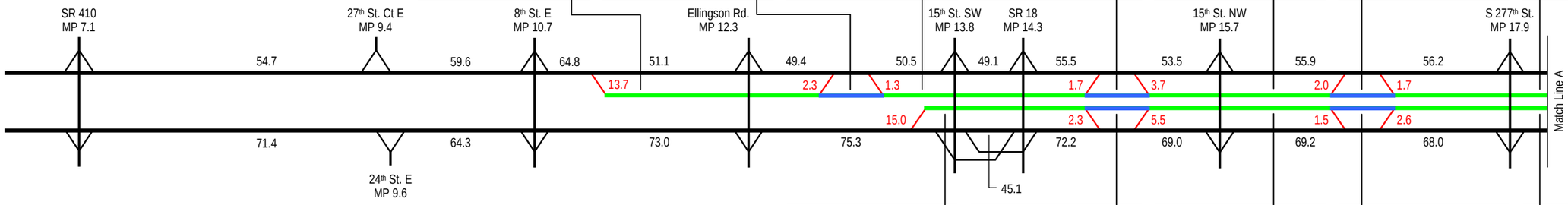
FINAL DRAFT

WilburSmith ASSOCIATES

2020 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 1
I-405 NORTHERN SECTION

FIGURE A-1-1C

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.4	0.2	0.7
AMPK	0.2	0.4	0.3	0.8
MD	2.1	2.5	0.6	5.1
PMSH	1.0	2.2	0.1	3.3
PMPK	0.8	2.7	0.2	3.7
Daily	4.1	8.1	1.5	13.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.2	0.1	0.5
AMPK	0.2	0.2	0.2	0.6
MD	2.1	1.9	0.4	4.4
PMSH	1.0	1.7	0.1	2.8
PMPK	0.8	2.2	0.1	3.1
Daily	4.1	6.3	1.0	11.4

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.3	0.2	0.6
AMPK	0.2	0.3	0.2	0.7
MD	2.2	2.1	0.5	4.8
PMSH	1.1	1.9	0.1	3.1
PMPK	0.8	2.5	0.2	3.5
Daily	4.4	7.1	1.1	12.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.2	0.1	0.5
AMPK	0.2	0.2	0.2	0.6
MD	2.0	1.8	0.4	4.2
PMSH	0.9	1.6	0.1	2.7
PMPK	0.7	2.1	0.1	3.0
Daily	4.0	6.0	0.9	10.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.4	0.3	0.7
AMPK	0.2	0.4	0.3	0.8
MD	2.2	2.4	0.6	5.2
PMSH	1.3	2.2	0.1	3.6
PMPK	1.2	2.8	0.2	4.2
Daily	4.9	8.1	1.6	14.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.3	0.2	0.6
AMPK	0.2	0.3	0.3	0.7
MD	2.1	2.0	0.5	4.5
PMSH	1.2	1.7	0.1	3.1
PMPK	1.2	2.3	0.2	3.7
Daily	4.7	6.6	1.3	12.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.4	0.3	0.8
AMPK	0.2	0.4	0.3	0.9
MD	2.2	2.2	0.6	5.0
PMSH	1.3	1.9	0.1	3.4
PMPK	1.4	2.5	0.2	4.2
Daily	5.2	7.5	1.6	14.2

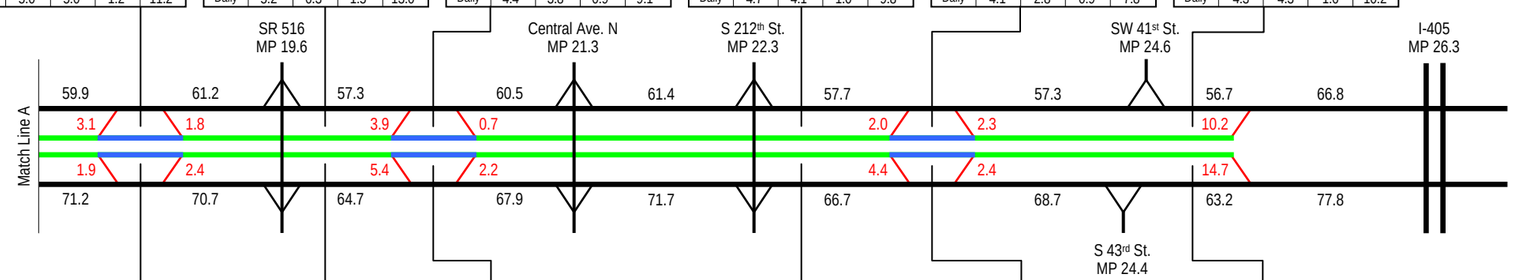
Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	1.3	0.4	2.8
AMPK	0.9	1.2	0.4	2.4
MD	1.5	2.6	0.7	4.8
PMSH	0.5	1.2	0.3	2.1
PMPK	1.0	1.6	0.4	3.0
Daily	4.9	7.9	2.2	15.0

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	1.0	0.3	2.3
AMPK	0.7	1.0	0.3	1.9
MD	1.5	2.1	0.5	4.1
PMSH	0.5	1.0	0.3	1.8
PMPK	0.9	1.4	0.4	2.6
Daily	4.5	6.5	1.7	12.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	1.3	0.5	3.1
AMPK	1.0	1.2	0.4	2.6
MD	2.5	2.7	0.8	6.0
PMSH	0.7	1.5	0.4	2.6
PMPK	1.4	1.9	0.6	3.9
Daily	6.9	8.5	2.8	18.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	1.1	0.4	2.8
AMPK	1.0	1.0	0.4	2.4
MD	2.5	2.3	0.7	5.5
PMSH	0.7	1.3	0.4	2.4
PMPK	1.4	1.7	0.5	3.6
Daily	6.9	7.4	2.4	16.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	1.2	0.5	3.2
AMPK	1.1	1.2	0.5	2.7
MD	2.7	2.7	0.9	6.3
PMSH	0.8	1.6	0.5	2.9
PMPK	1.5	2.1	0.7	4.3
Daily	7.5	8.9	3.0	19.4



Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.2	0.2	0.5
AMPK	0.2	0.2	0.2	0.6
MD	2.0	1.5	0.5	3.9
PMSH	1.3	1.3	0.1	2.7
PMPK	1.4	1.8	0.2	3.4
Daily	5.0	5.0	1.2	11.2

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.3	0.2	0.6
AMPK	0.2	0.3	0.3	0.8
MD	2.0	1.8	0.6	4.4
PMSH	1.4	1.6	0.1	3.1
PMPK	1.5	2.2	0.3	4.0
Daily	5.2	6.3	1.5	13.0

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.2	0.1	0.4
AMPK	0.2	0.2	0.2	0.5
MD	1.7	1.1	0.3	3.1
PMSH	1.1	1.0	0.1	2.2
PMPK	1.3	1.4	0.2	2.9
Daily	4.4	3.8	0.9	9.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.2	0.1	0.4
AMPK	0.2	0.2	0.2	0.6
MD	1.7	1.2	0.4	3.3
PMSH	1.2	1.0	0.1	2.3
PMPK	1.4	1.5	0.2	3.2
Daily	4.7	4.1	1.0	9.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.1	0.1	0.3
AMPK	0.2	0.1	0.2	0.5
MD	1.5	0.8	0.3	2.7
PMSH	1.0	0.7	0.1	1.8
PMPK	1.2	1.1	0.2	2.5
Daily	4.1	2.8	0.9	7.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.3	0.2	0.7
AMPK	0.2	0.3	0.4	0.9
MD	1.6	1.3	0.6	3.4
PMSH	1.0	1.0	0.2	2.2
PMPK	1.2	1.4	0.3	3.0
Daily	4.3	4.3	1.6	10.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	1.2	0.4	3.0
AMPK	1.1	1.2	0.4	2.6
MD	2.5	2.5	0.7	5.7
PMSH	0.7	1.4	0.4	2.5
PMPK	1.4	1.8	0.5	3.7
Daily	7.0	8.1	2.5	17.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	1.4	0.5	3.4
AMPK	1.1	1.4	0.5	3.0
MD	2.6	3.0	0.9	6.4
PMSH	0.7	1.7	0.4	2.9
PMPK	1.4	2.2	0.6	4.2
Daily	7.2	9.7	3.0	19.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	1.1	0.3	2.5
AMPK	0.8	1.1	0.3	2.2
MD	1.9	2.2	0.6	4.7
PMSH	0.6	1.2	0.3	2.1
PMPK	1.1	1.6	0.4	3.1
Daily	5.4	7.1	1.9	14.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	1.3	0.5	3.0
AMPK	0.9	1.3	0.5	2.6
MD	2.1	2.4	0.7	5.2
PMSH	0.7	1.4	0.4	2.4
PMPK	1.2	1.8	0.5	3.5
Daily	6.1	8.1	2.5	16.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	1.0	0.4	2.4
AMPK	0.7	1.0	0.4	2.1
MD	1.8	1.6	0.5	3.8
PMSH	0.6	0.8	0.2	1.6
PMPK	1.0	1.1	0.3	2.4
Daily	5.1	5.5	1.7	12.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	1.0	0.5	2.5
AMPK	0.7	1.1	0.5	2.3
MD	1.8	2.1	0.8	4.8
PMSH	0.6	1.2	0.3	2.1
PMPK	1.1	1.5	0.4	3.0
Daily	5.3	7.0	2.4	14.7

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

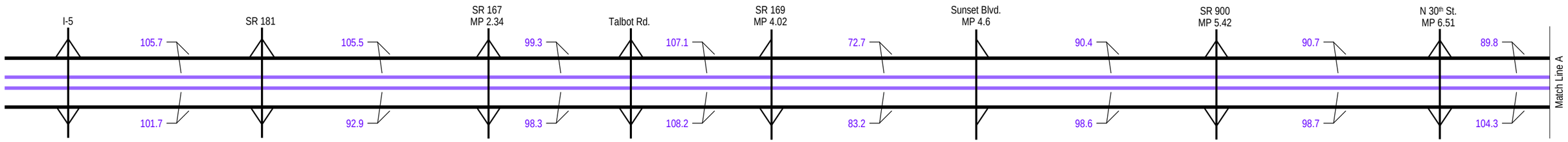
FINAL DRAFT

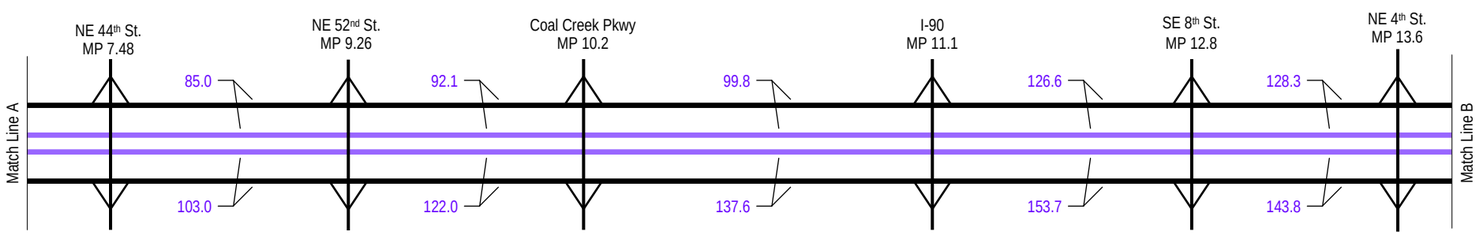
WilburSmith ASSOCIATES

2035 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 1
SR 167

FIGURE A-1-2A

Schematic
Not To Scale





LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0	General Purpose Mainline Total Daily Volumes (includes night)
0.0	Managed Lane Ramp Total Daily Volumes (does not include night)
0.0	General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)
AMSH	(AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK	(AM Peak) 6:30-8:30 AM
MD	(Midday) 9:30 AM-2:30 PM
PMSH	(PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK	(PM Peak) 3:30-6:30 PM
Daily	Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

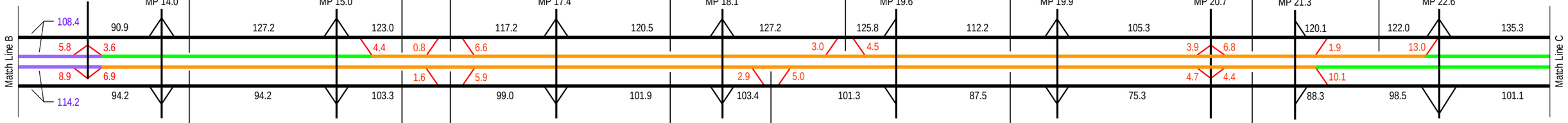
FINAL DRAFT

WilburSmith ASSOCIATES

2035 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 1
I-405 SOUTHERN SECTION

FIGURE A-1-2B

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.3	0.4	2.5
AMPK	1.4	0.2	0.5	2.1
MD	3.4	0.9	1.1	5.4
PMSH	1.5	0.8	0.8	3.1
PMPK	2.4	0.9	1.1	4.5
Daily	10.6	3.1	3.8	17.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.2	0.4	1.0
AMPK	0.9	0.2	0.4	1.5
MD	3.1	1.9	0.8	5.8
PMSH	2.5	1.8	0.7	5.0
PMPK	3.4	2.3	1.0	6.6
Daily	10.3	6.4	3.2	19.9

Period	SOV	HOV2	HOV3+	Total
AMSH	2.6	0.5	0.6	3.7
AMPK	1.6	0.3	0.7	2.6
MD	4.9	1.3	1.4	7.7
PMSH	1.8	0.8	0.8	3.4
PMPK	2.5	1.0	1.1	4.6
Daily	13.4	3.8	4.7	21.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.2	0.4	1.0
AMPK	0.9	0.2	0.4	1.5
MD	3.1	1.9	0.8	5.8
PMSH	2.5	1.8	0.7	5.0
PMPK	3.4	2.3	1.0	6.6
Daily	10.3	6.4	3.2	19.9

Period	SOV	HOV2	HOV3+	Total
AMSH	2.6	0.5	0.5	3.6
AMPK	1.6	0.3	0.7	2.6
MD	4.9	1.2	1.2	7.4
PMSH	1.7	0.7	0.7	3.2
PMPK	2.5	0.9	1.0	4.4
Daily	13.4	3.6	4.1	21.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.1	0.3	0.9
AMPK	0.9	0.2	0.3	1.3
MD	3.0	1.7	0.6	5.3
PMSH	2.5	1.7	0.5	4.7
PMPK	3.3	2.1	0.7	6.1
Daily	10.1	5.8	2.4	18.3

Period	SOV	HOV2	HOV3+	Total
AMSH	3.5	0.6	0.9	5.0
AMPK	2.0	0.4	1.1	3.5
MD	6.5	1.5	1.9	9.9
PMSH	2.1	0.8	1.0	3.9
PMPK	3.1	1.0	1.4	5.4
Daily	17.2	4.3	6.2	27.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.2	0.5	1.2
AMPK	1.1	0.2	0.6	1.8
MD	4.3	2.1	1.5	7.9
PMSH	3.0	1.9	0.9	5.8
PMPK	3.8	2.3	1.2	7.4
Daily	12.8	6.7	4.7	24.1

Period	SOV	HOV2	HOV3+	Total
AMSH	3.3	0.6	0.7	4.6
AMPK	2.0	0.4	1.0	3.3
MD	5.9	1.3	1.5	8.7
PMSH	1.9	0.6	0.8	3.4
PMPK	2.8	0.8	1.2	4.7
Daily	15.9	3.6	5.2	24.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.1	0.3	1.0
AMPK	1.1	0.1	0.3	1.5
MD	4.1	1.8	1.0	6.9
PMSH	2.8	1.7	0.8	5.3
PMPK	3.5	2.0	1.0	6.5
Daily	12.1	5.7	3.4	21.3

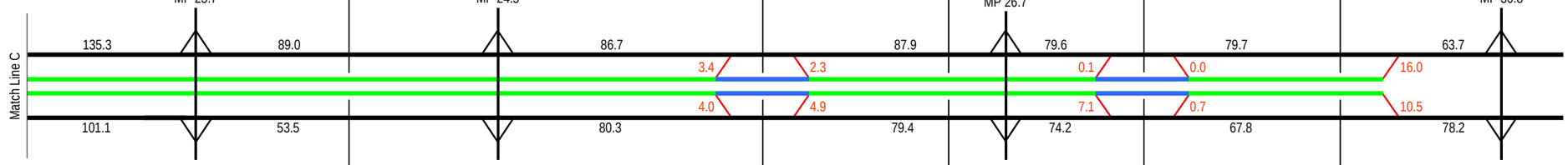
Period	SOV	HOV2	HOV3+	Total
AMSH	3.7	0.6	0.8	5.1
AMPK	2.2	0.4	1.1	3.8
MD	7.0	1.5	1.9	10.4
PMSH	2.4	0.7	1.0	4.1
PMPK	3.4	1.0	1.4	5.8
Daily	18.7	4.3	6.2	29.2

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.1	0.5	1.3
AMPK	1.2	0.2	0.7	2.1
MD	4.5	2.0	1.4	7.9
PMSH	3.7	2.1	1.0	6.7
PMPK	4.6	2.4	1.3	8.4
Daily	14.6	6.8	4.8	26.3

Period	SOV	HOV2	HOV3+	Total
AMSH	4.0	0.8	1.1	5.9
AMPK	2.6	0.6	1.2	4.4
MD	7.3	1.7	2.5	11.4
PMSH	2.3	0.8	1.0	4.1
PMPK	3.5	1.1	1.7	6.3
Daily	19.7	4.8	7.6	32.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.2	0.6	1.5
AMPK	1.3	0.2	0.8	2.3
MD	4.5	1.8	1.7	8.0
PMSH	3.5	1.8	0.9	6.1
PMPK	4.4	2.2	1.4	8.0
Daily	14.4	6.2	5.5	26.1

Period	SOV	HOV2	HOV3+	Total
AMSH	3.8	0.7	1.0	5.5
AMPK	2.5	0.5	1.1	4.2
MD	7.0	1.5	2.3	10.7
PMSH	2.2	0.7	1.0	3.9
PMPK	3.4	1.0	1.6	5.9
Daily	18.9	4.3	7.0	30.2



Period	SOV	HOV2	HOV3+	Total
AMSH	1.9	0.3	0.6	2.8
AMPK	1.4	0.3	0.8	2.5
MD	3.4	0.8	1.4	5.7
PMSH	1.3	0.5	0.6	2.4
PMPK	2.0	0.7	1.1	3.8
Daily	10.1	2.6	4.5	17.2

Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.1	0.4	1.2
AMPK	1.1	0.2	0.6	1.9
MD	3.3	1.0	0.7	5.1
PMSH	2.0	0.9	0.4	3.3
PMPK	2.6	1.1	0.7	4.4
Daily	9.8	3.3	2.8	15.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	0.2	0.3	2.0
AMPK	1.2	0.3	0.6	2.0
MD	2.9	0.7	1.0	4.5
PMSH	1.2	0.4	0.5	2.0
PMPK	1.9	0.5	0.8	3.2
Daily	8.5	2.1	3.2	13.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.1	0.3	1.1
AMPK	1.1	0.2	0.3	1.6
MD	3.0	0.8	0.5	4.4
PMSH	1.3	0.6	0.3	2.1
PMPK	1.6	0.7	0.4	2.8
Daily	7.7	2.4	1.8	11.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.3	0.4	2.2
AMPK	1.3	0.3	0.7	2.2
MD	3.0	0.7	1.2	4.9
PMSH	1.5	0.5	0.7	2.7
PMPK	2.2	0.6	1.1	4.0
Daily	9.5	2.4	4.1	16.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.2	0.7	1.8
AMPK	1.7	0.3	0.7	2.7
MD	3.9	1.1	1.3	6.3
PMSH	1.5	0.7	0.5	2.6
PMPK	1.8	0.9	0.7	3.4
Daily	9.8	3.2	3.9	16.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.3	0.4	2.2
AMPK	1.3	0.3	0.7	2.2
MD	3.0	0.7	1.2	4.9
PMSH	1.5	0.5	0.7	2.6
PMPK	2.2	0.6	1.1	4.0
Daily	9.5	2.4	4.1	16.0

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.1	0.4	1.0
AMPK	1.0	0.2	0.4	1.5
MD	2.0	0.7	0.7	3.4
PMSH	0.8	0.4	0.2	1.5
PMPK	1.3	0.6	0.4	2.3
Daily	5.6	2.0	2.1	9.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.3	0.4	2.2
AMPK	1.3	0.3	0.7	2.2
MD	3.0	0.7	1.2	4.9
PMSH	1.5	0.5	0.7	2.6
PMPK	2.2	0.6	1.1	4.0
Daily	9.5	2.4	4.1	16.0

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.1	0.6	1.2
AMPK	1.0	0.2	0.5	1.7
MD	2.0	0.7	1.0	3.6
PMSH	0.8	0.4	0.3	1.5
PMPK	1.3	0.6	0.5	2.4
Daily	5.6	2.0	2.8	10.5

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0	General Purpose Mainline Total Daily Volumes (includes night)
0.0	Managed Lane Ramp Total Daily Volumes (does not include night)
0.0	General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)
AMSH	(AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK	(AM Peak) 6:30-8:30 AM
MD	(Midday) 9:30 AM-2:30 PM
PMSH	(PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK	(PM Peak) 3:30-6:30 PM
Daily	Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

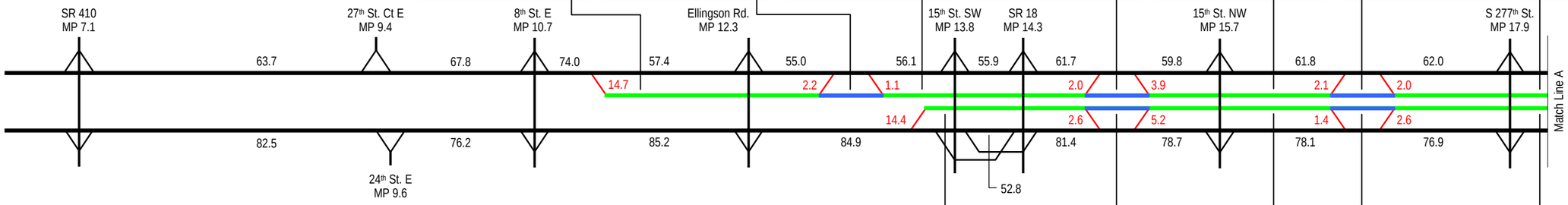
FINAL DRAFT

WilburSmith ASSOCIATES

2035 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 1
I-405 NORTHERN SECTION

FIGURE A-1-2C

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.3	0.2	0.7
AMPK	0.6	0.3	0.3	1.2
MD	2.9	2.4	0.6	5.9
PMSH	0.9	2.2	0.2	3.2
PMPK	0.7	2.7	0.2	3.6
Daily	5.2	8.0	1.5	14.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.2	0.1	0.5
AMPK	0.6	0.2	0.2	1.0
MD	2.9	1.9	0.4	5.2
PMSH	0.9	1.8	0.1	2.7
PMPK	0.7	2.2	0.2	3.1
Daily	5.2	6.3	1.1	12.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.3	0.2	0.6
AMPK	0.6	0.3	0.2	1.1
MD	3.1	2.1	0.5	5.6
PMSH	0.9	2.0	0.1	3.0
PMPK	0.7	2.4	0.2	3.3
Daily	5.5	7.0	1.2	13.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.2	0.1	0.5
AMPK	0.6	0.2	0.2	1.0
MD	2.7	1.7	0.4	4.8
PMSH	0.8	1.7	0.1	2.5
PMPK	0.7	2.1	0.2	2.9
Daily	4.9	5.8	1.0	11.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.3	0.3	0.8
AMPK	0.6	0.3	0.3	1.2
MD	3.0	2.3	0.6	6.0
PMSH	1.1	2.2	0.2	3.5
PMPK	1.0	2.8	0.3	4.1
Daily	6.0	7.9	1.7	15.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.2	0.2	0.7
AMPK	0.6	0.3	0.3	1.1
MD	2.8	1.9	0.5	5.2
PMSH	1.1	1.8	0.1	3.0
PMPK	1.0	2.3	0.2	3.6
Daily	5.6	6.6	1.4	13.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.4	0.3	0.8
AMPK	0.6	0.4	0.3	1.3
MD	2.9	2.3	0.7	5.9
PMSH	1.2	2.0	0.2	3.4
PMPK	1.2	2.6	0.3	4.1
Daily	6.1	7.6	1.8	15.5

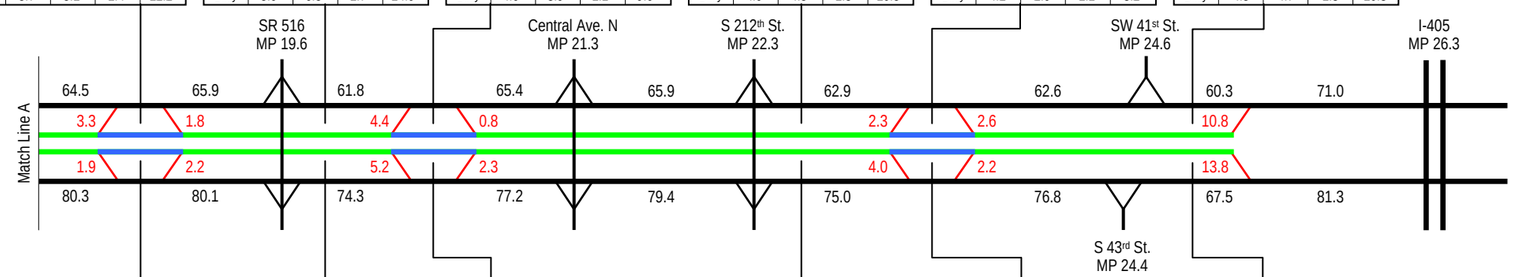
Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	1.0	0.4	2.5
AMPK	0.9	0.9	0.3	2.1
MD	1.2	2.5	0.6	4.3
PMSH	0.5	1.5	0.3	2.3
PMPK	1.0	1.9	0.4	3.2
Daily	4.7	7.7	2.0	14.4

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.8	0.3	2.0
AMPK	0.7	0.8	0.2	1.7
MD	1.2	2.0	0.5	3.6
PMSH	0.5	1.2	0.2	1.9
PMPK	0.8	1.5	0.3	2.6
Daily	4.0	6.2	1.5	11.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	1.0	0.5	2.8
AMPK	0.9	1.0	0.4	2.4
MD	1.9	2.6	0.9	5.4
PMSH	0.7	1.6	0.3	2.6
PMPK	1.3	2.1	0.5	3.9
Daily	6.1	8.2	2.7	17.1

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.9	0.5	2.6
AMPK	0.9	0.9	0.4	2.2
MD	1.9	2.2	0.7	4.8
PMSH	0.7	1.4	0.3	2.4
PMPK	1.3	1.8	0.4	3.6
Daily	6.1	7.2	2.3	15.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	1.0	0.6	2.9
AMPK	1.0	1.0	0.5	2.5
MD	2.1	2.7	0.9	5.7
PMSH	0.8	1.7	0.4	2.9
PMPK	1.4	2.3	0.6	4.3
Daily	6.6	8.7	2.9	18.2



Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.2	0.2	0.5
AMPK	0.5	0.2	0.2	1.0
MD	2.6	1.5	0.5	4.6
PMSH	1.2	1.4	0.2	2.8
PMPK	1.2	1.9	0.3	3.3
Daily	5.7	5.1	1.4	12.2

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.2	0.2	0.7
AMPK	0.5	0.3	0.3	1.1
MD	2.7	1.9	0.6	5.2
PMSH	1.2	1.7	0.2	3.1
PMPK	1.2	2.3	0.3	3.9
Daily	5.9	6.5	1.7	14.0

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.1	0.1	0.4
AMPK	0.4	0.1	0.2	0.8
MD	2.1	1.1	0.4	3.5
PMSH	0.9	1.1	0.2	2.1
PMPK	1.0	1.5	0.3	2.8
Daily	4.6	3.9	1.1	9.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.1	0.1	0.5
AMPK	0.4	0.2	0.2	0.8
MD	2.1	1.2	0.4	3.7
PMSH	1.0	1.2	0.2	2.3
PMPK	1.1	1.6	0.3	3.1
Daily	4.9	4.3	1.3	10.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.1	0.1	0.4
AMPK	0.4	0.1	0.2	0.7
MD	1.8	0.8	0.4	3.0
PMSH	0.9	0.7	0.2	1.8
PMPK	1.0	1.1	0.3	2.4
Daily	4.2	2.9	1.1	8.2

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.3	0.2	0.7
AMPK	0.4	0.3	0.3	1.1
MD	1.9	1.4	0.6	3.8
PMSH	0.9	1.1	0.2	2.2
PMPK	1.0	1.6	0.4	2.9
Daily	4.3	4.7	1.8	10.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	1.0	0.5	2.9
AMPK	1.0	1.0	0.4	2.5
MD	2.0	2.3	0.7	5.0
PMSH	0.7	1.4	0.4	2.4
PMPK	1.3	1.7	0.5	3.5
Daily	6.4	7.4	2.5	16.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	1.2	0.6	3.2
AMPK	1.0	1.2	0.6	2.8
MD	2.0	2.7	0.9	5.7
PMSH	0.7	1.6	0.4	2.8
PMPK	1.3	2.1	0.6	4.0
Daily	6.5	8.9	3.1	18.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.9	0.4	2.3
AMPK	0.8	0.9	0.3	2.0
MD	1.5	1.9	0.6	4.1
PMSH	0.6	1.1	0.3	2.0
PMPK	1.0	1.5	0.4	2.8
Daily	5.0	6.4	1.9	13.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	1.1	0.5	2.8
AMPK	0.9	1.1	0.4	2.4
MD	1.6	2.4	0.9	4.9
PMSH	0.7	1.3	0.3	2.3
PMPK	1.1	1.6	0.5	3.3
Daily	5.5	7.6	2.6	15.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.9	0.4	2.2
AMPK	0.7	0.9	0.3	1.9
MD	1.3	1.7	0.6	3.6
PMSH	0.6	0.9	0.2	1.6
PMPK	1.0	1.1	0.3	2.3
Daily	4.4	5.4	1.8	11.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.9	0.5	2.3
AMPK	0.7	1.0	0.4	2.1
MD	1.3	2.1	0.8	4.2
PMSH	0.6	1.2	0.4	2.2
PMPK	1.0	1.6	0.5	3.1
Daily	4.5	6.8	2.5	13.8

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

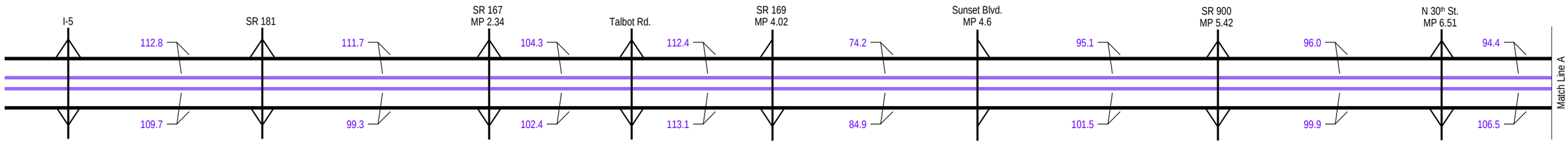
FINAL DRAFT

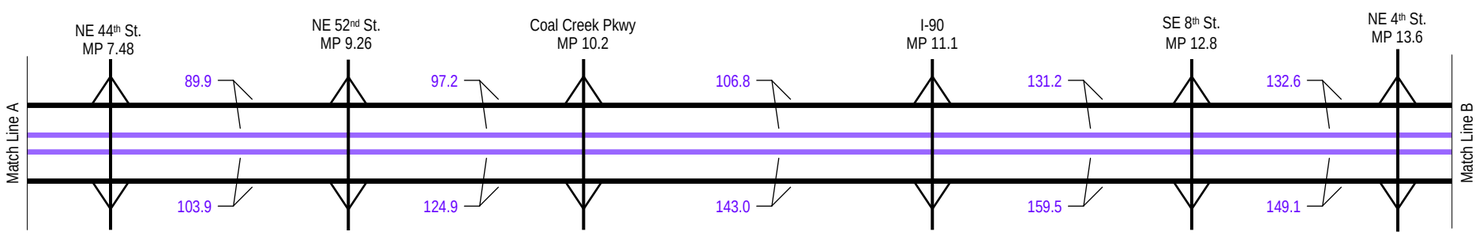
WilburSmith ASSOCIATES

2045 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 1
SR 167

FIGURE A-1-3A

Schematic
Not To Scale





LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0	General Purpose Mainline Total Daily Volumes (includes night)
0.0	Managed Lane Ramp Total Daily Volumes (does not include night)
0.0	General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)
AMSH	(AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK	(AM Peak) 6:30-8:30 AM
MD	(Midday) 9:30 AM-2:30 PM
PMSH	(PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK	(PM Peak) 3:30-6:30 PM
Daily	Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

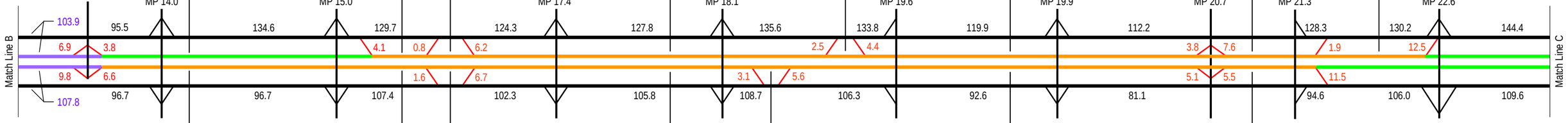
FINAL DRAFT

WilburSmith ASSOCIATES

2045 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 1
I-405 SOUTHERN SECTION

FIGURE A-1-3B

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.3	0.4	2.2
AMPK	1.4	0.3	0.5	2.1
MD	2.8	0.8	1.4	5.0
PMSH	1.4	0.7	1.3	3.3
PMPK	2.0	0.7	1.7	4.4
Daily	9.2	2.7	5.2	17.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.2	0.5	1.2
AMPK	1.0	0.3	0.4	1.7
MD	3.0	2.1	0.8	6.0
PMSH	2.4	1.6	0.7	4.6
PMPK	3.2	2.0	1.0	6.3
Daily	10.2	6.2	3.5	19.9

Period	SOV	HOV2	HOV3+	Total
AMSH	2.3	0.5	0.6	3.4
AMPK	1.6	0.3	0.6	2.5
MD	4.2	1.1	1.8	7.1
PMSH	1.7	0.7	1.3	3.7
PMPK	2.0	0.7	1.7	4.4
Daily	11.8	3.3	6.0	21.2

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.2	0.5	1.2
AMPK	1.0	0.3	0.4	1.7
MD	3.0	2.1	0.8	6.0
PMSH	2.4	1.6	0.7	4.6
PMPK	3.2	2.0	1.0	6.3
Daily	10.2	6.2	3.5	19.9

Period	SOV	HOV2	HOV3+	Total
AMSH	2.3	0.5	0.6	3.4
AMPK	1.6	0.3	0.6	2.5
MD	4.2	1.0	1.6	6.8
PMSH	1.7	0.6	1.1	3.4
PMPK	2.0	0.7	1.5	4.2
Daily	11.8	3.1	5.4	20.4

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.2	0.4	1.1
AMPK	1.0	0.2	0.4	1.5
MD	2.9	1.9	0.6	5.5
PMSH	2.3	1.5	0.5	4.3
PMPK	3.2	1.9	0.8	5.8
Daily	10.0	5.6	2.7	18.3

Period	SOV	HOV2	HOV3+	Total
AMSH	3.1	0.6	1.0	4.7
AMPK	2.0	0.4	1.1	3.5
MD	5.4	1.3	2.3	9.1
PMSH	2.0	0.7	1.5	4.2
PMPK	2.4	0.7	2.0	5.1
Daily	15.0	3.8	7.8	26.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.2	0.6	1.5
AMPK	1.3	0.3	0.6	2.2
MD	4.6	2.3	1.7	8.5
PMSH	2.8	1.6	1.1	5.5
PMPK	3.7	2.1	1.4	7.2
Daily	13.1	6.5	5.4	24.9

Period	SOV	HOV2	HOV3+	Total
AMSH	3.0	0.6	0.8	4.4
AMPK	1.9	0.4	1.0	3.3
MD	5.0	1.1	2.0	8.1
PMSH	1.8	0.6	1.3	3.7
PMPK	2.2	0.6	1.8	4.6
Daily	13.8	3.2	7.0	24.0

Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.2	0.4	1.3
AMPK	1.2	0.2	0.4	1.8
MD	4.3	1.9	1.2	7.4
PMSH	2.6	1.4	0.9	4.9
PMPK	3.4	1.8	1.2	6.4
Daily	12.3	5.5	4.1	21.9

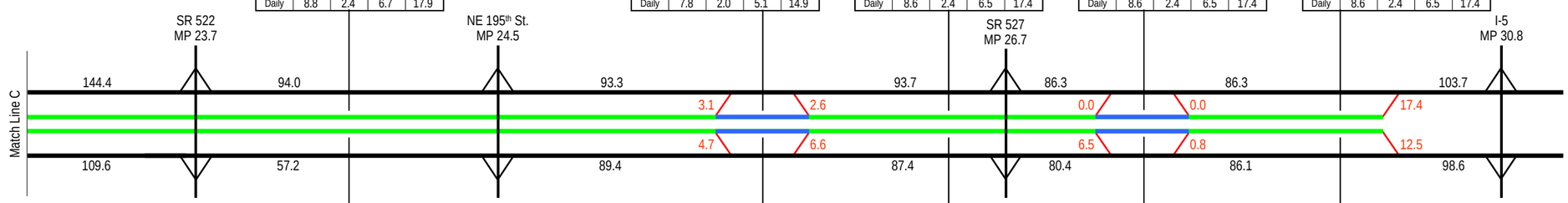
Period	SOV	HOV2	HOV3+	Total
AMSH	3.2	0.6	0.9	4.8
AMPK	2.2	0.5	1.1	3.7
MD	5.9	1.3	2.4	9.7
PMSH	2.2	0.7	1.5	4.4
PMPK	2.9	0.8	2.1	5.8
Daily	16.4	3.9	8.1	28.4

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.2	0.6	1.6
AMPK	1.4	0.2	0.8	2.4
MD	4.9	2.1	1.6	8.6
PMSH	3.5	1.8	1.1	6.4
PMPK	4.6	2.2	1.5	8.4
Daily	15.2	6.6	5.7	27.4

Period	SOV	HOV2	HOV3+	Total
AMSH	3.5	0.7	1.4	5.6
AMPK	2.4	0.6	1.3	4.3
MD	6.3	1.6	3.3	11.1
PMSH	2.2	0.7	1.7	4.6
PMPK	3.2	1.0	2.5	6.6
Daily	17.5	4.6	10.1	32.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.2	0.9	2.0
AMPK	1.4	0.2	0.9	2.5
MD	4.7	1.9	2.2	8.8
PMSH	3.5	1.6	1.2	6.3
PMPK	4.5	2.0	1.7	8.2
Daily	15.0	6.0	6.9	27.9

Period	SOV	HOV2	HOV3+	Total
AMSH	3.3	0.7	1.3	5.3
AMPK	2.3	0.5	1.2	4.0
MD	6.1	1.4	3.1	10.6
PMSH	2.1	0.7	1.6	4.4
PMPK	3.0	0.9	2.3	6.2
Daily	16.8	4.1	9.5	30.4



Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.3	0.8	2.7
AMPK	1.2	0.3	0.9	2.3
MD	3.1	0.8	2.1	6.0
PMSH	1.2	0.4	1.2	2.9
PMPK	1.7	0.6	1.7	4.0
Daily	8.8	2.4	6.7	17.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.2	0.5	1.5
AMPK	1.1	0.2	0.6	1.9
MD	3.1	1.0	0.9	5.0
PMSH	2.1	0.8	0.5	3.5
PMPK	2.6	1.1	0.8	4.5
Daily	9.7	3.3	3.4	16.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.2	0.5	2.0
AMPK	1.0	0.2	0.6	1.9
MD	2.7	0.7	1.5	4.9
PMSH	1.2	0.4	1.0	2.6
PMPK	1.6	0.5	1.4	3.5
Daily	7.8	2.0	5.1	14.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.1	0.3	1.3
AMPK	1.0	0.1	0.3	1.5
MD	2.5	0.8	0.6	3.9
PMSH	1.3	0.5	0.4	2.2
PMPK	1.5	0.7	0.6	2.8
Daily	7.2	2.3	2.2	11.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.3	0.6	2.2
AMPK	1.1	0.3	0.7	2.1
MD	2.9	0.8	1.7	5.4
PMSH	1.5	0.5	1.5	3.4
PMPK	1.8	0.6	2.0	4.4
Daily	8.6	2.4	6.5	17.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.3	0.7	2.3
AMPK	1.7	0.3	0.7	2.7
MD	4.1	1.3	1.5	6.9
PMSH	1.7	0.7	0.7	3.0
PMPK	1.7	0.8	0.9	3.4
Daily	10.4	3.4	4.5	18.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.3	0.6	2.2
AMPK	1.1	0.3	0.7	2.1
MD	2.9	0.8	1.7	5.4
PMSH	1.5	0.5	1.5	3.4
PMPK	1.8	0.6	2.0	4.4
Daily	8.6	2.4	6.5	17.4

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.2	0.5	1.4
AMPK	1.0	0.2	0.4	1.6
MD	2.4	0.9	0.8	4.2
PMSH	1.1	0.5	0.3	2.0
PMPK	1.5	0.6	0.5	2.6
Daily	6.8	2.4	2.5	11.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.3	0.6	2.2
AMPK	1.1	0.3	0.7	2.1
MD	2.9	0.8	1.7	5.4
PMSH	1.5	0.5	1.5	3.4
PMPK	1.8	0.6	2.0	4.4
Daily	8.6	2.4	6.5	17.4

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.2	0.6	1.5
AMPK	1.0	0.2	0.5	1.7
MD	2.4	0.9	1.1	4.5
PMSH	1.1	0.5	0.4	2.1
PMPK	1.5	0.6	0.6	2.7
Daily	6.8	2.4	3.3	12.5

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0	General Purpose Mainline Total Daily Volumes (includes night)
0.0	Managed Lane Ramp Total Daily Volumes (does not include night)
0.0	General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)
AMSH	(AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK	(AM Peak) 6:30-8:30 AM
MD	(Midday) 9:30 AM-2:30 PM
PMSH	(PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK	(PM Peak) 3:30-6:30 PM
Daily	Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

FINAL DRAFT

WilburSmith ASSOCIATES

2045 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 1
I-405 NORTHERN SECTION

FIGURE A-1-3C

Schematic
Not To Scale

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.2	0.2	0.6
AMPK	0.3	0.3	0.3	0.9
MD	1.5	2.0	0.7	4.3
PMSH	0.8	1.9	0.3	3.0
PMPK	1.0	2.4	0.4	3.7
Daily	3.8	6.8	1.9	12.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.1	0.1	0.4
AMPK	0.3	0.2	0.2	0.6
MD	1.5	1.6	0.4	3.5
PMSH	0.8	1.5	0.1	2.5
PMPK	1.0	1.9	0.2	3.1
Daily	3.8	5.3	1.1	10.2

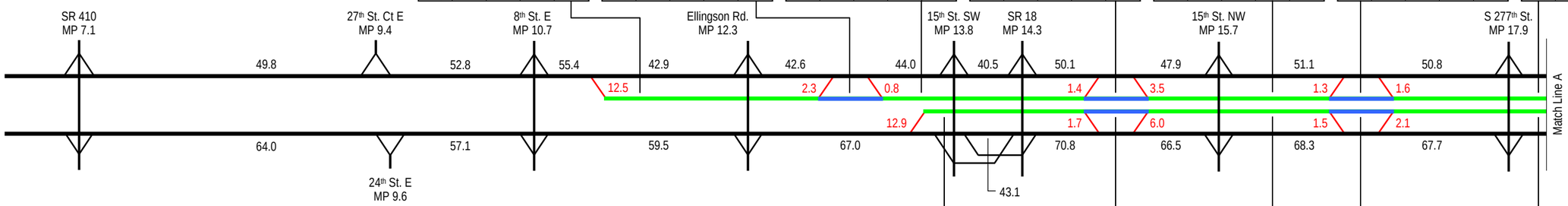
Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.2	0.2	0.5
AMPK	0.3	0.2	0.2	0.7
MD	1.6	1.7	0.5	3.8
PMSH	0.9	1.6	0.2	2.7
PMPK	1.1	2.1	0.2	3.4
Daily	4.1	5.8	1.2	11.0

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.1	0.1	0.4
AMPK	0.3	0.1	0.2	0.6
MD	1.6	1.4	0.4	3.4
PMSH	0.8	1.4	0.1	2.3
PMPK	0.9	1.8	0.2	2.9
Daily	3.8	5.0	1.0	9.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.2	0.3	0.7
AMPK	0.3	0.2	0.3	0.9
MD	1.8	2.0	0.7	4.4
PMSH	1.1	1.8	0.2	3.1
PMPK	1.4	2.4	0.3	4.1
Daily	4.8	6.7	1.8	13.2

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.2	0.2	0.6
AMPK	0.3	0.2	0.3	0.8
MD	1.7	1.7	0.5	4.0
PMSH	1.1	1.6	0.1	2.8
PMPK	1.4	2.1	0.2	3.8
Daily	4.7	5.8	1.4	11.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.3	0.3	0.7
AMPK	0.4	0.3	0.3	1.0
MD	1.9	1.9	0.6	4.4
PMSH	1.2	1.7	0.2	3.1
PMPK	1.7	2.3	0.3	4.3
Daily	5.3	6.5	1.7	13.5



Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.8	0.5	2.5
AMPK	0.8	0.8	0.5	2.0
MD	1.8	1.9	0.8	4.4
PMSH	0.3	1.0	0.3	1.6
PMPK	0.6	1.3	0.4	2.3
Daily	4.6	5.9	2.4	12.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.7	0.4	2.1
AMPK	0.6	0.7	0.4	1.7
MD	1.8	1.5	0.6	3.9
PMSH	0.3	0.8	0.2	1.4
PMPK	0.6	1.1	0.3	2.0
Daily	4.3	5.0	1.9	11.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	1.0	0.7	3.2
AMPK	0.9	0.9	0.6	2.5
MD	2.8	2.1	1.1	6.1
PMSH	0.5	1.2	0.4	2.2
PMPK	1.1	1.7	0.6	3.3
Daily	6.9	6.9	3.4	17.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.8	0.7	3.0
AMPK	0.9	0.8	0.6	2.3
MD	2.8	1.8	0.9	5.5
PMSH	0.5	1.1	0.3	1.9
PMPK	1.1	1.4	0.5	2.9
Daily	6.8	5.9	2.9	15.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.9	0.7	3.3
AMPK	1.0	0.9	0.6	2.6
MD	3.1	2.1	1.1	6.3
PMSH	0.5	1.3	0.4	2.2
PMPK	1.1	1.7	0.5	3.4
Daily	7.5	6.9	3.4	17.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.2	0.3	0.5
AMPK	0.4	0.2	0.3	0.8
MD	1.8	1.3	0.5	3.6
PMSH	1.2	1.2	0.1	2.5
PMPK	1.7	1.7	0.2	3.6
Daily	5.2	4.6	1.3	11.0

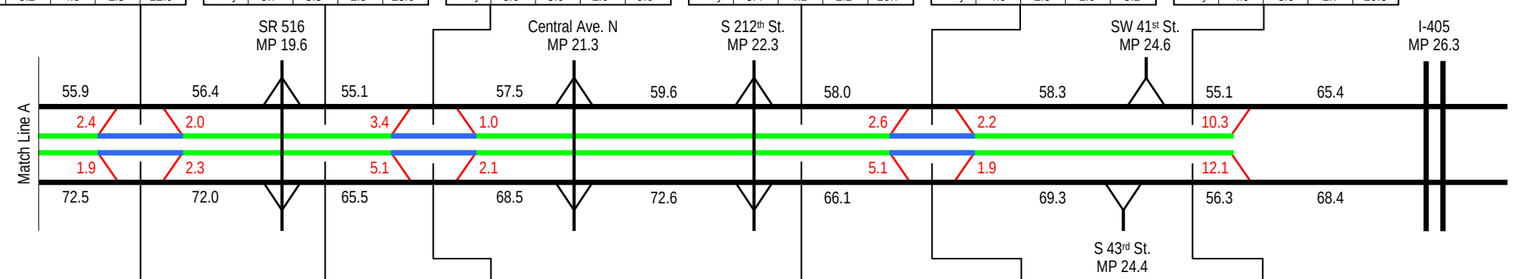
Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.2	0.2	0.7
AMPK	0.4	0.2	0.3	1.0
MD	1.9	1.7	0.6	4.1
PMSH	1.3	1.5	0.1	2.9
PMPK	1.9	2.1	0.3	4.3
Daily	5.7	5.8	1.5	13.0

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.1	0.1	0.5
AMPK	0.4	0.1	0.2	0.7
MD	1.7	1.0	0.3	3.0
PMSH	1.1	0.9	0.1	2.1
PMPK	1.6	1.4	0.2	3.2
Daily	5.0	3.6	1.0	9.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.1	0.2	0.6
AMPK	0.4	0.2	0.2	0.8
MD	1.7	1.2	0.4	3.3
PMSH	1.2	1.1	0.1	2.3
PMPK	1.8	1.6	0.3	3.7
Daily	5.4	4.1	1.1	10.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.1	0.1	0.5
AMPK	0.4	0.1	0.2	0.7
MD	1.5	0.7	0.3	2.5
PMSH	1.0	0.6	0.1	1.7
PMPK	1.5	1.0	0.2	2.7
Daily	4.6	2.5	1.0	8.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.2	0.3	0.8
AMPK	0.5	0.3	0.4	1.1
MD	1.5	1.1	0.6	3.2
PMSH	1.0	0.8	0.2	2.0
PMPK	1.6	1.3	0.3	3.1
Daily	4.9	3.6	1.7	10.3



Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.9	0.7	3.3
AMPK	1.0	0.9	0.6	2.6
MD	2.8	1.9	0.8	5.5
PMSH	0.5	1.1	0.3	1.8
PMPK	1.0	1.4	0.4	2.8
Daily	6.9	6.1	2.9	15.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	1.1	0.9	3.6
AMPK	1.0	1.1	0.8	2.9
MD	3.0	2.3	1.0	6.3
PMSH	0.5	1.3	0.3	2.1
PMPK	1.0	1.7	0.5	3.3
Daily	7.2	7.5	3.5	18.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.8	0.4	2.5
AMPK	0.8	0.8	0.4	2.1
MD	2.2	1.6	0.7	4.6
PMSH	0.4	1.0	0.2	1.6
PMPK	0.8	1.3	0.4	2.4
Daily	5.5	5.5	2.1	13.1

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	1.0	0.6	3.0
AMPK	0.9	1.0	0.6	2.5
MD	2.5	1.8	0.8	5.1
PMSH	0.4	1.2	0.3	1.8
PMPK	0.9	1.5	0.4	2.8
Daily	6.1	6.5	2.7	15.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.6	0.4	2.0
AMPK	0.7	0.7	0.4	1.8
MD	1.6	1.1	0.5	3.2
PMSH	0.3	0.7	0.1	1.2
PMPK	0.8	0.9	0.2	1.9
Daily	4.4	4.2	1.6	10.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.7	0.5	2.1
AMPK	0.7	0.8	0.5	2.0
MD	1.8	1.5	0.8	4.0
PMSH	0.4	1.0	0.2	1.5
PMPK	0.9	1.3	0.3	2.4
Daily	4.7	5.2	2.2	12.1

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

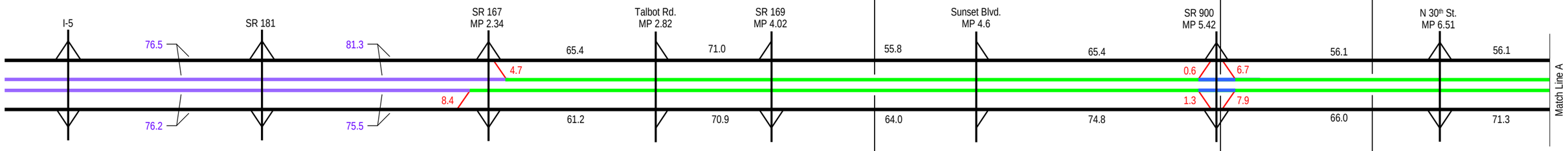
FINAL DRAFT

WilburSmith ASSOCIATES

2020 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 2
SR 167

FIGURE A-2-1A

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.2	0.3	1.2
AMPK	1.3	0.2	0.7	2.2
MD	0.6	0.3	1.0	2.0
PMSH	0.6	0.3	0.5	1.4
PMPK	0.9	0.4	0.7	2.0
Daily	4.1	1.4	3.3	8.7

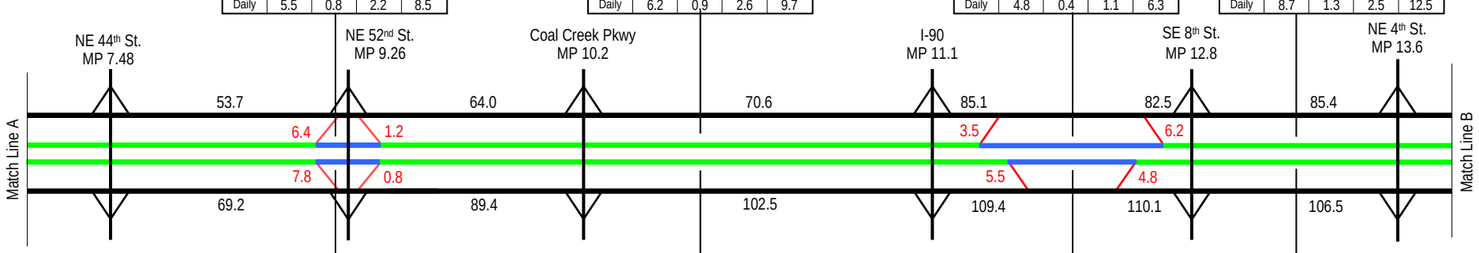
Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.1	0.3	1.1
AMPK	1.2	0.2	0.5	1.9
MD	0.6	0.3	0.9	1.9
PMSH	0.6	0.3	0.5	1.4
PMPK	0.8	0.4	0.7	1.9
Daily	3.9	1.3	3.0	8.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.2	0.4	1.9
AMPK	1.6	0.2	0.7	2.5
MD	1.9	0.3	1.3	3.5
PMSH	1.5	0.5	0.8	2.8
PMPK	2.2	0.9	1.0	4.2
Daily	8.5	2.1	4.3	14.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.4	0.6	2.3
AMPK	0.7	0.4	0.5	1.6
MD	1.5	0.8	0.8	3.1
PMSH	0.9	0.3	0.3	1.6
PMPK	1.9	0.6	0.7	3.2
Daily	6.2	2.6	3.0	11.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.4	0.5	1.9
AMPK	0.6	0.4	0.4	1.4
MD	1.5	0.7	0.7	2.9
PMSH	0.8	0.3	0.3	1.4
PMPK	1.7	0.6	0.5	2.8
Daily	5.6	2.3	2.5	10.5

Period	SOV	HOV2	HOV3+	Total
AMSH	2.0	0.6	0.9	3.5
AMPK	1.3	0.5	0.8	2.6
MD	3.5	1.0	1.5	6.0
PMSH	1.2	0.4	0.6	2.2
PMPK	2.2	0.7	1.0	4.0
Daily	10.2	3.2	4.9	18.3



Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.1	0.2	1.1
AMPK	0.9	0.1	0.2	1.2
MD	1.6	0.2	0.7	2.5
PMSH	0.9	0.2	0.5	1.6
PMPK	1.2	0.2	0.6	2.0
Daily	5.5	0.8	2.2	8.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.1	0.2	1.3
AMPK	1.0	0.1	0.3	1.3
MD	1.9	0.2	0.8	2.9
PMSH	1.0	0.2	0.6	1.8
PMPK	1.4	0.3	0.8	2.4
Daily	6.2	0.9	2.6	9.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.1	0.1	0.9
AMPK	0.7	0.0	0.2	0.9
MD	1.7	0.1	0.3	2.1
PMSH	0.6	0.0	0.1	0.8
PMPK	1.0	0.1	0.4	1.4
Daily	4.8	0.4	1.1	6.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	0.2	0.3	1.9
AMPK	1.2	0.2	0.4	1.8
MD	3.1	0.5	0.7	4.3
PMSH	1.2	0.2	0.3	1.7
PMPK	1.8	0.3	0.7	2.8
Daily	8.7	1.3	2.5	12.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.3	0.6	2.1
AMPK	0.7	0.2	0.4	1.4
MD	2.0	0.6	0.9	3.4
PMSH	0.8	0.2	0.3	1.3
PMPK	1.4	0.4	0.6	2.4
Daily	6.0	1.7	2.8	10.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.3	0.6	2.1
AMPK	0.7	0.2	0.5	1.4
MD	2.1	0.6	1.0	3.8
PMSH	0.9	0.2	0.4	1.5
PMPK	1.4	0.4	0.7	2.5
Daily	6.4	1.8	3.1	11.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.1	0.2	0.9
AMPK	0.5	0.1	0.2	0.9
MD	1.3	0.2	0.2	1.7
PMSH	0.7	0.1	0.1	0.9
PMPK	1.0	0.2	0.2	1.4
Daily	4.1	0.8	0.9	5.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.1	0.5	1.2
AMPK	0.5	0.1	0.6	1.3
MD	2.1	0.4	0.6	3.1
PMSH	1.4	0.4	0.3	2.1
PMPK	1.7	0.5	0.5	2.8
Daily	6.4	1.6	2.6	10.6

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0	General Purpose Mainline Total Daily Volumes (includes night)
0.0	Managed Lane Ramp Total Daily Volumes (does not include night)
0.0	General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)
AMSH	(AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK	(AM Peak) 6:30-8:30 AM
MD	(Midday) 9:30 AM-2:30 PM
PMSH	(PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK	(PM Peak) 3:30-6:30 PM
Daily	Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

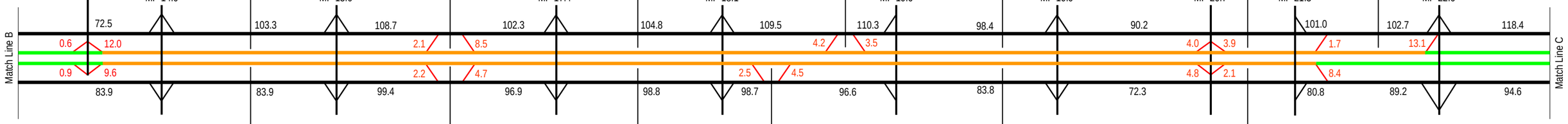
FINAL DRAFT

WilburSmith ASSOCIATES

2020 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 2
I-405 SOUTHERN SECTION

FIGURE A-2-1B

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	3.0	0.4	0.8	4.2
AMPK	2.4	0.5	0.9	3.8
MD	6.1	1.0	1.2	8.3
PMSH	2.0	0.5	0.5	3.1
PMPK	3.0	0.8	0.8	4.6
Daily	16.5	3.2	4.2	23.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.2	0.6	1.5
AMPK	0.7	0.1	0.6	1.4
MD	3.7	0.7	0.9	5.4
PMSH	3.4	0.9	0.5	4.9
PMPK	4.0	1.2	0.8	6.1
Daily	12.6	3.2	3.4	19.2

Period	SOV	HOV2	HOV3+	Total
AMSH	2.9	0.4	0.7	4.1
AMPK	2.4	0.5	0.9	3.8
MD	5.6	0.8	0.9	7.3
PMSH	1.8	0.4	0.3	2.5
PMPK	2.8	0.6	0.6	4.1
Daily	15.6	2.8	3.5	21.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.1	0.3	1.0
AMPK	0.4	0.1	0.3	0.8
MD	3.5	0.7	0.7	4.9
PMSH	3.3	0.9	0.4	4.6
PMPK	3.9	1.2	0.6	5.7
Daily	11.7	3.0	2.4	17.0

Period	SOV	HOV2	HOV3+	Total
AMSH	4.2	0.6	1.1	6.0
AMPK	3.2	0.6	1.4	5.3
MD	7.8	1.2	1.5	10.4
PMSH	2.3	0.5	0.5	3.4
PMPK	3.6	0.8	0.9	5.2
Daily	21.2	3.7	5.4	30.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.1	0.6	1.3
AMPK	0.6	0.1	0.6	1.3
MD	4.1	0.9	1.4	6.4
PMSH	4.0	1.1	0.7	5.8
PMPK	4.6	1.4	0.9	7.0
Daily	13.9	3.7	4.1	21.7

Period	SOV	HOV2	HOV3+	Total
AMSH	4.0	0.6	1.0	5.5
AMPK	3.0	0.6	1.3	4.9
MD	6.8	1.0	1.1	8.9
PMSH	2.0	0.4	0.4	2.8
PMPK	3.0	0.5	0.6	4.1
Daily	18.7	3.0	4.4	26.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.1	0.4	1.0
AMPK	0.5	0.1	0.4	1.0
MD	3.8	0.8	1.0	5.5
PMSH	3.7	1.0	0.6	5.3
PMPK	4.3	1.3	0.8	6.3
Daily	12.9	3.2	3.1	19.2

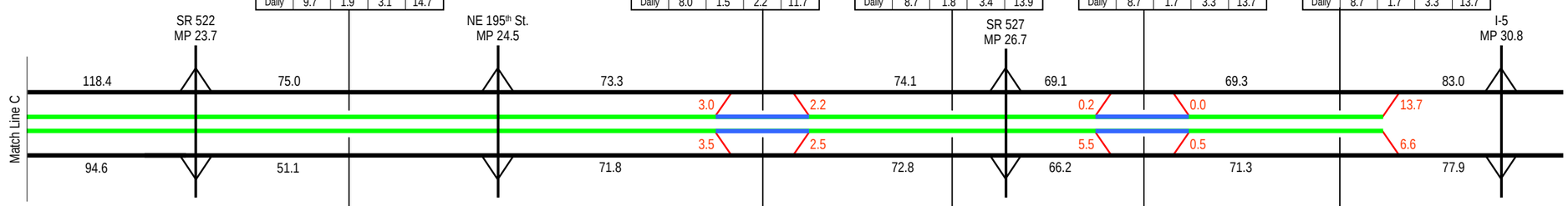
Period	SOV	HOV2	HOV3+	Total
AMSH	4.2	0.6	1.0	5.8
AMPK	3.2	0.6	1.3	5.1
MD	7.7	1.2	1.5	10.4
PMSH	2.2	0.4	0.5	3.2
PMPK	3.6	0.7	0.8	5.1
Daily	20.8	3.5	5.3	29.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.1	0.5	1.1
AMPK	0.6	0.1	0.7	1.4
MD	4.0	0.8	1.3	6.1
PMSH	4.6	1.5	0.8	6.9
PMPK	5.5	1.8	1.1	8.3
Daily	15.3	4.2	4.3	23.8

Period	SOV	HOV2	HOV3+	Total
AMSH	4.3	0.7	1.2	6.2
AMPK	3.4	0.7	1.3	5.3
MD	7.0	1.2	1.6	9.8
PMSH	1.9	0.4	0.5	2.9
PMPK	3.6	0.8	1.0	5.4
Daily	20.2	3.7	5.6	29.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.1	0.7	1.3
AMPK	0.7	0.1	0.6	1.4
MD	3.6	0.7	1.2	5.4
PMSH	3.9	1.2	0.6	5.6
PMPK	4.9	1.5	1.0	7.3
Daily	13.5	3.6	4.0	21.1

Period	SOV	HOV2	HOV3+	Total
AMSH	4.1	0.6	1.1	5.9
AMPK	3.2	0.7	1.2	5.0
MD	6.7	1.1	1.5	9.3
PMSH	1.8	0.4	0.5	2.7
PMPK	3.4	0.7	0.9	5.0
Daily	19.2	3.4	5.2	27.8



Period	SOV	HOV2	HOV3+	Total
AMSH	2.1	0.3	0.7	3.1
AMPK	1.8	0.4	0.7	2.9
MD	3.0	0.5	0.9	4.4
PMSH	0.9	0.2	0.3	1.5
PMPK	1.9	0.5	0.5	2.8
Daily	9.7	1.9	3.1	14.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.1	0.4	0.7
AMPK	0.5	0.1	0.4	1.0
MD	2.4	0.5	0.7	3.5
PMSH	2.3	0.6	0.3	3.2
PMPK	2.9	0.9	0.5	4.3
Daily	8.4	2.1	2.2	12.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.2	0.4	2.2
AMPK	1.4	0.3	0.6	2.3
MD	2.5	0.4	0.6	3.5
PMSH	0.9	0.2	0.2	1.3
PMPK	1.7	0.4	0.4	2.5
Daily	8.0	1.5	2.2	11.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.1	0.3	0.6
AMPK	0.5	0.1	0.3	0.9
MD	2.0	0.4	0.5	2.9
PMSH	1.4	0.4	0.2	2.0
PMPK	1.9	0.6	0.3	2.8
Daily	6.0	1.6	1.6	9.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.2	0.5	2.3
AMPK	1.5	0.3	0.6	2.5
MD	2.7	0.5	1.1	4.3
PMSH	1.0	0.3	0.5	1.7
PMPK	1.9	0.5	0.7	3.1
Daily	8.7	1.8	3.4	13.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.1	0.6	1.0
AMPK	0.6	0.1	0.6	1.3
MD	2.0	0.5	1.1	3.6
PMSH	1.6	0.5	0.4	2.4
PMPK	2.1	0.7	0.6	3.4
Daily	6.5	1.9	3.3	11.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.2	0.5	2.3
AMPK	1.5	0.3	0.6	2.5
MD	2.7	0.5	1.1	4.3
PMSH	0.9	0.2	0.4	1.5
PMPK	1.9	0.5	0.7	3.1
Daily	8.7	1.7	3.3	13.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.0	0.3	0.5
AMPK	0.3	0.1	0.3	0.7
MD	0.9	0.3	0.6	1.7
PMSH	0.8	0.3	0.2	1.2
PMPK	1.3	0.5	0.3	2.1
Daily	3.4	1.1	1.6	6.1

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.2	0.5	2.3
AMPK	1.5	0.3	0.6	2.5
MD	2.7	0.5	1.1	4.3
PMSH	0.9	0.2	0.4	1.5
PMPK	1.9	0.5	0.7	3.1
Daily	8.7	1.7	3.3	13.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.0	0.4	0.5
AMPK	0.3	0.1	0.4	0.7
MD	0.9	0.3	0.7	1.9
PMSH	0.8	0.3	0.2	1.3
PMPK	1.3	0.5	0.4	2.2
Daily	3.4	1.1	2.1	6.6

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

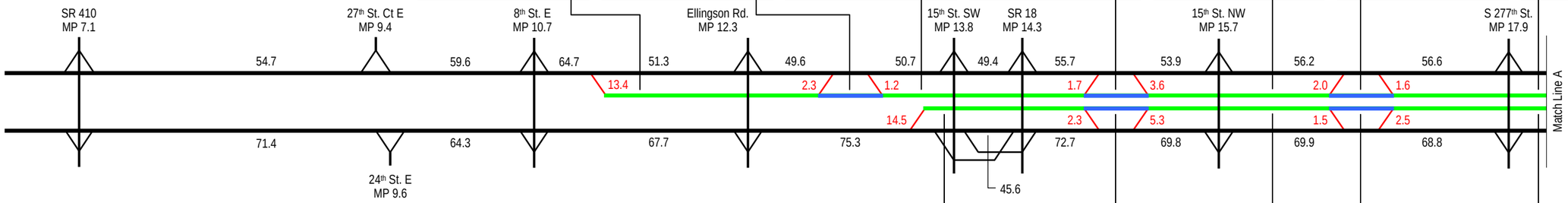
FINAL DRAFT

WilburSmith ASSOCIATES

2020 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 2
I-405 NORTHERN SECTION

FIGURE A-2-1C

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.4	0.2	0.7
AMPK	0.2	0.4	0.3	0.9
MD	2.0	2.5	0.6	5.1
PMSH	1.0	2.2	0.1	3.3
PMPK	0.6	2.7	0.2	3.5
Daily	3.8	8.1	1.5	13.4

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.2	0.1	0.5
AMPK	0.2	0.2	0.2	0.7
MD	2.0	1.9	0.4	4.3
PMSH	1.0	1.7	0.1	2.8
PMPK	0.6	2.2	0.1	2.9
Daily	3.8	6.3	1.0	11.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.3	0.2	0.6
AMPK	0.2	0.3	0.2	0.7
MD	2.2	2.1	0.5	4.7
PMSH	1.0	1.9	0.1	3.1
PMPK	0.6	2.5	0.2	3.2
Daily	4.1	7.1	1.1	12.4

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.2	0.1	0.5
AMPK	0.2	0.2	0.2	0.6
MD	2.0	1.8	0.4	4.1
PMSH	0.9	1.6	0.1	2.6
PMPK	0.5	2.1	0.1	2.8
Daily	3.7	6.0	0.9	10.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.4	0.3	0.7
AMPK	0.2	0.4	0.3	0.9
MD	2.2	2.4	0.6	5.2
PMSH	1.2	2.2	0.1	3.5
PMPK	0.8	2.8	0.2	3.9
Daily	4.5	8.1	1.6	14.2

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.3	0.2	0.6
AMPK	0.2	0.3	0.3	0.8
MD	2.0	2.0	0.5	4.5
PMSH	1.2	1.7	0.1	3.0
PMPK	0.8	2.3	0.2	3.3
Daily	4.3	6.6	1.3	12.2

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.4	0.3	0.8
AMPK	0.3	0.4	0.3	1.0
MD	2.1	2.2	0.6	5.0
PMSH	1.3	1.9	0.1	3.3
PMPK	0.9	2.5	0.2	3.7
Daily	4.7	7.5	1.6	13.8

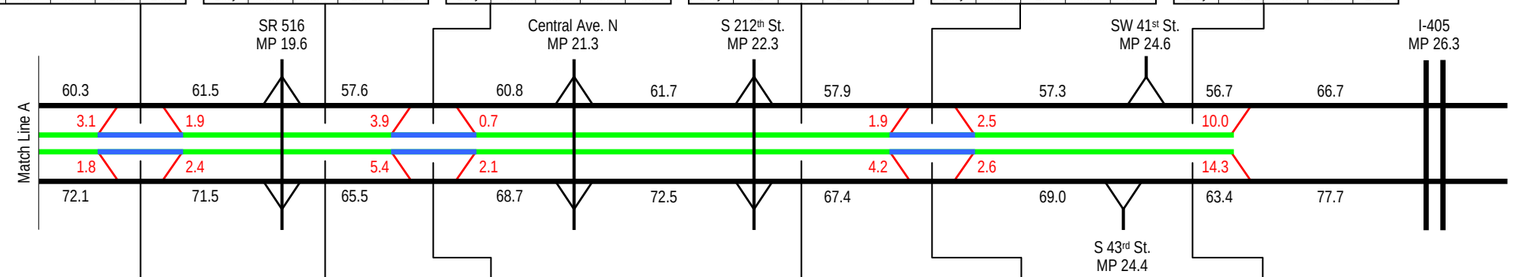
Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	1.3	0.4	2.7
AMPK	0.9	1.2	0.4	2.4
MD	1.3	2.6	0.7	4.5
PMSH	0.4	1.2	0.3	2.0
PMPK	0.8	1.6	0.4	2.9
Daily	4.4	7.9	2.2	14.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	1.0	0.3	2.2
AMPK	0.6	1.0	0.3	1.9
MD	1.3	2.1	0.5	3.9
PMSH	0.4	1.0	0.3	1.7
PMPK	0.7	1.4	0.4	2.5
Daily	3.9	6.5	1.7	12.1

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	1.3	0.5	3.1
AMPK	1.0	1.2	0.4	2.6
MD	2.1	2.7	0.8	5.6
PMSH	0.6	1.5	0.4	2.5
PMPK	1.2	1.9	0.6	3.7
Daily	6.2	8.5	2.8	17.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	1.1	0.4	2.8
AMPK	1.0	1.0	0.4	2.4
MD	2.1	2.3	0.7	5.1
PMSH	0.6	1.3	0.4	2.3
PMPK	1.2	1.7	0.5	3.4
Daily	6.2	7.4	2.4	16.0

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	1.2	0.5	3.1
AMPK	1.0	1.2	0.5	2.7
MD	2.3	2.7	0.9	5.9
PMSH	0.6	1.6	0.5	2.7
PMPK	1.3	2.1	0.7	4.1
Daily	6.7	8.9	3.0	18.5



Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.2	0.2	0.5
AMPK	0.3	0.2	0.2	0.7
MD	2.0	1.5	0.5	3.9
PMSH	1.2	1.3	0.1	2.6
PMPK	0.9	1.8	0.2	2.9
Daily	4.5	5.0	1.2	10.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.3	0.2	0.7
AMPK	0.3	0.3	0.3	0.9
MD	2.0	1.8	0.6	4.4
PMSH	1.3	1.6	0.1	3.1
PMPK	1.0	2.2	0.3	3.4
Daily	4.8	6.3	1.5	12.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.2	0.1	0.4
AMPK	0.3	0.2	0.2	0.6
MD	1.7	1.1	0.3	3.1
PMSH	1.1	1.0	0.1	2.1
PMPK	0.7	1.4	0.2	2.3
Daily	4.0	3.8	0.9	8.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.2	0.1	0.5
AMPK	0.3	0.2	0.2	0.7
MD	1.8	1.2	0.4	3.3
PMSH	1.1	1.0	0.1	2.3
PMPK	0.7	1.5	0.2	2.5
Daily	4.2	4.1	1.0	9.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.1	0.1	0.4
AMPK	0.3	0.1	0.2	0.6
MD	1.6	0.8	0.3	2.7
PMSH	1.0	0.7	0.1	1.8
PMPK	0.7	1.1	0.2	2.0
Daily	3.8	2.8	0.9	7.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.3	0.2	0.8
AMPK	0.4	0.3	0.4	1.1
MD	1.6	1.3	0.6	3.5
PMSH	1.1	1.0	0.2	2.2
PMPK	0.7	1.4	0.3	2.4
Daily	4.1	4.3	1.6	10.0

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	1.2	0.4	3.0
AMPK	1.0	1.2	0.4	2.6
MD	2.1	2.5	0.7	5.2
PMSH	0.6	1.4	0.4	2.4
PMPK	1.2	1.8	0.5	3.5
Daily	6.2	8.1	2.5	16.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	1.4	0.5	3.4
AMPK	1.1	1.4	0.5	3.0
MD	2.1	3.0	0.9	6.0
PMSH	0.6	1.7	0.4	2.7
PMPK	1.2	2.2	0.6	4.0
Daily	6.5	9.7	3.0	19.1

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	1.1	0.3	2.4
AMPK	0.8	1.1	0.3	2.2
MD	1.5	2.2	0.6	4.2
PMSH	0.5	1.2	0.3	2.0
PMPK	0.9	1.6	0.4	2.9
Daily	4.7	7.1	1.9	13.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	1.3	0.5	3.0
AMPK	0.9	1.3	0.5	2.7
MD	1.6	2.4	0.7	4.6
PMSH	0.5	1.4	0.4	2.3
PMPK	1.1	1.8	0.5	3.4
Daily	5.3	8.1	2.5	15.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	1.0	0.4	2.4
AMPK	0.8	1.0	0.4	2.2
MD	1.3	1.6	0.5	3.3
PMSH	0.5	0.8	0.2	1.5
PMPK	0.9	1.1	0.3	2.3
Daily	4.6	5.5	1.7	11.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	1.0	0.5	2.6
AMPK	0.8	1.1	0.5	2.4
MD	1.5	2.1	0.8	4.4
PMSH	0.5	1.2	0.3	2.0
PMPK	1.0	1.5	0.4	2.9
Daily	4.9	7.0	2.4	14.3

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

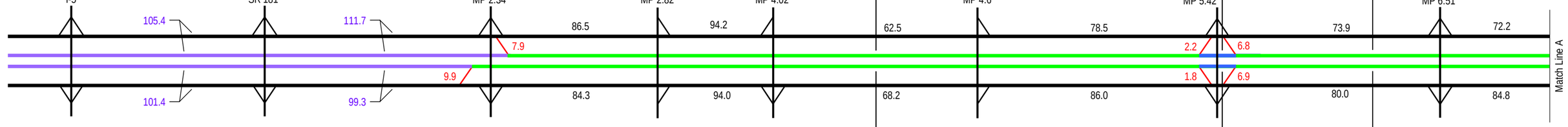
FINAL DRAFT

WilburSmith ASSOCIATES

2035 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 2
SR 167

FIGURE A-2-2A

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.1	0.4	2.0
AMPK	1.7	0.1	0.6	2.5
MD	1.8	0.5	1.3	3.7
PMSH	0.9	0.4	0.9	2.2
PMPK	1.0	0.5	1.1	2.6
Daily	7.0	1.6	4.3	13.0

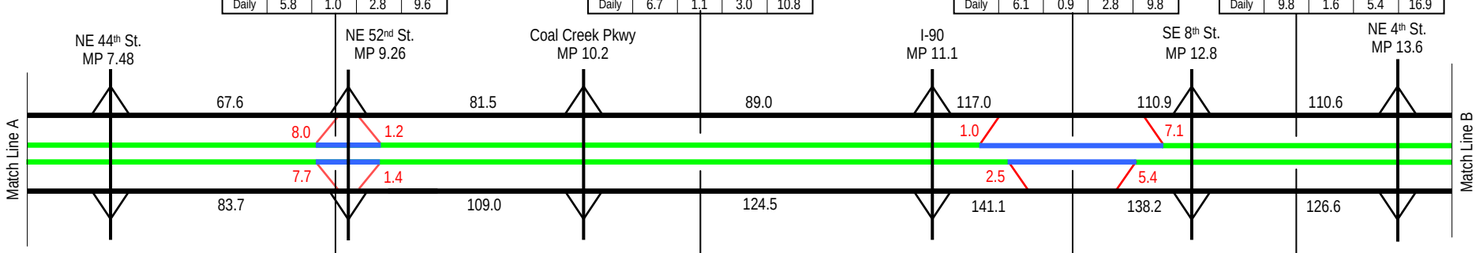
Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.1	0.4	1.7
AMPK	1.5	0.1	0.5	2.1
MD	1.3	0.4	1.1	2.8
PMSH	0.8	0.3	0.7	1.8
PMPK	0.9	0.4	1.0	2.3
Daily	5.7	1.3	3.7	10.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.2	0.5	2.5
AMPK	1.9	0.3	0.7	2.9
MD	2.6	0.7	1.5	4.8
PMSH	1.7	0.6	1.1	3.4
PMPK	1.9	0.8	1.4	4.1
Daily	9.9	2.6	5.2	17.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.3	0.9	2.5
AMPK	0.9	0.4	0.7	1.9
MD	2.1	0.6	1.7	4.5
PMSH	1.2	0.4	0.6	2.2
PMPK	1.8	0.6	0.9	3.3
Daily	7.3	2.3	4.9	14.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.3	0.8	2.2
AMPK	0.8	0.3	0.6	1.7
MD	2.0	0.6	1.5	4.1
PMSH	1.0	0.4	0.5	1.9
PMPK	1.6	0.5	0.7	2.8
Daily	6.5	2.1	4.1	12.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.4	1.3	3.6
AMPK	1.4	0.4	1.0	2.9
MD	3.0	0.8	2.5	6.3
PMSH	1.4	0.5	0.9	2.8
PMPK	2.1	0.7	1.2	4.0
Daily	9.7	2.8	7.0	19.5



Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.1	0.2	1.3
AMPK	1.0	0.1	0.2	1.4
MD	1.6	0.3	0.8	2.6
PMSH	1.0	0.2	0.7	1.9
PMPK	1.1	0.3	0.9	2.3
Daily	5.8	1.0	2.8	9.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.1	0.2	1.4
AMPK	1.1	0.1	0.2	1.5
MD	1.9	0.3	0.9	3.1
PMSH	1.2	0.2	0.8	2.2
PMPK	1.4	0.3	1.0	2.6
Daily	6.7	1.1	3.0	10.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.1	0.1	1.2
AMPK	1.1	0.1	0.2	1.4
MD	1.8	0.2	0.8	2.9
PMSH	1.0	0.2	0.7	1.9
PMPK	1.3	0.2	1.0	2.4
Daily	6.1	0.9	2.8	9.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.2	0.4	2.2
AMPK	1.6	0.2	0.7	2.5
MD	3.0	0.4	1.6	5.1
PMSH	1.5	0.3	1.2	3.0
PMPK	2.1	0.4	1.6	4.1
Daily	9.8	1.6	5.4	16.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.2	0.8	2.2
AMPK	0.9	0.3	0.7	1.9
MD	1.7	0.4	1.4	3.6
PMSH	0.9	0.3	0.5	1.7
PMPK	1.4	0.4	0.6	2.5
Daily	6.1	1.7	4.1	11.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.2	0.9	2.4
AMPK	1.2	0.3	0.9	2.4
MD	1.8	0.5	1.4	3.7
PMSH	1.1	0.3	0.5	1.9
PMPK	1.6	0.5	0.7	2.8
Daily	7.0	1.8	4.4	13.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.2	0.7	1.8
AMPK	1.1	0.3	0.8	2.1
MD	1.5	0.3	1.1	3.0
PMSH	0.9	0.1	0.4	1.4
PMPK	1.5	0.3	0.5	2.3
Daily	6.0	1.2	3.5	10.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.2	1.3	2.4
AMPK	1.1	0.3	1.5	2.9
MD	1.7	0.3	2.1	4.2
PMSH	1.5	0.2	0.9	2.6
PMPK	2.2	0.4	1.3	3.9
Daily	7.5	1.5	7.1	16.1

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH	(AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK	(AM Peak) 6:30-8:30 AM
MD	(Midday) 9:30 AM-2:30 PM
PMSH	(PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK	(PM Peak) 3:30-6:30 PM
Daily	Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

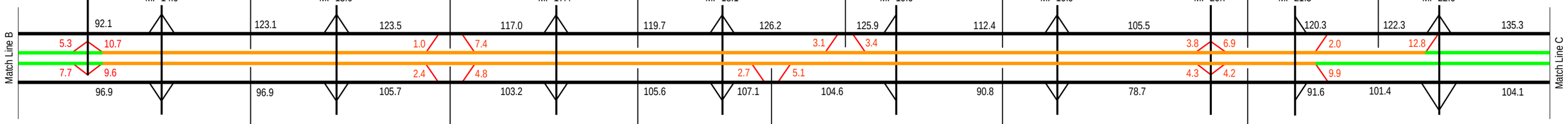
FINAL DRAFT

WilburSmith ASSOCIATES

2035 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 2
I-405 SOUTHERN SECTION

FIGURE A-2-2B

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	2.6	0.5	0.7	3.8
AMPK	2.1	0.4	0.7	3.2
MD	4.3	1.0	1.6	6.9
PMSH	1.9	0.9	0.9	3.7
PMPK	2.6	1.0	1.1	4.7
Daily	13.5	3.8	5.0	22.3

Period	SOV	HOV2	HOV3+	Total
AMSH	2.6	0.5	0.6	3.7
AMPK	2.1	0.4	0.7	3.2
MD	4.3	1.0	1.4	6.6
PMSH	1.8	0.8	0.7	3.4
PMPK	2.5	0.9	1.0	4.5
Daily	13.4	3.6	4.4	21.3

Period	SOV	HOV2	HOV3+	Total
AMSH	3.7	0.6	0.9	5.2
AMPK	2.8	0.5	1.0	4.4
MD	5.7	1.2	2.1	9.0
PMSH	2.5	0.9	1.0	4.4
PMPK	3.3	1.1	1.4	5.7
Daily	18.0	4.4	6.4	28.7

Period	SOV	HOV2	HOV3+	Total
AMSH	3.4	0.6	0.7	4.8
AMPK	2.7	0.5	0.9	4.1
MD	5.3	1.1	1.7	8.0
PMSH	2.3	0.7	0.8	3.8
PMPK	2.9	0.8	1.2	4.9
Daily	16.5	3.7	5.4	25.6

Period	SOV	HOV2	HOV3+	Total
AMSH	3.7	0.6	0.8	5.1
AMPK	2.8	0.5	0.9	4.2
MD	6.0	1.3	1.9	9.2
PMSH	2.6	0.8	1.0	4.4
PMPK	3.6	1.0	1.4	6.0
Daily	18.6	4.2	6.1	29.0

Period	SOV	HOV2	HOV3+	Total
AMSH	4.1	0.8	1.1	5.9
AMPK	3.0	0.6	1.2	4.8
MD	6.5	1.5	2.5	10.4
PMSH	2.4	0.8	1.1	4.3
PMPK	3.7	1.1	1.7	6.5
Daily	19.7	4.8	7.5	32.0

Period	SOV	HOV2	HOV3+	Total
AMSH	3.9	0.7	1.0	5.5
AMPK	2.8	0.6	1.1	4.5
MD	6.2	1.3	2.3	9.8
PMSH	2.3	0.7	1.0	4.0
PMPK	3.5	1.0	1.6	6.1
Daily	18.8	4.3	7.0	30.0

Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.1	0.5	1.3
AMPK	0.7	0.1	0.6	1.4
MD	2.0	1.5	1.3	4.8
PMSH	2.1	1.6	0.7	4.4
PMPK	3.0	2.1	1.0	6.1
Daily	8.5	5.5	4.0	18.0

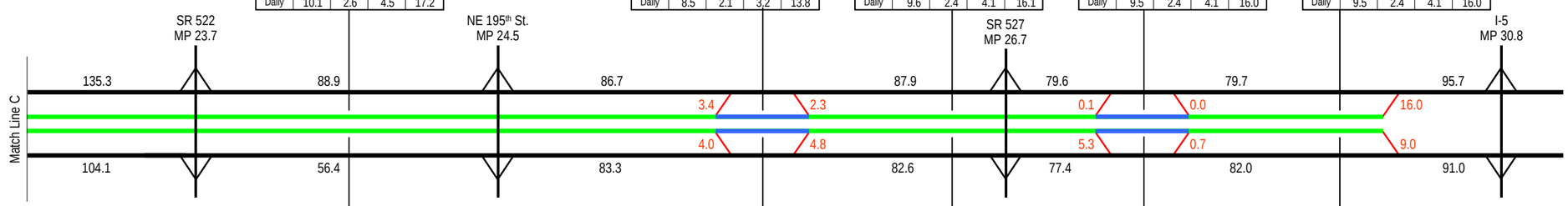
Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.1	0.3	0.9
AMPK	0.5	0.1	0.3	0.9
MD	1.9	1.4	0.8	4.1
PMSH	2.1	1.5	0.5	4.1
PMPK	2.9	2.0	0.7	5.6
Daily	7.8	5.1	2.7	15.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.1	0.5	1.1
AMPK	0.7	0.1	0.6	1.4
MD	2.7	1.6	1.5	5.8
PMSH	2.6	1.7	0.9	5.2
PMPK	3.5	2.2	1.2	6.9
Daily	10.0	5.7	4.7	20.4

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.1	0.3	0.9
AMPK	0.6	0.1	0.4	1.1
MD	2.5	1.3	1.0	4.8
PMSH	2.4	1.5	0.8	4.7
PMPK	3.3	1.9	1.0	6.2
Daily	9.3	4.9	3.5	17.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.1	0.5	1.1
AMPK	0.8	0.1	0.6	1.5
MD	2.9	1.5	1.4	5.9
PMSH	3.2	1.9	1.0	6.1
PMPK	4.4	2.4	1.3	8.2
Daily	12.0	6.0	4.8	22.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.1	0.6	1.4
AMPK	0.9	0.1	0.8	1.8
MD	2.9	1.4	1.7	6.0
PMSH	3.1	1.6	0.9	5.6
PMPK	4.3	2.2	1.4	7.9
Daily	11.8	5.4	5.4	22.7



Period	SOV	HOV2	HOV3+	Total
AMSH	1.9	0.3	0.6	2.9
AMPK	1.4	0.3	0.8	2.5
MD	3.2	0.8	1.4	5.5
PMSH	1.4	0.5	0.6	2.5
PMPK	2.1	0.7	1.1	3.9
Daily	10.1	2.6	4.5	17.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.3	0.3	2.0
AMPK	1.2	0.3	0.6	2.1
MD	2.7	0.6	1.0	4.3
PMSH	1.2	0.4	0.5	2.1
PMPK	1.9	0.6	0.8	3.3
Daily	8.5	2.1	3.2	13.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.3	0.4	2.3
AMPK	1.3	0.3	0.7	2.2
MD	2.9	0.7	1.2	4.7
PMSH	1.5	0.5	0.7	2.7
PMPK	2.3	0.7	1.1	4.1
Daily	9.6	2.4	4.1	16.1

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.3	0.4	2.3
AMPK	1.3	0.3	0.7	2.2
MD	2.9	0.7	1.2	4.7
PMSH	1.5	0.5	0.7	2.6
PMPK	2.3	0.7	1.1	4.1
Daily	9.5	2.4	4.1	16.0

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.3	0.4	2.3
AMPK	1.3	0.3	0.7	2.2
MD	2.9	0.7	1.2	4.7
PMSH	1.5	0.5	0.7	2.6
PMPK	2.3	0.7	1.1	4.1
Daily	9.5	2.4	4.1	16.0

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.1	0.3	0.9
AMPK	0.7	0.1	0.6	1.4
MD	1.8	0.6	0.7	3.2
PMSH	1.8	0.8	0.4	3.0
PMPK	2.5	1.1	0.7	4.3
Daily	7.3	2.7	2.7	12.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.1	0.3	0.8
AMPK	0.6	0.1	0.3	1.0
MD	1.4	0.4	0.5	2.4
PMSH	1.2	0.5	0.3	1.9
PMPK	1.5	0.7	0.4	2.6
Daily	5.2	1.8	1.8	8.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.2	0.7	1.7
AMPK	1.2	0.2	0.7	2.1
MD	2.2	0.7	1.3	4.2
PMSH	1.4	0.6	0.5	2.5
PMPK	1.6	0.8	0.7	3.1
Daily	7.2	2.5	3.9	13.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.1	0.4	1.0
AMPK	0.7	0.1	0.4	1.2
MD	1.3	0.5	0.7	2.5
PMSH	0.8	0.4	0.2	1.4
PMPK	1.2	0.6	0.4	2.2
Daily	4.4	1.7	2.2	8.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.1	0.6	1.2
AMPK	0.7	0.1	0.5	1.4
MD	1.3	0.5	1.0	2.7
PMSH	0.8	0.4	0.3	1.5
PMPK	1.2	0.6	0.5	2.3
Daily	4.4	1.7	2.9	9.0

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

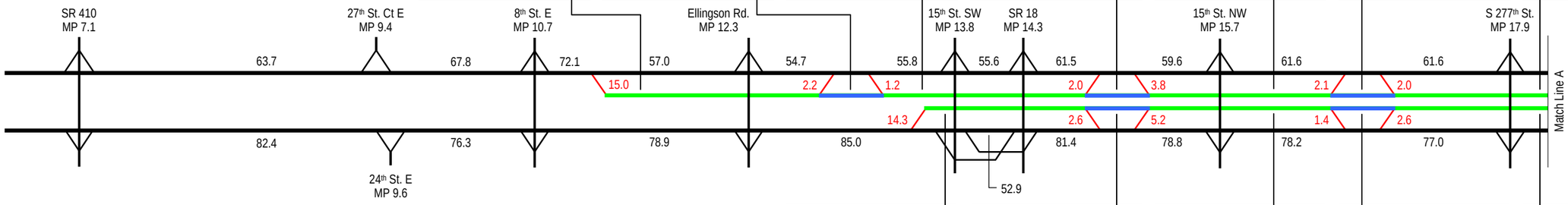
FINAL DRAFT

WilburSmith ASSOCIATES

2035 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 2
I-405 NORTHERN SECTION

FIGURE A-2-2C

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.3	0.2	0.7
AMPK	0.6	0.3	0.3	1.2
MD	3.2	2.4	0.6	6.2
PMSH	0.8	2.2	0.2	3.2
PMPK	0.7	2.7	0.2	3.6
Daily	5.5	8.0	1.5	15.0

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.2	0.1	0.5
AMPK	0.6	0.2	0.2	1.0
MD	3.2	1.9	0.4	5.5
PMSH	0.8	1.8	0.1	2.7
PMPK	0.7	2.2	0.2	3.1
Daily	5.5	6.3	1.1	12.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.3	0.2	0.6
AMPK	0.6	0.3	0.2	1.1
MD	3.4	2.1	0.5	5.9
PMSH	0.9	2.0	0.1	3.0
PMPK	0.7	2.4	0.2	3.3
Daily	5.8	7.0	1.2	14.0

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.2	0.1	0.5
AMPK	0.6	0.2	0.2	1.0
MD	3.0	1.7	0.4	5.2
PMSH	0.7	1.7	0.1	2.5
PMPK	0.6	2.1	0.2	2.9
Daily	5.2	5.8	1.0	12.0

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.3	0.3	0.8
AMPK	0.6	0.3	0.3	1.3
MD	3.4	2.3	0.6	6.3
PMSH	1.0	2.2	0.2	3.4
PMPK	1.0	2.8	0.3	4.1
Daily	6.2	7.9	1.7	15.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.2	0.2	0.7
AMPK	0.6	0.3	0.3	1.1
MD	3.1	1.9	0.5	5.5
PMSH	1.0	1.8	0.1	3.0
PMPK	1.0	2.3	0.2	3.5
Daily	5.9	6.6	1.4	13.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.4	0.3	0.9
AMPK	0.6	0.4	0.3	1.3
MD	3.3	2.3	0.7	6.2
PMSH	1.1	2.0	0.2	3.3
PMPK	1.2	2.6	0.3	4.1
Daily	6.5	7.6	1.8	15.8

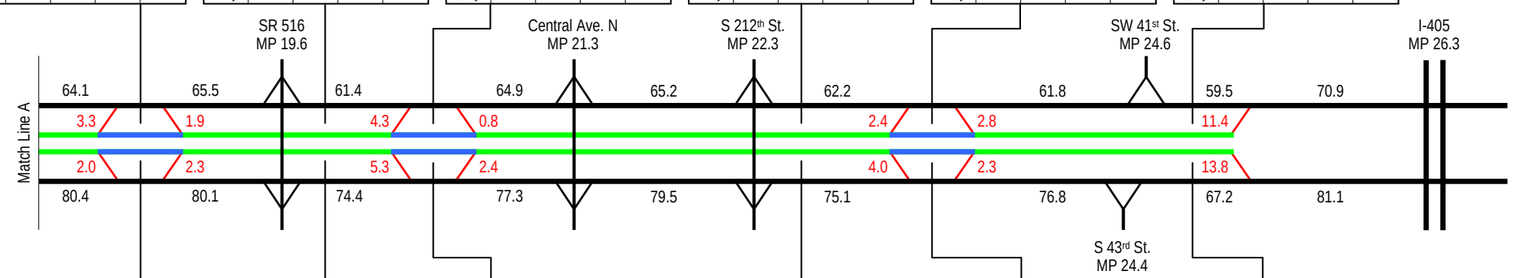
Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	1.0	0.4	2.5
AMPK	0.9	0.9	0.3	2.1
MD	1.2	2.5	0.6	4.2
PMSH	0.5	1.5	0.3	2.2
PMPK	1.0	1.9	0.4	3.2
Daily	4.7	7.7	2.0	14.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.8	0.3	2.0
AMPK	0.6	0.8	0.2	1.6
MD	1.2	2.0	0.5	3.6
PMSH	0.5	1.2	0.2	1.9
PMPK	0.8	1.5	0.3	2.6
Daily	4.0	6.2	1.5	11.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	1.1	0.5	2.9
AMPK	0.9	1.0	0.4	2.3
MD	1.9	2.6	0.9	5.3
PMSH	0.7	1.6	0.3	2.6
PMPK	1.3	2.1	0.5	3.9
Daily	6.1	8.2	2.7	17.0

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.9	0.5	2.6
AMPK	0.9	0.9	0.4	2.2
MD	1.9	2.2	0.7	4.8
PMSH	0.7	1.4	0.3	2.4
PMPK	1.3	1.8	0.4	3.6
Daily	6.1	7.2	2.3	15.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	1.0	0.6	2.9
AMPK	1.0	1.0	0.5	2.4
MD	2.0	2.7	0.9	5.6
PMSH	0.8	1.7	0.4	2.9
PMPK	1.4	2.3	0.6	4.3
Daily	6.5	8.7	2.9	18.1



Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.2	0.2	0.6
AMPK	0.5	0.2	0.2	1.0
MD	3.0	1.5	0.5	5.0
PMSH	1.1	1.4	0.2	2.7
PMPK	1.2	1.9	0.3	3.3
Daily	6.0	5.1	1.4	12.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.2	0.2	0.7
AMPK	0.6	0.3	0.3	1.2
MD	3.2	1.9	0.6	5.6
PMSH	1.2	1.7	0.2	3.1
PMPK	1.2	2.3	0.3	3.9
Daily	6.4	6.5	1.7	14.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.1	0.1	0.5
AMPK	0.5	0.1	0.2	0.8
MD	2.7	1.1	0.4	4.1
PMSH	0.9	1.1	0.2	2.1
PMPK	1.0	1.5	0.3	2.7
Daily	5.2	3.9	1.1	10.2

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.1	0.1	0.5
AMPK	0.5	0.2	0.2	0.9
MD	2.7	1.2	0.4	4.3
PMSH	0.9	1.1	0.2	2.3
PMPK	1.1	1.6	0.3	3.0
Daily	5.5	4.3	1.3	11.0

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.1	0.1	0.5
AMPK	0.5	0.1	0.2	0.8
MD	2.2	0.8	0.4	3.4
PMSH	0.8	0.7	0.2	1.7
PMPK	0.9	1.1	0.3	2.3
Daily	4.7	2.9	1.1	8.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.3	0.2	0.8
AMPK	0.6	0.3	0.3	1.3
MD	2.3	1.4	0.6	4.3
PMSH	0.8	1.1	0.2	2.1
PMPK	0.9	1.6	0.4	2.9
Daily	5.0	4.7	1.8	11.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	1.0	0.5	2.9
AMPK	1.0	1.0	0.5	2.4
MD	1.9	2.3	0.7	4.9
PMSH	0.7	1.4	0.4	2.4
PMPK	1.3	1.7	0.5	3.5
Daily	6.2	7.4	2.6	16.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	1.2	0.6	3.2
AMPK	1.0	1.2	0.6	2.8
MD	2.0	2.7	0.9	5.6
PMSH	0.7	1.6	0.4	2.8
PMPK	1.3	2.1	0.6	4.0
Daily	6.4	8.9	3.1	18.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.9	0.4	2.3
AMPK	0.7	0.9	0.3	2.0
MD	1.4	1.9	0.6	4.0
PMSH	0.6	1.1	0.3	2.0
PMPK	1.0	1.5	0.4	2.8
Daily	4.8	6.4	1.9	13.1

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	1.1	0.5	2.8
AMPK	0.8	1.1	0.4	2.4
MD	1.5	2.4	0.9	4.9
PMSH	0.6	1.3	0.3	2.2
PMPK	1.1	1.6	0.5	3.2
Daily	5.3	7.6	2.6	15.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.9	0.4	2.2
AMPK	0.7	0.9	0.3	1.9
MD	1.2	1.7	0.6	3.6
PMSH	0.5	0.9	0.2	1.6
PMPK	0.9	1.1	0.3	2.3
Daily	4.3	5.4	1.8	11.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.9	0.5	2.4
AMPK	0.7	1.0	0.4	2.1
MD	1.2	2.1	0.8	4.1
PMSH	0.6	1.2	0.4	2.2
PMPK	1.0	1.6	0.5	3.1
Daily	4.5	6.8	2.5	13.8

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

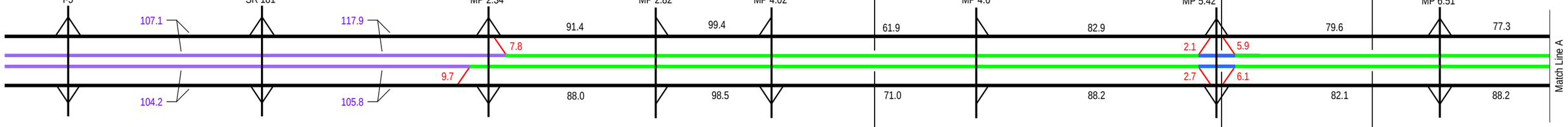
FINAL DRAFT

WilburSmith ASSOCIATES

2045 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 2
SR 167

FIGURE A-2-3A

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.1	0.4	2.0
AMPK	1.8	0.1	0.6	2.6
MD	1.4	0.4	1.5	3.3
PMSH	1.0	0.4	1.1	2.5
PMPK	1.1	0.5	1.3	2.8
Daily	6.8	1.5	5.0	13.2

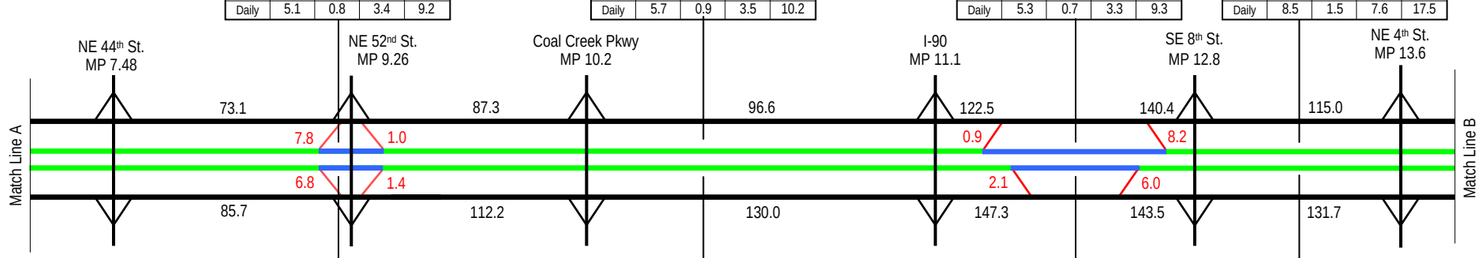
Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.1	0.4	1.7
AMPK	1.5	0.1	0.5	2.2
MD	1.1	0.3	1.3	2.7
PMSH	0.9	0.3	0.9	2.1
PMPK	0.9	0.4	1.1	2.4
Daily	5.7	1.2	4.2	11.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.2	0.5	2.4
AMPK	2.0	0.3	0.7	2.9
MD	2.2	0.5	1.6	4.3
PMSH	1.6	0.6	1.2	3.4
PMPK	1.8	0.7	1.5	4.0
Daily	9.3	2.3	5.5	17.0

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	0.3	1.1	2.9
AMPK	0.7	0.2	0.8	1.8
MD	1.9	0.5	2.1	4.5
PMSH	1.3	0.4	0.8	2.5
PMPK	1.8	0.6	1.0	3.4
Daily	7.0	2.1	5.8	15.0

Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.2	1.0	2.3
AMPK	0.6	0.2	0.7	1.5
MD	1.7	0.5	1.7	3.9
PMSH	1.1	0.4	0.5	1.9
PMPK	1.5	0.5	0.6	2.6
Daily	6.0	1.8	4.5	12.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.4	1.4	3.5
AMPK	1.0	0.2	1.0	2.2
MD	2.8	0.7	2.5	6.1
PMSH	1.4	0.5	1.0	2.9
PMPK	1.9	0.6	1.2	3.7
Daily	8.8	2.4	7.1	18.4



Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.1	0.2	1.2
AMPK	1.0	0.1	0.2	1.3
MD	1.2	0.2	1.0	2.4
PMSH	0.9	0.2	0.9	2.0
PMPK	1.0	0.2	1.1	2.3
Daily	5.1	0.8	3.4	9.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.1	0.2	1.3
AMPK	1.1	0.1	0.2	1.4
MD	1.5	0.3	1.1	2.8
PMSH	1.0	0.2	1.0	2.2
PMPK	1.1	0.2	1.1	2.5
Daily	5.7	0.9	3.5	10.2

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.1	0.1	1.0
AMPK	1.0	0.1	0.2	1.3
MD	1.4	0.2	1.0	2.6
PMSH	0.9	0.2	0.9	2.0
PMPK	1.1	0.2	1.1	2.4
Daily	5.3	0.7	3.3	9.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	0.2	0.5	2.1
AMPK	1.5	0.2	0.8	2.6
MD	2.4	0.4	2.1	4.9
PMSH	1.4	0.3	1.9	3.5
PMPK	1.8	0.4	2.3	4.5
Daily	8.5	1.5	7.6	17.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.2	1.1	2.4
AMPK	0.8	0.2	0.9	1.9
MD	1.5	0.4	1.5	3.4
PMSH	0.9	0.3	0.5	1.6
PMPK	1.2	0.4	0.6	2.2
Daily	5.5	1.5	4.6	11.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.2	1.1	2.5
AMPK	0.9	0.3	1.1	2.3
MD	1.7	0.5	1.5	3.7
PMSH	1.0	0.3	0.5	1.9
PMPK	1.4	0.5	0.6	2.6
Daily	6.3	1.8	4.9	12.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.2	0.9	2.0
AMPK	0.9	0.2	1.0	2.1
MD	1.5	0.4	1.3	3.1
PMSH	0.9	0.2	0.4	1.4
PMPK	1.3	0.3	0.5	2.1
Daily	5.5	1.2	4.1	10.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.2	1.6	2.7
AMPK	0.9	0.2	1.8	3.0
MD	1.7	0.4	2.6	4.7
PMSH	1.5	0.2	0.9	2.6
PMPK	2.0	0.5	1.3	3.8
Daily	7.0	1.6	8.3	16.8

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH	(AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK	(AM Peak) 6:30-8:30 AM
MD	(Midday) 9:30 AM-2:30 PM
PMSH	(PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK	(PM Peak) 3:30-6:30 PM
Daily	Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

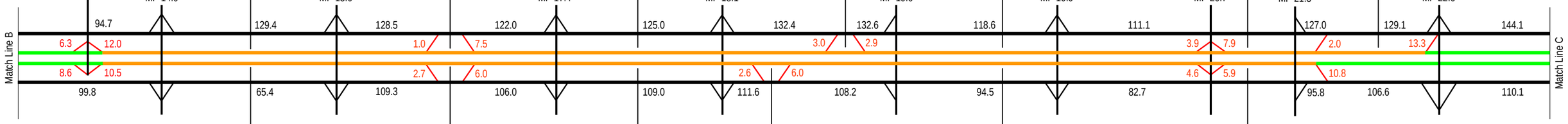
FINAL DRAFT

WilburSmith ASSOCIATES

2045 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 2
I-405 SOUTHERN SECTION

FIGURE A-2-3B

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	2.6	0.5	0.7	3.8
AMPK	2.1	0.4	0.7	3.2
MD	4.0	1.0	2.0	7.1
PMSH	1.8	0.8	1.3	3.9
PMPK	2.5	1.0	1.8	5.2
Daily	13.0	3.8	6.5	23.2

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.1	0.6	1.4
AMPK	0.6	0.1	0.6	1.3
MD	2.6	1.9	1.4	5.8
PMSH	2.2	1.5	0.7	4.4
PMPK	2.8	1.8	1.1	5.7
Daily	8.7	5.4	4.5	18.7

Period	SOV	HOV2	HOV3+	Total
AMSH	2.6	0.5	0.6	3.7
AMPK	2.0	0.4	0.6	3.1
MD	4.0	1.0	1.8	6.8
PMSH	1.7	0.7	1.2	3.6
PMPK	2.5	0.9	1.6	5.0
Daily	12.8	3.6	5.8	22.2

Period	SOV	HOV2	HOV3+	Total
AMSH	0.0	0.0	0.0	1.0
AMPK	0.0	0.0	0.0	1.0
MD	2.0	2.0	1.0	5.0
PMSH	2.0	1.0	1.0	4.0
PMPK	3.0	2.0	1.0	5.0
Daily	8.0	5.0	3.0	16.0

Period	SOV	HOV2	HOV3+	Total
AMSH	3.6	0.7	1.0	5.3
AMPK	2.8	0.6	1.0	4.4
MD	5.4	1.3	2.6	9.3
PMSH	2.2	0.8	1.5	4.5
PMPK	3.2	1.1	2.0	6.3
Daily	17.2	4.4	8.1	29.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.1	0.6	1.3
AMPK	0.7	0.2	0.6	1.5
MD	3.7	2.0	1.7	7.4
PMSH	2.6	1.6	1.1	5.3
PMPK	3.3	1.9	1.4	6.6
Daily	10.9	5.8	5.4	22.0

Period	SOV	HOV2	HOV3+	Total
AMSH	3.4	0.7	0.8	4.9
AMPK	2.6	0.6	0.9	4.1
MD	5.0	1.1	2.3	8.3
PMSH	2.0	0.6	1.4	4.0
PMPK	2.8	0.8	1.8	5.4
Daily	15.8	3.7	7.2	26.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.1	0.4	1.1
AMPK	0.6	0.1	0.4	1.2
MD	3.5	1.7	1.2	6.4
PMSH	2.5	1.4	0.9	4.8
PMPK	3.1	1.6	1.1	5.9
Daily	10.2	5.0	4.1	19.3

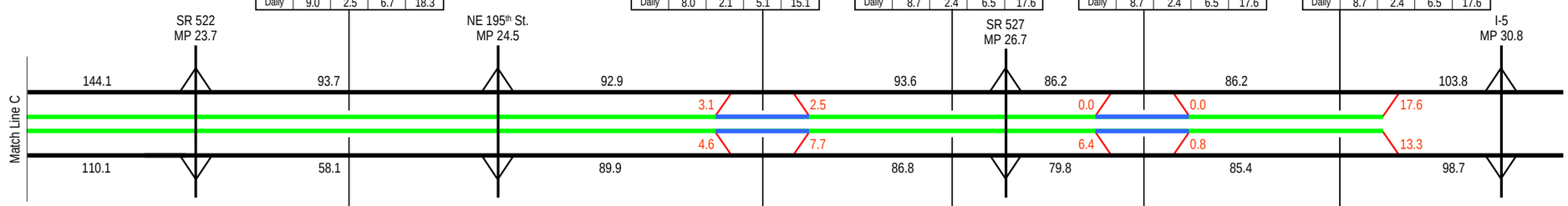
Period	SOV	HOV2	HOV3+	Total
AMSH	3.6	0.7	0.9	5.1
AMPK	2.7	0.6	1.0	4.3
MD	5.5	1.3	2.4	9.2
PMSH	2.4	0.7	1.5	4.6
PMPK	3.4	1.0	2.0	6.4
Daily	17.5	4.3	7.8	29.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.1	0.6	1.4
AMPK	0.9	0.2	0.7	1.7
MD	4.2	2.0	1.6	7.9
PMSH	3.5	1.8	1.1	6.4
PMPK	4.3	2.1	1.5	7.9
Daily	13.6	6.2	5.5	25.3

Period	SOV	HOV2	HOV3+	Total
AMSH	3.9	0.8	1.3	6.0
AMPK	2.9	0.7	1.3	4.9
MD	6.0	1.5	3.3	10.9
PMSH	2.3	0.8	1.7	4.9
PMPK	3.5	1.1	2.5	7.1
Daily	18.6	4.9	10.2	33.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.2	0.8	1.8
AMPK	1.0	0.2	0.9	2.1
MD	4.4	1.9	2.2	8.5
PMSH	3.5	1.6	1.2	6.3
PMPK	4.3	2.0	1.7	8.0
Daily	14.0	5.8	6.9	26.7

Period	SOV	HOV2	HOV3+	Total
AMSH	3.7	0.7	1.2	5.6
AMPK	2.7	0.6	1.2	4.5
MD	5.8	1.4	3.1	10.3
PMSH	2.2	0.7	1.6	4.6
PMPK	3.3	1.0	2.3	6.6
Daily	17.7	4.4	9.5	31.6



Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.4	0.8	2.8
AMPK	1.3	0.3	0.9	2.5
MD	2.9	0.8	2.2	5.9
PMSH	1.2	0.4	1.2	2.9
PMPK	1.8	0.6	1.7	4.1
Daily	9.0	2.5	6.7	18.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.1	0.5	1.1
AMPK	0.8	0.2	0.6	1.6
MD	3.0	1.0	0.9	5.0
PMSH	2.1	0.8	0.5	3.5
PMPK	2.6	1.1	0.8	4.5
Daily	9.2	3.2	3.4	15.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	0.3	0.4	2.0
AMPK	1.1	0.3	0.6	2.0
MD	2.6	0.7	1.6	4.9
PMSH	1.2	0.4	1.0	2.6
PMPK	1.7	0.5	1.4	3.6
Daily	8.0	2.1	5.1	15.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.1	0.3	1.1
AMPK	0.8	0.1	0.3	1.2
MD	2.5	0.8	0.6	3.9
PMSH	1.3	0.5	0.4	2.2
PMPK	1.6	0.7	0.6	2.8
Daily	6.8	2.2	2.2	11.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	0.3	0.5	2.3
AMPK	1.2	0.3	0.7	2.2
MD	2.8	0.7	1.8	5.3
PMSH	1.4	0.5	1.5	3.4
PMPK	1.8	0.6	2.0	4.4
Daily	8.7	2.4	6.5	17.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.3	0.7	2.3
AMPK	1.8	0.4	0.7	3.0
MD	4.2	1.4	1.5	7.1
PMSH	1.6	0.7	0.7	3.0
PMPK	1.8	0.8	0.9	3.5
Daily	10.8	3.7	4.5	18.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	0.3	0.5	2.3
AMPK	1.2	0.3	0.7	2.2
MD	2.8	0.7	1.8	5.3
PMSH	1.4	0.5	1.5	3.4
PMPK	1.8	0.6	2.0	4.4
Daily	8.7	2.4	6.5	17.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.2	0.5	1.5
AMPK	1.2	0.3	0.4	1.9
MD	2.6	1.1	0.8	4.5
PMSH	1.1	0.5	0.3	2.0
PMPK	1.6	0.6	0.5	2.7
Daily	7.3	2.7	2.5	12.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	0.3	0.5	2.3
AMPK	1.2	0.3	0.7	2.2
MD	2.8	0.7	1.8	5.3
PMSH	1.4	0.5	1.5	3.4
PMPK	1.8	0.6	2.0	4.4
Daily	8.7	2.4	6.5	17.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.2	0.6	1.6
AMPK	1.2	0.3	0.5	2.1
MD	2.6	1.1	1.1	4.7
PMSH	1.1	0.5	0.4	2.1
PMPK	1.6	0.6	0.6	2.8
Daily	7.3	2.7	3.3	13.3

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

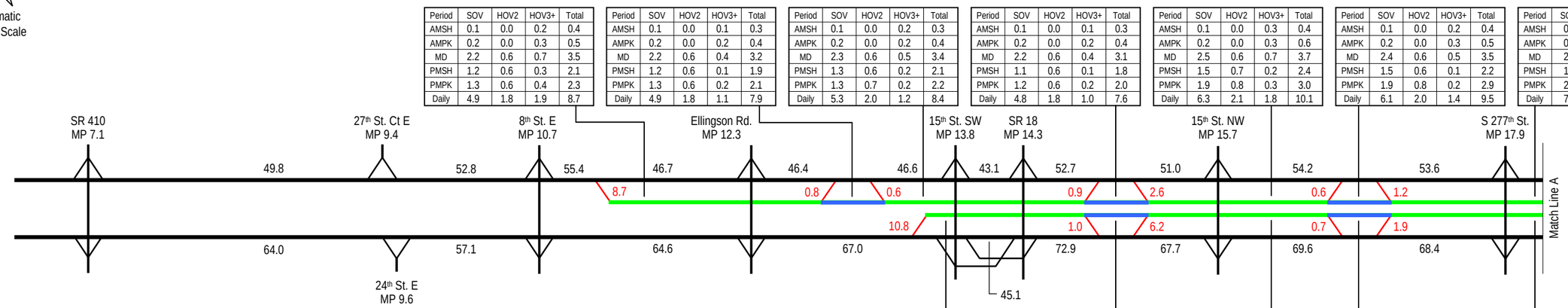
FINAL DRAFT

WilburSmith ASSOCIATES

2045 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 2
I-405 NORTHERN SECTION

FIGURE A-2-3C

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.0	0.2	0.4
AMPK	0.2	0.0	0.3	0.5
MD	2.2	0.6	0.7	3.5
PMSH	1.2	0.6	0.3	2.1
PMPK	1.3	0.6	0.4	2.3
Daily	4.9	1.8	1.9	8.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.0	0.1	0.3
AMPK	0.2	0.0	0.2	0.4
MD	2.2	0.6	0.4	3.2
PMSH	1.2	0.6	0.1	1.9
PMPK	1.3	0.6	0.2	2.1
Daily	4.9	1.8	1.1	7.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.0	0.2	0.3
AMPK	0.2	0.0	0.2	0.4
MD	2.3	0.6	0.5	3.4
PMSH	1.3	0.6	0.2	2.1
PMPK	1.3	0.7	0.2	2.2
Daily	5.3	2.0	1.2	8.4

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.0	0.1	0.3
AMPK	0.2	0.0	0.2	0.4
MD	2.2	0.6	0.4	3.1
PMSH	1.1	0.6	0.1	1.8
PMPK	1.2	0.6	0.2	2.0
Daily	4.8	1.8	1.0	7.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.0	0.3	0.4
AMPK	0.2	0.0	0.3	0.6
MD	2.5	0.6	0.7	3.7
PMSH	1.5	0.7	0.2	2.4
PMPK	1.9	0.8	0.3	3.0
Daily	6.3	2.1	1.8	10.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.0	0.2	0.4
AMPK	0.2	0.0	0.3	0.5
MD	2.4	0.6	0.5	3.5
PMSH	1.5	0.6	0.1	2.2
PMPK	1.9	0.8	0.2	2.9
Daily	6.1	2.0	1.4	9.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.0	0.3	0.5
AMPK	0.3	0.0	0.3	0.6
MD	2.5	0.6	0.6	3.8
PMSH	1.7	0.7	0.2	2.5
PMPK	2.3	0.8	0.3	3.4
Daily	7.0	2.1	1.7	10.8

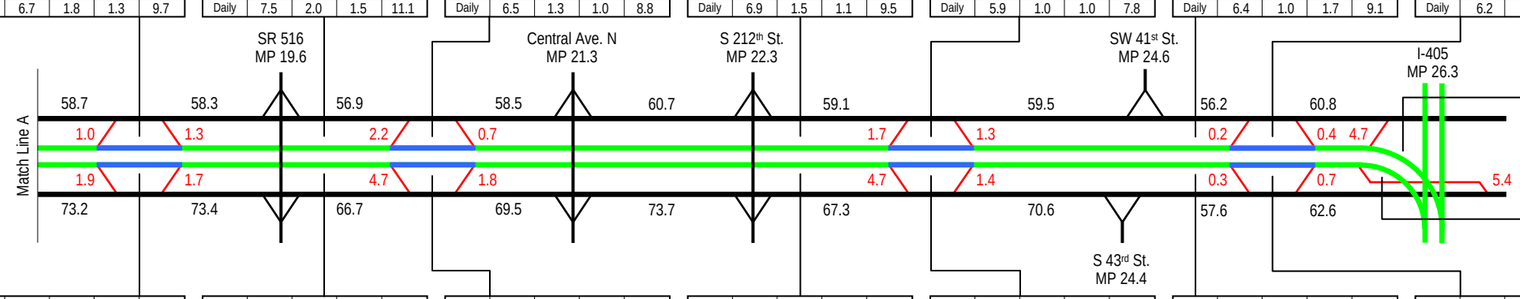
Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.3	0.5	2.4
AMPK	1.2	0.3	0.5	2.0
MD	2.2	0.6	0.8	3.5
PMSH	0.5	0.2	0.3	1.0
PMPK	1.1	0.5	0.4	2.0
Daily	6.5	1.9	2.4	10.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	0.2	0.4	2.1
AMPK	1.0	0.3	0.4	1.7
MD	2.2	0.6	0.6	3.3
PMSH	0.5	0.2	0.2	0.9
PMPK	1.1	0.5	0.3	1.9
Daily	6.1	1.8	1.9	9.9

Period	SOV	HOV2	HOV3+	Total
AMSH	2.2	0.3	0.7	3.2
AMPK	1.6	0.3	0.6	2.5
MD	3.5	0.8	1.1	5.5
PMSH	0.8	0.3	0.4	1.5
PMPK	1.9	0.8	0.6	3.3
Daily	10.1	2.6	3.4	16.0

Period	SOV	HOV2	HOV3+	Total
AMSH	2.2	0.3	0.7	3.1
AMPK	1.6	0.3	0.6	2.5
MD	3.5	0.8	0.9	5.3
PMSH	0.8	0.3	0.3	1.4
PMPK	1.8	0.7	0.5	3.0
Daily	9.9	2.5	2.9	15.4

Period	SOV	HOV2	HOV3+	Total
AMSH	2.4	0.3	0.7	3.5
AMPK	1.8	0.3	0.6	2.8
MD	4.0	0.9	1.1	6.0
PMSH	0.9	0.4	0.4	1.6
PMPK	2.0	0.8	0.5	3.4
Daily	11.0	2.8	3.4	17.2



Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.0	0.2	0.4
AMPK	0.3	0.0	0.3	0.5
MD	2.4	0.5	0.5	3.4
PMSH	1.6	0.5	0.1	2.3
PMPK	2.3	0.7	0.2	3.2
Daily	6.7	1.8	1.3	9.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.0	0.2	0.4
AMPK	0.3	0.0	0.3	0.7
MD	2.6	0.5	0.6	3.7
PMSH	1.8	0.6	0.1	2.5
PMPK	2.6	0.8	0.3	3.7
Daily	7.5	2.0	1.5	11.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.0	0.1	0.3
AMPK	0.3	0.0	0.2	0.5
MD	2.3	0.4	0.3	3.1
PMSH	1.5	0.4	0.1	2.0
PMPK	2.1	0.5	0.2	2.9
Daily	6.5	1.3	1.0	8.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.0	0.2	0.4
AMPK	0.4	0.0	0.2	0.6
MD	2.4	0.4	0.4	3.2
PMSH	1.6	0.4	0.1	2.1
PMPK	2.3	0.6	0.3	3.2
Daily	6.9	1.5	1.1	9.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.0	0.1	0.4
AMPK	0.4	0.0	0.2	0.6
MD	2.1	0.3	0.3	2.7
PMSH	1.3	0.3	0.1	1.7
PMPK	1.8	0.4	0.2	2.5
Daily	5.9	1.0	1.0	7.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.0	0.3	0.6
AMPK	0.5	0.0	0.4	0.9
MD	2.3	0.3	0.6	3.2
PMSH	1.4	0.3	0.2	1.8
PMPK	1.9	0.4	0.3	2.6
Daily	6.4	1.0	1.7	9.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.0	0.3	0.6
AMPK	0.5	0.0	0.4	0.9
MD	2.2	0.3	0.6	3.1
PMSH	1.3	0.3	0.1	1.8
PMPK	1.9	0.4	0.3	2.5
Daily	6.2	1.0	1.6	8.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.0	0.0	0.4
AMPK	0.5	0.0	0.1	0.6
MD	1.5	0.1	0.1	1.8
PMSH	0.6	0.1	0.1	0.8
PMPK	0.7	0.1	0.1	0.9
Daily	3.8	0.4	0.4	4.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.1	0.2	1.0
AMPK	0.5	0.1	0.2	0.8
MD	1.4	0.2	0.3	2.0
PMSH	0.5	0.1	0.1	0.7
PMPK	0.9	0.2	0.1	1.2
Daily	4.1	0.8	0.9	5.9

Period	SOV	HOV2	HOV3+	Total
AMSH	2.3	0.3	0.7	3.3
AMPK	1.7	0.3	0.6	2.6
MD	3.6	0.8	0.8	5.3
PMSH	0.7	0.3	0.3	1.3
PMPK	1.6	0.7	0.4	2.8
Daily	10.0	2.5	2.8	15.3

Period	SOV	HOV2	HOV3+	Total
AMSH	2.4	0.4	0.8	3.6
AMPK	1.9	0.4	0.7	2.9
MD	3.9	0.9	1.0	5.9
PMSH	0.8	0.3	0.3	1.4
PMPK	1.8	0.8	0.5	3.1
Daily	10.8	2.8	3.4	17.0

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.3	0.4	2.4
AMPK	1.4	0.3	0.4	2.1
MD	3.1	0.7	0.7	4.4
PMSH	0.6	0.2	0.2	1.1
PMPK	1.4	0.6	0.4	2.3
Daily	8.1	2.1	2.1	12.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.9	0.3	0.6	2.9
AMPK	1.5	0.3	0.6	2.5
MD	3.4	0.8	0.8	5.0
PMSH	0.6	0.3	0.3	1.2
PMPK	1.6	0.7	0.4	2.7
Daily	9.0	2.4	2.7	14.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.2	0.4	1.9
AMPK	1.0	0.3	0.4	1.7
MD	2.2	0.5	0.5	3.2
PMSH	0.5	0.2	0.1	0.9
PMPK	1.2	0.5	0.2	1.9
Daily	6.1	1.7	1.7	9.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.2	0.5	2.0
AMPK	1.0	0.3	0.5	1.8
MD	2.5	0.6	0.8	3.8
PMSH	0.6	0.2	0.2	1.0
PMPK	1.4	0.6	0.3	2.3
Daily	6.8	1.9	2.2	10.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.2	0.5	2.0
AMPK	1.0	0.3	0.5	1.7
MD	2.4	0.6	0.7	3.7
PMSH	0.6	0.2	0.2	1.0
PMPK	1.4	0.6	0.3	2.2
Daily	6.6	1.8	2.1	10.6

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

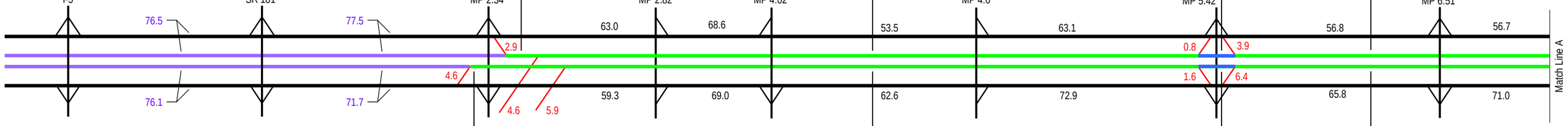
FINAL DRAFT

WilburSmith ASSOCIATES

2020 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 3
SR 167

FIGURE A-3-1A

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.1	0.3	0.8
AMPK	0.7	0.2	0.6	1.5
MD	0.5	0.2	1.0	1.8
PMSH	0.4	0.2	0.5	1.1
PMPK	0.5	0.3	0.7	1.4
Daily	2.5	0.9	3.1	6.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.1	0.4	1.2
AMPK	1.3	0.2	0.7	2.1
MD	2.1	0.3	1.1	3.5
PMSH	1.0	0.3	0.6	1.9
PMPK	1.2	0.4	0.8	2.4
Daily	6.3	1.3	3.5	11.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.1	0.3	1.1
AMPK	1.1	0.1	0.5	1.8
MD	2.0	0.3	1.1	3.3
PMSH	1.0	0.3	0.6	1.8
PMPK	1.1	0.4	0.8	2.3
Daily	5.9	1.2	3.3	10.4

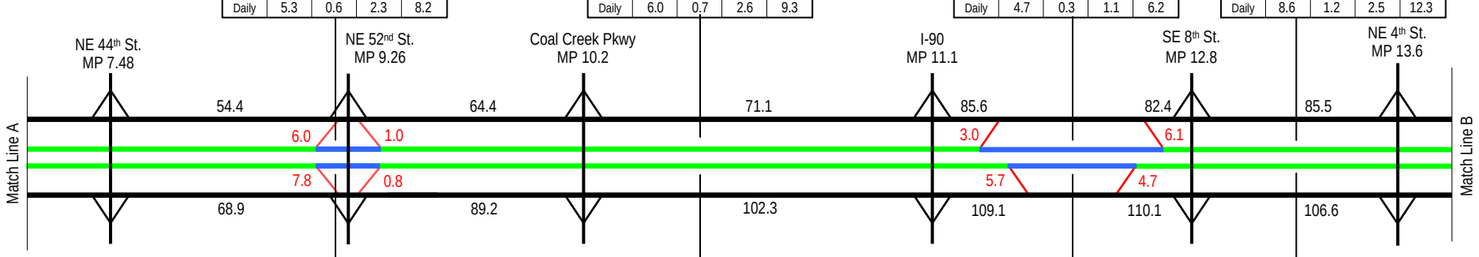
Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.1	0.4	1.5
AMPK	1.5	0.2	0.7	2.3
MD	2.4	0.3	1.3	4.1
PMSH	1.4	0.5	0.8	2.7
PMPK	1.9	0.7	1.1	3.7
Daily	8.1	1.7	4.4	14.2

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.2	0.4	0.9
AMPK	0.2	0.1	0.4	0.7
MD	1.2	0.7	0.8	2.8
PMSH	0.6	0.3	0.3	1.2
PMPK	1.2	0.5	0.6	2.2
Daily	3.6	1.8	2.5	7.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.3	0.7	2.0
AMPK	0.7	0.3	0.6	1.5
MD	2.7	0.9	1.1	4.8
PMSH	1.1	0.4	0.4	1.9
PMPK	2.1	0.7	0.7	3.4
Daily	7.7	2.6	3.4	13.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.2	0.5	1.7
AMPK	0.6	0.3	0.4	1.3
MD	2.6	0.9	1.0	4.5
PMSH	1.0	0.4	0.3	1.7
PMPK	1.9	0.6	0.5	3.0
Daily	6.9	2.4	2.8	12.1

Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.4	0.9	3.1
AMPK	1.4	0.4	0.8	2.6
MD	3.8	1.1	1.5	6.3
PMSH	1.3	0.4	0.6	2.3
PMPK	2.4	0.8	1.0	4.2
Daily	10.6	3.1	4.8	18.5



Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.1	0.2	0.8
AMPK	0.9	0.1	0.2	1.2
MD	2.0	0.2	0.7	2.8
PMSH	0.9	0.1	0.5	1.5
PMPK	1.0	0.2	0.7	1.9
Daily	5.3	0.6	2.3	8.2

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.1	0.2	1.0
AMPK	0.9	0.1	0.3	1.2
MD	2.3	0.2	0.8	3.3
PMSH	0.9	0.1	0.6	1.7
PMPK	1.1	0.2	0.8	2.1
Daily	6.0	0.7	2.6	9.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.0	0.1	0.8
AMPK	0.7	0.0	0.2	0.9
MD	2.0	0.1	0.3	2.4
PMSH	0.6	0.0	0.1	0.7
PMPK	0.8	0.1	0.4	1.3
Daily	4.7	0.3	1.1	6.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.2	0.3	1.8
AMPK	1.1	0.2	0.4	1.7
MD	3.7	0.5	0.7	4.9
PMSH	1.0	0.2	0.3	1.5
PMPK	1.5	0.2	0.7	2.4
Daily	8.6	1.2	2.5	12.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.2	0.6	1.7
AMPK	0.7	0.2	0.4	1.3
MD	2.5	0.6	0.9	4.0
PMSH	0.8	0.2	0.3	1.3
PMPK	1.4	0.4	0.6	2.4
Daily	6.3	1.6	2.8	10.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.2	0.6	1.7
AMPK	0.7	0.2	0.5	1.4
MD	2.6	0.7	1.0	4.3
PMSH	1.0	0.2	0.4	1.6
PMPK	1.5	0.4	0.7	2.5
Daily	6.8	1.7	3.1	11.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.1	0.2	0.7
AMPK	0.5	0.1	0.2	0.8
MD	1.5	0.2	0.2	2.0
PMSH	0.8	0.1	0.1	1.0
PMPK	1.1	0.2	0.2	1.4
Daily	4.2	0.7	0.9	5.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.1	0.5	1.0
AMPK	0.5	0.1	0.6	1.2
MD	2.5	0.5	0.6	3.5
PMSH	1.4	0.4	0.3	2.1
PMPK	1.7	0.5	0.6	2.8
Daily	6.5	1.5	2.6	10.6

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0	General Purpose Mainline Total Daily Volumes (includes night)
0.0	Managed Lane Ramp Total Daily Volumes (does not include night)
0.0	General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)
AMSH	(AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK	(AM Peak) 6:30-8:30 AM
MD	(Midday) 9:30 AM-2:30 PM
PMSH	(PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK	(PM Peak) 3:30-6:30 PM
Daily	Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

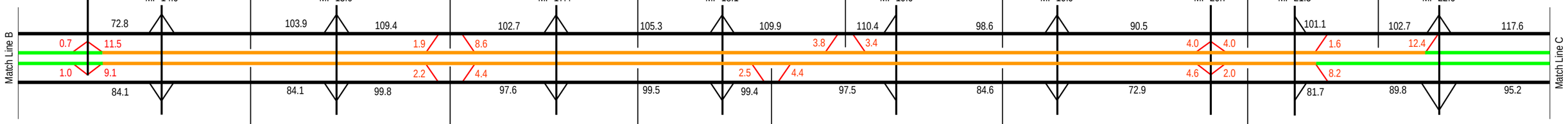
FINAL DRAFT

WilburSmith ASSOCIATES

2020 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 3
I-405 SOUTHERN SECTION

FIGURE A-3-1B

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	2.8	0.4	0.8	4.0
AMPK	2.3	0.4	0.9	3.7
MD	6.6	1.0	1.2	8.8
PMSH	1.8	0.5	0.5	2.8
PMPK	2.5	0.6	0.8	3.9
Daily	16.0	3.0	4.2	23.2

Period	SOV	HOV2	HOV3+	Total
AMSH	2.8	0.4	0.7	3.9
AMPK	2.3	0.4	0.9	3.7
MD	6.1	0.9	0.8	7.8
PMSH	1.7	0.4	0.3	2.4
PMPK	2.3	0.5	0.6	3.5
Daily	15.2	2.7	3.4	21.3

Period	SOV	HOV2	HOV3+	Total
AMSH	4.0	0.6	1.1	5.8
AMPK	3.2	0.6	1.4	5.2
MD	8.5	1.3	1.5	11.3
PMSH	2.2	0.5	0.5	3.1
PMPK	3.0	0.7	0.9	4.5
Daily	20.9	3.6	5.4	29.9

Period	SOV	HOV2	HOV3+	Total
AMSH	3.8	0.5	1.0	5.3
AMPK	2.9	0.5	1.3	4.8
MD	7.7	1.1	1.1	9.9
PMSH	1.9	0.4	0.4	2.6
PMPK	2.5	0.4	0.6	3.5
Daily	18.7	2.9	4.4	26.1

Period	SOV	HOV2	HOV3+	Total
AMSH	4.0	0.6	1.0	5.6
AMPK	3.1	0.6	1.3	5.0
MD	8.6	1.3	1.5	11.5
PMSH	2.1	0.4	0.5	3.0
PMPK	3.0	0.6	0.8	4.4
Daily	20.8	3.4	5.3	29.5

Period	SOV	HOV2	HOV3+	Total
AMSH	4.1	0.7	1.2	6.0
AMPK	3.2	0.7	1.3	5.2
MD	8.1	1.3	1.5	10.9
PMSH	1.8	0.4	0.5	2.8
PMPK	3.0	0.6	1.1	4.7
Daily	20.2	3.7	5.6	29.5

Period	SOV	HOV2	HOV3+	Total
AMSH	3.9	0.6	1.1	5.7
AMPK	3.1	0.6	1.2	4.9
MD	7.7	1.2	1.4	10.4
PMSH	1.7	0.4	0.5	2.6
PMPK	2.8	0.6	1.0	4.4
Daily	19.3	3.4	5.1	27.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.1	0.6	1.3
AMPK	0.5	0.1	0.6	1.2
MD	4.0	0.8	0.9	5.7
PMSH	3.3	0.9	0.5	4.7
PMPK	3.9	1.2	0.8	5.8
Daily	12.3	3.0	3.4	18.7

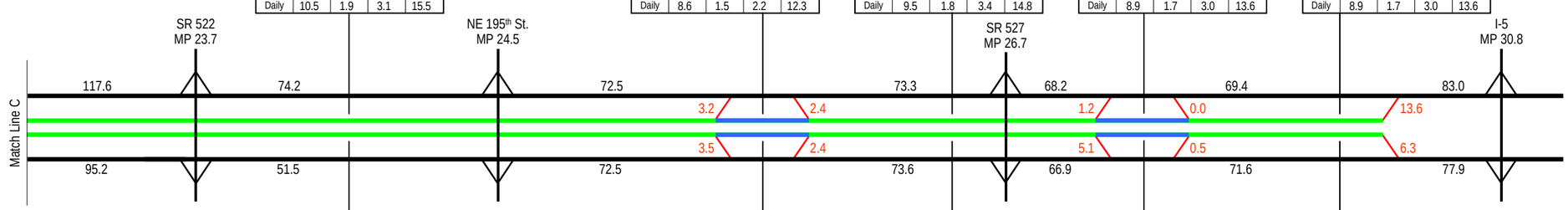
Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.0	0.3	0.8
AMPK	0.3	0.0	0.3	0.7
MD	3.8	0.7	0.7	5.2
PMSH	3.2	0.9	0.4	4.4
PMPK	3.7	1.1	0.6	5.4
Daily	11.3	2.8	2.4	16.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.1	0.6	1.0
AMPK	0.3	0.0	0.6	1.0
MD	4.4	0.9	1.4	6.6
PMSH	3.8	1.1	0.7	5.6
PMPK	4.5	1.4	0.9	6.7
Daily	13.3	3.5	4.1	20.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.0	0.4	0.8
AMPK	0.3	0.0	0.4	0.7
MD	4.0	0.8	1.0	5.8
PMSH	3.6	1.0	0.6	5.1
PMPK	4.2	1.2	0.7	6.1
Daily	12.3	3.0	3.1	18.4

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.0	0.5	0.9
AMPK	0.3	0.0	0.7	1.0
MD	4.2	0.8	1.3	6.3
PMSH	4.4	1.4	0.8	6.6
PMPK	5.3	1.7	1.0	8.0
Daily	14.6	4.0	4.3	22.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.1	0.7	1.1
AMPK	0.3	0.1	0.6	1.0
MD	3.7	0.7	1.2	5.6
PMSH	3.7	1.1	0.6	5.4
PMPK	4.7	1.5	1.0	7.2
Daily	12.8	3.4	4.0	20.2



Period	SOV	HOV2	HOV3+	Total
AMSH	2.0	0.3	0.7	3.0
AMPK	1.7	0.3	0.7	2.8
MD	4.3	0.7	0.8	5.7
PMSH	1.0	0.2	0.3	1.5
PMPK	1.6	0.4	0.6	2.5
Daily	10.5	1.9	3.1	15.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.2	0.4	2.1
AMPK	1.4	0.3	0.6	2.2
MD	3.4	0.5	0.6	4.5
PMSH	0.9	0.2	0.2	1.3
PMPK	1.5	0.3	0.4	2.2
Daily	8.6	1.5	2.2	12.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.2	0.5	2.3
AMPK	1.4	0.3	0.6	2.4
MD	4.0	0.6	1.1	5.7
PMSH	0.9	0.2	0.5	1.6
PMPK	1.6	0.4	0.7	2.7
Daily	9.5	1.8	3.4	14.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.2	0.5	2.2
AMPK	1.4	0.3	0.6	2.4
MD	3.5	0.5	0.8	4.8
PMSH	0.9	0.2	0.4	1.5
PMPK	1.6	0.4	0.7	2.7
Daily	8.9	1.7	3.0	13.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.2	0.5	2.2
AMPK	1.4	0.3	0.6	2.4
MD	3.5	0.5	0.8	4.8
PMSH	0.9	0.2	0.4	1.5
PMPK	1.6	0.4	0.7	2.7
Daily	8.9	1.7	3.0	13.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.0	0.4	0.6
AMPK	0.2	0.0	0.4	0.6
MD	2.5	0.5	0.7	3.6
PMSH	2.2	0.6	0.3	3.1
PMPK	2.9	0.8	0.5	4.2
Daily	7.9	2.0	2.2	12.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.0	0.3	0.5
AMPK	0.1	0.0	0.3	0.5
MD	2.1	0.4	0.5	3.0
PMSH	1.3	0.3	0.2	1.8
PMPK	1.8	0.6	0.3	2.7
Daily	5.5	1.4	1.6	8.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.0	0.6	0.8
AMPK	0.2	0.1	0.6	0.9
MD	2.1	0.5	1.1	3.7
PMSH	1.4	0.4	0.4	2.2
PMPK	2.0	0.7	0.6	3.3
Daily	5.9	1.7	3.3	10.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.0	0.3	0.4
AMPK	0.2	0.1	0.3	0.5
MD	0.9	0.3	0.6	1.7
PMSH	0.7	0.3	0.2	1.1
PMPK	1.3	0.4	0.3	2.0
Daily	3.2	1.0	1.6	5.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.0	0.4	0.5
AMPK	0.2	0.1	0.4	0.6
MD	0.9	0.3	0.7	1.9
PMSH	0.7	0.3	0.2	1.2
PMPK	1.3	0.4	0.4	2.1
Daily	3.2	1.0	2.1	6.3

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

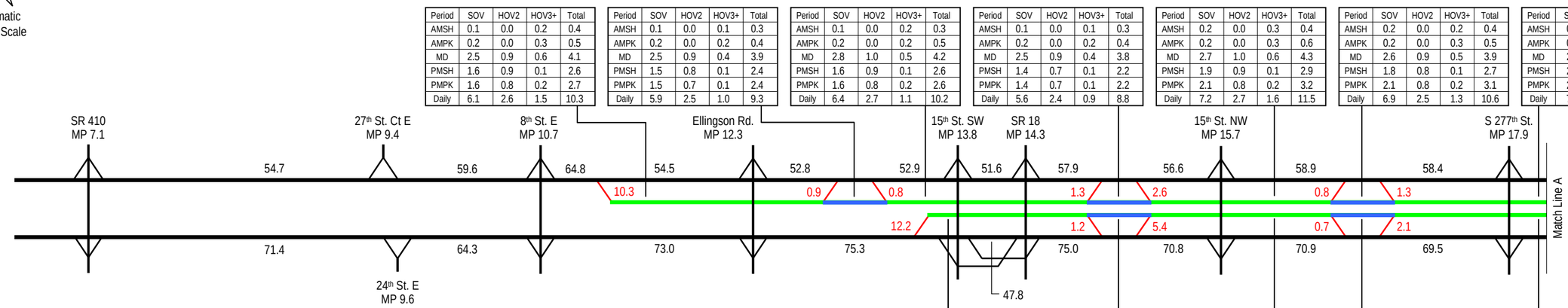
FINAL DRAFT

WilburSmith ASSOCIATES

2020 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 3
I-405 NORTHERN SECTION

FIGURE A-3-1C

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.0	0.2	0.4
AMPK	0.2	0.0	0.3	0.5
MD	2.5	0.9	0.6	4.1
PMSH	1.6	0.9	0.1	2.6
PMPK	1.6	0.8	0.2	2.7
Daily	6.1	2.6	1.5	10.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.0	0.1	0.3
AMPK	0.2	0.0	0.2	0.4
MD	2.5	0.9	0.4	3.9
PMSH	1.5	0.8	0.1	2.4
PMPK	1.5	0.7	0.1	2.4
Daily	5.9	2.5	1.0	9.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.0	0.2	0.3
AMPK	0.2	0.0	0.2	0.5
MD	2.8	1.0	0.5	4.2
PMSH	1.6	0.9	0.1	2.6
PMPK	1.6	0.8	0.2	2.6
Daily	6.4	2.7	1.1	10.2

Period	SOV	HOV2	HOV3+	Total
AMSH	0.1	0.0	0.1	0.3
AMPK	0.2	0.0	0.2	0.4
MD	2.5	0.9	0.4	3.8
PMSH	1.4	0.7	0.1	2.2
PMPK	1.4	0.7	0.1	2.2
Daily	5.6	2.4	0.9	8.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.0	0.3	0.4
AMPK	0.2	0.0	0.3	0.6
MD	2.7	1.0	0.6	4.3
PMSH	1.9	0.9	0.1	2.9
PMPK	2.1	0.8	0.2	3.2
Daily	7.2	2.7	1.6	11.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.0	0.2	0.4
AMPK	0.2	0.0	0.3	0.5
MD	2.6	0.9	0.5	3.9
PMSH	1.8	0.8	0.1	2.7
PMPK	2.1	0.8	0.2	3.1
Daily	6.9	2.5	1.3	10.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.0	0.3	0.5
AMPK	0.3	0.0	0.3	0.6
MD	2.7	0.9	0.6	4.3
PMSH	2.1	0.8	0.1	3.0
PMPK	2.5	0.9	0.2	3.6
Daily	7.7	2.6	1.6	12.0

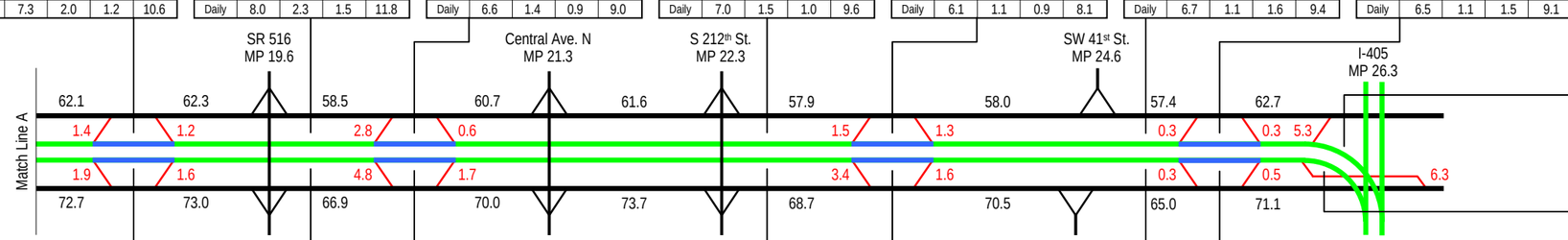
Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.4	0.4	2.1
AMPK	1.2	0.4	0.4	2.0
MD	2.5	1.0	0.7	4.2
PMSH	0.8	0.4	0.3	1.5
PMPK	1.3	0.6	0.4	2.3
Daily	7.2	2.8	2.2	12.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.3	0.3	1.8
AMPK	1.0	0.3	0.3	1.6
MD	2.5	1.0	0.5	4.1
PMSH	0.8	0.4	0.3	1.4
PMPK	1.2	0.5	0.4	2.1
Daily	6.7	2.6	1.7	11.0

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.4	0.5	2.6
AMPK	1.5	0.4	0.4	2.4
MD	3.9	1.3	0.8	6.0
PMSH	1.2	0.5	0.4	2.2
PMPK	1.9	0.8	0.6	3.3
Daily	10.3	3.4	2.8	16.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.4	0.4	2.5
AMPK	1.5	0.4	0.4	2.3
MD	3.8	1.2	0.7	5.7
PMSH	1.2	0.5	0.4	2.1
PMPK	1.9	0.7	0.5	3.1
Daily	10.1	3.2	2.4	15.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.9	0.4	0.5	2.8
AMPK	1.7	0.4	0.5	2.6
MD	4.2	1.4	0.9	6.5
PMSH	1.3	0.6	0.5	2.4
PMPK	2.1	0.8	0.7	3.6
Daily	11.2	3.7	3.0	17.8



Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.0	0.2	0.4
AMPK	0.3	0.0	0.2	0.5
MD	2.5	0.7	0.5	3.7
PMSH	1.9	0.6	0.1	2.7
PMPK	2.4	0.7	0.2	3.3
Daily	7.3	2.0	1.2	10.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.0	0.2	0.5
AMPK	0.3	0.0	0.3	0.7
MD	2.7	0.7	0.6	4.0
PMSH	2.1	0.7	0.1	3.0
PMPK	2.7	0.8	0.3	3.7
Daily	8.0	2.3	1.5	11.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.0	0.1	0.3
AMPK	0.3	0.0	0.2	0.5
MD	2.3	0.5	0.3	3.1
PMSH	1.7	0.4	0.1	2.2
PMPK	2.1	0.5	0.2	2.9
Daily	6.6	1.4	0.9	9.0

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.0	0.1	0.4
AMPK	0.4	0.0	0.2	0.6
MD	2.3	0.5	0.4	3.2
PMSH	1.7	0.4	0.1	2.3
PMPK	2.3	0.6	0.2	3.1
Daily	7.0	1.5	1.0	9.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.0	0.1	0.4
AMPK	0.4	0.0	0.2	0.5
MD	2.1	0.4	0.3	2.7
PMSH	1.5	0.3	0.1	1.9
PMPK	1.9	0.4	0.2	2.6
Daily	6.1	1.1	0.9	8.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.0	0.2	0.6
AMPK	0.5	0.0	0.4	0.8
MD	2.2	0.4	0.6	3.2
PMSH	1.6	0.3	0.2	2.0
PMPK	2.0	0.4	0.3	2.7
Daily	6.7	1.1	1.6	9.4

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.0	0.2	0.6
AMPK	0.5	0.0	0.3	0.8
MD	2.2	0.4	0.5	3.1
PMSH	1.5	0.3	0.2	2.0
PMPK	2.0	0.4	0.3	2.6
Daily	6.5	1.1	1.5	9.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.0	0.0	0.5
AMPK	0.5	0.0	0.1	0.6
MD	1.1	0.1	0.1	1.3
PMSH	0.6	0.1	0.1	0.8
PMPK	0.7	0.1	0.1	1.0
Daily	3.4	0.4	0.4	4.1

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.2	0.2	1.4
AMPK	0.7	0.2	0.2	1.0
MD	1.4	0.2	0.4	2.0
PMSH	0.7	0.2	0.1	1.0
PMPK	0.9	0.2	0.2	1.3
Daily	4.6	1.0	1.1	6.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.4	0.5	2.7
AMPK	1.6	0.4	0.4	2.4
MD	3.7	1.3	0.7	5.7
PMSH	1.2	0.5	0.4	2.1
PMPK	1.8	0.8	0.5	3.1
Daily	10.0	3.5	2.5	16.0

Period	SOV	HOV2	HOV3+	Total
AMSH	1.9	0.5	0.6	2.9
AMPK	1.7	0.5	0.5	2.7
MD	4.0	1.5	0.9	6.3
PMSH	1.2	0.6	0.4	2.3
PMPK	1.9	0.8	0.6	3.4
Daily	10.8	3.8	3.0	17.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.3	0.3	2.0
AMPK	1.2	0.4	0.3	1.8
MD	3.1	1.1	0.6	4.8
PMSH	1.0	0.4	0.3	1.7
PMPK	1.4	0.6	0.4	2.5
Daily	7.9	2.9	1.9	12.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.4	0.5	2.4
AMPK	1.3	0.4	0.5	2.2
MD	3.3	1.2	0.7	5.1
PMSH	1.1	0.5	0.4	1.9
PMPK	1.6	0.7	0.5	2.8
Daily	8.9	3.2	2.5	14.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	0.3	0.4	2.0
AMPK	1.1	0.3	0.4	1.8
MD	2.6	0.8	0.5	3.8
PMSH	0.8	0.3	0.2	1.4
PMPK	1.3	0.5	0.3	2.0
Daily	7.1	2.2	1.7	11.1

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	0.3	0.5	2.2
AMPK	1.2	0.3	0.5	2.0
MD	2.9	0.9	0.8	4.5
PMSH	0.9	0.4	0.3	1.6
PMPK	1.4	0.6	0.4	2.4
Daily	7.8	2.5	2.4	12.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	0.3	0.5	2.2
AMPK	1.1	0.3	0.4	1.9
MD	2.8	0.8	0.8	4.4
PMSH	0.9	0.4	0.3	1.6
PMPK	1.4	0.5	0.4	2.3
Daily	7.7	2.4	2.3	12.4

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

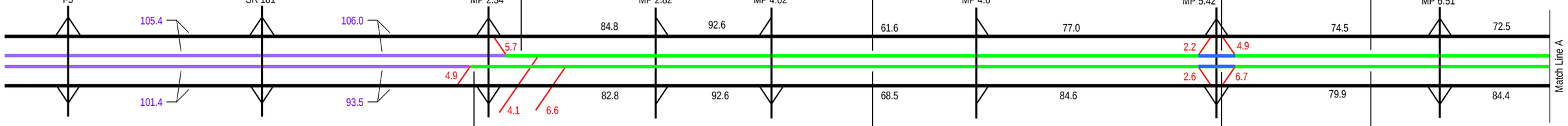
FINAL DRAFT

WilburSmith ASSOCIATES

2035 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 3
SR 167

FIGURE A-3-2A

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.1	0.4	1.5
AMPK	1.2	0.1	0.5	1.8
MD	1.5	0.4	1.2	3.1
PMSH	0.7	0.3	0.8	1.8
PMPK	0.8	0.4	1.0	2.2
Daily	5.2	1.3	4.0	10.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.1	0.4	2.0
AMPK	1.7	0.1	0.6	2.4
MD	2.6	0.5	1.3	4.4
PMSH	1.3	0.4	0.9	2.6
PMPK	1.5	0.5	1.1	3.2
Daily	8.5	1.6	4.4	14.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.1	0.4	1.6
AMPK	1.4	0.1	0.5	2.1
MD	1.9	0.4	1.2	3.6
PMSH	1.1	0.4	0.8	2.3
PMPK	1.4	0.5	1.0	2.8
Daily	7.1	1.4	3.9	12.4

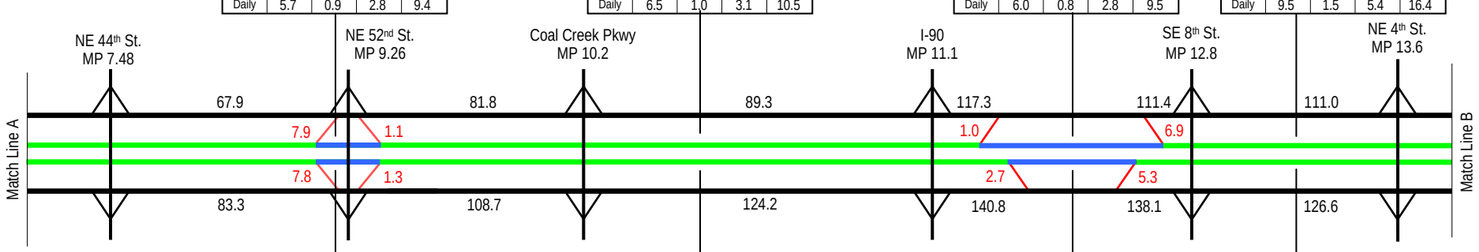
Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.2	0.5	2.2
AMPK	1.9	0.3	0.7	2.8
MD	2.4	0.6	1.5	4.4
PMSH	1.7	0.6	1.1	3.4
PMPK	2.2	0.8	1.4	4.4
Daily	9.7	2.4	5.2	17.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.1	0.7	1.3
AMPK	0.3	0.1	0.5	1.0
MD	1.1	0.4	1.4	2.9
PMSH	0.8	0.3	0.5	1.7
PMPK	1.1	0.4	0.7	2.3
Daily	3.8	1.5	3.9	9.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.3	0.9	2.7
AMPK	1.0	0.3	0.7	2.0
MD	2.5	0.6	1.8	4.9
PMSH	1.5	0.5	0.7	2.7
PMPK	2.0	0.6	0.9	3.6
Daily	8.5	2.4	4.9	15.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.2	0.8	2.2
AMPK	0.8	0.3	0.6	1.6
MD	2.3	0.6	1.6	4.4
PMSH	1.2	0.4	0.5	2.1
PMPK	1.7	0.5	0.7	2.9
Daily	7.1	2.0	4.1	13.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.9	0.4	1.3	3.6
AMPK	1.3	0.4	1.0	2.7
MD	3.2	0.8	2.5	6.6
PMSH	1.6	0.5	0.9	3.0
PMPK	2.1	0.7	1.2	4.0
Daily	10.1	2.8	7.0	19.9



Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.1	0.2	1.2
AMPK	1.1	0.1	0.2	1.4
MD	1.4	0.2	0.8	2.4
PMSH	1.1	0.2	0.7	2.0
PMPK	1.3	0.2	0.9	2.4
Daily	5.7	0.9	2.8	9.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.1	0.2	1.3
AMPK	1.1	0.1	0.2	1.5
MD	1.7	0.2	0.9	2.8
PMSH	1.2	0.2	0.8	2.2
PMPK	1.5	0.3	1.0	2.7
Daily	6.5	1.0	3.1	10.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.1	0.1	1.1
AMPK	1.1	0.1	0.2	1.4
MD	1.6	0.2	0.8	2.6
PMSH	1.0	0.1	0.7	1.8
PMPK	1.3	0.2	1.0	2.5
Daily	6.0	0.8	2.8	9.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.2	0.4	2.1
AMPK	1.6	0.2	0.7	2.5
MD	2.7	0.4	1.6	4.7
PMSH	1.5	0.3	1.2	3.0
PMPK	2.2	0.4	1.6	4.2
Daily	9.5	1.5	5.4	16.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.2	0.8	2.2
AMPK	0.9	0.2	0.7	1.9
MD	1.9	0.4	1.4	3.7
PMSH	1.1	0.3	0.5	1.8
PMPK	1.4	0.4	0.6	2.5
Daily	6.5	1.6	4.0	12.1

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.2	0.9	2.4
AMPK	1.2	0.3	0.8	2.3
MD	2.0	0.4	1.4	3.9
PMSH	1.2	0.4	0.5	2.1
PMPK	1.6	0.5	0.7	2.7
Daily	7.3	1.8	4.4	13.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.2	0.7	1.8
AMPK	1.1	0.2	0.8	2.1
MD	1.7	0.3	1.1	3.1
PMSH	1.0	0.1	0.4	1.5
PMPK	1.4	0.3	0.5	2.3
Daily	6.2	1.1	3.5	10.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.2	1.3	2.4
AMPK	1.1	0.3	1.5	2.8
MD	1.8	0.3	2.2	4.3
PMSH	1.6	0.2	0.9	2.7
PMPK	2.1	0.4	1.3	3.8
Daily	7.7	1.4	7.1	16.1

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

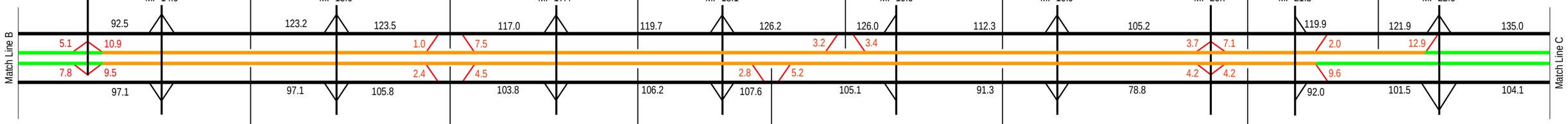
FINAL DRAFT

WilburSmith ASSOCIATES

2035 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 3
I-405 SOUTHERN SECTION

FIGURE A-3-2B

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	2.6	0.5	0.7	3.7
AMPK	2.1	0.4	0.7	3.3
MD	4.1	1.0	1.6	6.7
PMSH	1.9	0.9	0.9	3.7
PMPK	2.7	1.1	1.1	4.9
Daily	13.5	3.8	4.9	22.2

Period	SOV	HOV2	HOV3+	Total
AMSH	2.6	0.5	0.6	3.6
AMPK	2.1	0.4	0.7	3.2
MD	4.1	0.9	1.4	6.4
PMSH	1.8	0.8	0.7	3.4
PMPK	2.7	1.0	1.0	4.7
Daily	13.3	3.6	4.3	21.2

Period	SOV	HOV2	HOV3+	Total
AMSH	3.6	0.6	0.9	5.2
AMPK	2.8	0.5	1.0	4.3
MD	5.6	1.2	2.1	8.9
PMSH	2.5	0.9	1.0	4.4
PMPK	3.5	1.1	1.4	6.0
Daily	17.9	4.4	6.4	28.7

Period	SOV	HOV2	HOV3+	Total
AMSH	3.4	0.6	0.7	4.7
AMPK	2.7	0.5	0.9	4.1
MD	5.1	1.0	1.7	7.8
PMSH	2.2	0.7	0.8	3.8
PMPK	3.1	0.9	1.2	5.1
Daily	16.5	3.7	5.3	25.6

Period	SOV	HOV2	HOV3+	Total
AMSH	3.6	0.6	0.8	5.0
AMPK	2.8	0.5	0.9	4.3
MD	5.8	1.2	1.9	9.0
PMSH	2.6	0.8	1.0	4.4
PMPK	3.8	1.1	1.4	6.3
Daily	18.6	4.3	6.0	29.0

Period	SOV	HOV2	HOV3+	Total
AMSH	4.1	0.8	1.1	5.9
AMPK	3.3	0.7	1.2	5.2
MD	6.2	1.4	2.5	10.0
PMSH	2.4	0.8	1.1	4.3
PMPK	3.9	1.3	1.7	6.9
Daily	19.9	5.0	7.5	32.3

Period	SOV	HOV2	HOV3+	Total
AMSH	3.9	0.7	1.0	5.5
AMPK	3.1	0.6	1.1	4.8
MD	5.9	1.2	2.3	9.5
PMSH	2.3	0.7	1.0	4.1
PMPK	3.8	1.1	1.5	6.4
Daily	19.0	4.5	6.9	30.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.1	0.5	1.2
AMPK	0.6	0.1	0.6	1.3
MD	2.0	1.4	1.3	4.7
PMSH	2.3	1.7	0.7	4.6
PMPK	2.9	2.1	1.0	6.0
Daily	8.4	5.4	4.0	17.8

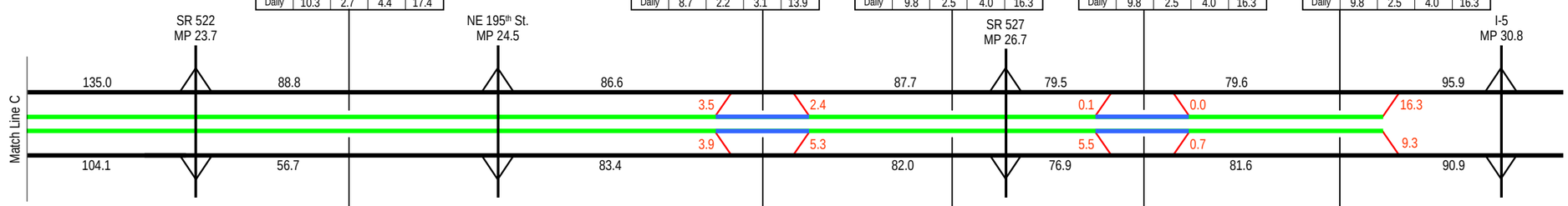
Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.0	0.3	0.8
AMPK	0.4	0.1	0.3	0.8
MD	1.8	1.3	0.8	4.0
PMSH	2.2	1.6	0.5	4.3
PMPK	2.8	2.0	0.7	5.5
Daily	7.7	5.0	2.7	15.4

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.1	0.5	1.0
AMPK	0.5	0.1	0.6	1.2
MD	2.5	1.5	1.5	5.5
PMSH	2.7	1.8	0.9	5.4
PMPK	3.4	2.2	1.2	6.8
Daily	9.6	5.6	4.7	19.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.0	0.3	0.7
AMPK	0.5	0.1	0.4	0.9
MD	2.2	1.2	1.0	4.5
PMSH	2.6	1.6	0.8	4.9
PMPK	3.2	1.9	1.0	6.1
Daily	8.9	4.8	3.5	17.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.1	0.5	0.9
AMPK	0.6	0.1	0.6	1.3
MD	2.8	1.4	1.4	5.6
PMSH	3.5	2.0	1.0	6.5
PMPK	4.3	2.4	1.3	8.0
Daily	11.6	5.9	4.8	22.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.1	0.6	1.1
AMPK	0.7	0.1	0.8	1.6
MD	2.8	1.3	1.7	5.8
PMSH	3.4	1.7	0.9	6.0
PMPK	4.3	2.2	1.4	7.8
Daily	11.6	5.4	5.4	22.3



Period	SOV	HOV2	HOV3+	Total
AMSH	1.9	0.3	0.6	2.9
AMPK	1.7	0.4	0.8	2.8
MD	2.9	0.7	1.4	5.1
PMSH	1.4	0.5	0.6	2.5
PMPK	2.3	0.8	1.0	4.1
Daily	10.3	2.7	4.4	17.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.3	0.3	2.0
AMPK	1.4	0.3	0.6	2.3
MD	2.5	0.6	1.0	4.0
PMSH	1.2	0.4	0.5	2.1
PMPK	2.1	0.7	0.8	3.5
Daily	8.7	2.2	3.1	13.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.3	0.4	2.3
AMPK	1.5	0.4	0.7	2.5
MD	2.6	0.6	1.2	4.4
PMSH	1.5	0.5	0.7	2.7
PMPK	2.6	0.8	1.1	4.4
Daily	9.8	2.5	4.0	16.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.3	0.4	2.3
AMPK	1.5	0.4	0.7	2.5
MD	2.6	0.6	1.2	4.4
PMSH	1.5	0.5	0.7	2.7
PMPK	2.6	0.8	1.1	4.4
Daily	9.8	2.5	4.0	16.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.3	0.4	2.3
AMPK	1.5	0.4	0.7	2.5
MD	2.6	0.6	1.2	4.4
PMSH	1.5	0.5	0.7	2.7
PMPK	2.6	0.8	1.1	4.4
Daily	9.8	2.5	4.0	16.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.1	0.4	0.7
AMPK	0.5	0.1	0.6	1.2
MD	1.9	0.7	0.7	3.3
PMSH	2.0	0.8	0.4	3.2
PMPK	2.6	1.1	0.6	4.3
Daily	7.3	2.8	2.7	12.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.1	0.3	0.6
AMPK	0.5	0.1	0.3	0.9
MD	1.6	0.5	0.5	2.6
PMSH	1.2	0.5	0.3	2.0
PMPK	1.6	0.7	0.4	2.7
Daily	5.2	1.9	1.8	8.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.1	0.7	1.4
AMPK	1.1	0.2	0.7	2.0
MD	2.7	0.8	1.3	4.8
PMSH	1.5	0.6	0.5	2.6
PMPK	1.7	0.8	0.7	3.3
Daily	7.6	2.7	3.9	14.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.1	0.4	0.9
AMPK	0.7	0.1	0.4	1.2
MD	1.5	0.6	0.7	2.8
PMSH	0.8	0.4	0.2	1.5
PMPK	1.3	0.6	0.4	2.3
Daily	4.7	1.8	2.1	8.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.1	0.6	1.0
AMPK	0.7	0.1	0.5	1.3
MD	1.5	0.6	1.0	3.0
PMSH	0.8	0.4	0.3	1.5
PMPK	1.3	0.6	0.5	2.4
Daily	4.7	1.8	2.8	9.3

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

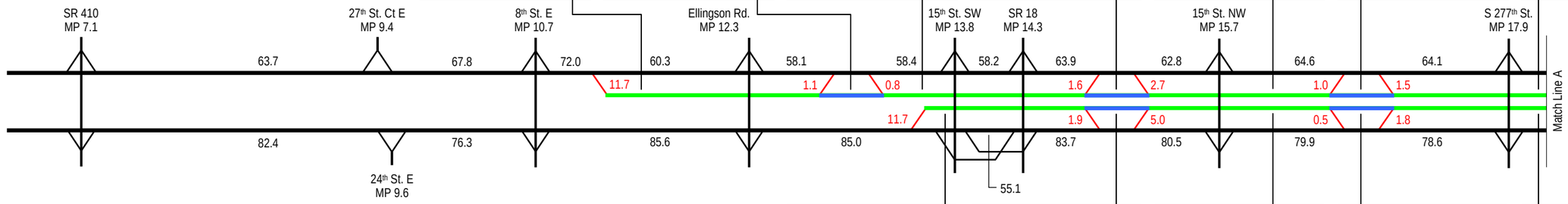
FINAL DRAFT

WilburSmith ASSOCIATES

2035 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 3
I-405 NORTHERN SECTION

FIGURE A-3-2C

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.0	0.2	0.5
AMPK	0.6	0.1	0.3	0.9
MD	3.5	1.0	0.6	5.2
PMSH	1.7	0.8	0.2	2.7
PMPK	1.5	0.7	0.2	2.4
Daily	7.5	2.7	1.5	11.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.0	0.1	0.4
AMPK	0.6	0.1	0.2	0.8
MD	3.5	1.0	0.4	5.0
PMSH	1.4	0.7	0.1	2.3
PMPK	1.3	0.6	0.2	2.1
Daily	7.1	2.4	1.1	10.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.0	0.2	0.5
AMPK	0.6	0.1	0.2	0.9
MD	3.7	1.1	0.5	5.3
PMSH	1.6	0.8	0.1	2.5
PMPK	1.4	0.6	0.2	2.2
Daily	7.6	2.7	1.2	11.4

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.0	0.1	0.4
AMPK	0.5	0.1	0.2	0.8
MD	3.3	1.0	0.4	4.7
PMSH	1.3	0.6	0.1	2.0
PMPK	1.2	0.5	0.2	1.9
Daily	6.6	2.2	1.0	9.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.0	0.3	0.6
AMPK	0.6	0.1	0.3	1.0
MD	3.8	1.1	0.6	5.6
PMSH	1.8	0.7	0.2	2.7
PMPK	1.8	0.7	0.3	2.7
Daily	8.2	2.6	1.7	12.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.0	0.2	0.5
AMPK	0.5	0.0	0.3	0.8
MD	3.5	1.0	0.5	5.0
PMSH	1.7	0.7	0.1	2.5
PMPK	1.8	0.6	0.2	2.6
Daily	7.8	2.4	1.4	11.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.0	0.3	0.6
AMPK	0.6	0.0	0.3	1.0
MD	3.8	1.0	0.7	5.5
PMSH	1.9	0.7	0.2	2.8
PMPK	2.0	0.7	0.3	3.0
Daily	8.6	2.5	1.8	13.0

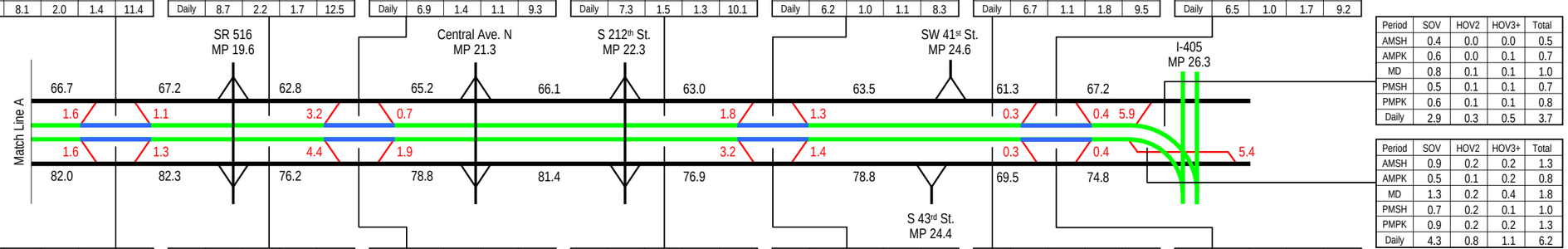
Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.3	0.4	2.2
AMPK	1.2	0.3	0.3	1.8
MD	2.3	0.7	0.6	3.6
PMSH	0.9	0.4	0.3	1.6
PMPK	1.5	0.8	0.4	2.6
Daily	7.4	2.4	2.0	11.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.2	0.3	1.6
AMPK	0.8	0.2	0.2	1.2
MD	2.3	0.6	0.5	3.4
PMSH	0.8	0.4	0.2	1.5
PMPK	1.3	0.6	0.3	2.2
Daily	6.3	2.0	1.5	9.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.3	0.6	2.4
AMPK	1.2	0.2	0.4	1.8
MD	3.5	0.8	0.9	5.2
PMSH	1.3	0.5	0.3	2.1
PMPK	2.0	0.8	0.5	3.3
Daily	9.5	2.6	2.7	14.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.3	0.5	2.4
AMPK	1.2	0.2	0.4	1.8
MD	3.5	0.8	0.7	5.0
PMSH	1.3	0.5	0.3	2.1
PMPK	2.0	0.8	0.4	3.1
Daily	9.5	2.5	2.3	14.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.3	0.6	2.5
AMPK	1.3	0.3	0.5	2.0
MD	3.9	0.9	0.9	5.7
PMSH	1.4	0.6	0.4	2.4
PMPK	2.1	0.9	0.6	3.6
Daily	10.4	2.9	2.9	16.2



Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.0	0.2	0.5
AMPK	0.5	0.0	0.2	0.8
MD	3.5	0.8	0.5	4.8
PMSH	1.8	0.6	0.2	2.6
PMPK	2.0	0.6	0.3	2.8
Daily	8.1	2.0	1.4	11.4

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.0	0.2	0.6
AMPK	0.6	0.0	0.3	0.9
MD	3.7	0.9	0.6	5.2
PMSH	2.0	0.6	0.2	2.8
PMPK	2.2	0.6	0.3	3.1
Daily	8.7	2.2	1.7	12.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.0	0.1	0.4
AMPK	0.5	0.0	0.2	0.7
MD	3.0	0.5	0.4	3.9
PMSH	1.4	0.4	0.2	2.0
PMPK	1.7	0.4	0.3	2.4
Daily	6.9	1.4	1.1	9.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.0	0.1	0.5
AMPK	0.5	0.0	0.2	0.7
MD	3.0	0.6	0.4	4.0
PMSH	1.6	0.4	0.2	2.1
PMPK	1.9	0.5	0.3	2.7
Daily	7.3	1.5	1.3	10.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.0	0.1	0.4
AMPK	0.5	0.0	0.2	0.7
MD	2.5	0.4	0.4	3.3
PMSH	1.3	0.3	0.2	1.7
PMPK	1.5	0.3	0.3	2.2
Daily	6.2	1.0	1.1	8.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.0	0.2	0.7
AMPK	0.6	0.0	0.3	1.0
MD	2.7	0.4	0.6	3.7
PMSH	1.4	0.3	0.2	1.8
PMPK	1.6	0.4	0.4	2.3
Daily	6.7	1.1	1.8	9.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.0	0.2	0.7
AMPK	0.6	0.0	0.3	1.0
MD	2.6	0.4	0.6	3.5
PMSH	1.3	0.3	0.2	1.8
PMPK	1.6	0.3	0.4	2.3
Daily	6.5	1.0	1.7	9.2

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.0	0.0	0.5
AMPK	0.6	0.0	0.1	0.7
MD	0.8	0.1	0.1	1.0
PMSH	0.5	0.1	0.1	0.7
PMPK	0.6	0.1	0.1	0.8
Daily	2.9	0.3	0.5	3.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.2	0.2	1.3
AMPK	0.5	0.1	0.2	0.8
MD	1.3	0.2	0.4	1.8
PMSH	0.7	0.2	0.1	1.0
PMPK	0.9	0.2	0.2	1.3
Daily	4.3	0.8	1.1	6.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.3	0.5	2.5
AMPK	1.3	0.3	0.4	2.0
MD	3.4	0.8	0.7	5.0
PMSH	1.2	0.5	0.4	2.1
PMPK	1.8	0.7	0.5	3.1
Daily	9.4	2.6	2.6	14.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.3	0.6	2.8
AMPK	1.3	0.3	0.6	2.2
MD	3.6	0.9	0.9	5.4
PMSH	1.3	0.5	0.4	2.2
PMPK	2.0	0.8	0.6	3.3
Daily	10.0	2.8	3.1	15.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	0.2	0.4	2.0
AMPK	1.0	0.2	0.3	1.6
MD	2.7	0.6	0.6	3.9
PMSH	1.0	0.4	0.3	1.6
PMPK	1.4	0.5	0.4	2.4
Daily	7.5	2.1	1.9	11.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.3	0.5	2.4
AMPK	1.1	0.3	0.4	1.8
MD	3.0	0.7	0.9	4.6
PMSH	1.1	0.4	0.3	1.8
PMPK	1.6	0.6	0.5	2.7
Daily	8.4	2.3	2.6	13.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.2	0.4	1.9
AMPK	0.9	0.2	0.3	1.5
MD	2.2	0.5	0.7	3.4
PMSH	0.9	0.3	0.2	1.4
PMPK	1.3	0.4	0.3	2.0
Daily	6.5	1.7	1.8	10.1

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	0.2	0.5	2.0
AMPK	0.9	0.2	0.4	1.6
MD	2.3	0.5	0.8	3.7
PMSH	1.0	0.4	0.4	1.7
PMPK	1.5	0.5	0.5	2.5
Daily	7.0	1.9	2.5	11.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.2	0.4	2.0
AMPK	0.9	0.2	0.4	1.5
MD	2.3	0.5	0.8	3.6
PMSH	1.0	0.4	0.3	1.7
PMPK	1.4	0.5	0.5	2.4
Daily	6.9	1.9	2.5	11.2

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

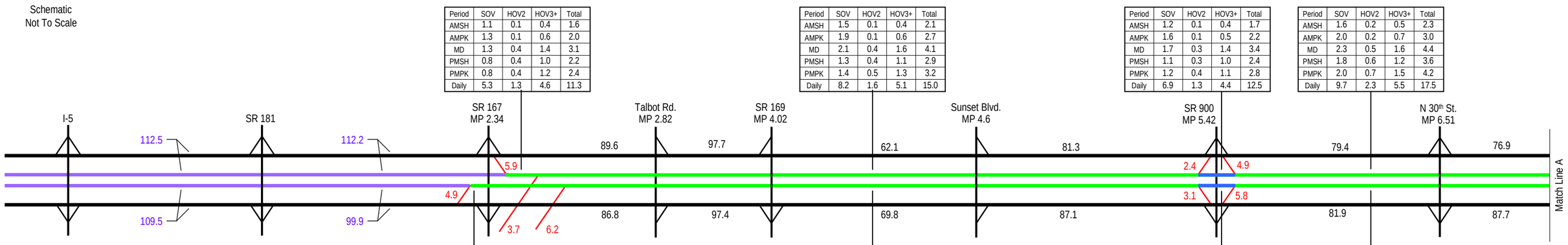
FINAL DRAFT

WilburSmith ASSOCIATES

2045 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 3
SR 167

FIGURE A-3-3A

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.1	0.4	1.6
AMPK	1.3	0.1	0.6	2.0
MD	1.3	0.4	1.4	3.1
PMSH	0.8	0.4	1.0	2.2
PMPK	0.8	0.4	1.2	2.4
Daily	5.3	1.3	4.6	11.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.1	0.4	2.1
AMPK	1.9	0.1	0.6	2.7
MD	2.1	0.4	1.6	4.1
PMSH	1.3	0.4	1.1	2.9
PMPK	1.4	0.5	1.3	3.2
Daily	8.2	1.6	5.1	15.0

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.1	0.4	1.7
AMPK	1.6	0.1	0.5	2.2
MD	1.7	0.3	1.4	3.4
PMSH	1.1	0.3	1.0	2.4
PMPK	1.2	0.4	1.1	2.8
Daily	6.9	1.3	4.4	12.5

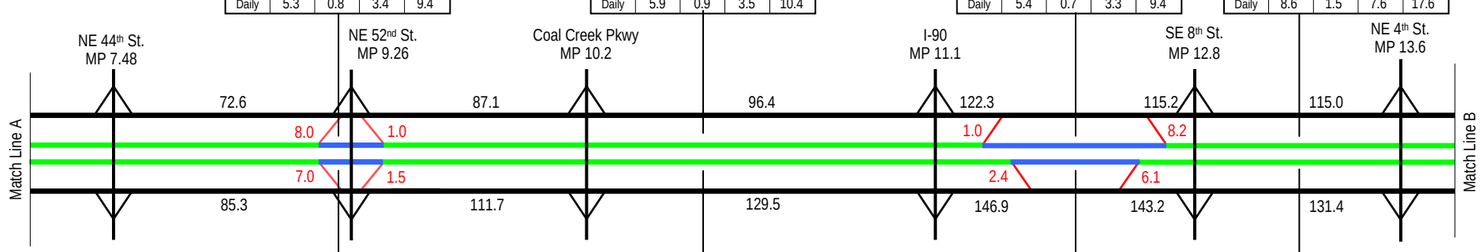
Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.2	0.5	2.3
AMPK	2.0	0.2	0.7	3.0
MD	2.3	0.5	1.6	4.4
PMSH	1.8	0.6	1.2	3.6
PMPK	2.0	0.7	1.5	4.2
Daily	9.7	2.3	5.5	17.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.2	0.9	1.6
AMPK	0.2	0.1	0.7	1.0
MD	1.1	0.4	1.7	3.3
PMSH	0.9	0.4	0.6	1.9
PMPK	1.1	0.4	0.8	2.3
Daily	3.8	1.4	4.7	10.0

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	0.3	1.1	2.8
AMPK	0.8	0.2	0.9	1.9
MD	2.4	0.6	2.1	5.1
PMSH	1.5	0.5	0.8	2.8
PMPK	2.0	0.6	1.0	3.6
Daily	8.1	2.2	5.9	16.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.2	1.0	2.3
AMPK	0.6	0.2	0.7	1.5
MD	2.2	0.5	1.7	4.5
PMSH	1.3	0.4	0.5	2.1
PMPK	1.6	0.5	0.6	2.7
Daily	6.8	1.8	4.6	13.1

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.3	1.4	3.5
AMPK	0.9	0.2	1.0	2.1
MD	3.2	0.7	2.6	6.5
PMSH	1.6	0.5	1.0	3.1
PMPK	2.0	0.6	1.2	3.7
Daily	9.5	2.3	7.1	18.9



Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.1	0.2	1.1
AMPK	1.0	0.1	0.2	1.3
MD	1.3	0.2	1.0	2.5
PMSH	1.0	0.2	0.9	2.1
PMPK	1.1	0.2	1.1	2.4
Daily	5.3	0.8	3.4	9.4

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.1	0.2	1.2
AMPK	1.1	0.1	0.2	1.4
MD	1.6	0.3	1.1	2.9
PMSH	1.1	0.2	1.0	2.3
PMPK	1.2	0.2	1.1	2.6
Daily	5.9	0.9	3.5	10.4

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.1	0.1	1.0
AMPK	1.0	0.1	0.2	1.3
MD	1.5	0.2	1.0	2.7
PMSH	1.0	0.2	0.9	2.1
PMPK	1.1	0.2	1.1	2.4
Daily	5.4	0.7	3.3	9.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.2	0.5	2.0
AMPK	1.5	0.2	0.8	2.6
MD	2.5	0.4	2.1	5.0
PMSH	1.4	0.3	1.9	3.6
PMPK	1.8	0.3	2.3	4.5
Daily	8.6	1.5	7.6	17.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.2	1.1	2.4
AMPK	0.8	0.2	0.9	1.9
MD	1.8	0.4	1.5	3.7
PMSH	1.0	0.3	0.5	1.8
PMPK	1.3	0.4	0.6	2.2
Daily	6.0	1.4	4.6	12.0

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.2	1.1	2.5
AMPK	0.9	0.2	1.1	2.2
MD	2.0	0.5	1.5	4.1
PMSH	1.1	0.4	0.5	2.0
PMPK	1.5	0.4	0.6	2.6
Daily	6.8	1.8	4.9	13.4

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.2	0.9	2.0
AMPK	0.8	0.2	1.0	2.1
MD	1.7	0.3	1.3	3.3
PMSH	1.0	0.2	0.4	1.5
PMPK	1.4	0.3	0.5	2.1
Daily	5.8	1.2	4.1	11.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.2	1.6	2.7
AMPK	0.9	0.2	1.8	2.9
MD	2.0	0.4	2.5	4.9
PMSH	1.5	0.3	0.9	2.7
PMPK	2.1	0.4	1.3	3.8
Daily	7.5	1.5	8.2	17.2

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

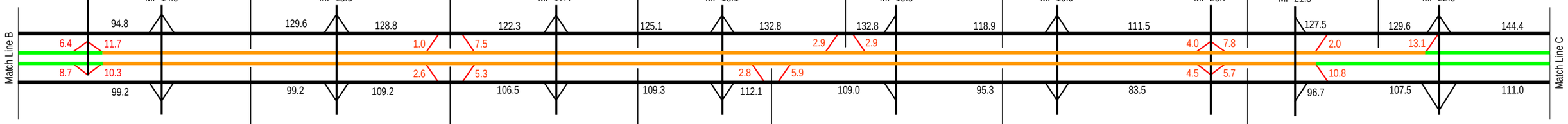
FINAL DRAFT

WilburSmith ASSOCIATES

2045 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 3
I-405 SOUTHERN SECTION

FIGURE A-3-3B

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	2.4	0.5	0.7	3.5
AMPK	2.0	0.4	0.7	3.1
MD	4.2	1.1	2.0	7.3
PMSH	1.8	0.8	1.3	3.9
PMPK	2.4	0.9	1.8	5.1
Daily	12.8	3.7	6.5	22.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.1	0.6	1.3
AMPK	0.5	0.1	0.7	1.2
MD	2.5	1.7	1.4	5.6
PMSH	2.3	1.5	0.7	4.6
PMPK	3.0	2.0	1.1	6.0
Daily	8.8	5.4	4.5	18.7

Period	SOV	HOV2	HOV3+	Total
AMSH	2.4	0.5	0.6	3.4
AMPK	2.0	0.4	0.7	3.0
MD	4.2	1.1	1.8	7.0
PMSH	1.7	0.7	1.2	3.6
PMPK	2.4	0.8	1.6	4.8
Daily	12.6	3.5	5.8	21.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.1	0.4	0.8
AMPK	0.4	0.1	0.4	0.9
MD	2.3	1.5	0.9	4.7
PMSH	2.2	1.5	0.5	4.2
PMPK	2.9	1.8	0.8	5.5
Daily	8.1	4.9	3.1	16.1

Period	SOV	HOV2	HOV3+	Total
AMSH	3.3	0.7	1.0	5.0
AMPK	2.7	0.6	1.1	4.3
MD	5.7	1.4	2.5	9.6
PMSH	2.2	0.8	1.5	4.5
PMPK	3.0	1.0	2.1	6.0
Daily	16.9	4.4	8.1	29.4

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.1	0.6	1.1
AMPK	0.5	0.1	0.6	1.2
MD	3.3	1.8	1.7	6.8
PMSH	2.8	1.6	1.1	5.5
PMPK	3.5	2.1	1.4	6.9
Daily	10.4	5.6	5.4	21.4

Period	SOV	HOV2	HOV3+	Total
AMSH	3.1	0.6	0.8	4.6
AMPK	2.5	0.5	1.0	4.0
MD	5.2	1.2	2.2	8.6
PMSH	2.0	0.6	1.4	4.0
PMPK	2.7	0.7	1.9	5.3
Daily	15.6	3.7	7.3	26.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.1	0.4	0.9
AMPK	0.4	0.1	0.4	0.9
MD	3.0	1.5	1.2	5.7
PMSH	2.6	1.4	0.9	5.0
PMPK	3.3	1.8	1.1	6.2
Daily	9.7	4.8	4.1	18.6

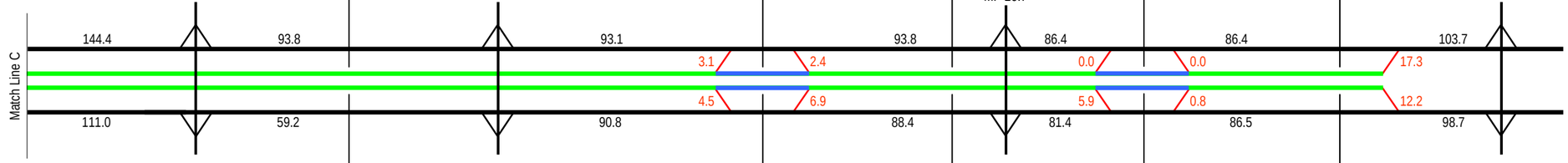
Period	SOV	HOV2	HOV3+	Total
AMSH	3.3	0.6	0.9	4.8
AMPK	2.6	0.5	1.0	4.2
MD	5.9	1.4	2.4	9.7
PMSH	2.4	0.8	1.5	4.7
PMPK	3.1	0.9	2.1	6.1
Daily	17.3	4.2	7.9	29.4

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.1	0.6	1.1
AMPK	0.6	0.1	0.7	1.4
MD	3.8	1.7	1.6	7.2
PMSH	3.6	1.9	1.1	6.6
PMPK	4.4	2.2	1.5	8.2
Daily	13.0	6.0	5.6	24.6

Period	SOV	HOV2	HOV3+	Total
AMSH	3.6	0.8	1.4	5.7
AMPK	2.8	0.7	1.3	4.8
MD	6.4	1.6	3.2	11.2
PMSH	2.4	0.8	1.7	4.9
PMPK	3.1	1.0	2.5	6.6
Daily	18.2	4.8	10.2	33.2

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.1	0.9	1.5
AMPK	0.7	0.1	0.9	1.7
MD	4.0	1.7	2.2	7.8
PMSH	3.6	1.7	1.2	6.5
PMPK	4.4	2.0	1.7	8.2
Daily	13.2	5.6	6.9	25.7

Period	SOV	HOV2	HOV3+	Total
AMSH	3.4	0.7	1.3	5.3
AMPK	2.7	0.6	1.2	4.5
MD	6.1	1.5	3.1	10.7
PMSH	2.2	0.7	1.6	4.6
PMPK	3.0	0.9	2.3	6.1
Daily	17.3	4.3	9.5	31.2



Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.3	0.8	2.8
AMPK	1.3	0.3	0.9	2.5
MD	3.1	0.9	2.1	6.1
PMSH	1.3	0.5	1.2	2.9
PMPK	1.6	0.5	1.7	3.8
Daily	8.9	2.5	6.7	18.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.1	0.6	1.0
AMPK	0.6	0.1	0.6	1.3
MD	2.7	0.9	0.9	4.5
PMSH	2.2	0.9	0.5	3.6
PMPK	2.6	1.1	0.8	4.5
Daily	8.5	3.0	3.4	15.0

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.2	0.5	2.0
AMPK	1.1	0.3	0.6	2.0
MD	2.7	0.7	1.5	5.0
PMSH	1.2	0.4	1.0	2.6
PMPK	1.5	0.4	1.4	3.4
Daily	7.8	2.1	5.1	15.0

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.1	0.3	0.8
AMPK	0.6	0.1	0.3	1.0
MD	2.2	0.7	0.6	3.6
PMSH	1.4	0.5	0.4	2.3
PMPK	1.6	0.7	0.6	2.8
Daily	6.2	2.1	2.2	10.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.3	0.6	2.2
AMPK	1.2	0.3	0.7	2.2
MD	3.0	0.8	1.7	5.5
PMSH	1.4	0.5	1.5	3.4
PMPK	1.5	0.5	2.0	4.0
Daily	8.5	2.4	6.5	17.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.2	0.7	1.8
AMPK	1.3	0.3	0.7	2.3
MD	3.9	1.3	1.5	6.6
PMSH	1.7	0.7	0.7	3.1
PMPK	1.8	0.8	0.9	3.5
Daily	9.5	3.3	4.5	17.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.3	0.6	2.2
AMPK	1.2	0.3	0.7	2.2
MD	3.0	0.8	1.7	5.5
PMSH	1.4	0.5	1.5	3.4
PMPK	1.5	0.5	2.0	4.0
Daily	8.5	2.4	6.5	17.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.1	0.5	1.2
AMPK	0.8	0.2	0.4	1.4
MD	2.4	1.0	0.8	4.2
PMSH	1.2	0.5	0.3	2.0
PMPK	1.5	0.6	0.5	2.6
Daily	6.5	2.5	2.5	11.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.3	0.6	2.2
AMPK	1.2	0.3	0.7	2.2
MD	3.0	0.8	1.7	5.5
PMSH	1.4	0.5	1.5	3.4
PMPK	1.5	0.5	2.0	4.0
Daily	8.5	2.4	6.5	17.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.1	0.6	1.4
AMPK	0.8	0.2	0.5	1.6
MD	2.4	1.0	1.1	4.4
PMSH	1.2	0.5	0.4	2.1
PMPK	1.5	0.6	0.6	2.8
Daily	6.5	2.5	3.3	12.2

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

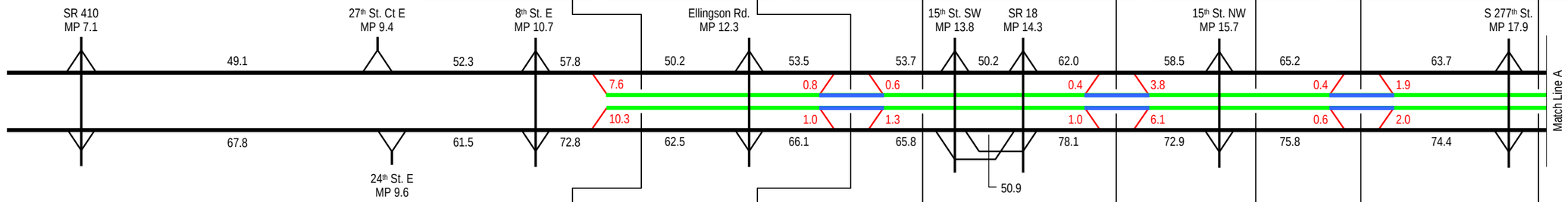
FINAL DRAFT

WilburSmith ASSOCIATES

2045 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 3
I-405 NORTHERN SECTION

FIGURE A-3-3C

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.0	0.2	0.6
AMPK	0.4	0.0	0.3	0.7
MD	1.3	0.3	0.7	2.3
PMSH	1.1	0.4	0.3	1.8
PMPK	1.4	0.4	0.4	2.2
Daily	4.6	1.1	1.9	7.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.0	0.1	0.5
AMPK	0.4	0.0	0.2	0.6
MD	1.3	0.3	0.4	2.1
PMSH	1.1	0.4	0.1	1.6
PMPK	1.4	0.4	0.2	2.0
Daily	4.6	1.1	1.1	6.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.0	0.2	0.6
AMPK	0.4	0.0	0.2	0.6
MD	1.4	0.3	0.5	2.2
PMSH	1.2	0.4	0.2	1.8
PMPK	1.5	0.5	0.2	2.2
Daily	5.0	1.2	1.2	7.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.0	0.1	0.6
AMPK	0.4	0.0	0.2	0.6
MD	1.4	0.3	0.4	2.1
PMSH	1.2	0.4	0.1	1.7
PMPK	1.5	0.5	0.2	2.2
Daily	5.0	1.1	1.0	7.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.0	0.3	0.9
AMPK	0.6	0.0	0.3	0.9
MD	2.1	0.3	0.7	3.1
PMSH	1.9	0.5	0.2	2.6
PMPK	2.4	0.7	0.3	3.4
Daily	7.6	1.5	1.8	10.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.0	0.2	0.9
AMPK	0.6	0.0	0.3	0.9
MD	2.1	0.3	0.5	2.9
PMSH	1.9	0.5	0.1	2.5
PMPK	2.4	0.7	0.2	3.3
Daily	7.6	1.5	1.4	10.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.0	0.3	1.1
AMPK	0.7	0.0	0.3	1.0
MD	2.4	0.4	0.6	3.4
PMSH	2.3	0.6	0.2	3.0
PMPK	3.0	0.7	0.3	4.0
Daily	9.1	1.7	1.7	12.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.3	0.7	2.5
AMPK	1.1	0.3	0.5	1.9
MD	1.6	0.3	1.0	2.9
PMSH	0.6	0.2	0.4	1.2
PMPK	0.9	0.3	0.5	1.7
Daily	5.9	1.4	3.0	10.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.3	0.5	2.3
AMPK	1.1	0.3	0.4	1.8
MD	1.6	0.3	0.7	2.6
PMSH	0.6	0.2	0.2	1.1
PMPK	0.9	0.3	0.3	1.6
Daily	5.9	1.4	2.1	9.3

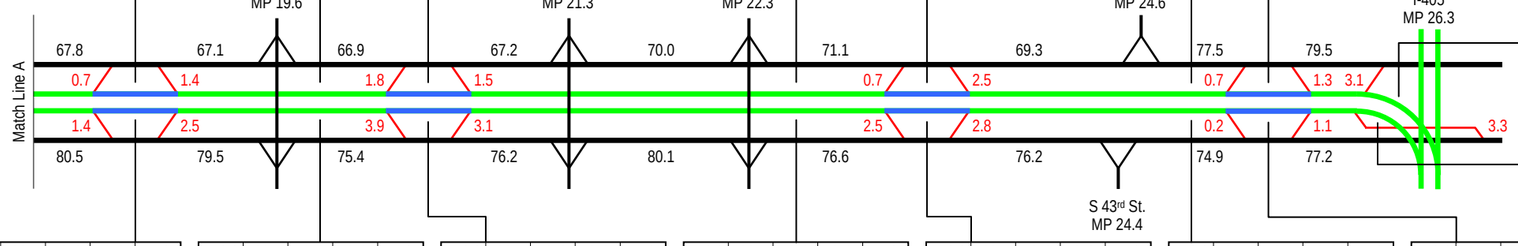
Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.3	0.5	2.6
AMPK	1.3	0.3	0.5	2.0
MD	1.9	0.4	0.8	3.1
PMSH	0.7	0.2	0.3	1.2
PMPK	1.0	0.4	0.4	1.8
Daily	6.6	1.6	2.4	10.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.3	0.4	2.2
AMPK	1.1	0.2	0.4	1.7
MD	1.9	0.4	0.6	2.9
PMSH	0.7	0.2	0.2	1.2
PMPK	1.0	0.3	0.3	1.7
Daily	6.3	1.5	1.9	9.6

Period	SOV	HOV2	HOV3+	Total
AMSH	2.3	0.3	0.7	3.3
AMPK	1.6	0.3	0.6	2.5
MD	3.2	0.6	1.1	4.9
PMSH	1.3	0.3	0.4	2.0
PMPK	2.0	0.6	0.6	3.1
Daily	10.3	2.1	3.4	15.8

Period	SOV	HOV2	HOV3+	Total
AMSH	2.2	0.3	0.7	3.2
AMPK	1.6	0.3	0.5	2.4
MD	3.2	0.6	0.9	4.7
PMSH	1.3	0.3	0.3	1.9
PMPK	1.9	0.5	0.5	2.9
Daily	10.2	2.0	2.9	15.1

Period	SOV	HOV2	HOV3+	Total
AMSH	2.5	0.3	0.7	3.5
AMPK	1.7	0.3	0.6	2.7
MD	3.6	0.7	1.1	5.4
PMSH	1.4	0.4	0.4	2.2
PMPK	2.2	0.6	0.5	3.3
Daily	11.4	2.3	3.4	17.1



Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.0	0.2	1.0
AMPK	0.7	0.0	0.3	0.9
MD	2.4	0.4	0.5	3.2
PMSH	2.2	0.5	0.1	2.8
PMPK	2.9	0.6	0.2	3.8
Daily	9.0	1.5	1.3	11.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.0	0.2	1.2
AMPK	0.8	0.0	0.3	1.1
MD	2.6	0.4	0.6	3.6
PMSH	2.4	0.5	0.1	3.1
PMPK	3.2	0.7	0.3	4.2
Daily	9.9	1.7	1.5	13.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.0	0.1	1.0
AMPK	0.8	0.0	0.2	1.0
MD	2.5	0.3	0.3	3.1
PMSH	2.2	0.4	0.1	2.6
PMPK	2.8	0.5	0.2	3.6
Daily	9.1	1.2	1.0	11.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.0	0.2	1.2
AMPK	0.9	0.0	0.2	1.1
MD	2.8	0.3	0.4	3.6
PMSH	2.4	0.5	0.1	3.0
PMPK	3.1	0.6	0.3	3.9
Daily	10.3	1.4	1.2	12.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.0	0.1	1.2
AMPK	0.9	0.0	0.2	1.1
MD	2.8	0.3	0.3	3.4
PMSH	2.3	0.4	0.1	2.8
PMPK	2.9	0.5	0.2	3.6
Daily	10.0	1.2	1.0	12.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.0	0.3	1.8
AMPK	1.2	0.0	0.4	1.6
MD	3.3	0.4	0.6	4.3
PMSH	2.5	0.4	0.2	3.1
PMPK	3.1	0.6	0.3	4.0
Daily	11.6	1.4	1.7	14.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.0	0.3	1.8
AMPK	1.2	0.0	0.4	1.6
MD	3.3	0.4	0.6	4.2
PMSH	2.5	0.4	0.1	3.1
PMPK	3.1	0.5	0.3	3.9
Daily	11.5	1.4	1.6	14.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.9	0.0	0.0	1.9
AMPK	1.4	0.0	0.1	1.5
MD	3.4	0.3	0.1	3.8
PMSH	2.2	0.3	0.1	2.6
PMPK	2.5	0.4	0.1	2.9
Daily	11.4	1.0	0.4	12.7

Period	SOV	HOV2	HOV3+	Total
AMSH	2.1	0.3	0.2	2.6
AMPK	1.5	0.3	0.2	2.0
MD	4.2	0.6	0.4	5.2
PMSH	2.1	0.4	0.1	2.5
PMPK	2.4	0.4	0.1	2.9
Daily	12.3	2.0	1.0	15.3

Period	SOV	HOV2	HOV3+	Total
AMSH	2.4	0.3	0.6	3.3
AMPK	1.7	0.3	0.5	2.6
MD	3.5	0.6	0.8	4.9
PMSH	1.3	0.3	0.3	2.0
PMPK	2.0	0.6	0.4	3.0
Daily	10.8	2.2	2.7	15.7

Period	SOV	HOV2	HOV3+	Total
AMSH	2.6	0.4	0.8	3.7
AMPK	1.9	0.4	0.7	2.9
MD	3.9	0.7	1.0	5.7
PMSH	1.6	0.4	0.4	2.3
PMPK	2.3	0.7	0.5	3.5
Daily	12.3	2.6	3.3	18.2

Period	SOV	HOV2	HOV3+	Total
AMSH	2.0	0.3	0.4	2.8
AMPK	1.5	0.3	0.4	2.2
MD	3.3	0.6	0.7	4.6
PMSH	1.4	0.3	0.2	2.0
PMPK	1.9	0.5	0.4	2.8
Daily	10.1	2.0	2.1	14.3

Period	SOV	HOV2	HOV3+	Total
AMSH	2.5	0.4	0.6	3.5
AMPK	1.8	0.4	0.6	2.7
MD	3.8	0.7	0.8	5.3
PMSH	1.7	0.4	0.3	2.4
PMPK	2.3	0.6	0.4	3.4
Daily	12.2	2.5	2.7	17.4

Period	SOV	HOV2	HOV3+	Total
AMSH	2.3	0.4	0.4	3.0
AMPK	1.6	0.4	0.4	2.3
MD	3.5	0.6	0.5	4.6
PMSH	1.6	0.4	0.1	2.1
PMPK	2.1	0.5	0.2	2.8
Daily	11.0	2.2	1.6	14.9

Period	SOV	HOV2	HOV3+	Total
AMSH	2.4	0.4	0.5	3.3
AMPK	1.8	0.4	0.5	2.6
MD	4.3	0.7	0.8	5.8
PMSH	2.0	0.5	0.2	2.6
PMPK	2.4	0.6	0.3	3.3
Daily	12.9	2.6	2.2	17.7

Period	SOV	HOV2	HOV3+	Total
AMSH	2.4	0.4	0.5	3.3
AMPK	1.8	0.4	0.5	2.6
MD	4.3	0.7	0.8	5.8
PMSH	1.9	0.5	0.2	2.6
PMPK	2.4	0.6	0.3	3.3
Daily	12.8	2.6	2.2	17.5

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

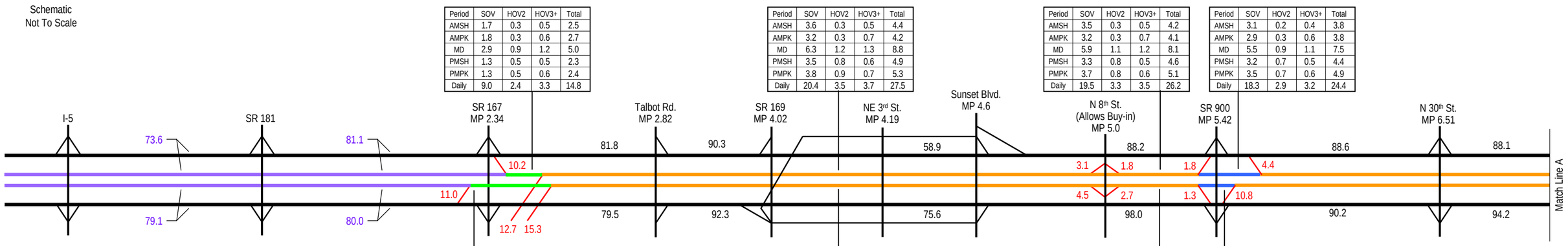
FINAL DRAFT

WilburSmith ASSOCIATES

2020 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 4
SR 167

FIGURE A-4-1A

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.3	0.5	2.5
AMPK	1.8	0.3	0.6	2.7
MD	2.9	0.9	1.2	5.0
PMSH	1.3	0.5	0.5	2.3
PMPK	1.3	0.5	0.6	2.4
Daily	9.0	2.4	3.3	14.8

Period	SOV	HOV2	HOV3+	Total
AMSH	3.6	0.3	0.5	4.4
AMPK	3.2	0.3	0.7	4.2
MD	6.3	1.2	1.3	8.8
PMSH	3.5	0.8	0.6	4.9
PMPK	3.8	0.9	0.7	5.3
Daily	20.4	3.5	3.7	27.5

Period	SOV	HOV2	HOV3+	Total
AMSH	3.5	0.3	0.5	4.2
AMPK	3.2	0.3	0.7	4.1
MD	5.9	1.1	1.2	8.1
PMSH	3.3	0.8	0.5	4.6
PMPK	3.7	0.8	0.6	5.1
Daily	19.5	3.3	3.5	26.2

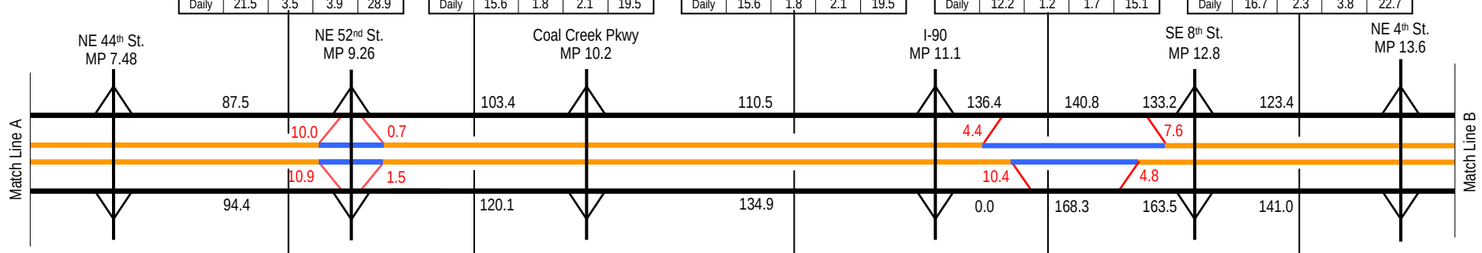
Period	SOV	HOV2	HOV3+	Total
AMSH	3.1	0.2	0.4	3.8
AMPK	2.9	0.3	0.6	3.8
MD	5.5	0.9	1.1	7.5
PMSH	3.2	0.7	0.5	4.4
PMPK	3.5	0.7	0.6	4.9
Daily	18.3	2.9	3.2	24.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	0.3	0.4	2.2
AMPK	1.0	0.3	0.4	1.7
MD	3.6	1.0	1.0	5.6
PMSH	1.8	0.6	0.4	2.8
PMPK	1.8	0.6	0.5	3.0
Daily	9.6	2.9	2.7	15.3

Period	SOV	HOV2	HOV3+	Total
AMSH	3.5	0.7	0.7	4.8
AMPK	2.5	0.6	0.6	3.7
MD	7.8	1.7	1.4	10.9
PMSH	3.9	0.9	0.4	5.3
PMPK	4.2	1.0	0.6	5.9
Daily	21.9	4.9	3.7	30.6

Period	SOV	HOV2	HOV3+	Total
AMSH	3.2	0.6	0.6	4.5
AMPK	2.3	0.6	0.6	3.5
MD	7.4	1.6	1.2	10.2
PMSH	3.8	0.9	0.3	5.0
PMPK	4.1	1.0	0.5	5.6
Daily	20.9	4.7	3.2	28.8

Period	SOV	HOV2	HOV3+	Total
AMSH	3.1	0.6	0.6	4.3
AMPK	2.2	0.6	0.5	3.3
MD	7.2	1.6	1.2	9.9
PMSH	3.6	0.8	0.3	4.7
PMPK	3.9	0.9	0.4	5.3
Daily	20.1	4.5	3.0	27.6



Period	SOV	HOV2	HOV3+	Total
AMSH	3.5	0.3	0.5	4.3
AMPK	3.4	0.3	0.7	4.4
MD	6.3	1.1	1.3	8.7
PMSH	3.9	0.9	0.7	5.5
PMPK	4.3	0.9	0.8	6.0
Daily	21.5	3.5	3.9	28.9

Period	SOV	HOV2	HOV3+	Total
AMSH	2.2	0.2	0.2	2.6
AMPK	2.2	0.2	0.2	2.6
MD	4.7	0.6	0.7	6.0
PMSH	3.0	0.4	0.5	3.9
PMPK	3.4	0.4	0.5	4.4
Daily	15.6	1.8	2.1	19.5

Period	SOV	HOV2	HOV3+	Total
AMSH	2.2	0.2	0.2	2.6
AMPK	2.2	0.2	0.2	2.6
MD	4.7	0.6	0.7	6.0
PMSH	3.0	0.4	0.5	3.9
PMPK	3.4	0.4	0.5	4.4
Daily	15.6	1.8	2.1	19.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.1	0.1	1.7
AMPK	1.6	0.1	0.2	1.9
MD	3.4	0.3	0.4	4.2
PMSH	2.6	0.3	0.5	3.4
PMPK	3.1	0.3	0.5	4.0
Daily	12.2	1.2	1.7	15.1

Period	SOV	HOV2	HOV3+	Total
AMSH	2.4	0.3	0.6	3.4
AMPK	2.5	0.4	0.7	3.6
MD	4.6	0.6	0.9	6.1
PMSH	3.1	0.4	0.7	4.2
PMPK	4.1	0.5	0.9	5.5
Daily	16.7	2.3	3.8	22.7

Period	SOV	HOV2	HOV3+	Total
AMSH	4.8	0.8	0.9	6.6
AMPK	3.3	0.7	0.7	4.8
MD	10.2	2.2	1.7	14.1
PMSH	4.5	1.1	0.6	6.2
PMPK	4.8	1.2	0.8	6.8
Daily	27.7	6.0	4.6	38.3

Period	SOV	HOV2	HOV3+	Total
AMSH	4.4	0.7	0.8	6.0
AMPK	3.0	0.6	0.7	4.4
MD	6.7	1.3	1.0	8.9
PMSH	3.4	0.8	0.4	4.5
PMPK	3.8	0.9	0.5	5.1
Daily	21.2	4.2	3.5	28.9

Period	SOV	HOV2	HOV3+	Total
AMSH	4.4	0.7	0.8	6.0
AMPK	3.0	0.6	0.7	4.4
MD	6.7	1.3	1.0	8.9
PMSH	3.4	0.8	0.4	4.5
PMPK	3.8	0.9	0.5	5.1
Daily	21.2	4.2	3.5	28.9

Period	SOV	HOV2	HOV3+	Total
AMSH	2.4	0.3	0.5	3.2
AMPK	2.3	0.5	0.6	3.3
MD	3.8	0.6	0.5	4.8
PMSH	2.4	0.4	0.2	3.0
PMPK	3.2	0.6	0.3	4.1
Daily	14.1	2.4	2.0	18.5

Period	SOV	HOV2	HOV3+	Total
AMSH	2.4	0.3	0.8	3.6
AMPK	2.3	0.5	1.1	3.8
MD	4.1	0.7	1.0	5.8
PMSH	3.1	0.6	0.5	4.3
PMPK	4.1	1.0	0.8	5.9
Daily	15.9	3.1	4.3	23.3

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

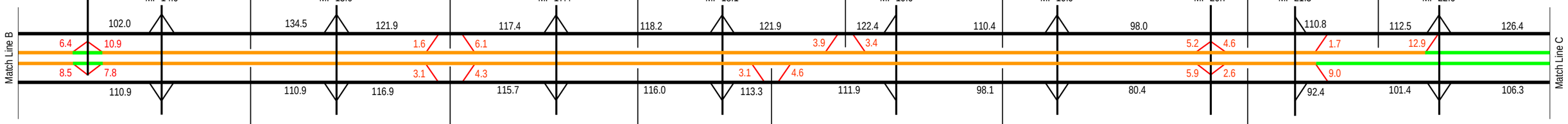
FINAL DRAFT

WilburSmith ASSOCIATES

2020 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 4
I-405 SOUTHERN SECTION

FIGURE A-4-1B

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	3.8	0.5	0.8	5.0
AMPK	3.2	0.5	0.9	4.7
MD	6.0	0.8	1.3	8.1
PMSH	2.8	0.5	0.5	3.8
PMPK	4.1	0.7	0.8	5.6
Daily	20.0	2.9	4.3	27.2

Period	SOV	HOV2	HOV3+	Total
AMSH	3.7	0.5	0.7	4.9
AMPK	3.2	0.5	0.9	4.7
MD	5.8	0.7	1.1	7.6
PMSH	2.6	0.4	0.4	3.3
PMPK	3.9	0.6	0.6	5.1
Daily	19.1	2.7	3.7	25.5

Period	SOV	HOV2	HOV3+	Total
AMSH	4.6	0.6	1.1	6.4
AMPK	3.9	0.7	1.4	6.0
MD	6.7	0.9	1.8	9.4
PMSH	2.8	0.4	0.6	3.8
PMPK	4.5	0.7	0.9	6.0
Daily	22.5	3.3	5.8	31.7

Period	SOV	HOV2	HOV3+	Total
AMSH	4.3	0.6	1.0	5.8
AMPK	3.6	0.6	1.3	5.4
MD	6.0	0.7	1.4	8.1
PMSH	2.5	0.3	0.4	3.2
PMPK	4.0	0.5	0.7	5.2
Daily	20.4	2.6	4.8	27.8

Period	SOV	HOV2	HOV3+	Total
AMSH	4.5	0.6	1.0	6.1
AMPK	3.7	0.6	1.3	5.7
MD	6.8	0.9	1.8	9.5
PMSH	2.8	0.3	0.5	3.7
PMPK	4.6	0.6	0.9	6.2
Daily	22.5	3.1	5.6	31.2

Period	SOV	HOV2	HOV3+	Total
AMSH	4.5	0.7	1.2	6.4
AMPK	3.7	0.7	1.3	5.7
MD	6.2	0.8	2.0	9.1
PMSH	2.3	0.3	0.6	3.3
PMPK	4.3	0.7	1.1	6.2
Daily	21.0	3.3	6.3	30.6

Period	SOV	HOV2	HOV3+	Total
AMSH	4.3	0.6	1.1	6.0
AMPK	3.4	0.7	1.2	5.3
MD	5.9	0.8	1.9	8.6
PMSH	2.2	0.3	0.6	3.1
PMPK	4.1	0.7	1.0	5.8
Daily	20.0	3.0	5.8	28.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	0.1	0.6	2.1
AMPK	0.9	0.1	0.6	1.6
MD	4.3	0.7	1.1	6.1
PMSH	4.2	0.8	0.5	5.6
PMPK	5.2	1.2	0.7	7.1
Daily	16.1	3.0	3.5	22.5

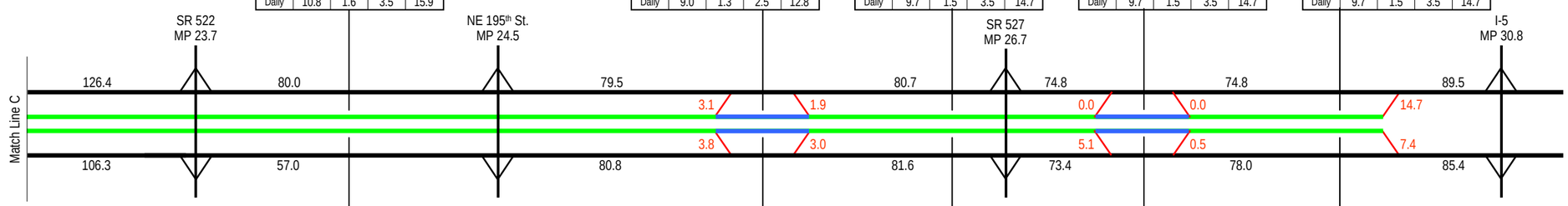
Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.1	0.3	1.3
AMPK	0.6	0.1	0.3	1.0
MD	3.8	0.6	0.8	5.3
PMSH	4.0	0.8	0.4	5.2
PMPK	4.9	1.1	0.6	6.5
Daily	14.4	2.7	2.4	19.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.1	0.6	1.6
AMPK	0.6	0.1	0.6	1.3
MD	4.2	0.8	1.4	6.3
PMSH	4.8	1.0	0.7	6.5
PMPK	5.7	1.4	0.9	8.0
Daily	16.2	3.4	4.1	23.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.1	0.4	1.2
AMPK	0.5	0.0	0.4	1.0
MD	3.7	0.6	1.0	5.3
PMSH	4.4	0.9	0.6	5.9
PMPK	5.3	1.1	0.7	7.1
Daily	14.7	2.7	3.1	20.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.1	0.5	1.4
AMPK	0.6	0.1	0.7	1.4
MD	4.4	0.8	1.4	6.5
PMSH	5.1	1.2	0.8	7.1
PMPK	6.2	1.5	1.1	8.7
Daily	17.1	3.6	4.5	25.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.1	0.6	1.4
AMPK	0.5	0.0	0.7	1.2
MD	3.9	0.7	1.3	5.8
PMSH	4.1	1.0	0.7	5.8
PMPK	5.2	1.3	1.1	7.6
Daily	14.4	3.1	4.4	21.8



Period	SOV	HOV2	HOV3+	Total
AMSH	2.2	0.3	0.7	3.2
AMPK	1.8	0.3	0.8	3.0
MD	3.0	0.4	1.0	4.4
PMSH	1.3	0.2	0.3	1.8
PMPK	2.5	0.5	0.6	3.6
Daily	10.8	1.6	3.5	15.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.2	0.4	2.3
AMPK	1.5	0.3	0.6	2.4
MD	2.5	0.3	0.7	3.5
PMSH	1.1	0.2	0.2	1.5
PMPK	2.2	0.4	0.5	3.1
Daily	9.0	1.3	2.5	12.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.2	0.5	2.5
AMPK	1.5	0.3	0.7	2.6
MD	2.6	0.3	1.1	4.0
PMSH	1.2	0.2	0.5	1.9
PMPK	2.6	0.5	0.7	3.8
Daily	9.7	1.5	3.5	14.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.2	0.5	2.4
AMPK	1.5	0.3	0.7	2.6
MD	2.6	0.3	1.1	4.0
PMSH	1.2	0.2	0.5	1.9
PMPK	2.6	0.5	0.7	3.8
Daily	9.7	1.5	3.5	14.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.2	0.5	2.4
AMPK	1.5	0.3	0.7	2.6
MD	2.6	0.3	1.1	4.0
PMSH	1.2	0.2	0.5	1.9
PMPK	2.6	0.5	0.7	3.8
Daily	9.7	1.5	3.5	14.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.0	0.4	0.8
AMPK	0.3	0.0	0.5	0.8
MD	2.4	0.4	0.7	3.5
PMSH	2.5	0.5	0.3	3.3
PMPK	3.2	0.7	0.5	4.4
Daily	8.8	1.7	2.3	12.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.0	0.3	0.7
AMPK	0.2	0.0	0.3	0.6
MD	2.0	0.3	0.5	2.8
PMSH	1.7	0.3	0.2	2.2
PMPK	2.0	0.5	0.3	2.9
Daily	6.1	1.2	1.7	9.0

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.0	0.6	1.0
AMPK	0.2	0.0	0.6	0.9
MD	2.7	0.6	1.1	4.4
PMSH	1.9	0.4	0.4	2.6
PMPK	2.1	0.6	0.5	3.2
Daily	7.2	1.6	3.3	12.0

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.0	0.3	0.5
AMPK	0.1	0.0	0.3	0.4
MD	1.4	0.3	0.6	2.3
PMSH	1.1	0.3	0.2	1.5
PMPK	1.6	0.4	0.3	2.3
Daily	4.3	1.0	1.6	6.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.2	0.0	0.4	0.6
AMPK	0.1	0.0	0.4	0.5
MD	1.4	0.3	0.7	2.4
PMSH	1.1	0.3	0.2	1.5
PMPK	1.6	0.4	0.4	2.4
Daily	4.3	1.0	2.1	7.4

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

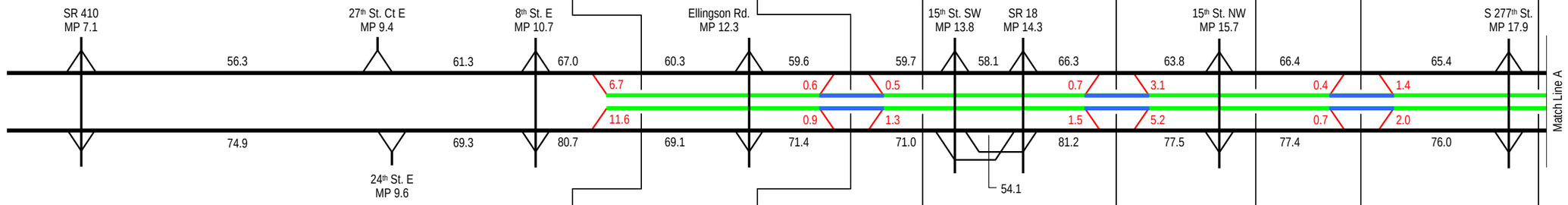
FINAL DRAFT

WilburSmith ASSOCIATES

2020 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 4
I-405 NORTHERN SECTION

FIGURE A-4-1C

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.0	0.2	0.6
AMPK	0.3	0.0	0.3	0.7
MD	1.1	0.3	0.6	2.0
PMSH	0.9	0.4	0.2	1.5
PMPK	1.3	0.6	0.2	2.1
Daily	3.9	1.3	1.5	6.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.0	0.1	0.5
AMPK	0.3	0.0	0.2	0.6
MD	1.1	0.3	0.4	1.8
PMSH	0.9	0.4	0.1	1.4
PMPK	1.3	0.5	0.1	2.0
Daily	3.9	1.2	1.0	6.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.0	0.2	0.5
AMPK	0.4	0.0	0.2	0.6
MD	1.2	0.3	0.5	1.9
PMSH	1.0	0.4	0.1	1.5
PMPK	1.4	0.6	0.2	2.1
Daily	4.3	1.3	1.1	6.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.0	0.1	0.5
AMPK	0.4	0.0	0.2	0.6
MD	1.1	0.2	0.4	1.7
PMSH	0.8	0.3	0.1	1.2
PMPK	1.3	0.5	0.1	1.9
Daily	4.0	1.1	0.9	6.0

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.0	0.3	0.8
AMPK	0.5	0.0	0.3	0.8
MD	1.6	0.3	0.6	2.6
PMSH	1.3	0.4	0.1	1.8
PMPK	2.1	0.7	0.2	3.0
Daily	6.0	1.4	1.6	9.0

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.0	0.2	0.7
AMPK	0.5	0.0	0.3	0.8
MD	1.6	0.3	0.5	2.4
PMSH	1.3	0.4	0.1	1.8
PMPK	2.1	0.6	0.2	2.9
Daily	6.0	1.4	1.3	8.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.0	0.3	0.9
AMPK	0.6	0.0	0.3	0.9
MD	1.8	0.3	0.6	2.8
PMSH	1.5	0.4	0.1	2.0
PMPK	2.5	0.7	0.2	3.4
Daily	6.9	1.5	1.6	10.0

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.4	0.6	2.7
AMPK	1.3	0.4	0.5	2.2
MD	1.7	0.6	0.8	3.1
PMSH	0.6	0.2	0.4	1.2
PMPK	1.3	0.5	0.5	2.4
Daily	6.7	2.2	2.7	11.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.4	0.4	2.4
AMPK	1.3	0.4	0.3	2.0
MD	1.7	0.6	0.6	2.9
PMSH	0.6	0.2	0.3	1.2
PMPK	1.3	0.5	0.4	2.3
Daily	6.6	2.1	2.0	10.7

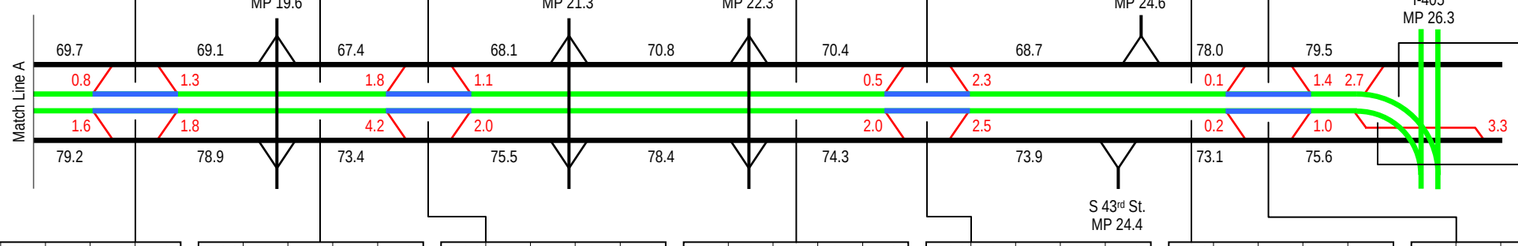
Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.4	0.4	2.7
AMPK	1.4	0.4	0.4	2.2
MD	2.0	0.6	0.7	3.3
PMSH	0.7	0.3	0.3	1.3
PMPK	1.5	0.6	0.4	2.6
Daily	7.4	2.4	2.2	12.0

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.4	0.3	2.2
AMPK	1.2	0.3	0.3	1.8
MD	1.9	0.5	0.5	2.9
PMSH	0.7	0.2	0.3	1.2
PMPK	1.4	0.6	0.4	2.3
Daily	6.7	2.1	1.7	10.5

Period	SOV	HOV2	HOV3+	Total
AMSH	2.3	0.5	0.5	3.2
AMPK	1.7	0.4	0.4	2.6
MD	2.9	0.7	0.8	4.5
PMSH	1.0	0.3	0.4	1.8
PMPK	2.2	0.8	0.6	3.6
Daily	10.2	2.7	2.8	15.7

Period	SOV	HOV2	HOV3+	Total
AMSH	2.2	0.4	0.4	3.1
AMPK	1.7	0.4	0.4	2.5
MD	2.9	0.7	0.7	4.4
PMSH	1.0	0.3	0.4	1.7
PMPK	2.1	0.7	0.5	3.4
Daily	10.0	2.6	2.4	15.0

Period	SOV	HOV2	HOV3+	Total
AMSH	2.4	0.5	0.5	3.4
AMPK	1.9	0.4	0.5	2.8
MD	3.3	0.8	0.9	5.0
PMSH	1.1	0.4	0.5	2.0
PMPK	2.4	0.8	0.7	3.9
Daily	11.1	3.0	3.0	17.0



Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.0	0.2	0.8
AMPK	0.6	0.0	0.2	0.8
MD	1.8	0.3	0.5	2.5
PMSH	1.4	0.4	0.1	1.9
PMPK	2.4	0.6	0.2	3.2
Daily	6.8	1.2	1.2	9.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.0	0.2	0.9
AMPK	0.7	0.0	0.3	1.0
MD	2.0	0.3	0.6	2.9
PMSH	1.6	0.4	0.1	2.1
PMPK	2.7	0.7	0.3	3.6
Daily	7.7	1.4	1.5	10.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.0	0.1	0.8
AMPK	0.7	0.0	0.2	0.8
MD	1.9	0.2	0.3	2.4
PMSH	1.4	0.3	0.1	1.8
PMPK	2.3	0.4	0.2	3.0
Daily	7.0	0.9	0.9	8.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.0	0.1	1.0
AMPK	0.7	0.0	0.2	0.9
MD	2.1	0.2	0.4	2.7
PMSH	1.6	0.3	0.1	2.0
PMPK	2.5	0.5	0.2	3.3
Daily	7.8	1.1	1.0	9.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.0	0.1	0.9
AMPK	0.7	0.0	0.2	0.9
MD	2.1	0.2	0.3	2.6
PMSH	1.5	0.3	0.1	1.9
PMPK	2.4	0.4	0.2	3.0
Daily	7.5	0.9	0.9	9.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.0	0.2	1.4
AMPK	1.0	0.0	0.4	1.3
MD	2.6	0.3	0.6	3.4
PMSH	1.7	0.3	0.2	2.1
PMPK	2.6	0.5	0.3	3.3
Daily	9.0	1.1	1.6	11.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.0	0.2	1.4
AMPK	1.0	0.0	0.3	1.3
MD	2.6	0.3	0.5	3.4
PMSH	1.6	0.3	0.2	2.1
PMPK	2.5	0.5	0.3	3.3
Daily	8.9	1.1	1.5	11.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.0	0.0	1.6
AMPK	1.2	0.0	0.1	1.3
MD	3.0	0.2	0.1	3.3
PMSH	1.4	0.2	0.1	1.7
PMPK	1.8	0.3	0.1	2.2
Daily	9.0	0.8	0.4	10.2

Period	SOV	HOV2	HOV3+	Total
AMSH	2.0	0.4	0.2	2.6
AMPK	1.3	0.3	0.2	1.8
MD	3.3	0.7	0.4	4.4
PMSH	1.3	0.3	0.1	1.7
PMPK	1.9	0.5	0.2	2.6
Daily	9.8	2.2	1.1	13.1

Period	SOV	HOV2	HOV3+	Total
AMSH	2.3	0.5	0.5	3.3
AMPK	1.7	0.4	0.4	2.6
MD	3.0	0.8	0.7	4.5
PMSH	1.0	0.3	0.4	1.8
PMPK	2.1	0.8	0.5	3.4
Daily	10.2	2.8	2.5	15.5

Period	SOV	HOV2	HOV3+	Total
AMSH	2.5	0.5	0.6	3.6
AMPK	1.9	0.5	0.5	2.9
MD	3.3	0.9	0.9	5.1
PMSH	1.1	0.4	0.5	2.0
PMPK	2.3	0.9	0.6	3.8
Daily	11.1	3.1	3.0	17.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.9	0.4	0.3	2.6
AMPK	1.4	0.4	0.3	2.1
MD	2.7	0.6	0.6	4.0
PMSH	0.9	0.3	0.3	1.6
PMPK	1.8	0.6	0.4	2.9
Daily	8.8	2.4	2.0	13.1

Period	SOV	HOV2	HOV3+	Total
AMSH	2.3	0.5	0.5	3.3
AMPK	1.6	0.4	0.5	2.5
MD	3.0	0.7	0.7	4.3
PMSH	1.1	0.4	0.4	1.8
PMPK	2.0	0.7	0.5	3.3
Daily	10.0	2.7	2.5	15.2

Period	SOV	HOV2	HOV3+	Total
AMSH	2.1	0.5	0.4	2.9
AMPK	1.4	0.4	0.4	2.2
MD	2.8	0.6	0.5	3.9
PMSH	1.0	0.3	0.2	1.5
PMPK	1.8	0.6	0.3	2.6
Daily	9.1	2.4	1.7	13.1

Period	SOV	HOV2	HOV3+	Total
AMSH	2.2	0.5	0.5	3.2
AMPK	1.5	0.4	0.5	2.4
MD	3.4	0.8	0.8	4.9
PMSH	1.2	0.4	0.3	1.9
PMPK	2.1	0.7	0.4	3.2
Daily	10.4	2.7	2.4	15.6

Period	SOV	HOV2	HOV3+	Total
AMSH	2.2	0.5	0.5	3.2
AMPK	1.5	0.4	0.4	2.4
MD	3.3	0.8	0.8	4.9
PMSH	1.2	0.4	0.3	1.8
PMPK	2.1	0.7	0.4	3.1
Daily	10.4	2.7	2.4	15.4

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

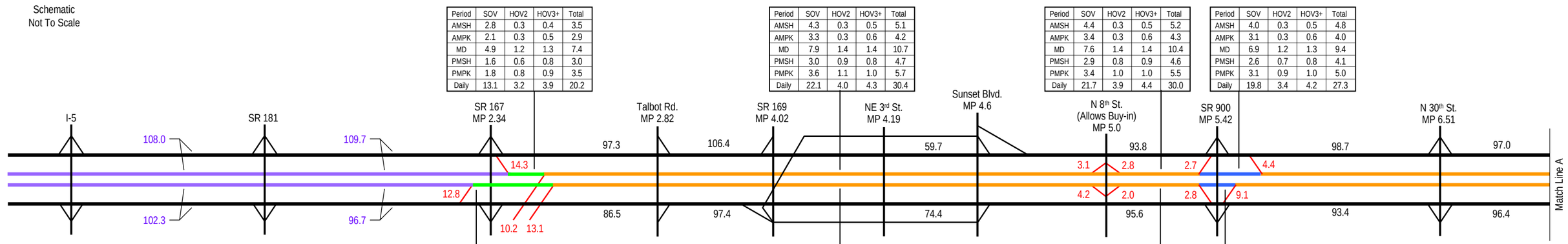
FINAL DRAFT

WilburSmith ASSOCIATES

2035 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 4
SR 167

FIGURE A-4-2A

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	2.8	0.3	0.4	3.5
AMPK	2.1	0.3	0.5	2.9
MD	4.9	1.2	1.3	7.4
PMSH	1.6	0.6	0.8	3.0
PMPK	1.8	0.8	0.9	3.5
Daily	13.1	3.2	3.9	20.2

Period	SOV	HOV2	HOV3+	Total
AMSH	4.3	0.3	0.5	5.1
AMPK	3.3	0.3	0.6	4.2
MD	7.9	1.4	1.4	10.7
PMSH	3.0	0.9	0.8	4.7
PMPK	3.6	1.1	1.0	5.7
Daily	22.1	4.0	4.3	30.4

Period	SOV	HOV2	HOV3+	Total
AMSH	4.4	0.3	0.5	5.2
AMPK	3.4	0.3	0.6	4.3
MD	7.6	1.4	1.4	10.4
PMSH	2.9	0.8	0.9	4.6
PMPK	3.4	1.0	1.0	5.5
Daily	21.7	3.9	4.4	30.0

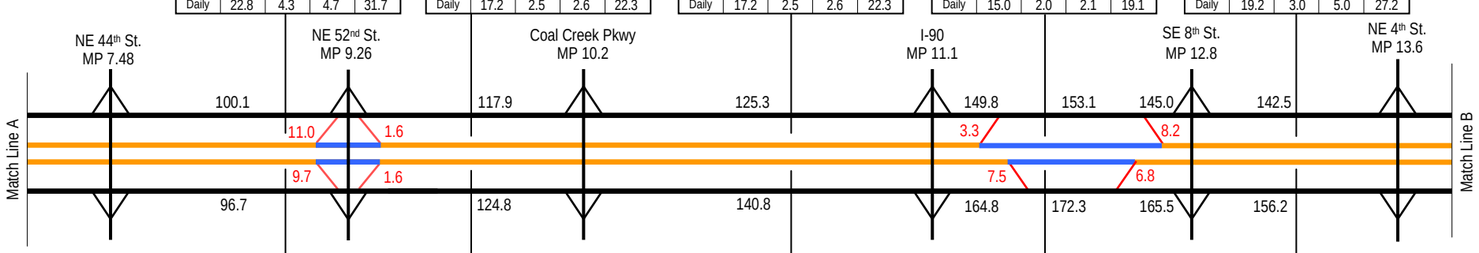
Period	SOV	HOV2	HOV3+	Total
AMSH	4.0	0.3	0.5	4.8
AMPK	3.1	0.3	0.6	4.0
MD	6.9	1.2	1.3	9.4
PMSH	2.6	0.7	0.8	4.1
PMPK	3.1	0.9	1.0	5.0
Daily	19.8	3.4	4.2	27.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.4	0.6	2.7
AMPK	0.8	0.3	0.5	1.6
MD	4.2	1.2	1.4	6.7
PMSH	2.2	0.7	0.6	3.5
PMPK	2.5	0.9	0.7	4.1
Daily	11.3	3.5	3.8	18.6

Period	SOV	HOV2	HOV3+	Total
AMSH	3.6	0.8	0.8	5.3
AMPK	2.1	0.6	0.7	3.4
MD	7.5	1.9	1.8	11.1
PMSH	3.5	1.1	0.7	5.2
PMPK	4.4	1.4	0.9	6.7
Daily	21.1	5.7	4.9	31.7

Period	SOV	HOV2	HOV3+	Total
AMSH	3.2	0.7	0.8	4.7
AMPK	1.8	0.6	0.7	3.1
MD	7.1	1.8	1.6	10.4
PMSH	3.4	1.0	0.6	5.0
PMPK	4.2	1.3	0.8	6.3
Daily	19.7	5.3	4.5	29.5

Period	SOV	HOV2	HOV3+	Total
AMSH	2.9	0.7	0.8	4.4
AMPK	1.6	0.5	0.6	2.8
MD	6.5	1.6	1.4	9.6
PMSH	3.1	0.9	0.5	4.5
PMPK	3.8	1.1	0.6	5.6
Daily	18.0	4.8	3.9	26.7



Period	SOV	HOV2	HOV3+	Total
AMSH	4.6	0.4	0.5	5.5
AMPK	3.6	0.4	0.6	4.6
MD	7.8	1.5	1.5	10.8
PMSH	3.1	0.9	0.9	4.9
PMPK	3.7	1.1	1.1	5.9
Daily	22.8	4.3	4.7	31.7

Period	SOV	HOV2	HOV3+	Total
AMSH	3.2	0.3	0.2	3.7
AMPK	2.6	0.3	0.2	3.1
MD	6.0	0.9	0.8	7.7
PMSH	2.4	0.5	0.6	3.5
PMPK	3.0	0.5	0.7	4.3
Daily	17.2	2.5	2.6	22.3

Period	SOV	HOV2	HOV3+	Total
AMSH	3.2	0.3	0.2	3.7
AMPK	2.6	0.3	0.2	3.1
MD	6.0	0.9	0.8	7.7
PMSH	2.4	0.5	0.6	3.5
PMPK	3.0	0.5	0.7	4.3
Daily	17.2	2.5	2.6	22.3

Period	SOV	HOV2	HOV3+	Total
AMSH	2.5	0.2	0.1	2.9
AMPK	2.4	0.2	0.2	2.8
MD	5.1	0.7	0.5	6.2
PMSH	2.2	0.3	0.6	3.1
PMPK	2.9	0.5	0.7	4.1
Daily	15.0	2.0	2.1	19.1

Period	SOV	HOV2	HOV3+	Total
AMSH	3.4	0.4	0.6	4.4
AMPK	2.9	0.4	0.7	4.0
MD	6.4	1.0	1.2	8.6
PMSH	2.7	0.5	1.1	4.3
PMPK	3.8	0.7	1.4	5.9
Daily	19.2	3.0	5.0	27.2

Period	SOV	HOV2	HOV3+	Total
AMSH	4.0	0.8	1.2	6.0
AMPK	2.2	0.6	0.9	3.7
MD	8.8	2.1	2.2	13.0
PMSH	3.9	1.2	0.9	6.0
PMPK	4.6	1.4	1.1	7.1
Daily	23.5	6.2	6.2	35.8

Period	SOV	HOV2	HOV3+	Total
AMSH	3.6	0.7	1.1	5.4
AMPK	2.1	0.6	0.9	3.6
MD	6.5	1.5	1.3	9.3
PMSH	2.9	0.9	0.5	4.3
PMPK	3.5	1.1	0.7	5.3
Daily	18.6	4.7	4.4	27.8

Period	SOV	HOV2	HOV3+	Total
AMSH	3.6	0.7	1.1	5.4
AMPK	2.1	0.6	0.9	3.6
MD	6.5	1.5	1.3	9.3
PMSH	2.9	0.9	0.5	4.3
PMPK	3.5	1.1	0.7	5.3
Daily	18.6	4.7	4.4	27.8

Period	SOV	HOV2	HOV3+	Total
AMSH	2.6	0.5	0.8	3.9
AMPK	1.9	0.5	0.8	3.2
MD	4.5	0.9	0.7	6.1
PMSH	2.2	0.5	0.3	3.0
PMPK	2.9	0.7	0.4	4.1
Daily	14.1	3.0	3.1	20.2

Period	SOV	HOV2	HOV3+	Total
AMSH	2.7	0.5	1.3	4.6
AMPK	2.1	0.5	1.5	4.1
MD	5.5	1.1	1.6	8.2
PMSH	2.7	0.7	0.8	4.2
PMPK	3.6	1.1	1.2	5.9
Daily	16.7	3.9	6.3	27.0

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0	General Purpose Mainline Total Daily Volumes (includes night)
0.0	Managed Lane Ramp Total Daily Volumes (does not include night)
0.0	General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)
AMSH	(AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK	(AM Peak) 6:30-8:30 AM
MD	(Midday) 9:30 AM-2:30 PM
PMSH	(PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK	(PM Peak) 3:30-6:30 PM
Daily	Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

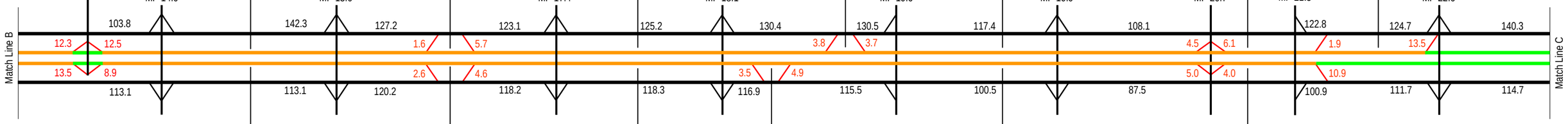
FINAL DRAFT

WilburSmith ASSOCIATES

2035 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 4
I-405 SOUTHERN SECTION

FIGURE A-4-2B

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	3.4	0.5	0.7	4.6
AMPK	2.1	0.3	0.7	3.0
MD	6.6	1.1	1.4	9.1
PMSH	2.5	0.6	0.8	3.9
PMPK	4.5	1.1	1.1	6.7
Daily	19.2	3.5	4.7	27.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.2	0.5	2.0
AMPK	1.2	0.2	0.6	2.0
MD	4.6	0.9	1.1	6.5
PMSH	3.3	0.9	0.7	4.9
PMPK	4.6	1.4	1.0	6.9
Daily	15.0	3.5	3.8	22.4

Period	SOV	HOV2	HOV3+	Total
AMSH	3.4	0.5	0.6	4.5
AMPK	2.0	0.3	0.6	3.0
MD	6.4	1.0	1.2	8.6
PMSH	2.3	0.5	0.7	3.6
PMPK	4.2	0.9	1.0	6.2
Daily	18.4	3.3	4.2	25.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.1	0.3	1.5
AMPK	1.1	0.1	0.5	1.7
MD	4.1	0.8	0.8	5.7
PMSH	3.2	0.9	0.5	4.6
PMPK	4.3	1.3	0.7	6.3
Daily	13.7	3.3	2.8	19.8

Period	SOV	HOV2	HOV3+	Total
AMSH	4.0	0.6	1.0	5.5
AMPK	2.3	0.4	1.1	3.7
MD	7.5	1.2	1.9	10.5
PMSH	2.6	0.6	1.0	4.2
PMPK	5.0	1.1	1.4	7.5
Daily	21.4	3.8	6.3	31.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.2	0.6	1.9
AMPK	1.2	0.2	0.6	2.0
MD	4.6	1.0	1.5	7.1
PMSH	3.6	1.1	1.0	5.7
PMPK	4.8	1.6	1.2	7.6
Daily	15.4	4.1	4.9	24.4

Period	SOV	HOV2	HOV3+	Total
AMSH	3.7	0.5	0.8	5.1
AMPK	2.2	0.3	0.9	3.5
MD	6.7	1.0	1.5	9.2
PMSH	2.3	0.4	0.8	3.6
PMPK	4.3	0.8	1.2	6.3
Daily	19.3	3.1	5.3	27.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.1	0.4	1.5
AMPK	1.1	0.1	0.5	1.7
MD	4.0	0.8	1.0	5.8
PMSH	3.3	1.0	0.8	5.1
PMPK	4.4	1.4	1.0	6.8
Daily	13.8	3.4	3.7	20.8

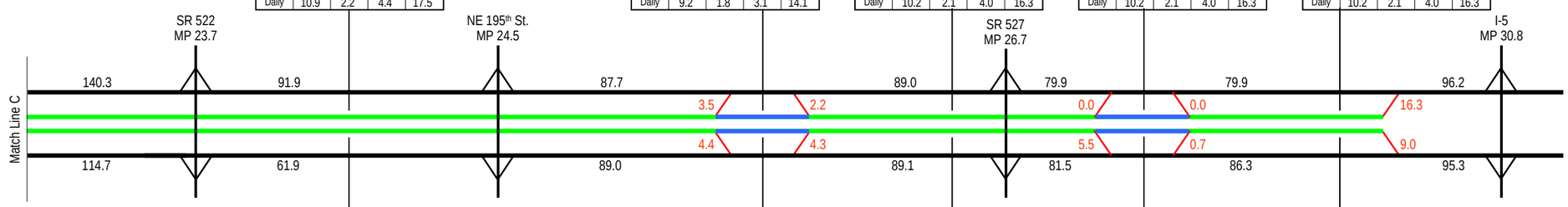
Period	SOV	HOV2	HOV3+	Total
AMSH	3.9	0.5	0.9	5.3
AMPK	2.3	0.4	1.0	3.7
MD	7.6	1.2	1.9	10.7
PMSH	2.7	0.5	1.0	4.2
PMPK	5.0	1.0	1.4	7.4
Daily	21.6	3.6	6.2	31.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.1	0.6	1.8
AMPK	1.2	0.2	0.7	2.1
MD	4.6	1.0	1.4	7.0
PMSH	4.0	1.3	1.0	6.2
PMPK	5.4	1.8	1.3	8.6
Daily	16.3	4.4	5.1	25.8

Period	SOV	HOV2	HOV3+	Total
AMSH	4.0	0.6	1.1	5.7
AMPK	2.4	0.5	1.1	4.0
MD	7.6	1.3	2.4	11.4
PMSH	2.6	0.6	1.1	4.2
PMPK	4.9	1.1	1.7	7.7
Daily	21.5	4.1	7.4	33.0

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.1	0.6	1.7
AMPK	1.2	0.1	0.8	2.1
MD	4.3	1.0	1.8	7.0
PMSH	3.6	1.2	0.9	5.7
PMPK	5.1	1.7	1.4	8.3
Daily	15.2	4.1	5.5	24.8

Period	SOV	HOV2	HOV3+	Total
AMSH	3.8	0.6	1.0	5.4
AMPK	2.3	0.4	1.0	3.8
MD	7.2	1.3	2.3	10.8
PMSH	2.4	0.5	1.0	4.0
PMPK	4.6	1.0	1.6	7.2
Daily	20.4	3.8	6.8	31.0



Period	SOV	HOV2	HOV3+	Total
AMSH	1.9	0.3	0.6	2.7
AMPK	1.3	0.2	0.7	2.2
MD	3.7	0.7	1.4	5.7
PMSH	1.5	0.4	0.7	2.5
PMPK	2.6	0.6	1.1	4.3
Daily	10.9	2.2	4.4	17.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.1	0.4	1.0
AMPK	0.9	0.1	0.6	1.5
MD	2.5	0.5	0.8	3.9
PMSH	2.1	0.6	0.4	3.0
PMPK	2.9	0.9	0.7	4.4
Daily	8.9	2.2	2.8	13.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.2	0.3	2.0
AMPK	1.1	0.2	0.5	1.8
MD	3.0	0.5	1.0	4.5
PMSH	1.3	0.3	0.5	2.1
PMPK	2.3	0.5	0.8	3.7
Daily	9.2	1.8	3.1	14.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.1	0.3	0.9
AMPK	0.7	0.1	0.3	1.1
MD	2.0	0.4	0.6	2.9
PMSH	1.3	0.3	0.3	1.9
PMPK	1.7	0.6	0.4	2.7
Daily	6.2	1.5	1.9	9.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.2	0.4	2.2
AMPK	1.1	0.2	0.6	2.0
MD	3.2	0.6	1.2	4.9
PMSH	1.6	0.4	0.7	2.7
PMPK	2.7	0.6	1.1	4.5
Daily	10.2	2.1	4.0	16.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.1	0.7	1.5
AMPK	1.2	0.2	0.7	2.1
MD	2.8	0.6	1.3	4.7
PMSH	1.4	0.4	0.5	2.3
PMPK	1.8	0.7	0.7	3.2
Daily	7.9	2.1	3.9	13.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.2	0.4	2.2
AMPK	1.1	0.2	0.6	2.0
MD	3.2	0.6	1.2	4.9
PMSH	1.6	0.4	0.7	2.7
PMPK	2.7	0.6	1.1	4.5
Daily	10.2	2.1	4.0	16.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.1	0.4	0.9
AMPK	0.7	0.1	0.4	1.2
MD	1.6	0.4	0.7	2.7
PMSH	0.8	0.3	0.2	1.3
PMPK	1.4	0.4	0.4	2.2
Daily	4.8	1.3	2.1	8.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.2	0.4	2.2
AMPK	1.1	0.2	0.6	2.0
MD	3.2	0.6	1.2	4.9
PMSH	1.6	0.4	0.7	2.7
PMPK	2.7	0.6	1.1	4.5
Daily	10.2	2.1	4.0	16.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.1	0.6	1.0
AMPK	0.7	0.1	0.5	1.3
MD	1.6	0.4	1.0	2.9
PMSH	0.8	0.3	0.3	1.4
PMPK	1.4	0.4	0.5	2.3
Daily	4.8	1.3	2.8	9.0

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

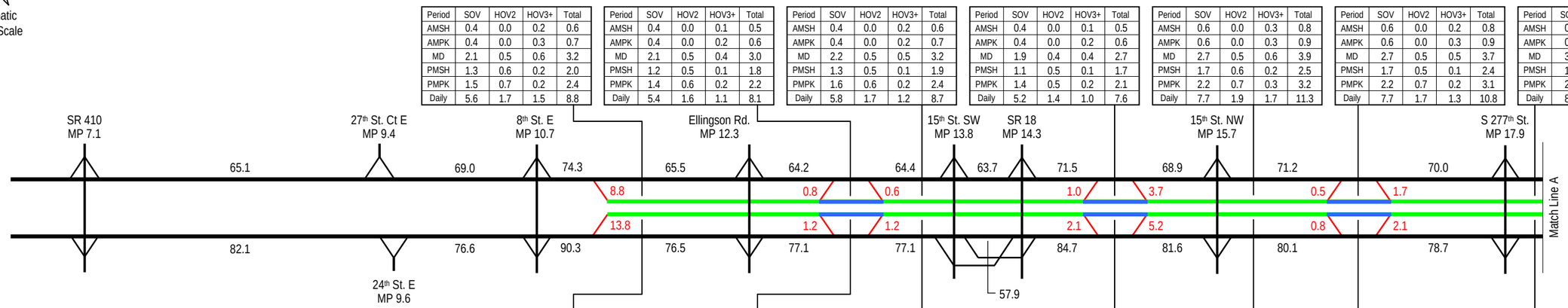
FINAL DRAFT

WilburSmith ASSOCIATES

2035 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 4
I-405 NORTHERN SECTION

FIGURE A-4-2C

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.0	0.2	0.6
AMPK	0.4	0.0	0.3	0.7
MD	2.1	0.5	0.6	3.2
PMSH	1.3	0.6	0.2	2.0
PMPK	1.5	0.7	0.2	2.4
Daily	5.6	1.7	1.5	8.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.0	0.1	0.5
AMPK	0.4	0.0	0.2	0.6
MD	2.1	0.5	0.4	3.0
PMSH	1.2	0.5	0.1	1.8
PMPK	1.4	0.6	0.2	2.2
Daily	5.4	1.6	1.1	8.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.0	0.2	0.6
AMPK	0.4	0.0	0.2	0.7
MD	2.2	0.5	0.5	3.2
PMSH	1.3	0.5	0.1	1.9
PMPK	1.6	0.6	0.2	2.4
Daily	5.8	1.7	1.2	8.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.0	0.1	0.5
AMPK	0.4	0.0	0.2	0.6
MD	1.9	0.4	0.4	2.7
PMSH	1.1	0.5	0.1	1.7
PMPK	1.4	0.5	0.2	2.1
Daily	5.2	1.4	1.0	7.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.0	0.3	0.8
AMPK	0.6	0.0	0.3	0.9
MD	2.7	0.5	0.6	3.9
PMSH	1.7	0.6	0.2	2.5
PMPK	2.2	0.7	0.3	3.2
Daily	7.7	1.9	1.7	11.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.0	0.2	0.8
AMPK	0.6	0.0	0.3	0.9
MD	2.7	0.5	0.5	3.7
PMSH	1.7	0.5	0.1	2.4
PMPK	2.2	0.7	0.2	3.1
Daily	7.7	1.7	1.3	10.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.0	0.3	0.9
AMPK	0.6	0.0	0.3	1.0
MD	3.1	0.6	0.7	4.3
PMSH	1.9	0.6	0.2	2.7
PMPK	2.5	0.7	0.3	3.6
Daily	8.8	1.9	1.8	12.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.4	0.6	2.8
AMPK	1.4	0.4	0.5	2.2
MD	3.0	0.8	0.8	4.6
PMSH	0.9	0.3	0.3	1.5
PMPK	1.6	0.7	0.4	2.7
Daily	8.7	2.6	2.5	13.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.4	0.4	2.4
AMPK	1.3	0.3	0.3	2.0
MD	2.8	0.7	0.6	4.1
PMSH	0.9	0.3	0.3	1.4
PMPK	1.6	0.7	0.3	2.6
Daily	8.3	2.5	1.8	12.6

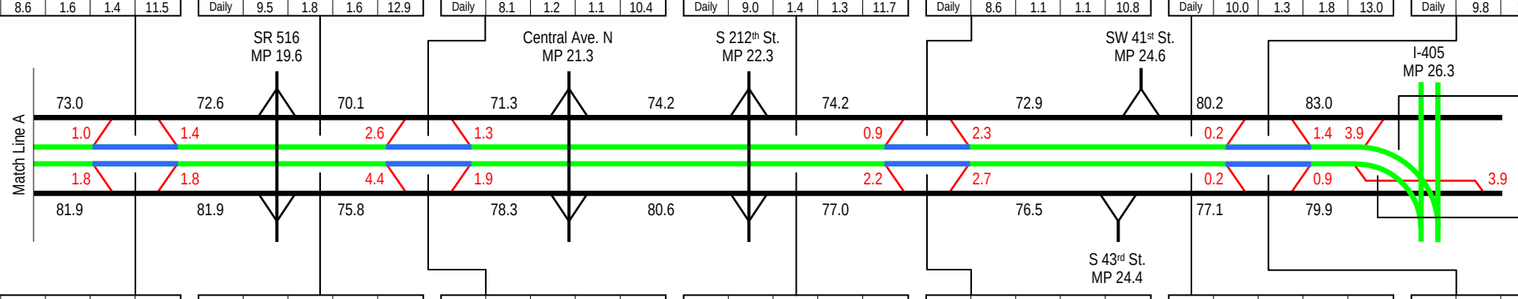
Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.4	0.4	2.6
AMPK	1.4	0.3	0.3	2.1
MD	3.1	0.8	0.6	4.5
PMSH	1.0	0.4	0.3	1.6
PMPK	1.8	0.8	0.4	3.0
Daily	9.1	2.8	2.0	13.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.3	0.3	2.1
AMPK	1.1	0.3	0.2	1.7
MD	2.7	0.7	0.5	3.8
PMSH	0.9	0.4	0.2	1.5
PMPK	1.6	0.7	0.3	2.6
Daily	7.9	2.3	1.6	11.7

Period	SOV	HOV2	HOV3+	Total
AMSH	2.0	0.4	0.5	2.9
AMPK	1.6	0.3	0.4	2.3
MD	3.9	0.9	0.9	5.6
PMSH	1.4	0.5	0.3	2.2
PMPK	2.5	0.9	0.5	3.9
Daily	11.3	3.0	2.7	17.0

Period	SOV	HOV2	HOV3+	Total
AMSH	2.0	0.3	0.5	2.8
AMPK	1.5	0.3	0.4	2.2
MD	3.8	0.8	0.7	5.3
PMSH	1.3	0.5	0.3	2.1
PMPK	2.4	0.9	0.4	3.7
Daily	11.0	2.8	2.3	16.2

Period	SOV	HOV2	HOV3+	Total
AMSH	2.2	0.4	0.5	3.1
AMPK	1.7	0.4	0.4	2.5
MD	4.2	0.9	0.9	6.1
PMSH	1.5	0.5	0.4	2.4
PMPK	2.6	1.0	0.6	4.2
Daily	12.2	3.1	2.9	18.3



Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.0	0.2	0.8
AMPK	0.6	0.0	0.2	0.9
MD	2.9	0.4	0.5	3.9
PMSH	1.9	0.5	0.2	2.5
PMPK	2.5	0.6	0.3	3.4
Daily	8.6	1.6	1.4	11.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.0	0.2	1.0
AMPK	0.7	0.0	0.3	1.1
MD	3.2	0.5	0.6	4.3
PMSH	2.1	0.5	0.2	2.8
PMPK	2.7	0.7	0.3	3.8
Daily	9.5	1.8	1.6	12.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.0	0.1	0.9
AMPK	0.7	0.0	0.2	0.9
MD	2.7	0.3	0.4	3.4
PMSH	1.7	0.4	0.2	2.2
PMPK	2.3	0.5	0.3	3.0
Daily	8.1	1.2	1.1	10.4

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.0	0.1	1.0
AMPK	0.8	0.0	0.2	1.0
MD	2.9	0.4	0.4	3.7
PMSH	1.9	0.4	0.2	2.5
PMPK	2.5	0.6	0.3	3.4
Daily	9.0	1.4	1.3	11.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.0	0.1	1.0
AMPK	0.8	0.0	0.2	1.0
MD	2.8	0.3	0.4	3.4
PMSH	1.8	0.3	0.2	2.3
PMPK	2.3	0.5	0.3	3.1
Daily	8.6	1.1	1.1	10.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.0	0.2	1.4
AMPK	1.0	0.0	0.3	1.4
MD	3.3	0.4	0.6	4.3
PMSH	1.9	0.4	0.2	2.5
PMPK	2.5	0.5	0.4	3.4
Daily	10.0	1.3	1.8	13.0

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.0	0.2	1.4
AMPK	1.0	0.0	0.3	1.4
MD	3.2	0.4	0.6	4.2
PMSH	1.9	0.4	0.2	2.5
PMPK	2.5	0.5	0.3	3.3
Daily	9.8	1.3	1.7	12.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.0	0.0	1.6
AMPK	1.3	0.0	0.1	1.4
MD	3.0	0.3	0.1	3.4
PMSH	1.4	0.3	0.1	1.8
PMPK	1.7	0.3	0.1	2.1
Daily	9.0	0.9	0.4	10.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.3	0.2	2.3
AMPK	1.3	0.3	0.2	1.7
MD	3.6	0.7	0.4	4.6
PMSH	1.5	0.4	0.2	2.1
PMPK	2.0	0.5	0.2	2.7
Daily	10.2	2.1	1.2	13.5

Period	SOV	HOV2	HOV3+	Total
AMSH	2.1	0.4	0.5	3.0
AMPK	1.6	0.3	0.4	2.3
MD	3.8	0.9	0.7	5.3
PMSH	1.3	0.5	0.4	2.2
PMPK	2.3	0.8	0.5	3.6
Daily	11.1	2.9	2.5	16.5

Period	SOV	HOV2	HOV3+	Total
AMSH	2.3	0.4	0.6	3.3
AMPK	1.8	0.4	0.5	2.6
MD	4.1	0.9	0.9	5.9
PMSH	1.4	0.5	0.4	2.4
PMPK	2.5	0.9	0.6	4.0
Daily	12.1	3.2	3.0	18.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.3	0.4	2.5
AMPK	1.4	0.3	0.3	2.0
MD	3.3	0.7	0.6	4.5
PMSH	1.2	0.4	0.3	1.9
PMPK	1.9	0.6	0.4	3.0
Daily	9.6	2.3	2.0	13.8

Period	SOV	HOV2	HOV3+	Total
AMSH	2.1	0.4	0.5	3.0
AMPK	1.6	0.4	0.4	2.3
MD	3.5	0.7	0.7	4.9
PMSH	1.3	0.4	0.3	2.1
PMPK	2.2	0.7	0.5	3.4
Daily	10.7	2.6	2.4	15.7

Period	SOV	HOV2	HOV3+	Total
AMSH	2.0	0.4	0.4	2.7
AMPK	1.4	0.3	0.3	2.1
MD	3.2	0.7	0.4	4.3
PMSH	1.2	0.4	0.2	1.8
PMPK	1.8	0.6	0.3	2.7
Daily	9.6	2.3	1.7	13.6

Period	SOV	HOV2	HOV3+	Total
AMSH	2.1	0.4	0.5	2.9
AMPK	1.5	0.4	0.4	2.3
MD	3.8	0.8	0.8	5.4
PMSH	1.5	0.5	0.4	2.4
PMPK	2.2	0.7	0.5	3.4
Daily	11.0	2.7	2.6	16.3

Period	SOV	HOV2	HOV3+	Total
AMSH	2.1	0.4	0.4	2.9
AMPK	1.5	0.4	0.4	2.2
MD	3.7	0.8	0.8	5.3
PMSH	1.5	0.5	0.4	2.3
PMPK	2.2	0.7	0.5	3.4
Daily	10.9	2.7	2.5	16.1

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

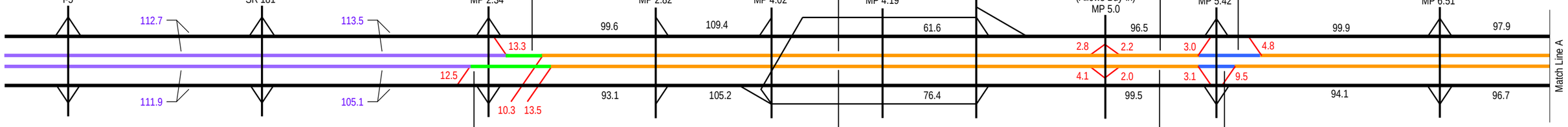
FINAL DRAFT

WilburSmith ASSOCIATES

2045 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 4
SR 167

FIGURE A-4-3A

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	2.7	0.3	0.4	3.5
AMPK	1.9	0.3	0.5	2.7
MD	3.9	1.0	1.4	6.4
PMSH	1.8	0.7	0.9	3.3
PMPK	1.7	0.8	1.0	3.5
Daily	12.0	3.1	4.3	19.4

Period	SOV	HOV2	HOV3+	Total
AMSH	4.3	0.3	0.5	5.1
AMPK	3.2	0.3	0.6	4.1
MD	6.9	1.3	1.5	9.7
PMSH	3.2	1.0	0.9	5.1
PMPK	3.4	1.1	1.1	5.6
Daily	21.0	4.0	4.7	29.6

Period	SOV	HOV2	HOV3+	Total
AMSH	4.4	0.4	0.5	5.3
AMPK	3.2	0.3	0.6	4.2
MD	6.5	1.2	1.5	9.3
PMSH	3.0	0.9	1.0	4.8
PMPK	3.3	1.0	1.2	5.5
Daily	20.5	3.7	4.9	29.0

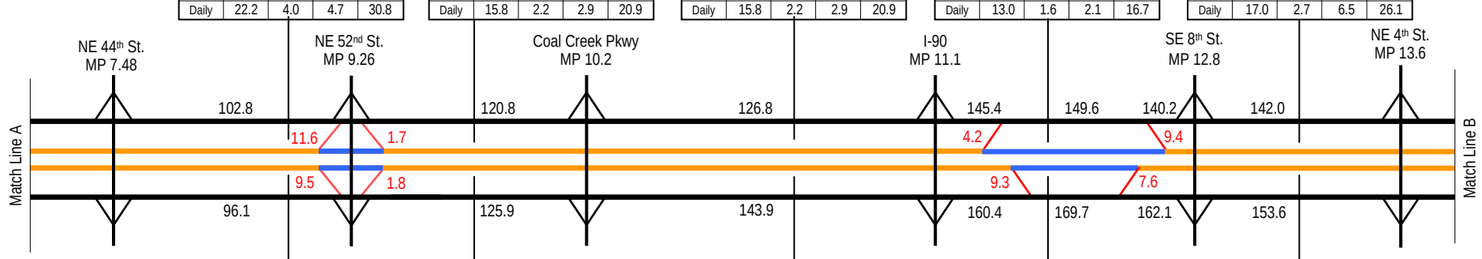
Period	SOV	HOV2	HOV3+	Total
AMSH	4.0	0.3	0.5	4.8
AMPK	3.0	0.3	0.6	3.8
MD	5.9	1.0	1.3	8.2
PMSH	2.7	0.7	0.8	4.2
PMPK	3.0	0.9	1.0	4.9
Daily	18.6	3.2	4.2	26.0

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	0.3	0.8	2.5
AMPK	0.9	0.2	0.6	1.8
MD	4.5	1.2	1.7	7.3
PMSH	2.2	0.7	0.7	3.6
PMPK	2.1	0.8	0.9	3.7
Daily	11.0	3.3	4.7	19.0

Period	SOV	HOV2	HOV3+	Total
AMSH	3.2	0.6	1.0	4.9
AMPK	2.2	0.5	0.8	3.5
MD	8.1	1.9	2.1	12.0
PMSH	3.7	1.1	0.8	5.7
PMPK	4.0	1.3	1.1	6.4
Daily	21.2	5.4	5.9	32.5

Period	SOV	HOV2	HOV3+	Total
AMSH	2.8	0.6	1.0	4.4
AMPK	1.8	0.5	0.8	3.1
MD	7.4	1.7	1.9	11.0
PMSH	3.7	1.1	0.8	5.5
PMPK	4.0	1.2	1.0	6.1
Daily	19.8	4.9	5.6	30.3

Period	SOV	HOV2	HOV3+	Total
AMSH	2.7	0.5	0.9	4.1
AMPK	1.6	0.5	0.7	2.8
MD	6.9	1.5	1.6	9.9
PMSH	3.4	1.0	0.5	4.9
PMPK	3.7	1.1	0.6	5.4
Daily	18.3	4.5	4.4	27.2



Period	SOV	HOV2	HOV3+	Total
AMSH	4.7	0.4	0.5	5.5
AMPK	3.5	0.3	0.6	4.4
MD	6.7	1.2	1.5	9.4
PMSH	3.4	0.9	0.9	5.3
PMPK	3.9	1.1	1.1	6.2
Daily	22.2	4.0	4.7	30.8

Period	SOV	HOV2	HOV3+	Total
AMSH	3.0	0.3	0.2	3.4
AMPK	2.4	0.2	0.2	2.9
MD	4.9	0.7	0.9	6.4
PMSH	2.5	0.4	0.7	3.7
PMPK	3.1	0.6	0.9	4.6
Daily	15.8	2.2	2.9	20.9

Period	SOV	HOV2	HOV3+	Total
AMSH	3.0	0.3	0.2	3.4
AMPK	2.4	0.2	0.2	2.9
MD	4.9	0.7	0.9	6.4
PMSH	2.5	0.4	0.7	3.7
PMPK	3.1	0.6	0.9	4.6
Daily	15.8	2.2	2.9	20.9

Period	SOV	HOV2	HOV3+	Total
AMSH	2.2	0.2	0.1	2.4
AMPK	1.9	0.2	0.1	2.1
MD	3.9	0.4	0.4	4.7
PMSH	2.1	0.3	0.6	3.1
PMPK	2.9	0.5	0.9	4.3
Daily	13.0	1.6	2.1	16.7

Period	SOV	HOV2	HOV3+	Total
AMSH	3.0	0.4	0.6	4.0
AMPK	2.5	0.3	0.7	3.5
MD	4.8	0.7	1.5	7.0
PMSH	2.7	0.5	1.6	4.8
PMPK	3.9	0.8	2.0	6.7
Daily	17.0	2.7	6.5	26.1

Period	SOV	HOV2	HOV3+	Total
AMSH	3.8	0.7	1.2	5.7
AMPK	2.2	0.5	1.0	3.7
MD	9.4	2.0	2.2	13.6
PMSH	4.3	1.3	0.9	6.6
PMPK	4.6	1.4	1.1	7.1
Daily	24.3	5.9	6.5	36.6

Period	SOV	HOV2	HOV3+	Total
AMSH	3.6	0.6	1.2	5.4
AMPK	2.1	0.5	1.0	3.6
MD	6.9	1.5	1.5	9.9
PMSH	3.1	0.9	0.6	4.7
PMPK	3.4	1.1	0.9	5.4
Daily	19.2	4.7	5.1	29.0

Period	SOV	HOV2	HOV3+	Total
AMSH	3.6	0.6	1.2	5.4
AMPK	2.1	0.5	1.0	3.6
MD	6.9	1.5	1.5	9.9
PMSH	3.1	0.9	0.6	4.7
PMPK	3.4	1.1	0.9	5.4
Daily	19.2	4.7	5.1	29.0

Period	SOV	HOV2	HOV3+	Total
AMSH	2.6	0.4	0.9	3.9
AMPK	2.0	0.4	0.9	3.3
MD	4.5	0.8	0.7	6.0
PMSH	2.2	0.4	0.3	2.9
PMPK	2.6	0.6	0.3	3.5
Daily	13.9	2.6	3.2	19.7

Period	SOV	HOV2	HOV3+	Total
AMSH	2.7	0.5	1.6	4.8
AMPK	2.1	0.5	1.7	4.3
MD	5.8	1.0	1.7	8.5
PMSH	3.0	0.7	0.7	4.4
PMPK	3.4	0.9	1.0	5.3
Daily	17.0	3.5	6.7	27.3

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH	(AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK	(AM Peak) 6:30-8:30 AM
MD	(Midday) 9:30 AM-2:30 PM
PMSH	(PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK	(PM Peak) 3:30-6:30 PM
Daily	Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

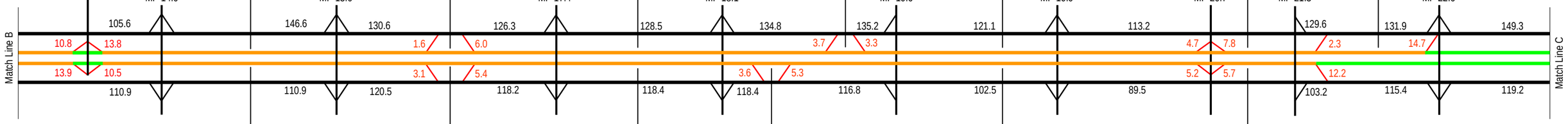
FINAL DRAFT

WilburSmith ASSOCIATES

2045 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 4
I-405 SOUTHERN SECTION

FIGURE A-4-3B

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	3.3	0.5	0.7	4.4
AMPK	2.5	0.4	0.7	3.6
MD	6.1	1.1	1.9	9.1
PMSH	2.8	0.7	1.3	4.9
PMPK	4.2	1.1	1.8	7.0
Daily	19.0	3.8	6.3	29.1

Period	SOV	HOV2	HOV3+	Total
AMSH	3.2	0.5	0.6	4.3
AMPK	2.5	0.4	0.6	3.5
MD	5.9	1.0	1.7	8.6
PMSH	2.6	0.7	1.2	4.5
PMPK	4.0	1.0	1.6	6.5
Daily	18.3	3.5	5.7	27.4

Period	SOV	HOV2	HOV3+	Total
AMSH	3.9	0.6	1.0	5.4
AMPK	2.9	0.5	1.0	4.4
MD	6.9	1.3	2.4	10.6
PMSH	3.0	0.7	1.5	5.3
PMPK	4.6	1.1	2.1	7.7
Daily	21.3	4.2	8.0	33.4

Period	SOV	HOV2	HOV3+	Total
AMSH	3.6	0.5	0.8	4.9
AMPK	2.7	0.4	0.9	4.0
MD	6.3	1.1	2.1	9.5
PMSH	2.7	0.6	1.4	4.6
PMPK	4.0	0.8	1.9	6.7
Daily	19.3	3.4	7.1	29.8

Period	SOV	HOV2	HOV3+	Total
AMSH	3.7	0.5	0.9	5.1
AMPK	2.8	0.5	0.9	4.2
MD	7.2	1.3	2.4	10.9
PMSH	3.0	0.7	1.6	5.2
PMPK	4.6	1.0	2.1	7.6
Daily	21.3	3.9	7.8	33.0

Period	SOV	HOV2	HOV3+	Total
AMSH	3.8	0.7	1.4	5.8
AMPK	2.8	0.6	1.3	4.7
MD	7.4	1.5	3.2	12.2
PMSH	2.9	0.7	1.8	5.4
PMPK	4.4	1.1	2.5	8.0
Daily	21.4	4.5	10.2	36.1

Period	SOV	HOV2	HOV3+	Total
AMSH	3.6	0.6	1.3	5.5
AMPK	2.7	0.5	1.2	4.4
MD	7.0	1.4	3.1	11.5
PMSH	2.7	0.6	1.7	5.1
PMPK	4.1	1.0	2.3	7.4
Daily	20.1	4.2	9.5	33.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.1	0.6	2.0
AMPK	1.1	0.1	0.6	1.9
MD	5.1	0.9	1.2	7.3
PMSH	3.9	1.1	0.7	5.7
PMPK	4.5	1.4	1.1	7.0
Daily	15.8	3.7	4.3	23.8

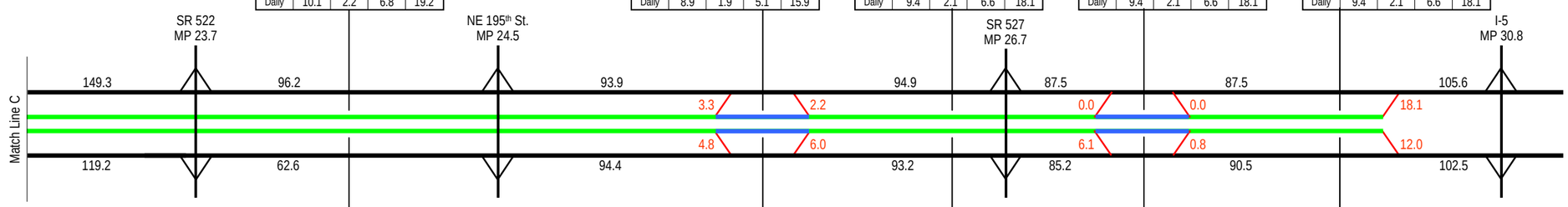
Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.1	0.4	1.5
AMPK	0.9	0.1	0.4	1.5
MD	4.6	0.9	0.9	6.3
PMSH	3.6	1.0	0.5	5.2
PMPK	4.2	1.3	0.8	6.3
Daily	14.3	3.4	3.0	20.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.1	0.6	1.8
AMPK	1.1	0.1	0.6	1.8
MD	5.3	1.2	1.7	8.2
PMSH	4.2	1.3	1.1	6.5
PMPK	4.7	1.6	1.4	7.7
Daily	16.4	4.3	5.4	26.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.1	0.5	1.5
AMPK	0.9	0.1	0.5	1.5
MD	4.6	0.9	1.2	6.7
PMSH	3.9	1.1	0.9	5.8
PMPK	4.4	1.4	1.1	6.9
Daily	14.7	3.6	4.2	22.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.1	0.6	1.8
AMPK	1.1	0.1	0.7	2.0
MD	5.4	1.2	1.6	8.3
PMSH	4.6	1.5	1.1	7.2
PMPK	5.3	1.8	1.5	8.6
Daily	17.5	4.7	5.6	27.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.1	0.9	2.1
AMPK	1.2	0.1	0.9	2.3
MD	5.3	1.2	2.3	8.7
PMSH	4.3	1.4	1.2	6.8
PMPK	5.0	1.7	1.7	8.4
Daily	16.7	4.5	7.1	28.3



Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.3	0.9	2.7
AMPK	1.3	0.3	0.9	2.4
MD	3.6	0.8	2.1	6.6
PMSH	1.5	0.4	1.3	3.1
PMPK	2.1	0.5	1.7	4.3
Daily	10.1	2.2	6.8	19.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.2	0.5	2.0
AMPK	1.1	0.2	0.6	2.0
MD	3.1	0.7	1.5	5.3
PMSH	1.4	0.3	1.1	2.8
PMPK	2.0	0.4	1.4	3.8
Daily	8.9	1.9	5.1	15.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.2	0.7	2.2
AMPK	1.2	0.3	0.7	2.1
MD	3.4	0.7	1.7	5.8
PMSH	1.6	0.4	1.5	3.5
PMPK	2.0	0.5	2.0	4.5
Daily	9.4	2.1	6.6	18.1

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.2	0.7	2.2
AMPK	1.2	0.3	0.7	2.1
MD	3.4	0.7	1.7	5.8
PMSH	1.6	0.4	1.5	3.5
PMPK	2.0	0.5	2.0	4.5
Daily	9.4	2.1	6.6	18.1

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.2	0.7	2.2
AMPK	1.2	0.3	0.7	2.1
MD	3.4	0.7	1.7	5.8
PMSH	1.6	0.4	1.5	3.5
PMPK	2.0	0.5	2.0	4.5
Daily	9.4	2.1	6.6	18.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.1	0.6	1.4
AMPK	0.9	0.1	0.7	1.7
MD	3.3	0.7	0.9	4.9
PMSH	2.4	0.7	0.5	3.6
PMPK	2.8	0.9	0.8	4.5
Daily	10.0	2.5	3.5	16.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.1	0.3	1.0
AMPK	0.8	0.1	0.4	1.3
MD	2.6	0.5	0.7	3.8
PMSH	1.5	0.4	0.4	2.3
PMPK	1.7	0.6	0.5	2.9
Daily	7.3	1.7	2.3	11.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.0	0.2	0.7	2.0
AMPK	1.5	0.3	0.7	2.5
MD	4.0	1.0	1.5	6.4
PMSH	1.7	0.6	0.7	3.0
PMPK	1.9	0.7	0.9	3.5
Daily	10.0	2.8	4.5	17.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.1	0.5	1.2
AMPK	0.9	0.2	0.4	1.5
MD	2.3	0.7	0.8	3.9
PMSH	1.2	0.4	0.3	1.9
PMPK	1.6	0.5	0.5	2.6
Daily	6.7	2.0	2.5	11.2

Period	SOV	HOV2	HOV3+	Total
AMSH	0.6	0.1	0.6	1.4
AMPK	0.9	0.2	0.5	1.7
MD	2.3	0.7	1.1	4.1
PMSH	1.2	0.4	0.4	2.0
PMPK	1.6	0.5	0.6	2.8
Daily	6.7	2.0	3.3	12.0

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-8:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

FINAL DRAFT

WilburSmith ASSOCIATES

2045 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 4
I-405 NORTHERN SECTION

FIGURE A-4-3C

Schematic
Not To Scale

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.0	0.2	0.5
AMPK	0.5	0.0	0.2	0.7
MD	2.1	0.5	0.6	3.2
PMSH	1.2	0.6	0.2	2.0
PMPK	1.3	0.7	0.3	2.3
Daily	5.4	1.8	1.5	8.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.3	0.0	0.2	0.5
AMPK	0.5	0.0	0.2	0.7
MD	2.1	0.5	0.5	3.1
PMSH	1.2	0.6	0.2	2.0
PMPK	1.3	0.7	0.3	2.3
Daily	5.4	1.8	1.4	8.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.0	0.2	0.7
AMPK	0.6	0.0	0.3	0.9
MD	2.5	0.6	0.7	3.8
PMSH	1.5	0.7	0.3	2.5
PMPK	1.7	0.8	0.4	2.8
Daily	6.6	2.1	1.9	10.7

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.0	0.1	0.6
AMPK	0.6	0.0	0.2	0.8
MD	2.5	0.6	0.4	3.5
PMSH	1.5	0.7	0.1	2.4
PMPK	1.7	0.8	0.2	2.6
Daily	6.6	2.1	1.1	9.9

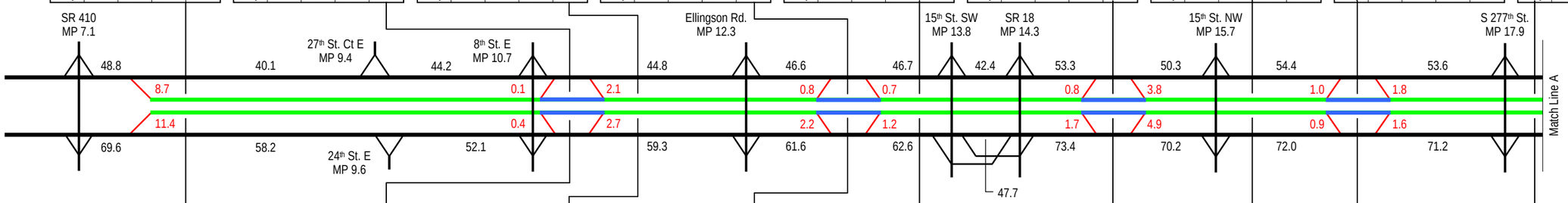
Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.0	0.2	0.6
AMPK	0.6	0.0	0.2	0.8
MD	2.6	0.7	0.5	3.8
PMSH	1.6	0.7	0.1	2.5
PMPK	1.8	0.8	0.2	2.8
Daily	7.1	2.3	1.2	10.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.0	0.1	0.6
AMPK	0.6	0.0	0.2	0.8
MD	2.5	0.6	0.4	3.5
PMSH	1.5	0.7	0.1	2.3
PMPK	1.6	0.8	0.2	2.6
Daily	6.7	2.1	0.9	9.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.0	0.3	1.0
AMPK	0.8	0.0	0.3	1.2
MD	3.2	0.7	0.7	4.5
PMSH	2.1	0.8	0.2	3.0
PMPK	2.5	1.0	0.3	3.8
Daily	9.3	2.5	1.7	13.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.0	0.2	1.0
AMPK	0.8	0.0	0.3	1.1
MD	3.0	0.6	0.5	4.2
PMSH	2.0	0.7	0.1	2.8
PMPK	2.4	0.9	0.2	3.5
Daily	9.0	2.2	1.4	12.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.0	0.3	1.2
AMPK	1.0	0.0	0.3	1.3
MD	3.4	0.6	0.6	4.7
PMSH	2.3	0.7	0.1	3.1
PMPK	2.8	1.0	0.3	4.1
Daily	10.4	2.4	1.7	14.4



Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	0.3	0.5	2.2
AMPK	1.1	0.3	0.4	1.7
MD	1.8	0.5	0.7	3.0
PMSH	0.8	0.3	0.3	1.4
PMPK	1.9	0.7	0.5	3.1
Daily	6.9	2.2	2.3	11.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	0.3	0.4	2.1
AMPK	1.1	0.3	0.3	1.7
MD	1.8	0.5	0.6	2.9
PMSH	0.8	0.3	0.3	1.4
PMPK	1.8	0.7	0.4	2.9
Daily	6.9	2.1	2.0	11.0

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.4	0.6	2.7
AMPK	1.3	0.3	0.5	2.1
MD	2.2	0.6	1.0	3.8
PMSH	1.0	0.3	0.4	1.7
PMPK	2.1	0.8	0.5	3.4
Daily	8.2	2.5	2.9	13.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.3	0.5	2.3
AMPK	1.2	0.3	0.4	1.9
MD	2.1	0.5	0.7	3.3
PMSH	0.9	0.3	0.2	1.4
PMPK	1.6	0.6	0.3	2.5
Daily	7.3	2.1	2.0	11.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.4	0.5	2.6
AMPK	1.3	0.3	0.4	2.1
MD	2.3	0.6	0.8	3.7
PMSH	0.9	0.3	0.3	1.6
PMPK	1.7	0.7	0.4	2.7
Daily	7.9	2.3	2.4	12.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.3	0.4	2.2
AMPK	1.1	0.3	0.3	1.7
MD	2.1	0.5	0.6	3.3
PMSH	0.9	0.3	0.2	1.4
PMPK	1.4	0.5	0.3	2.3
Daily	7.1	1.9	1.9	10.9

Period	SOV	HOV2	HOV3+	Total
AMSH	2.1	0.4	0.7	3.2
AMPK	1.5	0.3	0.6	2.4
MD	3.2	0.7	1.1	5.0
PMSH	1.3	0.4	0.4	2.1
PMPK	1.9	0.6	0.5	3.1
Daily	10.1	2.4	3.3	15.7

Period	SOV	HOV2	HOV3+	Total
AMSH	2.1	0.4	0.6	3.1
AMPK	1.5	0.3	0.5	2.3
MD	3.2	0.6	0.9	4.8
PMSH	1.3	0.3	0.3	1.9
PMPK	1.8	0.5	0.4	2.7
Daily	9.9	2.2	2.9	14.9

Period	SOV	HOV2	HOV3+	Total
AMSH	2.3	0.4	0.7	3.4
AMPK	1.6	0.3	0.6	2.5
MD	3.6	0.7	1.1	5.4
PMSH	1.4	0.4	0.4	2.2
PMPK	1.9	0.5	0.5	3.0
Daily	10.8	2.4	3.3	16.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.0	0.2	1.1
AMPK	1.0	0.0	0.3	1.2
MD	3.2	0.5	0.5	4.2
PMSH	2.1	0.5	0.1	2.8
PMPK	2.7	0.7	0.2	3.6
Daily	9.8	1.8	1.2	12.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.0	0.2	1.3
AMPK	1.2	0.0	0.4	1.6
MD	3.7	0.6	0.6	4.8
PMSH	2.3	0.6	0.1	3.0
PMPK	2.9	0.7	0.2	3.8
Daily	11.1	1.9	1.5	14.6

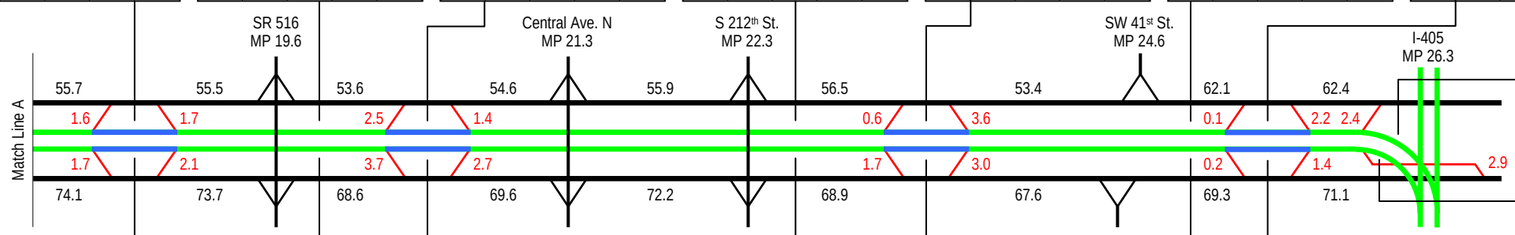
Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.0	0.1	1.2
AMPK	1.1	0.0	0.2	1.3
MD	3.4	0.4	0.3	4.2
PMSH	2.0	0.4	0.1	2.4
PMPK	2.3	0.4	0.2	3.0
Daily	9.9	1.3	0.9	12.1

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.0	0.2	1.5
AMPK	1.3	0.0	0.2	1.5
MD	3.8	0.5	0.4	4.6
PMSH	2.2	0.4	0.1	2.7
PMPK	2.5	0.5	0.2	3.2
Daily	11.0	1.4	1.0	13.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.0	0.1	1.4
AMPK	1.3	0.0	0.2	1.5
MD	3.7	0.4	0.3	4.4
PMSH	2.1	0.4	0.1	2.6
PMPK	2.4	0.4	0.2	3.0
Daily	10.8	1.3	0.9	12.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.1	0.3	2.1
AMPK	1.7	0.1	0.4	2.1
MD	4.7	0.5	0.6	5.7
PMSH	2.5	0.4	0.1	3.1
PMPK	2.8	0.5	0.2	3.5
Daily	13.5	1.6	1.5	16.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.1	0.3	2.1
AMPK	1.7	0.1	0.4	2.1
MD	4.6	0.5	0.5	5.7
PMSH	2.5	0.4	0.1	3.0
PMPK	2.8	0.5	0.2	3.5
Daily	13.5	1.5	1.5	16.5



Period	SOV	HOV2	HOV3+	Total
AMSH	2.2	0.4	0.6	3.2
AMPK	1.6	0.3	0.6	2.5
MD	3.3	0.7	0.8	4.8
PMSH	1.3	0.3	0.3	1.9
PMPK	1.5	0.4	0.4	2.3
Daily	9.9	2.2	2.7	14.8

Period	SOV	HOV2	HOV3+	Total
AMSH	2.4	0.4	0.7	3.6
AMPK	1.8	0.4	0.8	3.0
MD	3.7	0.8	1.0	5.4
PMSH	1.5	0.4	0.3	2.2
PMPK	1.7	0.5	0.5	2.7
Daily	11.1	2.5	3.3	16.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.9	0.3	0.4	2.6
AMPK	1.3	0.3	0.5	2.1
MD	3.0	0.6	0.7	4.3
PMSH	1.4	0.3	0.2	2.0
PMPK	1.5	0.4	0.3	2.2
Daily	9.1	2.0	2.1	13.1

Period	SOV	HOV2	HOV3+	Total
AMSH	2.4	0.4	0.6	3.4
AMPK	1.6	0.4	0.6	2.5
MD	3.6	0.7	0.7	5.0
PMSH	1.7	0.4	0.3	2.4
PMPK	1.8	0.5	0.3	2.6
Daily	11.0	2.3	2.5	15.8

Period	SOV	HOV2	HOV3+	Total
AMSH	2.3	0.4	0.4	3.1
AMPK	1.5	0.3	0.4	2.2
MD	3.4	0.6	0.5	4.4
PMSH	1.6	0.3	0.1	2.1
PMPK	1.7	0.4	0.2	2.3
Daily	10.5	2.1	1.5	14.1

Period	SOV	HOV2	HOV3+	Total
AMSH	2.6	0.4	0.5	3.5
AMPK	1.6	0.4	0.5	2.5
MD	4.3	0.8	0.7	5.8
PMSH	2.0	0.4	0.2	2.6
PMPK	2.1	0.5	0.2	2.8
Daily	12.6	2.5	2.0	17.1

Period	SOV	HOV2	HOV3+	Total
AMSH	2.5	0.4	0.5	3.4
AMPK	1.6	0.4	0.4	2.4
MD	4.3	0.8	0.7	5.7
PMSH	2.0	0.4	0.2	2.5
PMPK	2.1	0.5	0.2	2.8
Daily	12.5	2.4	2.0	16.9

Period	SOV	HOV2	HOV3+	Total
AMSH	2.3	0.1	0.0	2.4
AMPK	2.1	0.1	0.1	2.3
MD	5.2	0.4	0.1	5.7
PMSH	2.5	0.4	0.1	2.9
PMPK	2.6	0.4	0.1	3.0
Daily	14.7	1.3	0.4	16.3

Period	SOV	HOV2	HOV3+	Total
AMSH	2.1	0.3	0.2	2.7
AMPK	1.4	0.3	0.2	1.9
MD	4.3	0.6	0.4	5.4
PMSH	2.3	0.4	0.1	2.7
PMPK	2.2	0.3	0.1	2.7
Daily	12.4	1.9	1.0	15.3

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-7:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

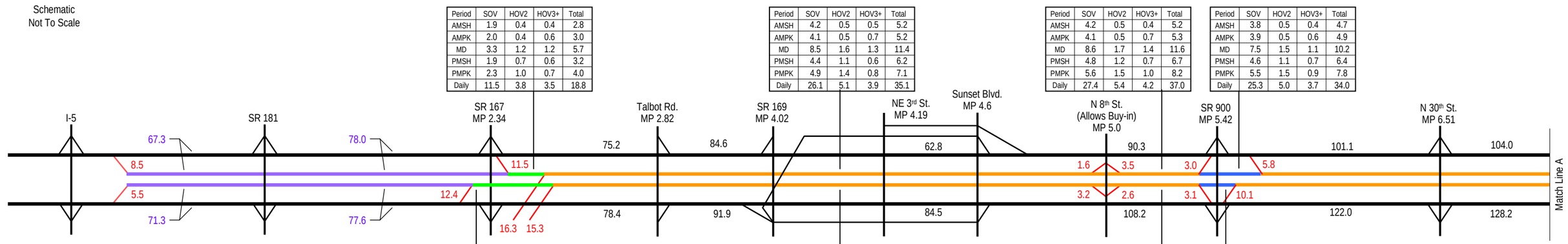
FINAL DRAFT

WilburSmith ASSOCIATES

2020 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 5
SR 167

FIGURE A-5-1A

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	1.9	0.4	0.4	2.8
AMPK	2.0	0.4	0.6	3.0
MD	3.3	1.2	1.2	5.7
PMSH	1.9	0.7	0.6	3.2
PMPK	2.3	1.0	0.7	4.0
Daily	11.5	3.8	3.5	18.8

Period	SOV	HOV2	HOV3+	Total
AMSH	4.2	0.5	0.5	5.2
AMPK	4.1	0.5	0.7	5.2
MD	8.5	1.6	1.3	11.4
PMSH	4.4	1.1	0.6	6.2
PMPK	4.9	1.4	0.8	7.1
Daily	26.1	5.1	3.9	35.1

Period	SOV	HOV2	HOV3+	Total
AMSH	4.2	0.5	0.4	5.2
AMPK	4.1	0.5	0.7	5.3
MD	8.6	1.7	1.4	11.6
PMSH	4.8	1.2	0.7	6.7
PMPK	5.6	1.5	1.0	8.2
Daily	27.4	5.4	4.2	37.0

Period	SOV	HOV2	HOV3+	Total
AMSH	3.8	0.5	0.4	4.7
AMPK	3.9	0.5	0.6	4.9
MD	7.5	1.5	1.1	10.2
PMSH	4.6	1.1	0.7	6.4
PMPK	5.5	1.5	0.9	7.8
Daily	25.3	5.0	3.7	34.0

Period	SOV	HOV2	HOV3+	Total
AMSH	2.1	0.4	0.5	3.1
AMPK	1.6	0.4	0.5	2.5
MD	4.6	1.2	1.1	6.9
PMSH	1.9	0.6	0.4	2.9
PMPK	2.2	0.7	0.5	3.3
Daily	12.4	3.3	3.0	18.7

Period	SOV	HOV2	HOV3+	Total
AMSH	4.3	0.8	0.8	5.8
AMPK	3.0	0.7	0.7	4.3
MD	8.9	1.8	1.5	12.3
PMSH	4.2	1.0	0.4	5.6
PMPK	4.4	1.0	0.6	6.0
Daily	24.8	5.3	4.0	34.0

Period	SOV	HOV2	HOV3+	Total
AMSH	4.0	0.7	0.6	5.4
AMPK	2.9	0.6	0.5	4.1
MD	9.0	1.8	1.3	12.1
PMSH	4.3	0.9	0.4	5.5
PMPK	4.7	1.0	0.7	6.3
Daily	24.8	5.0	3.6	33.4

Period	SOV	HOV2	HOV3+	Total
AMSH	3.8	0.7	0.5	5.0
AMPK	2.7	0.6	0.4	3.7
MD	8.3	1.6	1.1	11.0
PMSH	3.8	0.8	0.3	4.9
PMPK	4.3	0.9	0.6	5.8
Daily	22.9	4.5	2.9	30.4

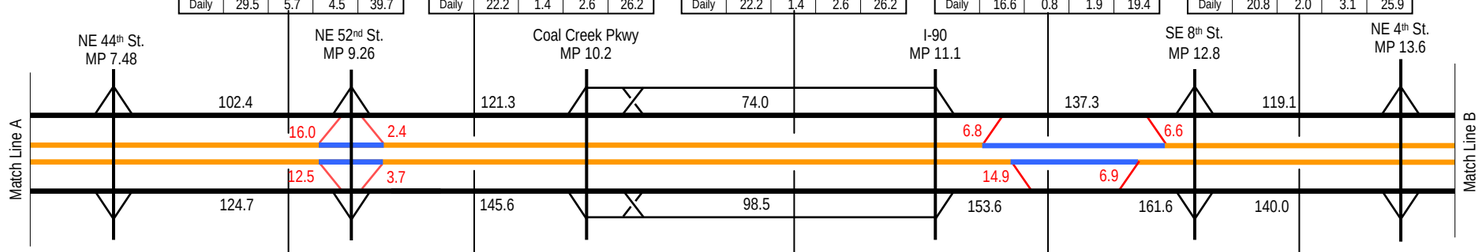
Period	SOV	HOV2	HOV3+	Total
AMSH	4.4	0.5	0.5	5.3
AMPK	4.6	0.5	0.7	5.8
MD	8.4	1.6	1.4	11.4
PMSH	5.6	1.3	0.9	7.8
PMPK	6.6	1.7	1.1	9.5
Daily	29.5	5.7	4.5	39.7

Period	SOV	HOV2	HOV3+	Total
AMSH	2.7	0.1	0.2	3.0
AMPK	2.9	0.1	0.2	3.3
MD	6.5	0.4	0.8	7.7
PMSH	4.8	0.3	0.6	5.7
PMPK	5.4	0.4	0.7	6.6
Daily	22.2	1.4	2.6	26.2

Period	SOV	HOV2	HOV3+	Total
AMSH	2.7	0.1	0.2	3.0
AMPK	2.9	0.1	0.2	3.3
MD	6.5	0.4	0.8	7.7
PMSH	4.8	0.3	0.6	5.7
PMPK	5.4	0.4	0.7	6.6
Daily	22.2	1.4	2.6	26.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.1	0.1	1.9
AMPK	2.5	0.1	0.2	2.8
MD	3.6	0.2	0.3	4.1
PMSH	4.1	0.2	0.6	4.9
PMPK	4.7	0.3	0.7	5.8
Daily	16.6	0.8	1.9	19.4

Period	SOV	HOV2	HOV3+	Total
AMSH	2.4	0.2	0.3	2.9
AMPK	2.9	0.2	0.4	3.5
MD	5.0	0.5	0.6	6.1
PMSH	4.7	0.4	0.8	5.9
PMPK	5.8	0.6	1.1	7.4
Daily	20.8	2.0	3.1	25.9



Period	SOV	HOV2	HOV3+	Total
AMSH	5.2	0.9	0.8	6.9
AMPK	4.1	0.8	0.6	5.5
MD	10.8	2.1	1.5	14.4
PMSH	4.6	1.0	0.6	6.2
PMPK	5.3	1.2	1.0	7.4
Daily	30.0	6.0	4.4	40.5

Period	SOV	HOV2	HOV3+	Total
AMSH	4.5	0.8	0.9	6.2
AMPK	2.9	0.7	0.7	4.3
MD	8.2	1.6	1.1	10.9
PMSH	3.5	0.7	0.5	4.7
PMPK	3.8	0.9	0.9	5.6
Daily	22.9	4.6	4.1	31.7

Period	SOV	HOV2	HOV3+	Total
AMSH	4.5	0.8	0.9	6.2
AMPK	2.9	0.7	0.7	4.3
MD	8.2	1.6	1.1	10.9
PMSH	3.5	0.7	0.5	4.7
PMPK	3.8	0.9	0.9	5.6
Daily	22.9	4.6	4.1	31.7

Period	SOV	HOV2	HOV3+	Total
AMSH	2.5	0.3	0.3	3.2
AMPK	2.2	0.4	0.3	2.9
MD	4.1	0.4	0.2	4.7
PMSH	2.2	0.3	0.1	2.5
PMPK	2.7	0.5	0.3	3.4
Daily	13.7	1.8	1.2	16.8

Period	SOV	HOV2	HOV3+	Total
AMSH	2.9	0.4	0.7	4.0
AMPK	2.7	0.4	0.8	3.9
MD	5.7	0.7	0.6	7.1
PMSH	2.9	0.5	0.3	3.7
PMPK	3.5	0.8	0.6	4.9
Daily	17.7	2.9	3.1	23.6

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-7:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

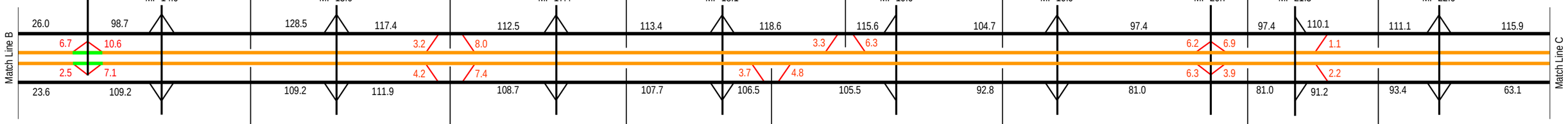
FINAL DRAFT

WilburSmith ASSOCIATES

2020 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 5
I-405 SOUTHERN SECTION

FIGURE A-5-1B

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	4.0	0.4	0.5	4.9
AMPK	3.2	0.4	0.6	4.2
MD	7.8	1.0	1.1	9.9
PMSH	3.5	0.5	0.5	4.5
PMPK	4.8	0.7	0.8	6.3
Daily	23.3	3.1	3.5	29.8

Period	SOV	HOV2	HOV3+	Total
AMSH	3.9	0.4	0.5	4.7
AMPK	3.1	0.4	0.5	4.1
MD	7.2	0.9	0.9	9.0
PMSH	2.8	0.3	0.3	3.5
PMPK	4.2	0.6	0.6	5.4
Daily	21.2	2.7	2.8	26.7

Period	SOV	HOV2	HOV3+	Total
AMSH	5.4	0.7	0.9	7.0
AMPK	4.1	0.6	1.0	5.7
MD	8.8	1.1	1.5	11.4
PMSH	3.2	0.4	0.5	4.1
PMPK	4.8	0.7	1.0	6.6
Daily	26.2	3.5	4.9	34.7

Period	SOV	HOV2	HOV3+	Total
AMSH	5.0	0.6	0.8	6.4
AMPK	3.8	0.5	0.9	5.2
MD	8.0	0.9	1.2	10.1
PMSH	3.0	0.3	0.4	3.7
PMPK	4.5	0.6	0.8	5.9
Daily	24.2	3.0	4.1	31.4

Period	SOV	HOV2	HOV3+	Total
AMSH	5.7	0.7	1.0	7.4
AMPK	4.4	0.6	1.1	6.1
MD	9.4	1.2	1.5	12.1
PMSH	3.5	0.5	0.6	4.6
PMPK	5.5	0.9	1.1	7.5
Daily	28.5	4.0	5.2	37.7

Period	SOV	HOV2	HOV3+	Total
AMSH	5.8	0.8	1.0	7.5
AMPK	4.5	0.8	1.0	6.2
MD	9.8	1.4	1.8	13.0
PMSH	3.2	0.6	0.5	4.4
PMPK	5.3	1.0	0.9	7.2
Daily	28.5	4.6	5.2	38.4

Period	SOV	HOV2	HOV3+	Total
AMSH	5.7	0.8	1.0	7.4
AMPK	4.5	0.8	1.0	6.2
MD	9.4	1.3	1.7	12.4
PMSH	3.1	0.5	0.5	4.2
PMPK	5.1	1.0	0.9	7.0
Daily	27.9	4.4	5.0	37.3

Period	SOV	HOV2	HOV3+	Total
AMSH	2.6	0.3	0.5	3.4
AMPK	2.4	0.3	0.6	3.2
MD	7.3	0.8	0.6	8.7
PMSH	4.6	0.8	0.4	5.9
PMPK	5.2	1.1	0.8	7.0
Daily	22.0	3.3	2.9	28.2

Period	SOV	HOV2	HOV3+	Total
AMSH	2.0	0.2	0.4	2.5
AMPK	1.8	0.2	0.4	2.4
MD	6.0	0.7	0.4	7.0
PMSH	4.3	0.8	0.4	5.5
PMPK	4.9	1.1	0.6	6.6
Daily	19.0	2.9	2.2	24.1

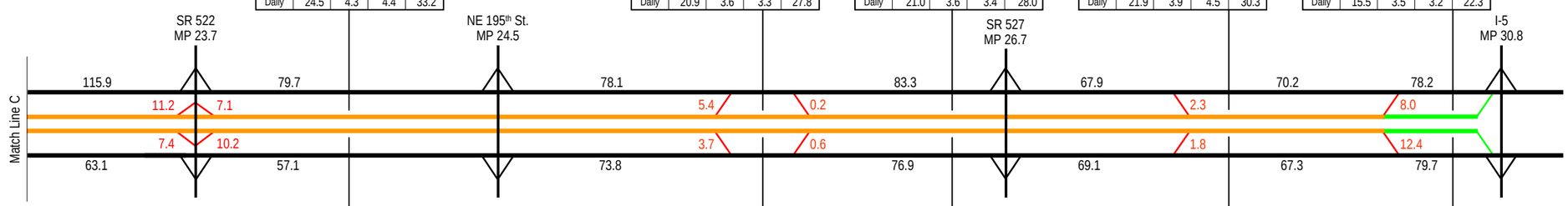
Period	SOV	HOV2	HOV3+	Total
AMSH	2.2	0.2	0.7	3.1
AMPK	2.2	0.3	0.8	3.2
MD	8.0	1.2	1.3	10.5
PMSH	5.0	1.0	0.6	6.7
PMPK	5.7	1.3	0.9	7.9
Daily	23.0	4.1	4.3	31.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.2	0.5	2.6
AMPK	1.9	0.2	0.6	2.7
MD	7.1	1.0	1.0	9.1
PMSH	4.7	0.9	0.5	6.0
PMPK	5.4	1.2	0.8	7.3
Daily	20.9	3.4	3.4	27.7

Period	SOV	HOV2	HOV3+	Total
AMSH	2.0	0.2	0.6	2.9
AMPK	2.2	0.3	0.7	3.2
MD	7.9	1.2	1.2	10.4
PMSH	5.3	1.2	0.7	7.2
PMPK	6.3	1.6	1.1	8.9
Daily	23.7	4.5	4.3	32.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.2	0.6	2.6
AMPK	2.0	0.2	0.6	2.8
MD	7.7	1.3	1.3	10.2
PMSH	5.0	1.1	0.5	6.6
PMPK	5.7	1.4	0.7	7.9
Daily	22.2	4.3	3.6	30.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.2	0.5	2.3
AMPK	1.8	0.2	0.5	2.4
MD	7.2	1.1	1.0	9.4
PMSH	4.9	1.0	0.5	6.3
PMPK	5.6	1.3	0.7	7.6
Daily	21.1	3.9	3.1	28.0



Period	SOV	HOV2	HOV3+	Total
AMSH	4.3	0.6	0.8	5.6
AMPK	3.8	0.7	0.8	5.3
MD	8.0	1.3	1.5	10.7
PMSH	3.0	0.6	0.5	4.2
PMPK	5.4	1.2	0.9	7.4
Daily	24.5	4.3	4.4	33.2

Period	SOV	HOV2	HOV3+	Total
AMSH	3.4	0.4	0.5	4.3
AMPK	3.2	0.6	0.6	4.4
MD	6.8	1.0	1.1	8.9
PMSH	2.7	0.5	0.4	3.6
PMPK	4.9	1.0	0.7	6.6
Daily	20.9	3.6	3.3	27.8

Period	SOV	HOV2	HOV3+	Total
AMSH	3.4	0.4	0.5	4.4
AMPK	3.2	0.6	0.6	4.4
MD	6.8	1.0	1.1	8.9
PMSH	2.7	0.5	0.5	3.7
PMPK	4.9	1.0	0.7	6.6
Daily	21.0	3.6	3.4	28.0

Period	SOV	HOV2	HOV3+	Total
AMSH	3.6	0.5	0.9	5.0
AMPK	3.4	0.6	0.9	4.9
MD	7.0	1.1	1.4	9.5
PMSH	2.8	0.6	0.5	3.9
PMPK	5.1	1.1	0.8	7.0
Daily	21.9	3.9	4.5	30.3

Period	SOV	HOV2	HOV3+	Total
AMSH	2.7	0.5	0.7	3.8
AMPK	2.3	0.6	0.9	3.8
MD	5.0	1.0	0.8	6.8
PMSH	1.9	0.5	0.3	2.7
PMPK	3.6	0.9	0.6	5.1
Daily	15.5	3.5	3.2	22.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.3	0.7	2.6
AMPK	2.3	0.4	0.7	3.4
MD	7.1	1.4	1.3	9.7
PMSH	5.3	1.1	0.5	6.9
PMPK	6.1	1.5	0.7	8.3
Daily	22.4	4.7	3.8	30.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.2	0.6	2.3
AMPK	2.1	0.3	0.6	3.0
MD	6.2	1.2	1.0	8.4
PMSH	4.7	1.0	0.4	6.0
PMPK	5.5	1.4	0.5	7.4
Daily	19.9	4.2	3.1	27.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.2	0.6	2.4
AMPK	2.1	0.4	0.6	3.1
MD	6.4	1.3	1.1	8.8
PMSH	4.7	1.0	0.4	6.0
PMPK	5.5	1.4	0.5	7.4
Daily	20.2	4.3	3.3	27.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.3	0.8	2.5
AMPK	2.2	0.4	0.7	3.4
MD	6.5	1.3	1.4	9.2
PMSH	4.8	1.0	0.5	6.3
PMPK	5.9	1.5	0.7	8.2
Daily	20.9	4.6	4.1	29.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.1	0.4	1.4
AMPK	1.3	0.2	0.4	1.9
MD	3.6	0.9	0.7	5.2
PMSH	2.8	0.7	0.2	3.7
PMPK	3.5	1.1	0.4	5.0
Daily	11.9	3.1	2.1	17.1

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-7:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

FINAL DRAFT

WilburSmith ASSOCIATES

2020 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 5
I-405 NORTHERN SECTION

FIGURE A-5-1C

Schematic
Not To Scale

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.0	0.2	0.6
AMPK	0.4	0.0	0.2	0.7
MD	2.7	0.8	0.5	4.0
PMSH	1.7	0.9	0.1	2.8
PMPK	2.0	1.0	0.2	3.2
Daily	7.2	2.8	1.3	11.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.4	0.0	0.2	0.6
AMPK	0.4	0.0	0.2	0.7
MD	2.7	0.8	0.5	3.9
PMSH	1.7	0.9	0.1	2.6
PMPK	1.9	0.9	0.2	3.0
Daily	7.1	2.6	1.1	10.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.0	0.2	0.7
AMPK	0.5	0.0	0.3	0.8
MD	3.2	1.0	0.6	4.8
PMSH	2.0	1.0	0.1	3.2
PMPK	2.2	1.1	0.2	3.6
Daily	8.4	3.2	1.5	13.1

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.0	0.1	0.6
AMPK	0.5	0.0	0.2	0.7
MD	3.2	1.0	0.4	4.6
PMSH	1.7	0.9	0.1	2.7
PMPK	1.9	1.0	0.1	3.0
Daily	7.8	2.9	1.0	11.7

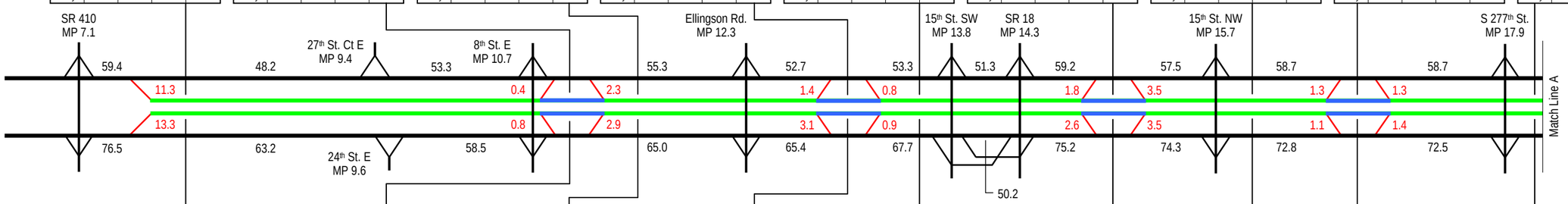
Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.0	0.2	0.7
AMPK	0.5	0.0	0.2	0.8
MD	3.4	1.1	0.5	5.0
PMSH	1.9	1.0	0.1	2.9
PMPK	2.0	1.0	0.1	3.2
Daily	8.3	3.2	1.1	12.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.5	0.0	0.1	0.7
AMPK	0.5	0.0	0.2	0.8
MD	3.0	1.0	0.4	4.4
PMSH	1.5	0.8	0.1	2.4
PMPK	1.6	0.9	0.1	2.6
Daily	7.2	2.7	0.9	10.8

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.0	0.3	1.1
AMPK	0.7	0.0	0.3	1.1
MD	3.6	1.0	0.6	5.2
PMSH	2.0	0.9	0.1	3.0
PMPK	2.5	1.1	0.2	3.8
Daily	9.6	3.1	1.5	14.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.0	0.2	1.0
AMPK	0.7	0.0	0.3	1.0
MD	3.4	0.9	0.5	4.8
PMSH	1.8	0.8	0.1	2.7
PMPK	2.3	1.0	0.2	3.4
Daily	9.0	2.7	1.2	12.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.0	0.3	1.2
AMPK	0.8	0.0	0.3	1.2
MD	3.6	0.9	0.6	5.1
PMSH	1.9	0.8	0.1	2.9
PMPK	2.5	1.0	0.2	3.8
Daily	9.8	2.8	1.6	14.2



Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.3	0.4	2.0
AMPK	1.2	0.4	0.3	1.9
MD	1.9	0.6	0.7	3.2
PMSH	1.4	0.6	0.4	2.3
PMPK	2.5	1.0	0.5	3.9
Daily	8.2	2.9	2.3	13.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.3	0.4	1.9
AMPK	1.1	0.4	0.3	1.8
MD	1.9	0.6	0.5	3.0
PMSH	1.4	0.5	0.3	2.2
PMPK	2.4	0.9	0.4	3.7
Daily	8.0	2.8	1.8	12.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.4	0.5	2.4
AMPK	1.5	0.5	0.4	2.4
MD	2.3	0.7	0.8	3.8
PMSH	1.6	0.6	0.3	2.6
PMPK	2.7	1.1	0.5	4.3
Daily	9.7	3.3	2.5	15.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	0.4	0.4	2.1
AMPK	1.3	0.4	0.3	2.1
MD	1.9	0.6	0.6	3.1
PMSH	1.2	0.5	0.3	2.0
PMPK	1.9	0.8	0.4	3.1
Daily	7.8	2.7	1.9	12.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.5	0.4	0.4	2.3
AMPK	1.5	0.4	0.3	2.3
MD	2.0	0.7	0.6	3.4
PMSH	1.3	0.5	0.3	2.1
PMPK	2.0	0.8	0.4	3.2
Daily	8.3	2.9	2.1	13.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.3	0.3	1.9
AMPK	1.2	0.3	0.3	1.8
MD	1.7	0.5	0.5	2.7
PMSH	1.1	0.4	0.3	1.7
PMPK	1.6	0.6	0.3	2.5
Daily	6.8	2.2	1.6	10.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.4	0.5	2.6
AMPK	1.7	0.4	0.4	2.5
MD	2.4	0.6	0.8	3.9
PMSH	1.2	0.4	0.4	2.1
PMPK	1.8	0.7	0.5	3.1
Daily	8.9	2.5	2.6	14.1

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.3	0.4	2.5
AMPK	1.6	0.4	0.4	2.3
MD	2.4	0.6	0.7	3.6
PMSH	1.2	0.4	0.3	1.9
PMPK	1.7	0.6	0.5	2.7
Daily	8.5	2.2	2.3	13.0

Period	SOV	HOV2	HOV3+	Total
AMSH	1.9	0.4	0.5	2.7
AMPK	1.8	0.4	0.4	2.6
MD	2.5	0.6	0.9	4.0
PMSH	1.2	0.4	0.5	2.1
PMPK	1.7	0.6	0.6	3.0
Daily	9.1	2.4	2.9	14.4

Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.0	0.2	1.1
AMPK	0.8	0.0	0.2	1.0
MD	3.3	0.6	0.4	4.4
PMSH	1.8	0.6	0.1	2.4
PMPK	2.3	0.7	0.2	3.3
Daily	9.2	2.0	1.1	12.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.0	0.2	1.3
AMPK	0.9	0.0	0.3	1.2
MD	3.7	0.7	0.5	4.9
PMSH	2.0	0.6	0.1	2.7
PMPK	2.5	0.8	0.2	3.5
Daily	10.3	2.1	1.3	13.7

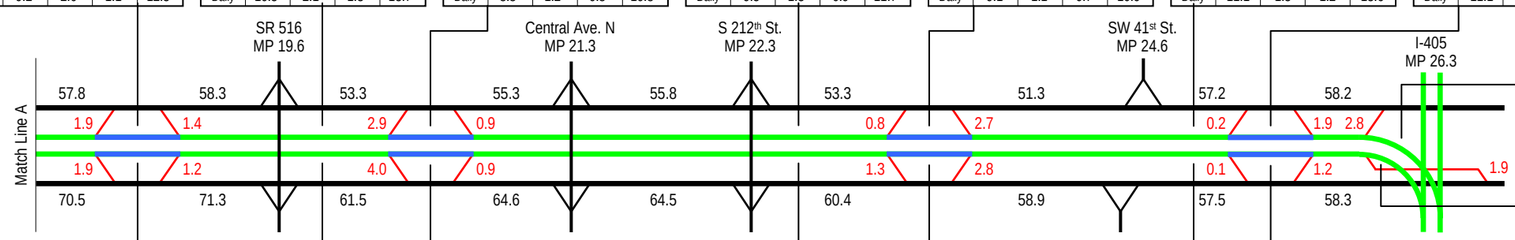
Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.0	0.1	1.2
AMPK	0.9	0.0	0.1	1.1
MD	3.3	0.4	0.3	4.0
PMSH	1.5	0.3	0.1	1.9
PMPK	2.0	0.4	0.2	2.5
Daily	8.8	1.2	0.8	10.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.0	0.1	1.4
AMPK	1.0	0.0	0.2	1.2
MD	3.6	0.5	0.3	4.4
PMSH	1.6	0.4	0.1	2.1
PMPK	2.1	0.5	0.2	2.7
Daily	9.5	1.3	0.9	11.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.0	0.1	1.3
AMPK	1.0	0.0	0.1	1.2
MD	3.4	0.4	0.3	4.1
PMSH	1.5	0.3	0.1	1.9
PMPK	1.9	0.4	0.2	2.4
Daily	9.1	1.1	0.7	10.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.0	0.2	1.9
AMPK	1.3	0.0	0.2	1.6
MD	4.1	0.5	0.4	5.0
PMSH	1.8	0.4	0.1	2.3
PMPK	2.2	0.4	0.2	2.9
Daily	11.1	1.3	1.2	13.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.0	0.2	1.8
AMPK	1.3	0.0	0.2	1.5
MD	4.1	0.5	0.4	5.0
PMSH	1.8	0.4	0.1	2.3
PMPK	2.2	0.4	0.2	2.8
Daily	11.1	1.3	1.1	13.5



Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.4	0.4	2.5
AMPK	1.7	0.4	0.4	2.5
MD	2.2	0.6	0.6	3.4
PMSH	1.0	0.3	0.4	1.7
PMPK	1.3	0.5	0.5	2.3
Daily	7.9	2.2	2.4	12.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.9	0.4	0.5	2.7
AMPK	1.8	0.4	0.5	2.7
MD	2.4	0.6	0.7	3.8
PMSH	1.1	0.4	0.4	1.9
PMPK	1.4	0.5	0.5	2.5
Daily	8.6	2.4	2.6	13.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.3	0.3	1.8
AMPK	1.2	0.3	0.2	1.7
MD	1.8	0.4	0.5	2.7
PMSH	0.9	0.3	0.3	1.5
PMPK	1.1	0.4	0.4	1.9
Daily	6.3	1.6	1.6	9.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	0.3	0.3	1.8
AMPK	1.3	0.3	0.3	1.8
MD	2.0	0.4	0.5	3.0
PMSH	1.0	0.3	0.3	1.6
PMPK	1.2	0.4	0.4	2.0
Daily	6.9	1.8	1.7	10.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.3	0.2	1.8
AMPK	1.1	0.3	0.2	1.7
MD	1.9	0.4	0.4	2.7
PMSH	0.9	0.2	0.2	1.3
PMPK	1.1	0.3	0.2	1.7
Daily	6.4	1.5	1.2	9.2

Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.3	0.3	2.4
AMPK	1.4	0.3	0.3	2.1
MD	2.6	0.5	0.5	3.7
PMSH	1.2	0.3	0.2	1.7
PMPK	1.4	0.4	0.3	2.1
Daily	8.4	1.9	1.6	11.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.3	0.3	2.4
AMPK	1.4	0.3	0.3	2.1
MD	2.6	0.5	0.5	3.6
PMSH	1.2	0.3	0.2	1.7
PMPK	1.4	0.4	0.3	2.1
Daily	8.4	1.9	1.6	11.8

Period	SOV	HOV2	HOV3+	Total
AMSH	2.1	0.0	0.0	2.2
AMPK	1.6	0.0	0.1	1.7
MD	4.2	0.3	0.1	4.6
PMSH	1.6	0.3	0.1	2.0
PMPK	1.8	0.3	0.1	2.2
Daily	11.3	1.0	0.4	12.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.3	0.2	2.1
AMPK	1.3	0.3	0.1	1.7
MD	2.8	0.5	0.3	3.6
PMSH	1.3	0.3	0.1	1.7
PMPK	1.5	0.3	0.1	2.0
Daily	8.7	1.6	0.9	11.1

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-7:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

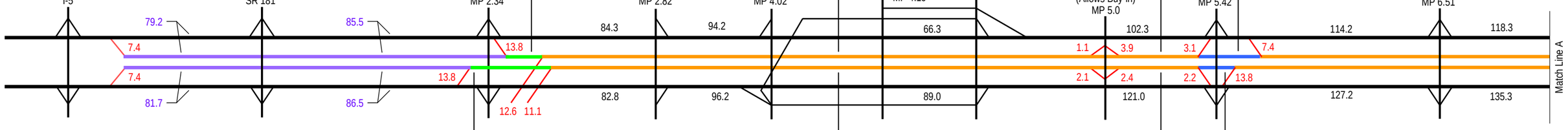
FINAL DRAFT

WilburSmith ASSOCIATES

2035 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 5 SR 167

FIGURE A-5-2A

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	2.8	0.2	0.4	3.4
AMPK	2.2	0.2	0.5	2.9
MD	4.5	1.0	1.3	6.8
PMSH	1.9	0.8	0.8	3.5
PMPK	2.4	1.0	0.9	4.3
Daily	13.8	3.1	4.0	20.9

Period	SOV	HOV2	HOV3+	Total
AMSH	5.0	0.2	0.5	5.6
AMPK	3.8	0.2	0.6	4.6
MD	8.7	1.3	1.4	11.5
PMSH	3.5	1.1	0.8	5.4
PMPK	4.1	1.3	1.0	6.5
Daily	25.1	4.1	4.4	33.5

Period	SOV	HOV2	HOV3+	Total
AMSH	5.1	0.2	0.5	5.8
AMPK	4.1	0.2	0.7	5.0
MD	8.7	1.4	1.4	11.6
PMSH	4.0	1.2	1.1	6.2
PMPK	5.0	1.6	1.3	7.9
Daily	26.9	4.6	5.0	36.4

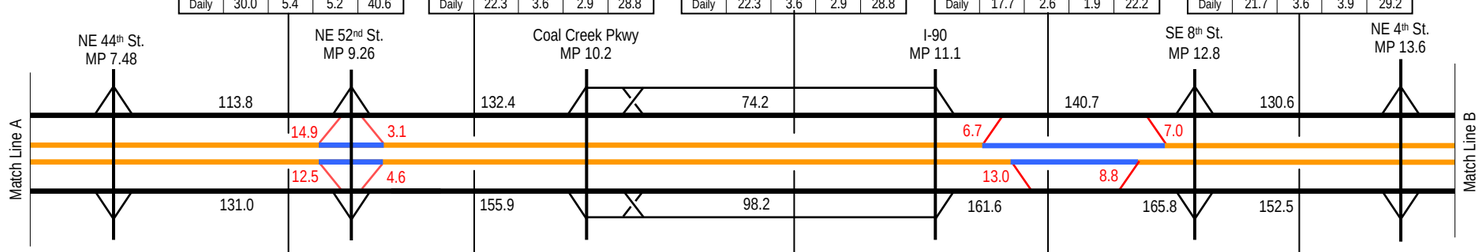
Period	SOV	HOV2	HOV3+	Total
AMSH	4.7	0.2	0.4	5.3
AMPK	3.9	0.2	0.6	4.7
MD	7.8	1.1	1.3	10.1
PMSH	3.7	0.9	1.0	5.7
PMPK	4.8	1.4	1.3	7.4
Daily	24.9	3.7	4.6	33.3

Period	SOV	HOV2	HOV3+	Total
AMSH	2.2	0.4	0.7	3.3
AMPK	1.8	0.4	0.6	2.8
MD	4.4	1.1	1.4	7.0
PMSH	2.4	0.7	0.5	3.6
PMPK	2.9	0.9	0.7	4.4
Daily	13.7	3.5	3.9	21.1

Period	SOV	HOV2	HOV3+	Total
AMSH	3.9	0.7	0.9	5.5
AMPK	3.1	0.6	0.7	4.5
MD	7.3	1.6	1.8	10.6
PMSH	3.7	1.0	0.6	5.3
PMPK	4.4	1.1	0.8	6.4
Daily	22.4	5.0	4.8	32.3

Period	SOV	HOV2	HOV3+	Total
AMSH	3.8	0.6	0.9	5.3
AMPK	3.0	0.6	0.7	4.3
MD	7.5	1.5	1.7	10.7
PMSH	3.9	0.9	0.6	5.4
PMPK	4.6	1.1	1.1	6.9
Daily	22.8	4.7	5.0	32.6

Period	SOV	HOV2	HOV3+	Total
AMSH	3.6	0.6	0.8	5.0
AMPK	2.9	0.5	0.6	4.0
MD	7.0	1.4	1.5	9.9
PMSH	3.6	0.9	0.5	5.0
PMPK	4.4	1.1	1.0	6.5
Daily	21.4	4.4	4.6	30.4



Period	SOV	HOV2	HOV3+	Total
AMSH	5.8	0.5	0.5	6.8
AMPK	4.9	0.5	0.7	6.1
MD	9.1	1.5	1.4	12.1
PMSH	4.5	1.2	1.1	6.9
PMPK	5.7	1.6	1.4	8.7
Daily	30.0	5.4	5.2	40.6

Period	SOV	HOV2	HOV3+	Total
AMSH	3.8	0.5	0.2	4.5
AMPK	3.5	0.5	0.2	4.2
MD	7.2	1.1	0.9	9.1
PMSH	3.4	0.7	0.8	4.8
PMPK	4.3	1.0	0.9	6.2
Daily	22.3	3.6	2.9	28.8

Period	SOV	HOV2	HOV3+	Total
AMSH	3.8	0.5	0.2	4.5
AMPK	3.5	0.5	0.2	4.2
MD	7.2	1.1	0.9	9.1
PMSH	3.4	0.7	0.8	4.8
PMPK	4.3	1.0	0.9	6.2
Daily	22.3	3.6	2.9	28.8

Period	SOV	HOV2	HOV3+	Total
AMSH	2.7	0.3	0.1	3.1
AMPK	3.0	0.4	0.1	3.5
MD	5.2	0.6	0.3	6.1
PMSH	2.7	0.5	0.5	3.7
PMPK	4.0	0.8	0.9	5.7
Daily	17.7	2.6	1.9	22.2

Period	SOV	HOV2	HOV3+	Total
AMSH	3.4	0.4	0.2	4.0
AMPK	3.5	0.5	0.3	4.3
MD	6.5	0.9	0.9	8.3
PMSH	3.3	0.6	1.0	4.9
PMPK	5.1	1.1	1.5	7.7
Daily	21.7	3.6	3.9	29.2

Period	SOV	HOV2	HOV3+	Total
AMSH	5.0	1.1	1.2	7.3
AMPK	4.2	0.9	0.9	6.1
MD	10.1	2.7	2.1	14.9
PMSH	4.8	1.4	0.8	7.0
PMPK	5.9	1.7	1.3	8.9
Daily	30.0	7.9	6.3	44.1

Period	SOV	HOV2	HOV3+	Total
AMSH	4.6	0.9	1.3	6.8
AMPK	3.2	0.9	1.1	5.2
MD	7.9	1.9	1.8	11.6
PMSH	3.6	1.1	0.8	5.5
PMPK	4.3	1.5	1.3	7.1
Daily	23.5	6.4	6.3	36.2

Period	SOV	HOV2	HOV3+	Total
AMSH	4.6	0.9	1.3	6.8
AMPK	3.2	0.9	1.1	5.2
MD	7.9	1.9	1.8	11.6
PMSH	3.6	1.1	0.8	5.5
PMPK	4.3	1.5	1.3	7.1
Daily	23.5	6.4	6.3	36.2

Period	SOV	HOV2	HOV3+	Total
AMSH	3.3	0.6	0.7	4.6
AMPK	2.8	0.6	0.6	4.0
MD	5.4	1.0	0.7	7.2
PMSH	2.5	0.5	0.2	3.2
PMPK	3.1	0.8	0.4	4.3
Daily	17.1	3.5	2.6	23.3

Period	SOV	HOV2	HOV3+	Total
AMSH	3.8	0.7	1.3	5.8
AMPK	3.5	0.7	1.3	5.4
MD	7.0	1.4	1.6	9.9
PMSH	3.4	0.8	0.6	4.8
PMPK	4.0	1.2	1.0	6.2
Daily	21.7	4.7	5.7	32.1

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0	General Purpose Mainline Total Daily Volumes (includes night)
0.0	Managed Lane Ramp Total Daily Volumes (does not include night)
0.0	General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)
AMSH	(AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK	(AM Peak) 6:30-8:30 AM
MD	(Midday) 9:30 AM-2:30 PM
PMSH	(PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK	(PM Peak) 3:30-6:30 PM
Daily	Total 5:00 AM-7:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

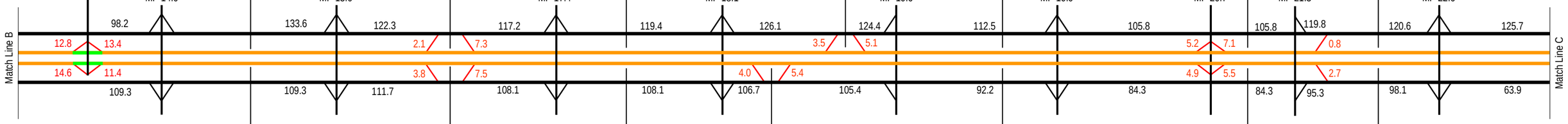
FINAL DRAFT

WilburSmith ASSOCIATES

2035 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 5
I-405 SOUTHERN SECTION

FIGURE A-5-2B

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	4.3	0.7	0.4	5.4
AMPK	3.5	0.6	0.5	4.6
MD	7.6	1.3	1.2	10.1
PMSH	2.6	0.6	0.8	4.0
PMPK	3.7	0.9	1.1	5.7
Daily	21.7	4.1	4.0	29.8

Period	SOV	HOV2	HOV3+	Total
AMSH	4.2	0.6	0.4	5.2
AMPK	3.4	0.6	0.5	4.4
MD	7.2	1.2	1.0	9.4
PMSH	2.3	0.5	0.6	3.5
PMPK	3.4	0.7	0.9	5.1
Daily	20.5	3.7	3.4	27.6

Period	SOV	HOV2	HOV3+	Total
AMSH	5.3	0.8	0.8	7.0
AMPK	4.3	0.8	1.0	6.0
MD	8.7	1.5	1.6	11.8
PMSH	2.6	0.6	0.9	4.1
PMPK	3.8	0.8	1.3	6.0
Daily	24.8	4.5	5.6	34.9

Period	SOV	HOV2	HOV3+	Total
AMSH	4.9	0.8	0.7	6.3
AMPK	3.9	0.7	0.8	5.5
MD	8.0	1.3	1.3	10.6
PMSH	2.4	0.5	0.8	3.8
PMPK	3.5	0.7	1.1	5.3
Daily	22.8	3.9	4.8	31.4

Period	SOV	HOV2	HOV3+	Total
AMSH	5.4	0.8	0.8	7.1
AMPK	4.3	0.8	1.0	6.1
MD	9.4	1.5	1.6	12.5
PMSH	2.9	0.6	1.0	4.5
PMPK	4.1	0.9	1.4	6.4
Daily	26.2	4.7	5.8	36.6

Period	SOV	HOV2	HOV3+	Total
AMSH	5.5	1.0	0.9	7.4
AMPK	4.3	0.9	0.9	6.0
MD	10.3	2.0	1.9	14.2
PMSH	2.9	0.7	1.0	4.6
PMPK	4.0	1.0	1.4	6.4
Daily	27.0	5.5	6.0	38.5

Period	SOV	HOV2	HOV3+	Total
AMSH	5.5	1.0	0.9	7.3
AMPK	4.3	0.9	0.9	6.0
MD	9.9	1.9	1.8	13.6
PMSH	2.8	0.7	0.9	4.5
PMPK	4.0	0.9	1.4	6.2
Daily	26.5	5.4	5.9	37.7

Period	SOV	HOV2	HOV3+	Total
AMSH	2.6	0.3	0.6	3.4
AMPK	2.4	0.3	0.6	3.3
MD	7.1	0.9	0.7	8.7
PMSH	4.5	1.1	0.6	6.1
PMPK	5.2	1.4	0.8	7.4
Daily	21.7	4.0	3.2	28.9

Period	SOV	HOV2	HOV3+	Total
AMSH	2.1	0.2	0.4	2.7
AMPK	2.0	0.2	0.5	2.8
MD	6.1	0.7	0.5	7.3
PMSH	4.1	1.0	0.4	5.6
PMPK	4.8	1.3	0.6	6.7
Daily	19.1	3.5	2.4	25.0

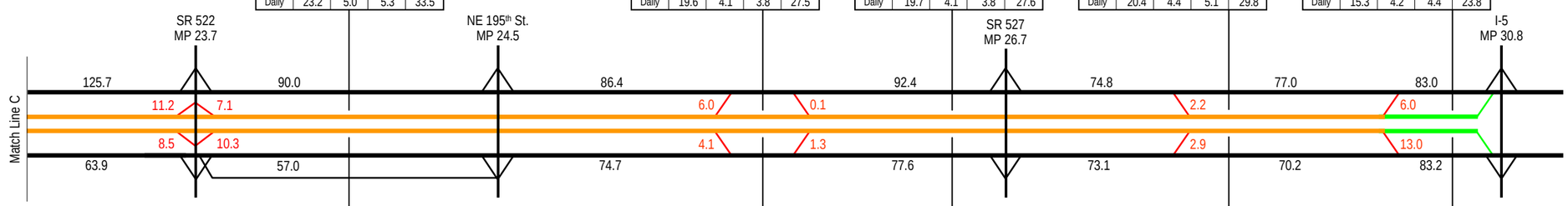
Period	SOV	HOV2	HOV3+	Total
AMSH	2.2	0.3	0.6	3.1
AMPK	2.2	0.3	0.8	3.3
MD	8.1	1.4	1.4	11.0
PMSH	4.8	1.3	0.8	6.9
PMPK	5.5	1.7	1.0	8.2
Daily	22.9	5.0	4.7	32.5

Period	SOV	HOV2	HOV3+	Total
AMSH	2.0	0.2	0.5	2.7
AMPK	2.0	0.2	0.6	2.9
MD	7.3	1.2	1.0	9.5
PMSH	4.4	1.1	0.6	6.1
PMPK	5.1	1.5	0.8	7.4
Daily	20.7	4.3	3.5	28.6

Period	SOV	HOV2	HOV3+	Total
AMSH	2.2	0.2	0.6	3.0
AMPK	2.3	0.3	0.8	3.3
MD	8.2	1.5	1.2	10.9
PMSH	5.1	1.5	0.8	7.4
PMPK	6.2	2.0	1.1	9.3
Daily	23.9	5.5	4.5	33.9

Period	SOV	HOV2	HOV3+	Total
AMSH	2.1	0.2	0.5	2.8
AMPK	2.2	0.3	0.5	3.0
MD	8.4	1.6	1.4	11.3
PMSH	5.0	1.5	0.7	7.2
PMPK	6.0	1.9	1.0	9.0
Daily	23.7	5.5	4.1	33.3

Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.2	0.4	2.5
AMPK	2.0	0.2	0.4	2.7
MD	7.8	1.4	1.1	10.3
PMSH	4.8	1.3	0.6	6.7
PMPK	5.8	1.8	0.9	8.5
Daily	22.3	4.9	3.4	30.6



Period	SOV	HOV2	HOV3+	Total
AMSH	4.0	0.7	0.7	5.5
AMPK	3.5	0.8	0.7	5.0
MD	8.8	1.8	1.7	12.3
PMSH	3.1	0.8	0.9	4.8
PMPK	3.8	0.9	1.3	6.0
Daily	23.2	5.0	5.3	33.5

Period	SOV	HOV2	HOV3+	Total
AMSH	3.2	0.6	0.4	4.1
AMPK	2.9	0.7	0.5	4.1
MD	7.4	1.4	1.2	10.0
PMSH	2.7	0.7	0.7	4.1
PMPK	3.4	0.8	1.0	5.2
Daily	19.6	4.1	3.8	27.5

Period	SOV	HOV2	HOV3+	Total
AMSH	3.2	0.6	0.4	4.2
AMPK	2.9	0.7	0.5	4.1
MD	7.4	1.4	1.2	10.0
PMSH	2.7	0.7	0.7	4.1
PMPK	3.4	0.8	1.0	5.2
Daily	19.7	4.1	3.8	27.6

Period	SOV	HOV2	HOV3+	Total
AMSH	3.4	0.6	0.8	4.8
AMPK	3.1	0.7	0.7	4.5
MD	7.7	1.5	1.5	10.7
PMSH	2.8	0.7	0.8	4.3
PMPK	3.4	0.9	1.1	5.4
Daily	20.4	4.4	5.1	29.8

Period	SOV	HOV2	HOV3+	Total
AMSH	2.4	0.6	0.7	3.8
AMPK	2.1	0.7	0.7	3.5
MD	5.5	1.3	1.1	7.9
PMSH	2.4	0.7	0.7	3.8
PMPK	2.9	0.8	1.1	4.8
Daily	15.3	4.2	4.4	23.8

Period	SOV	HOV2	HOV3+	Total
AMSH	2.1	0.3	0.7	3.2
AMPK	2.8	0.4	0.7	4.0
MD	7.5	1.6	1.4	10.4
PMSH	4.5	1.3	0.7	6.4
PMPK	5.7	1.9	0.9	8.4
Daily	22.5	5.5	4.4	32.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.9	0.3	0.6	2.9
AMPK	2.6	0.4	0.6	3.6
MD	6.6	1.4	1.0	9.0
PMSH	3.9	1.1	0.5	5.5
PMPK	5.1	1.7	0.7	7.4
Daily	20.0	4.9	3.5	28.3

Period	SOV	HOV2	HOV3+	Total
AMSH	2.0	0.4	0.7	3.1
AMPK	2.7	0.4	0.7	3.8
MD	6.9	1.5	1.3	9.7
PMSH	3.9	1.1	0.5	5.5
PMPK	5.1	1.7	0.7	7.4
Daily	20.6	5.1	3.9	29.6

Period	SOV	HOV2	HOV3+	Total
AMSH	2.2	0.4	0.9	3.4
AMPK	3.0	0.5	0.9	4.3
MD	7.1	1.6	1.6	10.4
PMSH	4.1	1.2	0.6	5.9
PMPK	5.6	1.8	0.9	8.4
Daily	22.0	5.5	4.9	32.4

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.2	0.6	2.1
AMPK	1.8	0.3	0.5	2.7
MD	4.1	1.1	1.0	6.1
PMSH	2.3	0.9	0.3	3.5
PMPK	3.2	1.3	0.5	5.0
Daily	12.7	3.9	2.8	19.4

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH	(AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK	(AM Peak) 6:30-8:30 AM
MD	(Midday) 9:30 AM-2:30 PM
PMSH	(PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK	(PM Peak) 3:30-6:30 PM
Daily	Total 5:00 AM-7:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

FINAL DRAFT

WilburSmith ASSOCIATES

2035 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 5
I-405 NORTHERN SECTION

FIGURE A-5-2C

Schematic
Not To Scale

Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.0	0.2	0.9
AMPK	0.8	0.1	0.2	1.1
MD	3.5	1.0	0.5	5.1
PMSH	2.1	0.9	0.1	3.1
PMPK	2.7	1.2	0.2	4.1
Daily	9.8	3.3	1.3	14.3

Period	SOV	HOV2	HOV3+	Total
AMSH	0.7	0.0	0.2	0.9
AMPK	0.8	0.1	0.2	1.1
MD	3.5	1.0	0.5	5.0
PMSH	1.9	0.9	0.1	2.8
PMPK	2.4	1.1	0.2	3.7
Daily	9.3	3.1	1.1	13.5

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.0	0.2	1.1
AMPK	1.0	0.1	0.3	1.3
MD	4.1	1.2	0.6	5.9
PMSH	2.2	1.0	0.1	3.3
PMPK	2.7	1.3	0.2	4.2
Daily	10.8	3.6	1.5	15.9

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.0	0.1	1.0
AMPK	1.0	0.1	0.2	1.2
MD	4.0	1.1	0.4	5.5
PMSH	1.7	0.8	0.1	2.6
PMPK	2.2	1.1	0.1	3.4
Daily	9.7	3.1	1.0	13.8

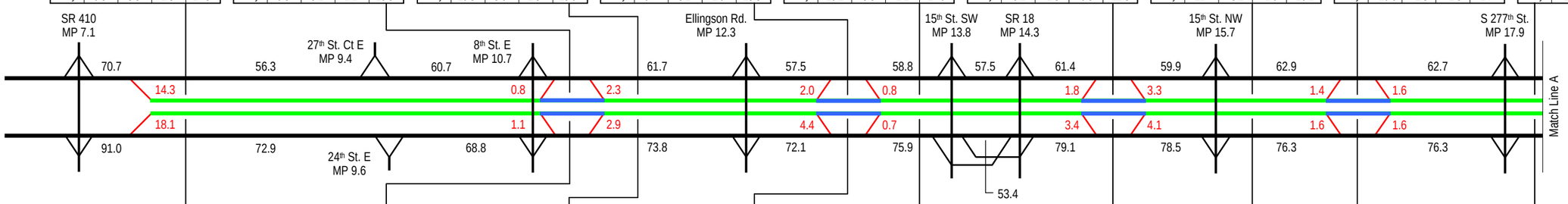
Period	SOV	HOV2	HOV3+	Total
AMSH	0.9	0.1	0.2	1.1
AMPK	1.0	0.1	0.2	1.3
MD	4.2	1.2	0.5	5.8
PMSH	1.8	0.8	0.1	2.8
PMPK	2.3	1.1	0.2	3.6
Daily	10.2	3.3	1.1	14.6

Period	SOV	HOV2	HOV3+	Total
AMSH	0.8	0.0	0.1	1.0
AMPK	0.9	0.1	0.2	1.2
MD	3.8	1.0	0.4	5.1
PMSH	1.6	0.7	0.1	2.4
PMPK	2.0	1.0	0.1	3.2
Daily	9.1	2.8	0.9	12.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.0	0.3	1.4
AMPK	1.1	0.1	0.3	1.5
MD	4.3	1.1	0.6	6.0
PMSH	2.0	0.8	0.2	3.0
PMPK	2.8	1.2	0.2	4.2
Daily	11.4	3.2	1.6	16.1

Period	SOV	HOV2	HOV3+	Total
AMSH	1.1	0.0	0.2	1.3
AMPK	1.0	0.1	0.3	1.4
MD	4.0	1.0	0.5	5.4
PMSH	1.9	0.7	0.1	2.7
PMPK	2.6	1.0	0.2	3.8
Daily	10.6	2.8	1.3	14.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.0	0.3	1.5
AMPK	1.1	0.1	0.3	1.5
MD	4.3	1.0	0.6	6.0
PMSH	2.1	0.8	0.2	3.0
PMPK	2.9	1.1	0.3	4.3
Daily	11.6	3.0	1.7	16.3



Period	SOV	HOV2	HOV3+	Total
AMSH	2.2	0.4	0.5	3.1
AMPK	1.8	0.4	0.4	2.6
MD	4.1	1.1	0.6	5.9
PMSH	1.7	0.7	0.3	2.7
PMPK	2.4	1.0	0.4	3.8
Daily	12.2	3.7	2.1	18.1

Period	SOV	HOV2	HOV3+	Total
AMSH	2.2	0.4	0.4	3.0
AMPK	1.7	0.4	0.3	2.5
MD	3.8	1.1	0.5	5.4
PMSH	1.6	0.7	0.2	2.5
PMPK	2.3	1.0	0.3	3.6
Daily	11.7	3.6	1.7	17.0

Period	SOV	HOV2	HOV3+	Total
AMSH	2.4	0.5	0.5	3.5
AMPK	2.0	0.5	0.4	2.8
MD	4.6	1.3	0.8	6.6
PMSH	1.9	0.8	0.3	2.9
PMPK	2.6	1.1	0.4	4.1
Daily	13.4	4.1	2.4	19.8

Period	SOV	HOV2	HOV3+	Total
AMSH	2.0	0.4	0.3	2.7
AMPK	1.6	0.4	0.3	2.3
MD	3.7	1.0	0.5	5.2
PMSH	1.4	0.6	0.2	2.3
PMPK	1.8	0.8	0.3	3.0
Daily	10.5	3.3	1.7	15.4

Period	SOV	HOV2	HOV3+	Total
AMSH	2.0	0.4	0.3	2.8
AMPK	1.7	0.4	0.3	2.4
MD	3.8	1.1	0.6	5.5
PMSH	1.5	0.7	0.3	2.4
PMPK	1.8	0.9	0.4	3.1
Daily	10.9	3.4	1.8	16.1

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.3	0.2	2.3
AMPK	1.4	0.3	0.2	1.9
MD	3.0	0.8	0.4	4.2
PMSH	1.2	0.5	0.2	2.0
PMPK	1.5	0.7	0.3	2.4
Daily	8.8	2.6	1.4	12.7

Period	SOV	HOV2	HOV3+	Total
AMSH	2.3	0.4	0.5	3.2
AMPK	1.8	0.4	0.4	2.6
MD	4.0	1.0	0.8	5.8
PMSH	1.4	0.5	0.3	2.3
PMPK	1.7	0.7	0.5	2.9
Daily	11.3	3.0	2.5	16.8

Period	SOV	HOV2	HOV3+	Total
AMSH	2.1	0.3	0.4	2.9
AMPK	1.7	0.3	0.3	2.4
MD	3.8	0.8	0.7	5.3
PMSH	1.3	0.5	0.3	2.0
PMPK	1.5	0.6	0.4	2.5
Daily	10.5	2.6	2.2	15.2

Period	SOV	HOV2	HOV3+	Total
AMSH	2.4	0.4	0.5	3.2
AMPK	1.9	0.4	0.4	2.7
MD	4.0	0.9	0.9	5.8
PMSH	1.4	0.5	0.4	2.3
PMPK	1.6	0.6	0.6	2.8
Daily	11.3	2.8	2.7	16.9

Period	SOV	HOV2	HOV3+	Total
AMSH	1.2	0.0	0.2	1.4
AMPK	1.0	0.0	0.2	1.3
MD	3.8	0.7	0.5	5.0
PMSH	1.8	0.5	0.1	2.5
PMPK	2.6	0.8	0.2	3.6
Daily	10.4	2.1	1.3	13.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.0	0.2	1.6
AMPK	1.1	0.0	0.3	1.5
MD	4.1	0.7	0.6	5.4
PMSH	2.0	0.6	0.1	2.7
PMPK	2.8	0.8	0.3	3.8
Daily	11.3	2.2	1.4	14.9

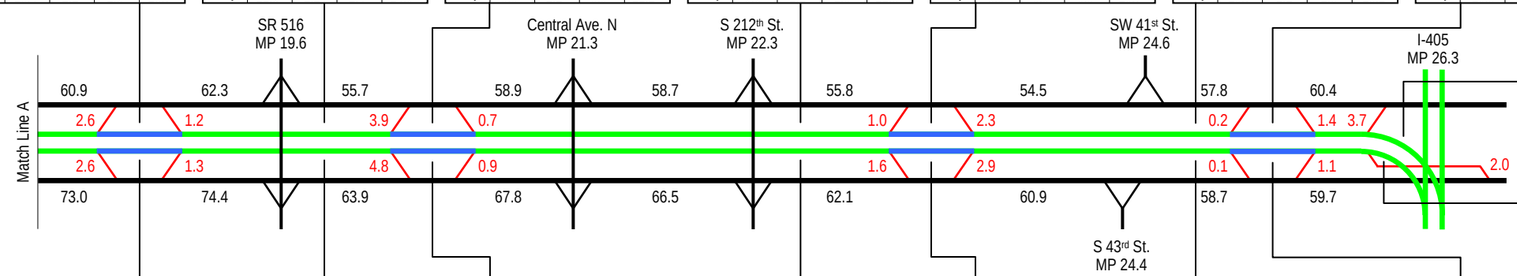
Period	SOV	HOV2	HOV3+	Total
AMSH	1.3	0.0	0.1	1.4
AMPK	1.0	0.0	0.2	1.2
MD	3.3	0.4	0.3	4.1
PMSH	1.4	0.3	0.1	1.8
PMPK	1.9	0.4	0.2	2.6
Daily	9.0	1.1	0.9	11.1

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	0.0	0.1	1.5
AMPK	1.1	0.0	0.2	1.3
MD	3.5	0.4	0.4	4.3
PMSH	1.5	0.3	0.1	1.9
PMPK	2.0	0.4	0.2	2.7
Daily	9.5	1.2	1.0	11.8

Period	SOV	HOV2	HOV3+	Total
AMSH	1.4	0.0	0.1	1.5
AMPK	1.1	0.0	0.2	1.2
MD	3.2	0.4	0.3	3.9
PMSH	1.4	0.2	0.1	1.7
PMPK	1.8	0.3	0.2	2.4
Daily	8.9	0.9	0.9	10.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.0	0.2	1.9
AMPK	1.3	0.0	0.3	1.6
MD	3.8	0.4	0.5	4.7
PMSH	1.7	0.3	0.1	2.1
PMPK	2.2	0.4	0.2	2.8
Daily	10.7	1.1	1.3	13.1

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.0	0.2	1.9
AMPK	1.3	0.0	0.2	1.6
MD	3.7	0.4	0.5	4.6
PMSH	1.7	0.3	0.1	2.1
PMPK	2.1	0.4	0.2	2.7
Daily	10.5	1.1	1.2	12.9



Period	SOV	HOV2	HOV3+	Total
AMSH	2.0	0.0	0.0	2.1
AMPK	1.4	0.0	0.1	1.5
MD	3.2	0.2	0.1	3.6
PMSH	1.3	0.2	0.1	1.5
PMPK	1.5	0.2	0.1	1.8
Daily	9.4	0.7	0.4	10.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.3	0.2	2.3
AMPK	1.4	0.3	0.1	1.8
MD	3.1	0.5	0.3	3.9
PMSH	1.4	0.3	0.1	1.8
PMPK	1.6	0.3	0.2	2.0
Daily	9.3	1.6	0.9	11.9

Period	SOV	HOV2	HOV3+	Total
AMSH	2.2	0.4	0.4	3.0
AMPK	1.8	0.4	0.4	2.6
MD	3.3	0.8	0.7	4.7
PMSH	1.1	0.4	0.3	1.8
PMPK	1.2	0.5	0.5	2.2
Daily	9.6	2.4	2.2	14.3

Period	SOV	HOV2	HOV3+	Total
AMSH	2.3	0.4	0.5	3.2
AMPK	2.0	0.4	0.4	2.8
MD	3.5	0.9	0.7	5.1
PMSH	1.2	0.4	0.4	2.0
PMPK	1.4	0.5	0.5	2.4
Daily	10.4	2.6	2.5	15.5

Period	SOV	HOV2	HOV3+	Total
AMSH	1.7	0.3	0.3	2.2
AMPK	1.4	0.3	0.2	1.9
MD	2.5	0.5	0.5	3.5
PMSH	0.9	0.2	0.2	1.4
PMPK	1.0	0.3	0.3	1.7
Daily	7.6	1.6	1.6	10.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.8	0.3	0.3	2.3
AMPK	1.5	0.3	0.3	2.0
MD	2.7	0.5	0.5	3.8
PMSH	1.1	0.3	0.3	1.6
PMPK	1.2	0.3	0.4	1.9
Daily	8.2	1.8	1.6	11.6

Period	SOV	HOV2	HOV3+	Total
AMSH	1.6	0.3	0.2	2.1
AMPK	1.3	0.3	0.2	1.8
MD	2.4	0.5	0.3	3.2
PMSH	1.0	0.2	0.2	1.4
PMPK	1.1	0.3	0.2	1.6
Daily	7.4	1.6	1.1	10.1

Period	SOV	HOV2	HOV3+	Total
AMSH	2.0	0.3	0.3	2.6
AMPK	1.6	0.3	0.3	2.2
MD	3.1	0.6	0.5	4.2
PMSH	1.3	0.3	0.2	1.8
PMPK	1.4	0.4	0.3	2.1
Daily	9.4	1.9	1.6	12.9

Period	SOV	HOV2	HOV3+	Total
AMSH	2.0	0.3	0.3	2.6
AMPK	1.6	0.3	0.3	2.2
MD	3.1	0.6	0.5	4.2
PMSH	1.3	0.3	0.2	1.8
PMPK	1.4	0.4	0.3	2.1
Daily	9.3	1.9	1.6	12.8

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-7:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

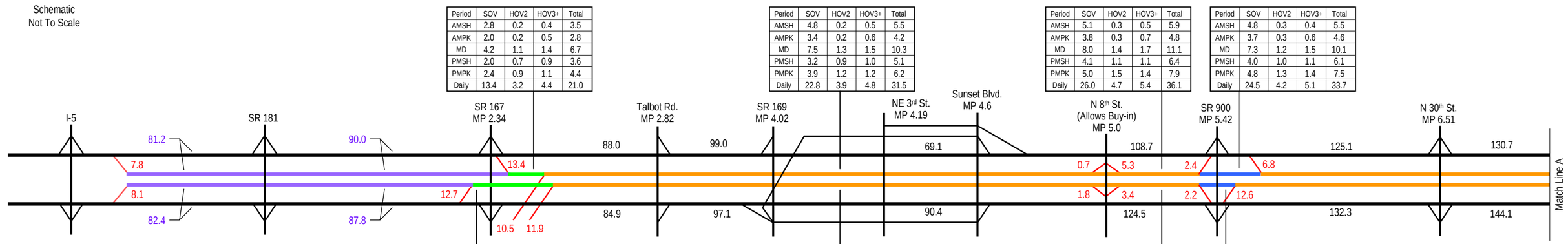
FINAL DRAFT

WilburSmith ASSOCIATES

2045 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 5
SR 167

FIGURE A-5-3A

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	2.8	0.2	0.4	3.5
AMPK	2.0	0.2	0.5	2.8
MD	4.2	1.1	1.4	6.7
PMSH	2.0	0.7	0.9	3.6
PMPK	2.4	0.9	1.1	4.4
Daily	13.4	3.2	4.4	21.0

Period	SOV	HOV2	HOV3+	Total
AMSH	4.8	0.2	0.5	5.5
AMPK	3.4	0.2	0.6	4.2
MD	7.5	1.3	1.5	10.3
PMSH	3.2	0.9	1.0	5.1
PMPK	3.9	1.2	1.2	6.2
Daily	22.8	3.9	4.8	31.5

Period	SOV	HOV2	HOV3+	Total
AMSH	5.1	0.3	0.5	5.9
AMPK	3.8	0.3	0.7	4.8
MD	8.0	1.4	1.7	11.1
PMSH	4.1	1.1	1.1	6.4
PMPK	5.0	1.5	1.4	7.9
Daily	26.0	4.7	5.4	36.1

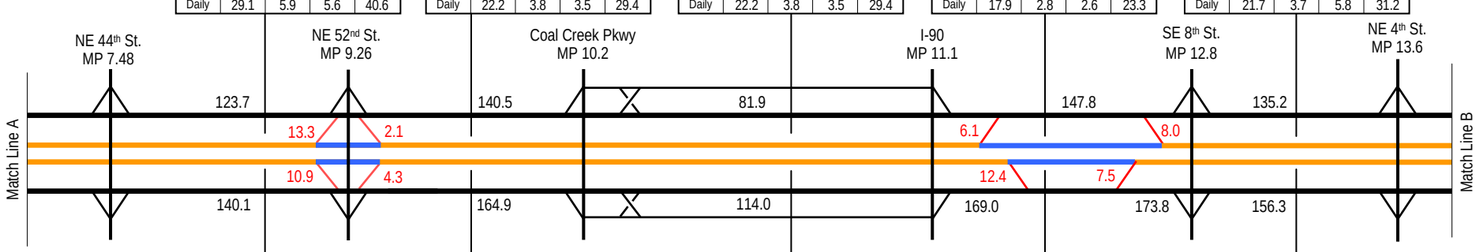
Period	SOV	HOV2	HOV3+	Total
AMSH	4.8	0.3	0.4	5.5
AMPK	3.7	0.3	0.6	4.6
MD	7.3	1.2	1.5	10.1
PMSH	4.0	1.0	1.1	6.1
PMPK	4.8	1.3	1.4	7.5
Daily	24.5	4.2	5.1	33.7

Period	SOV	HOV2	HOV3+	Total
AMSH	1.9	0.4	1.0	3.3
AMPK	1.5	0.3	0.8	2.6
MD	4.2	1.0	1.7	6.9
PMSH	2.4	0.6	0.5	3.5
PMPK	2.8	0.8	0.7	4.2
Daily	12.7	3.2	4.7	20.6

Period	SOV	HOV2	HOV3+	Total
AMSH	3.7	0.7	1.2	5.6
AMPK	2.8	0.6	1.0	4.4
MD	7.3	1.5	2.1	10.9
PMSH	3.8	0.9	0.6	5.3
PMPK	4.4	1.1	0.8	6.3
Daily	22.0	4.8	5.6	32.5

Period	SOV	HOV2	HOV3+	Total
AMSH	3.7	0.6	1.2	5.5
AMPK	2.8	0.5	1.0	4.4
MD	7.7	1.5	2.3	11.5
PMSH	4.1	0.9	0.8	5.8
PMPK	4.8	1.1	1.1	6.9
Daily	23.1	4.6	6.4	34.1

Period	SOV	HOV2	HOV3+	Total
AMSH	3.4	0.6	1.2	5.2
AMPK	2.7	0.5	0.9	4.1
MD	7.1	1.4	2.2	10.7
PMSH	3.9	0.8	0.7	5.4
PMPK	4.5	1.0	1.0	6.5
Daily	21.7	4.2	6.0	31.9



Period	SOV	HOV2	HOV3+	Total
AMSH	5.7	0.7	0.5	6.9
AMPK	4.6	0.6	0.7	5.9
MD	8.8	1.9	1.7	12.4
PMSH	4.7	1.3	1.2	7.1
PMPK	5.3	1.5	1.5	8.3
Daily	29.1	5.9	5.6	40.6

Period	SOV	HOV2	HOV3+	Total
AMSH	4.0	0.5	0.2	4.7
AMPK	3.5	0.4	0.2	4.2
MD	7.1	1.2	1.0	9.3
PMSH	3.5	0.8	0.9	5.2
PMPK	4.0	0.9	1.1	6.1
Daily	22.2	3.8	3.5	29.4

Period	SOV	HOV2	HOV3+	Total
AMSH	4.0	0.5	0.2	4.7
AMPK	3.5	0.4	0.2	4.2
MD	7.1	1.2	1.0	9.3
PMSH	3.5	0.8	0.9	5.2
PMPK	4.0	0.9	1.1	6.1
Daily	22.2	3.8	3.5	29.4

Period	SOV	HOV2	HOV3+	Total
AMSH	2.9	0.3	0.1	3.2
AMPK	3.0	0.3	0.1	3.4
MD	5.1	0.7	0.4	6.3
PMSH	3.2	0.7	0.9	4.8
PMPK	3.7	0.8	1.1	5.6
Daily	17.9	2.8	2.6	23.3

Period	SOV	HOV2	HOV3+	Total
AMSH	3.5	0.4	0.2	4.1
AMPK	3.4	0.4	0.3	4.1
MD	6.3	1.0	1.3	8.6
PMSH	3.8	0.9	1.8	6.5
PMPK	4.7	1.0	2.2	8.0
Daily	21.7	3.7	5.8	31.2

Period	SOV	HOV2	HOV3+	Total
AMSH	4.8	1.0	1.4	7.2
AMPK	3.9	0.9	1.1	5.9
MD	9.8	2.6	2.7	15.0
PMSH	5.0	1.6	1.0	7.6
PMPK	5.6	1.8	1.4	8.8
Daily	29.0	7.8	7.6	44.5

Period	SOV	HOV2	HOV3+	Total
AMSH	4.6	1.0	1.5	7.2
AMPK	3.0	0.9	1.3	5.2
MD	7.6	2.1	2.0	11.7
PMSH	4.0	1.5	0.9	6.4
PMPK	4.4	1.7	1.4	7.5
Daily	23.6	7.2	7.1	38.0

Period	SOV	HOV2	HOV3+	Total
AMSH	4.6	1.0	1.5	7.2
AMPK	3.0	0.9	1.3	5.2
MD	7.6	2.1	2.0	11.7
PMSH	4.0	1.5	0.9	6.4
PMPK	4.4	1.7	1.4	7.5
Daily	23.6	7.2	7.1	38.0

Period	SOV	HOV2	HOV3+	Total
AMSH	3.4	0.7	0.9	5.0
AMPK	2.6	0.6	0.7	4.0
MD	5.4	1.4	0.9	7.7
PMSH	2.9	0.8	0.3	4.0
PMPK	3.4	1.1	0.4	4.9
Daily	17.8	4.5	3.3	25.6

Period	SOV	HOV2	HOV3+	Total
AMSH	3.8	0.8	1.6	6.2
AMPK	3.0	0.7	1.5	5.2
MD	6.3	1.5	2.0	9.8
PMSH	3.7	1.1	0.7	5.5
PMPK	4.1	1.4	1.0	6.5
Daily	20.8	5.4	6.9	33.2

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-7:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

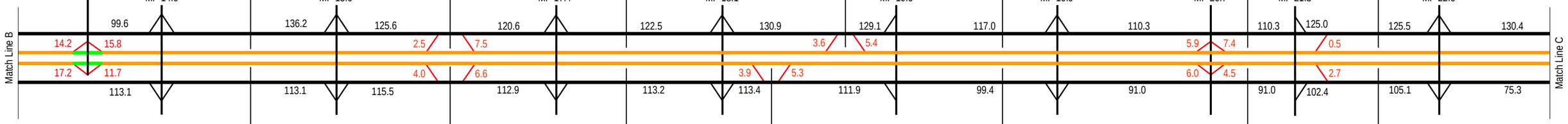
FINAL DRAFT

WilburSmith ASSOCIATES

2045 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 5
I-405 SOUTHERN SECTION

FIGURE A-5-3B

Schematic
Not To Scale



Period	SOV	HOV2	HOV3+	Total
AMSH	4.5	0.6	0.4	5.6
AMPK	3.3	0.6	0.5	4.4
MD	7.7	1.4	1.5	10.6
PMSH	3.3	0.8	1.2	5.3
PMPK	4.3	1.1	1.5	6.9
Daily	23.1	4.5	5.2	32.8

Period	SOV	HOV2	HOV3+	Total
AMSH	2.8	0.3	0.8	4.0
AMPK	2.2	0.3	0.8	3.3
MD	5.7	0.9	1.0	7.6
PMSH	4.4	1.1	0.6	6.0
PMPK	4.6	1.4	0.8	6.7
Daily	19.7	4.0	4.0	27.7

Period	SOV	HOV2	HOV3+	Total
AMSH	4.4	0.6	0.4	5.4
AMPK	3.2	0.5	0.4	4.2
MD	7.3	1.3	1.3	9.9
PMSH	2.9	0.7	1.0	4.7
PMPK	3.9	0.9	1.3	6.2
Daily	21.8	4.1	4.5	30.3

Period	SOV	HOV2	HOV3+	Total
AMSH	2.1	0.2	0.6	2.9
AMPK	1.9	0.2	0.7	2.8
MD	4.8	0.8	0.7	6.4
PMSH	4.0	1.0	0.4	5.5
PMPK	4.3	1.3	0.6	6.1
Daily	17.1	3.5	3.0	23.7

Period	SOV	HOV2	HOV3+	Total
AMSH	5.5	0.8	0.9	7.2
AMPK	4.1	0.7	1.1	5.9
MD	8.5	1.5	2.0	12.1
PMSH	3.2	0.8	1.4	5.4
PMPK	4.4	1.0	1.8	7.2
Daily	25.7	4.9	7.2	37.9

Period	SOV	HOV2	HOV3+	Total
AMSH	2.4	0.3	0.8	3.5
AMPK	2.2	0.3	1.0	3.4
MD	6.1	1.3	1.6	8.9
PMSH	4.7	1.3	0.9	6.9
PMPK	4.8	1.6	1.1	7.5
Daily	20.1	4.7	5.4	30.3

Period	SOV	HOV2	HOV3+	Total
AMSH	5.0	0.7	0.8	6.5
AMPK	3.8	0.6	1.0	5.5
MD	7.7	1.3	1.8	10.7
PMSH	3.0	0.7	1.3	4.9
PMPK	4.0	0.9	1.6	6.5
Daily	23.5	4.2	6.5	34.2

Period	SOV	HOV2	HOV3+	Total
AMSH	2.1	0.2	0.6	3.0
AMPK	2.0	0.2	0.8	3.0
MD	5.3	1.0	1.1	7.5
PMSH	4.2	1.1	0.7	6.1
PMPK	4.5	1.4	0.9	6.8
Daily	18.1	4.0	4.3	26.4

Period	SOV	HOV2	HOV3+	Total
AMSH	5.6	0.8	1.0	7.4
AMPK	4.3	0.7	1.2	6.1
MD	8.8	1.5	2.1	12.5
PMSH	3.5	0.8	1.5	5.8
PMPK	4.8	1.1	1.9	7.8
Daily	27.0	5.0	7.6	39.6

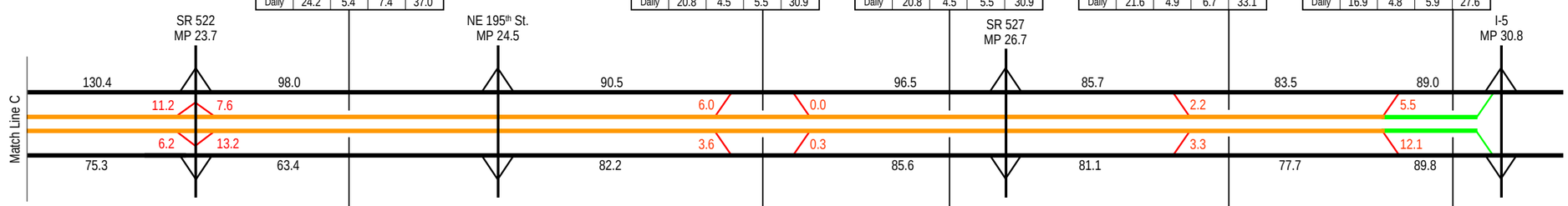
Period	SOV	HOV2	HOV3+	Total
AMSH	2.4	0.3	0.7	3.4
AMPK	2.3	0.3	1.0	3.5
MD	6.4	1.3	1.4	9.1
PMSH	4.9	1.5	0.9	7.3
PMPK	5.3	1.8	1.2	8.3
Daily	21.3	5.1	5.2	31.7

Period	SOV	HOV2	HOV3+	Total
AMSH	5.8	0.9	1.0	7.7
AMPK	4.2	0.8	0.9	5.9
MD	9.5	1.8	2.5	13.8
PMSH	3.4	0.9	1.5	5.9
PMPK	4.7	1.2	1.9	7.8
Daily	27.6	5.7	7.7	41.1

Period	SOV	HOV2	HOV3+	Total
AMSH	2.5	0.3	0.6	3.3
AMPK	2.2	0.2	0.6	3.0
MD	6.5	1.4	1.6	9.5
PMSH	4.6	1.4	0.9	6.9
PMPK	4.8	1.7	1.1	7.6
Daily	20.6	5.0	4.7	30.3

Period	SOV	HOV2	HOV3+	Total
AMSH	5.8	0.9	1.0	7.7
AMPK	4.2	0.8	0.9	5.9
MD	9.5	1.8	2.5	13.8
PMSH	3.2	0.9	1.4	5.5
PMPK	4.6	1.2	1.9	7.7
Daily	27.3	5.6	7.6	40.6

Period	SOV	HOV2	HOV3+	Total
AMSH	2.2	0.2	0.5	3.0
AMPK	2.1	0.2	0.5	2.7
MD	6.0	1.2	1.3	8.5
PMSH	4.3	1.3	0.8	6.4
PMPK	4.6	1.5	1.0	7.1
Daily	19.2	4.4	4.0	27.6



Period	SOV	HOV2	HOV3+	Total
AMSH	4.7	0.8	0.8	6.3
AMPK	3.6	0.7	0.7	5.0
MD	8.3	1.8	2.3	12.4
PMSH	3.3	0.9	1.6	5.9
PMPK	4.2	1.2	1.9	7.3
Daily	24.2	5.4	7.4	37.0

Period	SOV	HOV2	HOV3+	Total
AMSH	3.2	0.4	0.8	4.4
AMPK	3.3	0.5	0.9	4.7
MD	8.1	1.8	1.8	11.7
PMSH	4.5	1.4	0.8	6.7
PMPK	4.6	1.7	0.9	7.2
Daily	23.7	5.8	5.2	34.6

Period	SOV	HOV2	HOV3+	Total
AMSH	3.8	0.6	0.4	4.8
AMPK	3.0	0.6	0.5	4.1
MD	7.1	1.5	1.7	10.3
PMSH	3.0	0.8	1.4	5.2
PMPK	3.9	1.0	1.6	6.5
Daily	20.8	4.5	5.5	30.9

Period	SOV	HOV2	HOV3+	Total
AMSH	3.0	0.4	0.7	4.1
AMPK	3.2	0.4	0.7	4.3
MD	7.5	1.6	1.4	10.5
PMSH	4.0	1.2	0.6	5.8
PMPK	4.1	1.5	0.8	6.3
Daily	21.7	5.2	4.2	31.0

Period	SOV	HOV2	HOV3+	Total
AMSH	3.8	0.6	0.4	4.8
AMPK	3.0	0.6	0.5	4.1
MD	7.1	1.5	1.7	10.3
PMSH	3.0	0.8	1.4	5.2
PMPK	3.9	1.0	1.6	6.5
Daily	20.8	4.5	5.5	30.9

Period	SOV	HOV2	HOV3+	Total
AMSH	3.1	0.4	0.7	4.3
AMPK	3.2	0.4	0.7	4.3
MD	7.5	1.6	1.4	10.5
PMSH	4.0	1.2	0.6	5.8
PMPK	4.1	1.5	0.8	6.3
Daily	21.8	5.2	4.2	31.3

Period	SOV	HOV2	HOV3+	Total
AMSH	4.0	0.7	0.8	5.5
AMPK	3.2	0.7	0.7	4.6
MD	7.3	1.6	2.0	10.9
PMSH	3.1	0.9	1.4	5.4
PMPK	3.9	1.1	1.7	6.8
Daily	21.6	4.9	6.7	33.1

Period	SOV	HOV2	HOV3+	Total
AMSH	3.4	0.5	0.9	4.9
AMPK	3.5	0.5	0.9	4.9
MD	8.0	1.7	1.8	11.6
PMSH	4.2	1.3	0.7	6.2
PMPK	4.5	1.6	1.0	7.1
Daily	23.6	5.6	5.4	34.7

Period	SOV	HOV2	HOV3+	Total
AMSH	3.2	0.7	0.7	4.5
AMPK	2.4	0.6	0.7	3.6
MD	5.7	1.6	2.0	9.3
PMSH	2.6	0.9	1.3	4.8
PMPK	3.1	1.1	1.3	5.4
Daily	16.9	4.8	5.9	27.6

Period	SOV	HOV2	HOV3+	Total
AMSH	2.3	0.3	0.6	3.3
AMPK	2.3	0.4	0.5	3.2
MD	5.2	1.3	1.1	7.5
PMSH	2.6	1.0	0.3	4.0
PMPK	2.8	1.2	0.5	4.6
Daily	15.3	4.2	3.1	22.6

LEGEND

- 1 Lane HOT Lane
- 2 Lane HOT Lane
- HOV Lane
- General Purpose Lanes
- Weaving Area
- Managed Lane Ramp

0.0 General Purpose Mainline Total Daily Volumes (includes night)

0.0 Managed Lane Ramp Total Daily Volumes (does not include night)

0.0 General Purpose Mainline and HOV Lane Total Daily Volumes (includes night)

AMSH (AM Shoulder) 5:00-6:30 AM, 8:30-9:30 AM
AMPK (AM Peak) 6:30-8:30 AM
MD (Midday) 9:30 AM-2:30 PM
PMSH (PM Shoulder) 2:30-3:30 PM, 6:30-8:00 PM
PMPK (PM Peak) 3:30-6:30 PM
Daily Total 5:00 AM-7:00 PM Weekday Volume

Note: All volumes shown represent thousands of vehicles.

FINAL DRAFT

WilburSmith ASSOCIATES

2045 ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES - STUDY OPTION 5
I-405 NORTHERN SECTION

FIGURE A-5-3C

Appendix B

Results of Sensitivity Tests

Appendix B
Table of Contents
1 of 2

Table B-1	Option 1 - HOV 3+, no toll cap	2013-2035 Per-Mile Toll Rates
Table B-2	Option 1 - HOV 2+, no toll cap	2020-2045 Per-Mile Toll Rates
Table B-3	Option 1 - HOV 3+, with toll cap	2013-2035 Per-Mile Toll Rates
Table B-4	Option 4 - HOV 2+, no toll cap	2020-2045 Per-Mile Toll Rates
Table B-5-1	Option 1 - HOV 3+, no toll cap	2013-2035 AM0 Zone to Zone Toll Charge Matrix
Table B-5-2	Option 1 - HOV 3+, no toll cap	2013-2035 AM1 Zone to Zone Toll Charge Matrix
Table B-5-3	Option 1 - HOV 3+, no toll cap	2013-2035 AM2 Zone to Zone Toll Charge Matrix
Table B-5-4	Option 1 - HOV 3+, no toll cap	2013-2035 AM3 Zone to Zone Toll Charge Matrix
Table B-5-5	Option 1 - HOV 3+, no toll cap	2013-2035 MD1 Zone to Zone Toll Charge Matrix
Table B-5-6	Option 1 - HOV 3+, no toll cap	2013-2035 PM1 Zone to Zone Toll Charge Matrix
Table B-5-7	Option 1 - HOV 3+, no toll cap	2013-2035 PM2 Zone to Zone Toll Charge Matrix
Table B-5-8	Option 1 - HOV 3+, no toll cap	2013-2035 PM3 Zone to Zone Toll Charge Matrix
Table B-5-9	Option 1 - HOV 3+, no toll cap	2013-2035 PM4 Zone to Zone Toll Charge Matrix
Table B-5-10	Option 1 - HOV 3+, no toll cap	2013-2035 PM5 Zone to Zone Toll Charge Matrix
Table B-5-11	Option 1 - HOV 3+, no toll cap	2013-2035 PM6 Zone to Zone Toll Charge Matrix
Table B-6-1	Option 1 - HOV 2+, no toll cap	2020-2045 AM0 Zone to Zone Toll Charge Matrix
Table B-6-2	Option 1 - HOV 2+, no toll cap	2020-2045 AM1 Zone to Zone Toll Charge Matrix
Table B-6-3	Option 1 - HOV 2+, no toll cap	2020-2045 AM2 Zone to Zone Toll Charge Matrix
Table B-6-4	Option 1 - HOV 2+, no toll cap	2020-2045 AM3 Zone to Zone Toll Charge Matrix
Table B-6-5	Option 1 - HOV 2+, no toll cap	2020-2045 MD1 Zone to Zone Toll Charge Matrix
Table B-6-6	Option 1 - HOV 2+, no toll cap	2020-2045 PM1 Zone to Zone Toll Charge Matrix
Table B-6-7	Option 1 - HOV 2+, no toll cap	2020-2045 PM2 Zone to Zone Toll Charge Matrix
Table B-6-8	Option 1 - HOV 2+, no toll cap	2020-2045 PM3 Zone to Zone Toll Charge Matrix
Table B-6-9	Option 1 - HOV 2+, no toll cap	2020-2045 PM4 Zone to Zone Toll Charge Matrix
Table B-6-10	Option 1 - HOV 2+, no toll cap	2020-2045 PM5 Zone to Zone Toll Charge Matrix
Table B-6-11	Option 1 - HOV 2+, no toll cap	2020-2045 PM6 Zone to Zone Toll Charge Matrix
Table B-7-1	Option 1 - HOV 3+, with toll cap	2013-2035 AM0 Zone to Zone Toll Charge Matrix
Table B-7-2	Option 1 - HOV 3+, with toll cap	2013-2035 AM1 Zone to Zone Toll Charge Matrix
Table B-7-3	Option 1 - HOV 3+, with toll cap	2013-2035 AM2 Zone to Zone Toll Charge Matrix
Table B-7-4	Option 1 - HOV 3+, with toll cap	2013-2035 AM3 Zone to Zone Toll Charge Matrix
Table B-7-5	Option 1 - HOV 3+, with toll cap	2013-2035 MD1 Zone to Zone Toll Charge Matrix
Table B-7-6	Option 1 - HOV 3+, with toll cap	2013-2035 PM1 Zone to Zone Toll Charge Matrix
Table B-7-7	Option 1 - HOV 3+, with toll cap	2013-2035 PM2 Zone to Zone Toll Charge Matrix
Table B-7-8	Option 1 - HOV 3+, with toll cap	2013-2035 PM3 Zone to Zone Toll Charge Matrix
Table B-7-9	Option 1 - HOV 3+, with toll cap	2013-2035 PM4 Zone to Zone Toll Charge Matrix
Table B-7-10	Option 1 - HOV 3+, with toll cap	2013-2035 PM5 Zone to Zone Toll Charge Matrix
Table B-7-11	Option 1 - HOV 3+, with toll cap	2013-2035 PM6 Zone to Zone Toll Charge Matrix
Table B-8-1	Option 4 - HOV 2+, no toll cap	2020-2045 AM0 Zone to Zone Toll Charge Matrix
Table B-8-2	Option 4 - HOV 2+, no toll cap	2020-2045 AM1 Zone to Zone Toll Charge Matrix
Table B-8-3	Option 4 - HOV 2+, no toll cap	2020-2045 AM2 Zone to Zone Toll Charge Matrix
Table B-8-4	Option 4 - HOV 2+, no toll cap	2020-2045 AM3 Zone to Zone Toll Charge Matrix
Table B-8-5	Option 4 - HOV 2+, no toll cap	2020-2045 MD1 Zone to Zone Toll Charge Matrix
Table B-8-6	Option 4 - HOV 2+, no toll cap	2020-2045 PM1 Zone to Zone Toll Charge Matrix
Table B-8-7	Option 4 - HOV 2+, no toll cap	2020-2045 PM2 Zone to Zone Toll Charge Matrix
Table B-8-8	Option 4 - HOV 2+, no toll cap	2020-2045 PM3 Zone to Zone Toll Charge Matrix
Table B-8-9	Option 4 - HOV 2+, no toll cap	2020-2045 PM4 Zone to Zone Toll Charge Matrix
Table B-8-10	Option 4 - HOV 2+, no toll cap	2020-2045 PM5 Zone to Zone Toll Charge Matrix
Table B-8-11	Option 4 - HOV 2+, no toll cap	2020-2045 PM6 Zone to Zone Toll Charge Matrix
Table B-9-1	Option 1 - HOV 3+, no toll cap	2013-2035 Estimated Gross Toll Revenue per Segment
Table B-9-2	Option 1 - HOV 3+, no toll cap	2013-2035 Estimated Total Transactions per Segment
Table B-9-3	Option 1 - HOV 3+, no toll cap	2013-2035 Estimated Tolled Transactions per Segment
Table B-9-4	Option 1 - HOV 3+, no toll cap	2013-2035 Estimated Toll-Free Transactions per Segment

Appendix B
Table of Contents
2of 2

Table B-10-1	Option 1 - HOV 2+, no toll cap	2020-2045 Estimated Gross Toll Revenue per Segment
Table B-10-2	Option 1 - HOV 2+, no toll cap	2020-2045 Estimated Total Transactions per Segment
Table B-10-3	Option 1 - HOV 2+, no toll cap	2020-2045 Estimated Tolled Transactions per Segment
Table B-10-4	Option 1 - HOV 2+, no toll cap	2020-2045 Estimated Toll-Free Transactions per Segment
Table B-11-1	Option 1 - HOV 3+, with toll cap	2013-2035 Estimated Gross Toll Revenue per Segment
Table B-11-2	Option 1 - HOV 3+, with toll cap	2013-2035 Estimated Total Transactions per Segment
Table B-11-3	Option 1 - HOV 3+, with toll cap	2013-2035 Estimated Tolled Transactions per Segment
Table B-11-4	Option 1 - HOV 3+, with toll cap	2013-2035 Estimated Toll-Free Transactions per Segment
Table B-12-1	Option 4 - HOV 2+, no toll cap	2020-2045 Estimated Gross Toll Revenue per Segment
Table B-12-2	Option 4 - HOV 2+, no toll cap	2020-2045 Estimated Total Transactions per Segment
Table B-12-3	Option 4 - HOV 2+, no toll cap	2020-2045 Estimated Tolled Transactions per Segment
Table B-12-4	Option 4 - HOV 2+, no toll cap	2020-2045 Estimated Toll-Free Transactions per Segment
Table B-13-1	Option 1 - HOV 3+, no toll cap	2013 Estimated Traffic and Gross Toll Revenue
Table B-13-2	Option 1 - HOV 3+, no toll cap	2020 Estimated Traffic and Gross Toll Revenue
Table B-13-3	Option 1 - HOV 3+, no toll cap	2035 Estimated Traffic and Gross Toll Revenue
Table B-14-1	Option 1 - HOV 2+, no toll cap	2020 Estimated Traffic and Gross Toll Revenue
Table B-14-2	Option 1 - HOV 2+, no toll cap	2035 Estimated Traffic and Gross Toll Revenue
Table B-14-3	Option 1 - HOV 2+, no toll cap	2045 Estimated Traffic and Gross Toll Revenue
Table B-15-1	Option 1 - HOV 3+, with toll cap	2013 Estimated Traffic and Gross Toll Revenue
Table B-15-2	Option 1 - HOV 3+, with toll cap	2020 Estimated Traffic and Gross Toll Revenue
Table B-15-3	Option 1 - HOV 3+, with toll cap	2035 Estimated Traffic and Gross Toll Revenue
Table B-16-1	Option 4 - HOV 2+, no toll cap	2020 Estimated Traffic and Gross Toll Revenue
Table B-16-2	Option 4 - HOV 2+, no toll cap	2035 Estimated Traffic and Gross Toll Revenue
Table B-16-3	Option 4 - HOV 2+, no toll cap	2045 Estimated Traffic and Gross Toll Revenue
Table B-17	Option 1 - HOV 3+, no toll cap	Estimated Traffic and Toll Revenue for the Express Toll Lanes
Table B-18	Option 1 - HOV 2+, no toll cap	Estimated Traffic and Toll Revenue for the Express Toll Lanes
Table B-19	Option 1 - HOV 3+, with toll cap	Estimated Traffic and Toll Revenue for the Express Toll Lanes
Table B-20	Option 4 - HOV 2+, no toll cap	Estimated Traffic and Toll Revenue for the Express Toll Lanes

Table B-1

Per Mile Toll Rates

Study Option 1 - HOV 3+, no toll cap

All Toll Rates are Shown in Current Dollars

2013 Northbound - Minimum Toll $1.00

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	0.05	0.15	0.10				0.05	0.05	0.05
AM1	0.30	0.40	0.35				0.05	0.05	0.05
AM2	0.40	0.45	0.40				0.05	0.05	0.05
AM3	0.10	0.15	0.15				0.05	0.05	0.05
Mid	0.05	0.05	0.05				0.05	0.05	0.05
PM1	0.05	0.05	0.05				0.20	0.25	0.30
PM2	0.05	0.05	0.05				0.45	0.55	0.60
PM3	0.05	0.05	0.05				0.30	0.35	0.40
PM4	0.05	0.05	0.05				0.15	0.20	0.20
PM5	0.05	0.05	0.05				0.10	0.10	0.10
PM6	0.05	0.05	0.05				0.05	0.05	0.05

2013 Southbound - Minimum Toll $1.00

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	0.05	0.05	0.05				0.05	0.05	0.05
AM1	0.30	0.25	0.25				0.05	0.05	0.05
AM2	0.45	0.40	0.40				0.05	0.05	0.05
AM3	0.35	0.30	0.30				0.05	0.05	0.05
Mid	0.05	0.05	0.05				0.05	0.05	0.05
PM1	0.10	0.10	0.10				0.05	0.05	0.05
PM2	0.20	0.15	0.15				0.05	0.05	0.05
PM3	0.15	0.10	0.10				0.05	0.05	0.05
PM4	0.05	0.05	0.05				0.05	0.05	0.05
PM5	0.05	0.05	0.05				0.05	0.05	0.05
PM6	0.05	0.05	0.05				0.05	0.05	0.05

2020 Northbound - Minimum Toll $1.00

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	1.20	1.85	1.00				0.05	0.05	0.05
AM1	1.35	2.00	1.35				0.05	0.05	0.05
AM2	1.35	2.30	1.45				0.10	0.10	0.05
AM3	0.90	1.80	0.95				0.05	0.05	0.05
Mid	0.20	0.25	0.15				0.05	0.05	0.05
PM1	0.05	0.25	0.05				0.70	0.80	0.55
PM2	0.30	0.60	0.30				0.95	1.25	1.20
PM3	0.05	0.05	0.05				0.80	0.95	0.70
PM4	0.05	0.05	0.05				0.70	0.80	0.70
PM5	0.05	0.05	0.05				0.55	0.65	0.40
PM6	0.05	0.05	0.05				0.25	0.20	0.15

2020 Southbound - Minimum Toll $1.00

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	0.05	0.05	0.05				0.05	0.05	0.05
AM1	0.65	0.80	0.80				0.05	0.05	0.05
AM2	1.05	1.05	1.05				0.05	0.05	0.05
AM3	0.65	0.75	0.85				0.05	0.05	0.05
Mid	0.20	0.25	0.25				0.05	0.05	0.05
PM1	0.25	0.30	0.55				0.30	0.75	0.15
PM2	0.55	0.45	0.65				0.65	0.95	0.30
PM3	0.35	0.35	0.40				0.20	0.25	0.10
PM4	0.05	0.05	0.05				0.05	0.05	0.05
PM5	0.05	0.05	0.05				0.05	0.05	0.05
PM6	0.05	0.05	0.05				0.05	0.05	0.05

2035 Northbound - Minimum Toll $1.60

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	0.90	0.90	0.90				0.05	0.05	0.05
AM1	1.75	2.00	1.65				0.05	0.05	0.10
AM2	1.80	2.70	1.85				0.10	0.15	0.15
AM3	1.25	1.60	0.90				0.10	0.10	0.10
Mid	0.30	0.40	0.30				0.10	0.10	0.10
PM1	0.50	1.45	0.60				1.40	1.50	1.20
PM2	0.90	1.80	1.35				1.75	2.30	2.35
PM3	0.30	0.80	0.65				1.80	2.10	1.50
PM4	0.15	0.20	0.15				1.45	1.70	1.35
PM5	0.05	0.05	0.05				1.00	1.40	0.85
PM6	0.05	0.05	0.05				0.70	0.70	0.50

2035 Southbound - Minimum Toll $1.60

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	0.60	0.80	0.80				0.05	0.05	0.05
AM1	1.60	1.80	1.40				0.05	0.05	0.05
AM2	1.90	2.30	3.00				0.05	0.05	0.05
AM3	1.80	2.00	2.30				0.05	0.05	0.05
Mid	1.20	1.20	1.20				0.05	0.05	0.05
PM1	1.40	1.20	2.20				1.25	2.70	1.10
PM2	1.90	1.75	2.35				1.70	2.90	1.40
PM3	1.75	1.50	1.70				0.70	1.70	0.50
PM4	0.80	0.80	1.20				0.20	0.35	0.20
PM5	0.40	0.50	0.70				0.20	0.35	0.20
PM6	0.20	0.25	0.25				0.05	0.05	0.05

NOTE: The time periods are defined as:

AM0 = 5:00 - 5:30 AM	AM3 = 8:30 - 9:30 AM	PM2 = 15:30 - 17:30 PM	PM5 = 19:00 - 19:30 PM
AM1= 5:30 - 6:30 AM	MD1 = 9:30 - 14:30 PM	PM3 = 17:30 - 18:30 PM	PM6 = 19:30 - 20:00 PM
AM2 = 6:30 - 8:30 AM	PM1 = 14:30 - 15:30 PM	PM4 = 18:30 - 19:00 PM	

Toll caps for SR 167 and I-405 Express Toll Lanes:

2013	$12.00
2020	$14.26
2035	$20.66

Table B-2

Per Mile Toll Rates

Sensitivity Test Study Option 1 - HOV 2+, no toll cap

All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	1.20	1.90	1.10				0.05	0.05	0.05
AM1	1.35	2.00	1.35				0.05	0.05	0.05
AM2	1.35	2.30	1.45				0.10	0.10	0.05
AM3	0.90	1.80	0.95				0.05	0.05	0.05
Mid	0.20	0.25	0.15				0.05	0.05	0.05
PM1	0.05	0.25	0.05				0.70	0.90	0.55
PM2	0.30	0.60	0.30				0.95	1.50	2.25
PM3	0.05	0.05	0.05				0.80	1.20	1.60
PM4	0.05	0.05	0.05				0.70	1.00	1.60
PM5	0.05	0.05	0.05				0.55	0.65	0.60
PM6	0.05	0.05	0.05				0.25	0.20	0.15

2020 Southbound - Minimum Toll $1.00

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	0.05	0.05	0.05				0.05	0.05	0.05
AM1	0.70	0.85	0.80				0.05	0.05	0.05
AM2	1.75	1.25	1.50				0.05	0.05	0.05
AM3	0.90	0.75	0.85				0.05	0.05	0.05
Mid	0.20	0.25	0.25				0.05	0.05	0.05
PM1	0.25	0.30	0.65				0.30	0.75	0.15
PM2	0.55	0.45	0.75				0.65	0.95	0.30
PM3	0.35	0.35	0.40				0.20	0.25	0.10
PM4	0.05	0.05	0.05				0.05	0.05	0.05
PM5	0.05	0.05	0.05				0.05	0.05	0.05
PM6	0.05	0.05	0.05				0.05	0.05	0.05

2035 Northbound - Minimum Toll $1.60

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	1.20	1.90	1.10				0.05	0.05	0.05
AM1	1.75	2.00	1.65				0.05	0.05	0.10
AM2	1.80	2.70	1.85				0.10	0.15	0.15
AM3	1.25	1.80	0.95				0.10	0.10	0.10
Mid	0.30	0.40	0.30				0.10	0.10	0.10
PM1	0.50	1.45	0.60				2.25	2.25	1.50
PM2	0.90	1.80	1.35				2.25	HOV	HOV
PM3	0.30	0.80	0.65				2.20	3.25	2.25
PM4	0.15	0.20	0.15				1.75	2.75	1.95
PM5	0.05	0.05	0.05				1.00	1.40	1.60
PM6	0.05	0.05	0.05				0.70	0.70	0.50

2035 Southbound - Minimum Toll $1.60

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	0.60	0.80	0.80				0.05	0.05	0.05
AM1	1.60	1.80	1.40				0.05	0.05	0.05
AM2	2.25	2.30	3.00				0.05	0.05	0.05
AM3	1.80	2.00	2.30				0.05	0.05	0.05
Mid	1.20	1.20	1.20				0.05	0.05	0.05
PM1	2.00	1.60	HOV				1.25	2.70	1.10
PM2	3.25	2.20	HOV				1.70	2.90	1.40
PM3	2.50	1.75	3.25				0.70	1.70	0.50
PM4	0.80	0.80	1.20				0.20	0.35	0.20
PM5	0.40	0.50	0.70				0.20	0.35	0.20
PM6	0.20	0.25	0.25				0.05	0.05	0.05

2045 Northbound - Minimum Toll $2.15

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	2.75	4.00	2.75				0.05	0.05	0.05
AM1	3.30	4.50	3.00				0.05	0.05	0.10
AM2	3.50	4.70	3.60				0.15	0.25	0.60
AM3	3.20	4.55	2.85				0.10	0.15	0.45
Mid	1.90	3.00	1.90				0.20	0.30	0.40
PM1	1.35	2.70	1.20				2.80	4.30	4.00
PM2	1.80	3.50	1.90				2.90	HOV	HOV
PM3	1.20	1.45	1.20				2.85	HOV	HOV
PM4	0.45	0.55	0.45				2.70	4.75	5.00
PM5	0.10	0.10	0.05				1.75	2.50	4.50
PM6	0.05	0.05	0.05				1.20	1.45	0.95

2045 Southbound - Minimum Toll $2.15

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	0.80	1.70	2.00				0.05	0.05	0.05
AM1	2.50	2.50	2.20				0.05	0.05	0.05
AM2	3.75	3.50	3.75				0.05	0.05	0.05
AM3	2.80	3.15	3.25				0.05	0.05	0.05
Mid	2.25	2.65	2.50				0.25	0.30	0.05
PM1	HOV	1.75	HOV				2.25	4.35	2.25
PM2	HOV	2.00	HOV				2.65	4.75	2.25
PM3	HOV	2.00	HOV				2.25	4.00	2.10
PM4	HOV	3.30	3.75				1.05	1.90	0.80
PM5	2.00	2.00	2.20				1.05	1.70	0.80
PM6	1.25	0.85	1.25				0.50	0.50	0.40

NOTE: The time periods are defined as:

AM0 = 5:00 - 5:30 AM
AM1= 5:30 - 6:30 AM
AM2 = 6:30 - 8:30 AM
AM3 = 8:30 - 9:30 AM
MD1 = 9:30 - 14:30 PM
PM1 = 14:30 - 15:30 PM
PM2 = 15:30 - 17:30 PM
PM3 = 17:30 - 18:30 PM
PM4 = 18:30 - 19:00 PM
PM5 = 19:00 - 19:30 PM
PM6 = 19:30 - 20:00 PM

HOV = HOV2+ vehicles only, no capacity for SOV available.

Table B-3

Per Mile Toll Rates

Sensitivity Test Study Option 1 - HOV 3+, with toll cap

All Toll Rates are Shown in Current Dollars

2013 Northbound - Minimum Toll $1.00

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	0.05	0.15	0.10				0.05	0.05	0.05
AM1	0.30	0.40	0.35				0.05	0.05	0.05
AM2	0.40	0.45	0.40				0.05	0.05	0.05
AM3	0.10	0.15	0.15				0.05	0.05	0.05
Mid	0.05	0.05	0.05				0.05	0.05	0.05
PM1	0.05	0.05	0.05				0.20	0.25	0.30
PM2	0.05	0.05	0.05				0.50	0.60	0.65
PM3	0.05	0.05	0.05				0.30	0.35	0.40
PM4	0.05	0.05	0.05				0.15	0.25	0.30
PM5	0.05	0.05	0.05				0.10	0.10	0.10
PM6	0.05	0.05	0.05				0.05	0.05	0.05

2013 Southbound - Minimum Toll $1.00

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	0.05	0.05	0.05				0.05	0.05	0.05
AM1	0.30	0.25	0.25				0.05	0.05	0.05
AM2	0.45	0.40	0.40				0.05	0.05	0.05
AM3	0.35	0.30	0.30				0.05	0.05	0.05
Mid	0.05	0.05	0.05				0.05	0.05	0.05
PM1	0.10	0.10	0.10				0.05	0.05	0.05
PM2	0.20	0.15	0.15				0.05	0.05	0.05
PM3	0.15	0.10	0.10				0.05	0.05	0.05
PM4	0.05	0.05	0.05				0.05	0.05	0.05
PM5	0.05	0.05	0.05				0.05	0.05	0.05
PM6	0.05	0.05	0.05				0.05	0.05	0.05

2020 Northbound - Minimum Toll $1.00

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	1.45	2.10	1.30				0.05	0.05	0.05
AM1	1.50	HOV	1.35				0.05	0.05	0.05
AM2	2.00	HOV	1.55				0.10	0.10	0.05
AM3	0.90	1.80	1.10				0.05	0.05	0.05
Mid	0.20	0.25	0.15				0.05	0.05	0.05
PM1	0.05	0.25	0.05				0.70	0.80	0.55
PM2	0.30	0.60	0.30				0.95	1.50	3.00
PM3	0.05	0.05	0.05				0.80	0.95	0.80
PM4	0.05	0.05	0.05				0.70	0.80	0.80
PM5	0.05	0.05	0.05				0.55	0.65	0.40
PM6	0.05	0.05	0.05				0.25	0.20	0.15

2020 Southbound - Minimum Toll $1.00

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	0.05	0.05	0.05				0.05	0.05	0.05
AM1	0.65	0.80	0.80				0.05	0.05	0.05
AM2	1.20	1.10	1.30				0.05	0.05	0.05
AM3	0.75	0.80	0.95				0.05	0.05	0.05
Mid	0.20	0.25	0.25				0.05	0.05	0.05
PM1	0.25	0.30	0.55				0.30	0.75	0.15
PM2	0.55	0.45	0.65				0.65	0.95	0.30
PM3	0.35	0.35	0.40				0.20	0.25	0.10
PM4	0.05	0.05	0.05				0.05	0.05	0.05
PM5	0.05	0.05	0.05				0.05	0.05	0.05
PM6	0.05	0.05	0.05				0.05	0.05	0.05

2035 Northbound - Minimum Toll $1.60

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	0.90	0.90	0.90				0.05	0.05	0.05
AM1	1.75	HOV	1.65				0.05	0.05	0.10
AM2	1.80	HOV	1.85				0.10	0.15	0.15
AM3	1.25	1.60	0.90				0.10	0.10	0.10
Mid	0.30	0.40	0.30				0.10	0.10	0.10
PM1	0.50	1.45	0.60				1.40	1.50	1.20
PM2	0.90	1.85	1.45				HOV	HOV	HOV
PM3	0.30	0.80	0.65				1.80	2.15	2.25
PM4	0.15	0.20	0.15				1.45	1.75	1.60
PM5	0.05	0.05	0.05				1.00	1.45	0.90
PM6	0.05	0.05	0.05				0.70	0.70	0.50

2035 Southbound - Minimum Toll $1.60

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	0.60	0.80	0.80				0.05	0.05	0.05
AM1	1.60	1.80	1.40				0.05	0.05	0.05
AM2	1.90	2.30	3.00				0.05	0.05	0.05
AM3	1.80	2.00	2.30				0.05	0.05	0.05
Mid	1.20	1.20	1.20				0.05	0.05	0.05
PM1	1.40	1.40	3.00				1.25	2.80	1.30
PM2	3.20	3.00	HOV				3.00	HOV	3.75
PM3	1.90	1.60	2.50				0.70	1.70	0.60
PM4	0.80	0.80	1.20				0.20	0.40	0.30
PM5	0.40	0.50	0.70				0.20	0.35	0.25
PM6	0.20	0.25	0.25				0.05	0.05	0.05

NOTE: The time periods are defined as:

AM0 = 5:00 - 5:30 AM	AM3 = 8:30 - 9:30 AM	PM2 = 15:30 - 17:30 PM	PM5 = 19:00 - 19:30 PM
AM1= 5:30 - 6:30 AM	MD1 = 9:30 - 14:30 PM	PM3 = 17:30 - 18:30 PM	PM6 = 19:30 - 20:00 PM
AM2 = 6:30 - 8:30 AM	PM1 = 14:30 - 15:30 PM	PM4 = 18:30 - 19:00 PM	

Toll caps for SR 167 and I-405 Express Toll Lanes:

2013	$12.00
2020	$14.26
2035	$20.66

Table B-4

Per Mile Toll Rates

Sensitivity Test Study Option 4 - HOV 2+, no toll cap

All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	0.95	1.50	1.20	0.70	0.80	0.70	0.40	0.30	0.40
AM1	1.40	2.00	1.70	0.75	0.75	0.35	0.35	0.35	0.25
AM2	1.65	2.15	1.85	0.50	0.50	0.90	0.60	0.50	0.50
AM3	1.15	2.00	1.40	0.50	0.50	0.45	0.30	0.40	0.40
Mid	0.70	0.85	0.70	0.70	0.30	0.90	0.50	0.30	0.10
PM1	0.40	0.55	0.55	0.60	1.00	1.05	1.90	1.40	1.10
PM2	0.75	0.85	0.85	0.85	1.15	1.20	2.00	2.25	3.00
PM3	0.60	0.70	0.70	1.15	1.15	1.15	1.80	1.80	2.25
PM4	0.40	0.40	0.45	0.70	0.90	1.00	1.70	1.60	2.00
PM5	0.40	0.40	0.45	0.70	0.90	1.00	1.10	1.20	1.20
PM6	0.40	0.40	0.45	0.70	0.90	1.00	0.95	1.00	1.00

2020 Southbound - Minimum Toll $1.00

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	0.05	0.05	0.05	0.15	0.25	0.10	0.05	0.05	0.05
AM1	0.80	0.80	0.70	0.50	0.50	0.40	0.10	0.10	0.05
AM2	1.60	1.40	1.30	0.70	0.70	0.60	0.45	0.25	0.25
AM3	1.00	0.85	0.80	0.80	0.80	0.50	0.20	0.15	0.05
Mid	0.65	0.75	0.75	0.50	0.60	0.50	0.40	0.50	0.45
PM1	0.85	0.90	0.90	1.10	0.95	0.95	1.45	1.85	1.00
PM2	0.95	0.85	0.85	1.05	1.05	1.05	2.00	2.20	1.90
PM3	0.85	0.90	0.90	1.00	1.15	1.15	1.50	1.75	1.40
PM4	0.50	0.50	0.50	0.80	0.80	0.80	0.70	0.75	0.65
PM5	0.50	0.50	0.50	0.80	0.80	0.80	0.65	0.70	0.65
PM6	0.40	0.40	0.40	0.70	0.70	0.70	0.55	0.55	0.55

2035 Northbound - Minimum Toll $1.60

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	1.50	1.65	1.65	1.30	0.80	1.15	0.70	0.70	0.65
AM1	1.90	3.20	2.50	0.85	1.10	1.30	0.80	0.80	0.70
AM2	2.30	3.30	2.80	1.15	1.95	2.15	0.80	0.75	0.75
AM3	1.70	2.75	1.50	0.70	1.75	2.05	0.40	0.55	0.55
Mid	1.05	1.40	1.25	1.10	1.10	1.15	0.90	0.80	0.60
PM1	1.05	1.55	1.50	1.05	1.80	1.80	1.90	3.00	3.25
PM2	1.40	2.40	1.90	1.15	1.90	2.00	2.00	4.60	4.40
PM3	1.05	1.05	0.95	1.50	1.50	1.50	1.80	3.50	4.20
PM4	1.00	1.05	1.00	1.30	1.25	1.20	1.75	2.00	3.00
PM5	0.95	1.05	1.20	1.50	1.10	1.55	1.40	1.65	2.00
PM6	0.95	1.05	1.20	1.50	1.05	1.45	1.30	1.50	1.05

2035 Southbound - Minimum Toll $1.60

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	1.00	1.20	1.20	0.85	0.90	0.90	0.40	0.40	0.40
AM1	1.50	2.00	1.50	0.95	1.15	1.30	0.60	0.60	0.60
AM2	2.00	3.00	2.50	0.95	1.30	1.90	0.70	0.70	0.70
AM3	1.60	2.75	2.10	0.95	1.30	1.80	0.75	0.75	0.75
Mid	1.30	1.65	1.40	1.15	1.20	1.50	1.05	0.90	0.90
PM1	2.50	1.55	1.70	1.90	1.90	1.65	2.05	2.10	2.05
PM2	4.00	2.00	0.85	1.90	2.00	1.65	2.10	2.80	2.30
PM3	3.10	1.70	1.65	1.65	1.70	1.30	1.70	1.75	1.65
PM4	1.40	1.30	1.30	1.15	1.55	1.30	1.45	1.40	1.30
PM5	0.90	1.00	1.00	1.15	1.45	1.30	1.50	1.45	1.10
PM6	0.60	0.80	0.80	1.25	1.30	1.30	1.10	1.10	0.55

2045 Northbound - Minimum Toll $2.15

Per Mile Toll Rate ($)

By Toll Zone

Time	SR 167			I-405 South			I-405 North		
Period	A	B	C	D	E	F	G	H	I
AM0	3.00	3.45	3.00	1.50	1.20	1.30	1.10	1.00	0.85
AM1	3.10	4.50	3.35	1.55	1.30	1.40	1.20	1.10	0.90
AM2	3.15	4.25	3.55	1.60	2.20	3.40	1.30	1.30	0.95
AM3	3.00	3.40	2.40	1.80	2.00	3.20	0.80	0.80	0.75
Mid	1.75	2.25	2.10	1.70	1.60	1.30	1.20	1.20	0.80
PM1	2.15	2.50	2.20	2.10	1.80	1.80	2.40	HOV	HOV
PM2	2.85	3.50	3.10	2.55	2.15	2.00	2.40	HOV	HOV
PM3	1.40	1.50	1.45	2.45	2.00	1.70	2.20	HOV	HOV
PM4	1.15	1.20	1.20	2.10	1.80	1.60	2.10	HOV	HOV
PM5	1.00	1.10	1.20	2.35	1.60	1.55	1.90	3.75	4.75
PM6	0.95	1.05	1.20	2.20	1.55	1.45	1.60	2.25	1.75

2045 Southbound - Minimum Toll $2.15

Per Mile Toll Rate ($)

By Toll Zone

Time	I-405 North			I-405 South			SR 167		
Period	I	H	G	F	E	D	C	B	A
AM0	1.85	1.85	1.85	1.40	1.25	1.40	0.70	0.70	0.70
AM1	2.80	2.85	2.40	1.40	1.30	1.95	0.80	0.80	0.80
AM2	3.80	3.50	2.70	1.50	1.50	2.75	0.90	0.90	0.90
AM3	3.10	2.90	2.20	1.45	1.70	2.55	0.80	0.80	0.80
Mid	2.15	2.40	2.40	2.05	2.05	1.90	1.05	0.95	0.90
PM1	HOV	2.25	1.90	1.90	1.90	2.00	2.90	3.45	2.70
PM2	HOV	2.50	1.95	2.10	2.10	2.50	3.15	3.60	2.80
PM3	HOV	2.50	2.15	1.80	1.75	2.25	2.90	3.15	2.60
PM4	HOV	2.40	2.05	1.70	1.60	1.80	2.40	2.40	1.80
PM5	2.50	1.80	1.80	1.95	1.50	1.75	2.00	2.30	1.70
PM6	1.65	1.30	1.70	1.70	1.60	1.90	1.80	2.15	1.50

NOTE: The time periods are defined as:

AM0 = 5:00 - 5:30 AM
AM1= 5:30 - 6:30 AM
AM2 = 6:30 - 8:30 AM
AM3 = 8:30 - 9:30 AM
MD1 = 9:30 - 14:30 PM
PM1 = 14:30 - 15:30 PM
PM2 = 15:30 - 17:30 PM
PM3 = 17:30 - 18:30 PM
PM4 = 18:30 - 19:00 PM
PM5 = 19:00 - 19:30 PM
PM6 = 19:30 - 20:00 PM

HOV = HOV2+ vehicles only, no capacity for SOV available.

Table B-5-1
Toll Charge Matrix AM0 (5:00 am - 5:30 am)
Study Option 1 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2013 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.85	1.35						
	B		0.80	1.30						
	C			0.50						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2013 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.55	11.35	16.55						
	B		9.80	15.00						
	C			5.20						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.15	5.90	10.60						
	B		4.75	9.45						
	C			4.70						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	4.10	6.50	11.20						
	H		2.40	7.10						
	G			4.70						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Toll caps for SR 167 and I-405 Express Toll Lanes:

2013	**$12.00**	**2020**	**$14.26**	**2035**	**$20.66**		

Table B-5-2
Toll Charge Matrix AM1 (5:30 am - 5:30 am)
Study Option 1 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2013 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.40	2.50	4.30						
	B		2.10	3.90						
	C			1.80						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2013 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	2.05	2.80	4.30						
	H		0.75	2.25						
	G			1.50						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.75	12.35	19.35						
	B		10.60	17.60						
	C			7.00						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	4.40	6.80	11.50						
	H		2.40	7.10						
	G			4.70						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.25	12.85	21.45						
	B		10.60	19.20						
	C			8.60						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	1.15
	H								0.15	0.90
	I									0.75

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	10.90	16.30	24.55						
	H		5.40	13.65						
	G			8.25						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Toll caps for SR 167 and I-405 Express Toll Lanes:

2013	**$12.00**	**2020**	**$14.26**	**2035**	**$20.66**

Table B-5-3
Toll Charge Matrix AM2 (6:30 am - 8:30 am)
Study Option 1 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2013 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.50	2.90	5.00						
	B		2.40	4.50						
	C			2.10						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2013 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	3.05	4.25	6.60						
	H		1.20	3.55						
	G			2.35						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.75	13.95	21.50						
	B		12.20	19.75						
	C			7.55						
I-405 South	D									
	E									
	F									
I-405 North	G							0.50	0.80	1.20
	H								0.30	0.70
	I									0.40

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	7.15	10.30	16.50						
	H		3.15	9.35						
	G			6.20						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.35	16.65	26.25						
	B		14.30	23.90						
	C			9.60						
I-405 South	D									
	E									
	F									
I-405 North	G							0.50	0.95	2.10
	H								0.45	1.60
	I									1.15

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	12.90	19.80	37.50						
	H		6.90	24.60						
	G			17.70						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Toll caps for SR 167 and I-405 Express Toll Lanes:

2013	**$12.00**	**2020**	**$14.26**	**2035**	**$20.66**

Table B-5-4
Toll Charge Matrix AM3 (8:30 am - 9:30 am)
Study Option 1 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2013 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.15	0.95	1.75						
	B		0.80	1.60						
	C			0.80						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2013 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	2.40	3.30	5.05						
	H		0.90	2.65						
	G			1.75						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.15	10.70	15.65						
	B		9.55	14.50						
	C			4.95						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	4.40	6.65	11.65						
	H		2.25	7.25						
	G			5.00						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.65	10.15	14.85						
	B		8.50	13.20						
	C			4.70						
I-405 South	D									
	E									
	F									
I-405 North	G							0.50	0.80	1.55
	H								0.30	1.05
	I									0.75

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	12.25	18.25	31.80						
	H		6.00	19.55						
	G			13.55						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Toll caps for SR 167 and I-405 Express Toll Lanes:

2013	**$12.00**	**2020**	**$14.26**	**2035**	**$20.66**		

Table B-5-5
Toll Charge Matrix MD (9:30 am - 2:30 pm)
Study Option 1 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2013 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2013 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.25	1.60	2.40						
	B		1.35	2.15						
	C			0.80						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	1.35	2.10	3.60						
	H		0.75	2.25						
	G			1.50						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.40	2.50	4.05						
	B		2.10	3.65						
	C			1.55						
I-405 South	D									
	E									
	F									
I-405 North	G							0.50	0.80	1.55
	H								0.30	1.05
	I									0.75

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	8.15	11.75	18.85						
	H		3.60	10.70						
	G			7.10						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Toll caps for SR 167 and I-405 Express Toll Lanes:

2013	**$12.00**	**2020**	**$14.26**	**2035**	**$20.66**		

Table B-5-6
Toll Charge Matrix PM1 (2:30 pm - 3:30 pm)
Study Option 1 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2013 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							1.00	1.75	4.05
	H								0.75	3.05
	I									2.30

2013 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.70	1.00	1.60						
	H		0.30	0.90						
	G			0.60						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	1.40	1.65						
	B		1.35	1.60						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							3.55	5.95	10.15
	H								2.40	6.60
	I									4.20

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	1.70	2.60	5.85						
	H		0.90	4.15						
	G			3.25						
I-405 South	F									
	E									
	D									
SR 167	C							1.55	5.50	6.15
	B								3.95	4.60
	A									0.65

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.65	8.35	11.45						
	B		7.70	10.80						
	C			3.10						
I-405 South	D									
	E									
	F									
I-405 North	G							7.15	11.65	20.75
	H								4.50	13.60
	I									9.10

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	9.50	13.10	26.10						
	H		3.60	16.60						
	G			13.00						
I-405 South	F									
	E									
	D									
SR 167	C							6.50	20.80	25.55
	B								14.30	19.05
	A									4.75

Toll caps for SR 167 and I-405 Express Toll Lanes:

2013	**$12.00**	**2020**	**$14.26**	**2035**	**$20.66**		

Table B-5-7
Toll Charge Matrix PM2 (3:30 pm - 5:30 pm)
Study Option 1 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2013 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							2.30	3.95	8.50
	H								1.65	6.20
	I									4.55

2013 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	1.35	1.80	2.70						
	H		0.45	1.35						
	G			0.90						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.40	3.60	5.15						
	B		3.20	4.75						
	C			1.55						
I-405 South	D									
	E									
	F									
I-405 North	G							4.85	8.60	17.70
	H								3.75	12.85
	I									9.10

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	3.75	5.10	8.95						
	H		1.35	5.20						
	G			3.85						
I-405 South	F									
	E									
	D									
SR 167	C							3.40	8.45	9.75
	B								5.05	6.35
	A									1.30

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.15	10.70	17.70						
	B		9.55	16.55						
	C			7.00						
I-405 South	D									
	E									
	F									
I-405 North	G							8.90	15.80	33.65
	H								6.90	24.75
	I									17.85

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	12.90	18.15	32.00						
	H		5.25	19.10						
	G			13.85						
I-405 South	F									
	E									
	D									
SR 167	C							8.85	24.20	30.20
	B								15.35	21.35
	A									6.00

Toll caps for SR 167 and I-405 Express Toll Lanes:

2013	**$12.00**	**2020**	**$14.26**	**2035**	**$20.66**		

Table B-5-8
Toll Charge Matrix PM3 (5:30 pm - 6:30 pm)
Study Option 1 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2013 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							1.55	2.60	5.65
	H								1.05	4.10
	I									3.05

2013 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	1.00	1.30	1.90						
	H		0.30	0.90						
	G			0.60						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							4.10	6.95	12.25
	H								2.85	8.15
	I									5.30

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	2.40	3.45	5.80						
	H		1.05	3.40						
	G			2.35						
I-405 South	F									
	E									
	D									
SR 167	C							1.05	2.40	2.85
	B								1.35	1.80
	A									0.45

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.40	4.65	8.05						
	B		4.25	7.65						
	C			3.40						
I-405 South	D									
	E									
	F									
I-405 North	G							9.20	15.50	26.90
	H								6.30	17.70
	I									11.40

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	11.90	16.40	26.45						
	H		4.50	14.55						
	G			10.05						
I-405 South	F									
	E									
	D									
SR 167	C							3.65	12.65	14.80
	B								9.00	11.15
	A									2.15

Toll caps for SR 167 and I-405 Express Toll Lanes:

2013	**$12.00**	**2020**	**$14.26**	**2035**	**$20.66**		

Table B-5-9
Toll Charge Matrix PM4 (6:30 pm - 7:00 pm)
Study Option 1 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2013 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							0.75	1.35	2.85
	H								0.60	2.10
	I									1.50

2013 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							3.55	5.95	11.25
	H								2.40	7.70
	I									5.30

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.20	1.25	2.05						
	B		1.05	1.85						
	C			0.80						
I-405 South	D									
	E									
	F									
I-405 North	G							7.40	12.50	22.75
	H								5.10	15.35
	I									10.25

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	5.45	7.85	14.95						
	H		2.40	9.50						
	G			7.10						
I-405 South	F									
	E									
	D									
SR 167	C							1.05	2.90	3.75
	B								1.85	2.70
	A									0.85

Toll caps for SR 167 and I-405 Express Toll Lanes:

2013	**$12.00**	**2020**	**$14.26**	**2035**	**$20.66**		

Table B-5-10
Toll Charge Matrix PM5 (7:00 pm - 7:30 pm)
Study Option 1 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2013 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							0.50	0.80	1.55
	H								0.30	1.05
	I									0.75

2013 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							2.80	4.75	7.80
	H								1.95	5.00
	I									3.05

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							5.10	9.30	15.75
	H								4.20	10.65
	I									6.45

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	2.70	4.20	8.35						
	H		1.50	5.65						
	G			4.15						
I-405 South	F									
	E									
	D									
SR 167	C							1.05	2.90	3.75
	B								1.85	2.70
	A									0.85

Toll caps for SR 167 and I-405 Express Toll Lanes:

2013	**$12.00**	**2020**	**$14.26**	**2035**	**$20.66**	

Table B-5-11
Toll Charge Matrix PM6 (7:30 am - 8:00 pm)
Study Option 1 - HOV 3+, no toll cap
All Toll Rates are Shown in Current Dollars

2013 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2013 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							1.30	1.90	3.05
	H								0.60	1.75
	I									1.15

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							3.55	5.65	9.45
	H								2.10	5.90
	I									3.80

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	1.35	2.10	3.60						
	H		0.75	2.25						
	G			1.50						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Toll caps for SR 167 and I-405 Express Toll Lanes:

2013	**$12.00**	**2020**	**$14.26**	**2035**	**$20.66**	

Table-B-6-1

Toll Charge Matrix AM0 (5:00 am - 5:30 am)

Study Option Study Option 1 - HOV 2+, no toll cap

All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.55	11.60	17.30						
	B		10.05	15.75						
	C			5.70						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.55	11.60	17.30						
	B		10.05	15.75						
	C			5.70						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2035 Southbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	4.10	6.50	11.20						
	H		2.40	7.10						
	G			4.70						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2045 Northbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	3.60	24.80	39.10						
	B		21.20	35.50						
	C			14.30						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2045 Southbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	5.45	10.55	22.35						
	H		5.10	16.90						
	G			11.80						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Table-B-6-2
Toll Charge Matrix AM1 (5:30 am - 5:30 am)
Study Option Study Option 1 - HOV 2+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.75	12.35	19.35						
	B		10.60	17.60						
	C			7.00						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	4.75	7.30	12.00						
	H		2.55	7.25						
	G			4.70						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.25	12.85	21.45						
	B		10.60	19.20						
	C			8.60						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	1.15
	H								0.15	0.90
	I									0.75

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	10.90	16.30	24.55						
	H		5.40	13.65						
	G			8.25						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.30	28.15	43.75						
	B		23.85	39.45						
	C			15.60						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	1.15
	H								0.15	0.90
	I									0.75

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	17.00	24.50	37.50						
	H		7.50	20.50						
	G			13.00						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Table-B-6-3
Toll Charge Matrix AM2 (6:30 am - 8:30 am)
Study Option Study Option 1 - HOV 2+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.75	13.95	21.50						
	B		12.20	19.75						
	C			7.55						
I-405 South	D									
	E									
	F									
I-405 North	G							0.50	0.80	1.20
	H								0.30	0.70
	I									0.40

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	11.90	15.65	24.50						
	H		3.75	12.60						
	G			8.85						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.35	16.65	26.25						
	B		14.30	23.90						
	C			9.60						
I-405 South	D									
	E									
	F									
I-405 North	G							0.50	0.95	2.10
	H								0.45	1.60
	I									1.15

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	15.30	22.20	39.90						
	H		6.90	24.60						
	G			17.70						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.55	29.45	48.15						
	B		24.90	43.60						
	C			18.70						
I-405 South	D									
	E									
	F									
I-405 North	G							0.75	1.50	6.05
	H								0.75	5.30
	I									4.55

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	25.50	36.00	58.15						
	H		10.50	32.65						
	G			22.15						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Table-B-6-4
Toll Charge Matrix AM3 (8:30 am - 9:30 am)
Study Option Study Option 1 - HOV 2+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.15	10.70	15.65						
	B		9.55	14.50						
	C			4.95						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	6.10	8.35	13.35						
	H		2.25	7.25						
	G			5.00						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.65	11.20	16.15						
	B		9.55	14.50						
	C			4.95						
I-405 South	D									
	E									
	F									
I-405 North	G							0.50	0.80	1.55
	H								0.30	1.05
	I									0.75

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	12.25	18.25	31.80						
	H		6.00	19.55						
	G			13.55						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.15	28.25	43.05						
	B		24.10	38.90						
	C			14.80						
I-405 South	D									
	E									
	F									
I-405 North	G							0.50	0.95	4.35
	H								0.45	3.85
	I									3.40

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	19.05	28.50	47.70						
	H		9.45	28.65						
	G			19.20						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Table-B-6-5

Toll Charge Matrix MD (9:30 am - 2:30 pm)

Study Option Study Option 1 - HOV 2+, no toll cap

All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.25	1.60	2.40						
	B		1.35	2.15						
	C			0.80						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	1.35	2.10	3.60						
	H		0.75	2.25						
	G			1.50						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.40	2.50	4.05						
	B		2.10	3.65						
	C			1.55						
I-405 South	D									
	E									
	F									
I-405 North	G							0.50	0.80	1.55
	H								0.30	1.05
	I									0.75

2035 Southbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	8.15	11.75	18.85						
	H		3.60	10.70						
	G			7.10						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2045 Northbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.45	18.35	28.25						
	B		15.90	25.80						
	C			9.90						
I-405 South	D									
	E									
	F									
I-405 North	G							1.00	1.90	4.95
	H								0.90	3.95
	I									3.05

2045 Southbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	15.30	23.25	38.00						
	H		7.95	22.70						
	G			14.75						
I-405 South	F									
	E									
	D									
SR 167	C							1.30	2.90	3.10
	B								1.60	1.80
	A									0.20

Table-B-6-6

Toll Charge Matrix PM1 (2:30 pm - 3:30 pm)

Study Option Study Option 1 - HOV 2+, no toll cap

All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	1.40	1.65						
	B		1.35	1.60						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							3.55	6.25	10.45
	H								2.70	6.90
	I									4.20

2020 Southbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	1.70	2.60	6.45						
	H		0.90	4.75						
	G			3.85						
I-405 South	F									
	E									
	D									
SR 167	C							1.55	5.50	6.15
	B								3.95	4.60
	A									0.65

2035 Northbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.65	8.35	11.45						
	B		7.70	10.80						
	C			3.10						
I-405 South	D									
	E									
	F									
I-405 North	G							11.45	18.20	29.60
	H								6.75	18.15
	I									11.40

2035 Southbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	13.60	18.40							
	H		4.80							
	G									
I-405 South	F									
	E									
	D									
SR 167	C							6.50	20.80	25.55
	B								14.30	19.05
	A									4.75

2045 Northbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.75	16.05	22.30						
	B		14.30	20.55						
	C			6.25						
I-405 South	D									
	E									
	F									
I-405 North	G							14.30	27.20	57.60
	H								12.90	43.30
	I									30.40

2045 Southbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I		5.25							
	H		5.25							
	G									
I-405 South	F									
	E									
	D									
SR 167	C							11.70	34.75	44.40
	B								23.05	32.70
	A									9.65

Table-B-6-7

Toll Charge Matrix PM2 (3:30 pm - 5:30 pm)

Study Option Study Option 1 - HOV 2+, no toll cap

All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.40	3.60	5.15						
	B		3.20	4.75						
	C			1.55						
I-405 South	D									
	E									
	F									
I-405 North	G							4.85	9.35	26.45
	H								4.50	21.60
	I									17.10

2020 Southbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	3.75	5.10	9.55						
	H		1.35	5.80						
	G			4.45						
I-405 South	F									
	E									
	D									
SR 167	C							3.40	8.45	9.75
	B								5.05	6.35
	A									1.30

2035 Northbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.15	10.70	17.70						
	B		9.55	16.55						
	C			7.00						
I-405 South	D									
	E									
	F									
I-405 North	G							11.45		
	H									
	I									

2035 Southbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	22.10	28.70							
	H		6.60							
	G									
I-405 South	F									
	E									
	D									
SR 167	C							8.85	24.20	30.20
	B								15.35	21.35
	A									6.00

2045 Northbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.35	20.90	30.80						
	B		18.55	28.45						
	C			9.90						
I-405 South	D									
	E									
	F									
I-405 North	G							14.80		
	H									
	I									

2045 Southbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I		6.00							
	H		6.00							
	G									
I-405 South	F									
	E									
	D									
SR 167	C							13.80	39.00	48.65
	B								25.20	34.85
	A									9.65

Table-B-6-8

Toll Charge Matrix PM3 (5:30 pm - 6:30 pm)

Study Option Study Option 1 - HOV 2+, no toll cap

All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							4.10	7.70	19.85
	H								3.60	15.75
	I									12.15

2020 Southbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	2.40	3.45	5.80						
	H		1.05	3.40						
	G			2.35						
I-405 South	F									
	E									
	D									
SR 167	C							1.05	2.40	2.85
	B								1.35	1.80
	A									0.45

2035 Northbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.40	4.65	8.05						
	B		4.25	7.65						
	C			3.40						
I-405 South	D									
	E									
	F									
I-405 North	G							11.20	20.95	38.05
	H								9.75	26.85
	I									17.10

2035 Southbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	17.00	22.25	41.45						
	H		5.25	24.45						
	G			19.20						
I-405 South	F									
	E									
	D									
SR 167	C							3.65	12.65	14.80
	B								9.00	11.15
	A									2.15

2045 Northbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.55	9.25	15.50						
	B		7.70	13.95						
	C			6.25						
I-405 South	D									
	E									
	F									
I-405 North	G							14.55		
	H									
	I									

2045 Southbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I		6.00							
	H		6.00							
	G									
I-405 South	F									
	E									
	D									
SR 167	C							11.70	32.90	41.95
	B								21.20	30.25
	A									9.05

Table-B-6-9

Toll Charge Matrix PM4 (6:30 pm - 7:00 pm)

Study Option Study Option 1 - HOV 2+, no toll cap

All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							3.55	6.55	18.70
	H								3.00	15.15
	I									12.15

2020 Southbound - Minimum Toll $1.00

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.20	1.25	2.05						
	B		1.05	1.85						
	C			0.80						
I-405 South	D									
	E									
	F									
I-405 North	G							8.90	17.15	31.95
	H								8.25	23.05
	I									14.80

2035 Southbound - Minimum Toll $1.60

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	5.45	7.85	14.95						
	H		2.40	9.50						
	G			7.10						
I-405 South	F									
	E									
	D									
SR 167	C							1.05	2.90	3.75
	B								1.85	2.70
	A									0.85

2045 Northbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.60	3.50	5.85						
	B		2.90	5.25						
	C			2.35						
I-405 South	D									
	E									
	F									
I-405 North	G							13.75	28.00	66.00
	H								14.25	52.25
	I									38.00

2045 Southbound - Minimum Toll $2.15

Toll Rate ($)

By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I		9.90	32.05						
	H		9.90	32.05						
	G			22.15						
I-405 South	F									
	E									
	D									
SR 167	C							5.45	15.50	18.95
	B								10.05	13.50
	A									3.45

Table-B-6-10
Toll Charge Matrix PM5 (7:00 pm - 7:30 pm)
Study Option Study Option 1 - HOV 2+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							2.80	4.75	9.30
	H								1.95	6.50
	I									4.55

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							5.10	9.30	21.45
	H								4.20	16.35
	I									12.15

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	2.70	4.20	8.35						
	H		1.50	5.65						
	G			4.15						
I-405 South	F									
	E									
	D									
SR 167	C							1.05	2.90	3.75
	B								1.85	2.70
	A									0.85

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.15	0.70	0.95						
	B		0.55	0.80						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							8.90	16.40	50.60
	H								7.50	41.70
	I									34.20

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	13.60	19.60	32.60						
	H		6.00	19.00						
	G			13.00						
I-405 South	F									
	E									
	D									
SR 167	C							5.45	14.45	17.90
	B								9.00	12.45
	A									3.45

Table-B-6-11
Toll Charge Matrix PM6 (7:30 am - 8:00 pm)
Study Option Study Option 1 - HOV 2+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							1.30	1.90	3.05
	H								0.60	1.75
	I									1.15

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							3.55	5.65	9.45
	H								2.10	5.90
	I									3.80

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	1.35	2.10	3.60						
	H		0.75	2.25						
	G			1.50						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							6.10	10.45	17.65
	H								4.35	11.55
	I									7.20

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	8.50	11.05	18.45						
	H		2.55	9.95						
	G			7.40						
I-405 South	F									
	E									
	D									
SR 167	C							2.60	5.25	6.95
	B								2.65	4.35
	A									1.70

Table B-7-1
Toll Charge Matrix AM0 (5:00 am - 5:30 am)
Sensitivity Test Study Option 1 - HOV 3+, with toll cap
All Toll Rates are Shown in Current Dollars

2013 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.85	1.35						
	B		0.80	1.30						
	C			0.50						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2013 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.90	13.05	14.26						
	B		11.15	14.26						
	C			6.75						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.15	5.90	10.60						
	B		4.75	9.45						
	C			4.70						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	4.10	6.50	11.20						
	H		2.40	7.10						
	G			4.70						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Toll caps for SR 167 and I-405 Express Toll Lanes:

2013	**$12.00**	**2020**	**$14.26**	**2035**	**$20.66**

Table B-7-2
Toll Charge Matrix AM1 (5:30 am - 5:30 am)
Sensitivity Test Study Option 1 - HOV 3+, with toll cap
All Toll Rates are Shown in Current Dollars

2013 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.40	2.50	4.30						
	B		2.10	3.90						
	C			1.80						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2013 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	2.05	2.80	4.30						
	H		0.75	2.25						
	G			1.50						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.95	HOV	8.95						
	B		HOV	7.00						
	C			7.00						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	4.40	6.80	11.50						
	H		2.40	7.10						
	G			4.70						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.25	HOV	10.85						
	B		HOV	8.60						
	C			8.60						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	1.15
	H								0.15	0.90
	I									0.75

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	10.90	16.30	20.66						
	H		5.40	13.65						
	G			8.25						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Toll caps for SR 167 and I-405 Express Toll Lanes:

2013	**$12.00**	**2020**	**$14.26**	**2035**	**$20.66**

Table B-7-3
Toll Charge Matrix AM2 (6:30 am - 8:30 am)
Sensitivity Test Study Option 1 - HOV 3+, with toll cap
All Toll Rates are Shown in Current Dollars

2013 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.50	2.90	5.00						
	B		2.40	4.50						
	C			2.10						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2013 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	3.05	4.25	6.60						
	H		1.20	3.55						
	G			2.35						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.60	HOV	10.65						
	B		HOV	8.05						
	C			8.05						
I-405 South	D									
	E									
	F									
I-405 North	G							0.50	0.80	1.20
	H								0.30	0.70
	I									0.40

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	8.15	11.45	14.26						
	H		3.30	10.95						
	G			7.65						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.35	HOV	11.95						
	B		HOV	9.60						
	C			9.60						
I-405 South	D									
	E									
	F									
I-405 North	G							0.50	0.95	2.10
	H								0.45	1.60
	I									1.15

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	12.90	19.80	20.66						
	H		6.90	20.66						
	G			17.70						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Toll caps for SR 167 and I-405 Express Toll Lanes:

2013	**$12.00**	**2020**	**$14.26**	**2035**	**$20.66**

Table B-7-4
Toll Charge Matrix AM3 (8:30 am - 9:30 am)
Sensitivity Test Study Option 1 - HOV 3+, with toll cap
All Toll Rates are Shown in Current Dollars

2013 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.15	0.95	1.75						
	B		0.80	1.60						
	C			0.80						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2013 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	2.40	3.30	5.05						
	H		0.90	2.65						
	G			1.75						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.15	10.70	14.26						
	B		9.55	14.26						
	C			5.70						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	5.10	7.50	13.10						
	H		2.40	8.00						
	G			5.60						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.65	10.15	14.85						
	B		8.50	13.20						
	C			4.70						
I-405 South	D									
	E									
	F									
I-405 North	G							0.50	0.80	1.55
	H								0.30	1.05
	I									0.75

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	12.25	18.25	20.66						
	H		6.00	19.55						
	G			13.55						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Toll caps for SR 167 and I-405 Express Toll Lanes:

2013	**$12.00**	**2020**	**$14.26**	**2035**	**$20.66**

Table B-7-5
Toll Charge Matrix MD (9:30 am - 2:30 pm)
Sensitivity Test Study Option 1 - HOV 3+, with toll cap
All Toll Rates are Shown in Current Dollars

2013 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2013 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.25	1.60	2.40						
	B		1.35	2.15						
	C			0.80						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	1.35	2.10	3.60						
	H		0.75	2.25						
	G			1.50						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.40	2.50	4.05						
	B		2.10	3.65						
	C			1.55						
I-405 South	D									
	E									
	F									
I-405 North	G							0.50	0.80	1.55
	H								0.30	1.05
	I									0.75

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	8.15	11.75	18.85						
	H		3.60	10.70						
	G			7.10						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Toll caps for SR 167 and I-405 Express Toll Lanes:

2013	**$12.00**	**2020**	**$14.26**	**2035**	**$20.66**

Table B-7-6
Toll Charge Matrix PM1 (2:30 pm - 3:30 pm)
Sensitivity Test Study Option 1 - HOV 3+, with toll cap
All Toll Rates are Shown in Current Dollars

2013 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							1.00	1.75	4.05
	H								0.75	3.05
	I									2.30

2013 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.70	1.00	1.60						
	H		0.30	0.90						
	G			0.60						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	1.40	1.65						
	B		1.35	1.60						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							3.55	5.95	10.15
	H								2.40	6.60
	I									4.20

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	1.70	2.60	5.85						
	H		0.90	4.15						
	G			3.25						
I-405 South	F									
	E									
	D									
SR 167	C							1.55	5.50	6.15
	B								3.95	4.60
	A									0.65

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.65	8.35	11.45						
	B		7.70	10.80						
	C			3.10						
I-405 South	D									
	E									
	F									
I-405 North	G							7.15	11.65	20.66
	H								4.50	13.60
	I									9.10

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	9.50	13.70	20.66						
	H		4.20	20.66						
	G			17.70						
I-405 South	F									
	E									
	D									
SR 167	C							6.50	20.66	20.66
	B								14.85	20.45
	A									5.60

Toll caps for SR 167 and I-405 Express Toll Lanes:

2013 **$12.00** **2020** **$14.26** **2035** **$20.66**

Table B-7-7
Toll Charge Matrix PM2 (3:30 pm - 5:30 pm)
Sensitivity Test Study Option 1 - HOV 3+, with toll cap
All Toll Rates are Shown in Current Dollars

2013 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							2.55	4.35	9.30
	H								1.80	6.75
	I									4.95

2013 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	1.35	1.80	2.70						
	H		0.45	1.35						
	G			0.90						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.40	3.60	5.15						
	B		3.20	4.75						
	C			1.55						
I-405 South	D									
	E									
	F									
I-405 North	G							4.85	9.35	14.26
	H								4.50	14.26
	I									14.26

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	3.75	5.10	8.95						
	H		1.35	5.20						
	G			3.85						
I-405 South	F									
	E									
	D									
SR 167	C							3.40	8.45	9.75
	B								5.05	6.35
	A									1.30

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.15	10.95	18.50						
	B		9.80	17.35						
	C			7.55						
I-405 South	D									
	E									
	F									
I-405 North	G							HOV	HOV	HOV
	H								HOV	HOV
	I									HOV

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	20.66	20.66	20.66						
	H		9.00	HOV						
	G			HOV						
I-405 South	F									
	E									
	D									
SR 167	C							15.60	HOV	20.66
	B								HOV	16.15
	A									16.15

Toll caps for SR 167 and I-405 Express Toll Lanes:

2013	**$12.00**	**2020**	**$14.26**	**2035**	**$20.66**		

Table B-7-8
Toll Charge Matrix PM3 (5:30 pm - 6:30 pm)
Sensitivity Test Study Option 1 - HOV 3+, with toll cap
All Toll Rates are Shown in Current Dollars

2013 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							1.55	2.60	5.65
	H								1.05	4.10
	I									3.05

2013 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	1.00	1.30	1.90						
	H		0.30	0.90						
	G			0.60						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							4.10	6.95	13.05
	H								2.85	8.95
	I									6.10

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	2.40	3.45	5.80						
	H		1.05	3.40						
	G			2.35						
I-405 South	F									
	E									
	D									
SR 167	C							1.05	2.40	2.85
	B								1.35	1.80
	A									0.45

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.40	4.65	8.05						
	B		4.25	7.65						
	C			3.40						
I-405 South	D									
	E									
	F									
I-405 North	G							9.20	15.65	20.66
	H								6.45	20.66
	I									17.10

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	12.90	17.70	20.66						
	H		4.80	19.55						
	G			14.75						
I-405 South	F									
	E									
	D									
SR 167	C							3.65	12.65	15.25
	B								9.00	11.60
	A									2.60

Toll caps for SR 167 and I-405 Express Toll Lanes:

2013	**$12.00**	**2020**	**$14.26**	**2035**	**$20.66**

Table B-7-9
Toll Charge Matrix PM4 (6:30 pm - 7:00 pm)
Sensitivity Test Study Option 1 - HOV 3+, with toll cap
All Toll Rates are Shown in Current Dollars

2013 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							0.75	1.50	3.80
	H								0.75	3.05
	I									2.30

2013 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							3.55	5.95	12.05
	H								2.40	8.50
	I									6.10

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.20	1.25	2.05						
	B		1.05	1.85						
	C			0.80						
I-405 South	D									
	E									
	F									
I-405 North	G							7.40	12.65	20.66
	H								5.25	17.40
	I									12.15

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	5.45	7.85	14.95						
	H		2.40	9.50						
	G			7.10						
I-405 South	F									
	E									
	D									
SR 167	C							1.05	3.15	4.45
	B								2.10	3.40
	A									1.30

Toll caps for SR 167 and I-405 Express Toll Lanes:

2013 **$12.00** **2020** **$14.26** **2035** **$20.66**

Table B-7-10
Toll Charge Matrix PM5 (7:00 pm - 7:30 pm)
Sensitivity Test Study Option 1 - HOV 3+, with toll cap
All Toll Rates are Shown in Current Dollars

2013 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							0.50	0.80	1.55
	H								0.30	1.05
	I									0.75

2013 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							2.80	4.75	7.80
	H								1.95	5.00
	I									3.05

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							5.10	9.45	16.30
	H								4.35	11.20
	I									6.85

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	2.70	4.20	8.35						
	H		1.50	5.65						
	G			4.15						
I-405 South	F									
	E									
	D									
SR 167	C							1.05	2.90	4.00
	B								1.85	2.95
	A									1.10

Toll caps for SR 167 and I-405 Express Toll Lanes:

2013	**$12.00**	**2020**	**$14.26**	**2035**	**$20.66**		

Table B-7-11
Toll Charge Matrix PM6 (7:30 am - 8:00 pm)
Sensitivity Test Study Option 1 - HOV 3+, with toll cap
All Toll Rates are Shown in Current Dollars

2013 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							0.25	0.40	0.80
	H								0.15	0.55
	I									0.40

2013 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							1.30	1.90	3.05
	H								0.60	1.75
	I									1.15

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80						
	H		0.15	0.45						
	G			0.30						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	0.05	0.30	0.55						
	B		0.25	0.50						
	C			0.25						
I-405 South	D									
	E									
	F									
I-405 North	G							3.55	5.65	9.45
	H								2.10	5.90
	I									3.80

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	1.35	2.10	3.60						
	H		0.75	2.25						
	G			1.50						
I-405 South	F									
	E									
	D									
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

Toll caps for SR 167 and I-405 Express Toll Lanes:

2013	**$12.00**	**2020**	**$14.26**	**2035**	**$20.66**

Table B-8-1
Toll Charge Matrix AM0 (5:00 am - 5:30 am)
Study Option 4 - HOV 2+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.10	12.05	18.30	20.95	24.00	27.20	29.25	30.15	33.20
	B		7.95	14.20	16.85	19.90	23.10	25.15	26.05	29.10
	C			6.25	8.90	11.95	15.15	17.20	18.10	21.15
I-405 South	D				2.65	5.70	8.90	10.95	11.85	14.90
	E					3.05	6.25	8.30	9.20	12.25
	F						3.20	5.25	6.15	9.20
I-405 North	G							2.05	2.95	6.00
	H								0.90	3.95
	I									3.05

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	0.35	0.50	0.80	1.50	2.45	2.85	3.10	3.35	3.55
	H		0.15	0.45	1.15	2.10	2.50	2.75	3.00	3.20
	G			0.30	1.00	1.95	2.35	2.60	2.85	3.05
I-405 South	F				0.70	1.65	2.05	2.30	2.55	2.75
	E					0.95	1.35	1.60	1.85	2.05
	D						0.40	0.65	0.90	1.10
SR 167	C							0.25	0.50	0.70
	B								0.25	0.45
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	6.45	15.20	23.80	28.75	31.80	37.10	40.65	42.75	47.70
	B		8.75	17.35	22.30	25.35	30.65	34.20	36.30	41.25
	C			8.60	13.55	16.60	21.90	25.45	27.55	32.50
I-405 South	D				4.95	8.00	13.30	16.85	18.95	23.90
	E					3.05	8.35	11.90	14.00	18.95
	F						5.30	8.85	10.95	15.90
I-405 North	G							3.55	5.65	10.60
	H								2.10	7.05
	I									4.95

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	6.80	10.40	17.50	21.40	24.80	28.20	30.30	32.40	34.10
	H		3.60	10.70	14.60	18.00	21.40	23.50	25.60	27.30
	G			7.10	11.00	14.40	17.80	19.90	22.00	23.70
I-405 South	F				3.90	7.30	10.70	12.80	14.90	16.60
	E					3.40	6.80	8.90	11.00	12.70
	D						3.40	5.50	7.60	9.30
SR 167	C							2.10	4.20	5.90
	B								2.10	3.80
	A									1.70

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	12.90	31.20	46.80	52.50	57.05	63.05	68.65	71.65	78.10
	B		18.30	33.90	39.60	44.15	50.15	55.75	58.75	65.20
	C			15.60	21.30	25.85	31.85	37.45	40.45	46.90
I-405 South	D				5.70	10.25	16.25	21.85	24.85	31.30
	E					4.55	10.55	16.15	19.15	25.60
	F						6.00	11.60	14.60	21.05
I-405 North	G							5.60	8.60	15.05
	H								3.00	9.45
	I									6.45

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	12.60	18.15	29.05	35.50	40.25	45.55	49.20	52.90	55.90
	H		5.55	16.45	22.90	27.65	32.95	36.60	40.30	43.30
	G			10.90	17.35	22.10	27.40	31.05	34.75	37.75
I-405 South	F				6.45	11.20	16.50	20.15	23.85	26.85
	E					4.75	10.05	13.70	17.40	20.40
	D						5.30	8.95	12.65	15.65
SR 167	C							3.65	7.35	10.35
	B								3.70	6.70
	A									3.00

Table B-8-2
Toll Charge Matrix AM1 (5:30 am - 5:30 am)
Study Option 4 - HOV 2+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	6.00	16.60	25.45	28.30	31.15	32.75	34.55	35.60	37.50
	B		10.60	19.45	22.30	25.15	26.75	28.55	29.60	31.50
	C			8.85	11.70	14.55	16.15	17.95	19.00	20.90
I-405 South	D				2.85	5.70	7.30	9.10	10.15	12.05
	E					2.85	4.45	6.25	7.30	9.20
	F						1.60	3.40	4.45	6.35
I-405 North	G							1.80	2.85	4.75
	H								1.05	2.95
	I									1.90

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	5.45	7.85	12.00	14.30	16.20	17.70	18.20	18.75	18.95
	H		2.40	6.55	8.85	10.75	12.25	12.75	13.30	13.50
	G			4.15	6.45	8.35	9.85	10.35	10.90	11.10
I-405 South	F				2.30	4.20	5.70	6.20	6.75	6.95
	E					1.90	3.40	3.90	4.45	4.65
	D						1.50	2.00	2.55	2.75
SR 167	C							0.50	1.05	1.25
	B								0.55	0.75
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	8.15	25.10	38.10	41.35	45.55	51.55	55.65	58.05	63.35
	B		16.95	29.95	33.20	37.40	43.40	47.50	49.90	55.20
	C			13.00	16.25	20.45	26.45	30.55	32.95	38.25
I-405 South	D				3.25	7.45	13.45	17.55	19.95	25.25
	E					4.20	10.20	14.30	16.70	22.00
	F						6.00	10.10	12.50	17.80
I-405 North	G							4.10	6.50	11.80
	H								2.40	7.70
	I									5.30

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	10.20	16.20	25.05	29.40	33.75	38.70	41.80	45.00	47.60
	H		6.00	14.85	19.20	23.55	28.50	31.60	34.80	37.40
	G			8.85	13.20	17.55	22.50	25.60	28.80	31.40
I-405 South	F				4.35	8.70	13.65	16.75	19.95	22.55
	E					4.35	9.30	12.40	15.60	18.20
	D						4.95	8.05	11.25	13.85
SR 167	C							3.10	6.30	8.90
	B								3.20	5.80
	A									2.60

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	13.35	37.20	54.60	60.50	65.45	71.90	78.00	81.30	88.15
	B		23.85	41.25	47.15	52.10	58.55	64.65	67.95	74.80
	C			17.40	23.30	28.25	34.70	40.80	44.10	50.95
I-405 South	D				5.90	10.85	17.30	23.40	26.70	33.55
	E					4.95	11.40	17.50	20.80	27.65
	F						6.45	12.55	15.85	22.70
I-405 North	G							6.10	9.40	16.25
	H								3.30	10.15
	I									6.85

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	19.05	27.60	41.75	48.20	53.15	60.55	64.70	68.95	72.40
	H		8.55	22.70	29.15	34.10	41.50	45.65	49.90	53.35
	G			14.15	20.60	25.55	32.95	37.10	41.35	44.80
I-405 South	F				6.45	11.40	18.80	22.95	27.20	30.65
	E					4.95	12.35	16.50	20.75	24.20
	D						7.40	11.55	15.80	19.25
SR 167	C							4.15	8.40	11.85
	B								4.25	7.70
	A									3.45

Table B-8-3
Toll Charge Matrix AM2 (6:30 am - 8:30 am)
Study Option 4 - HOV 2+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	7.10	18.50	28.10	30.00	31.90	36.05	39.10	40.60	44.40
	B		11.40	21.00	22.90	24.80	28.95	32.00	33.50	37.30
	C			9.60	11.50	13.40	17.55	20.60	22.10	25.90
I-405 South	D				1.90	3.80	7.95	11.00	12.50	16.30
	E					1.90	6.05	9.10	10.60	14.40
	F						4.15	7.20	8.70	12.50
I-405 North	G							3.05	4.55	8.35
	H								1.50	5.30
	I									3.80

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	10.90	15.10	22.75	25.95	28.60	30.90	33.25	34.60	35.70
	H		4.20	11.85	15.05	17.70	20.00	22.35	23.70	24.80
	G			7.65	10.85	13.50	15.80	18.15	19.50	20.60
I-405 South	F				3.20	5.85	8.15	10.50	11.85	12.95
	E					2.65	4.95	7.30	8.65	9.75
	D						2.30	4.65	6.00	7.10
SR 167	C							2.35	3.70	4.80
	B								1.35	2.45
	A									1.10

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	9.90	27.40	41.95	46.30	53.70	63.60	67.70	69.95	75.65
	B		17.50	32.05	36.40	43.80	53.70	57.80	60.05	65.75
	C			14.55	18.90	26.30	36.20	40.30	42.55	48.25
I-405 South	D				4.35	11.75	21.65	25.75	28.00	33.70
	E					7.40	17.30	21.40	23.65	29.35
	F						9.90	14.00	16.25	21.95
I-405 North	G							4.10	6.35	12.05
	H								2.25	7.95
	I									5.70

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	13.60	22.60	37.35	41.70	46.65	53.85	57.50	61.20	64.20
	H		9.00	23.75	28.10	33.05	40.25	43.90	47.60	50.60
	G			14.75	19.10	24.05	31.25	34.90	38.60	41.60
I-405 South	F				4.35	9.30	16.50	20.15	23.85	26.85
	E					4.95	12.15	15.80	19.50	22.50
	D						7.20	10.85	14.55	17.55
SR 167	C							3.65	7.35	10.35
	B								3.70	6.70
	A									3.00

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	13.55	36.05	54.50	60.60	68.95	84.60	91.25	95.15	102.35
	B		22.50	40.95	47.05	55.40	71.05	77.70	81.60	88.80
	C			18.45	24.55	32.90	48.55	55.20	59.10	66.30
I-405 South	D				6.10	14.45	30.10	36.75	40.65	47.85
	E					8.35	24.00	30.65	34.55	41.75
	F						15.65	22.30	26.20	33.40
I-405 North	G							6.65	10.55	17.75
	H								3.90	11.10
	I									7.20

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	25.85	36.35	52.30	59.20	64.90	75.35	80.05	84.80	88.65
	H		10.50	26.45	33.35	39.05	49.50	54.20	58.95	62.80
	G			15.95	22.85	28.55	39.00	43.70	48.45	52.30
I-405 South	F				6.90	12.60	23.05	27.75	32.50	36.35
	E					5.70	16.15	20.85	25.60	29.45
	D						10.45	15.15	19.90	23.75
SR 167	C							4.70	9.45	13.30
	B								4.75	8.60
	A									3.85

Table B-8-4
Toll Charge Matrix AM3 (8:30 am - 9:30 am)
Study Option 4 - HOV 2+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.95	15.55	22.85	24.75	26.65	28.70	30.25	31.45	34.50
	B		10.60	17.90	19.80	21.70	23.75	25.30	26.50	29.55
	C			7.30	9.20	11.10	13.15	14.70	15.90	18.95
I-405 South	D				1.90	3.80	5.85	7.40	8.60	11.65
	E					1.90	3.95	5.50	6.70	9.75
	F						2.05	3.60	4.80	7.85
I-405 North	G							1.55	2.75	5.80
	H								1.20	4.25
	I									3.05

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	6.80	9.35	14.05	17.75	20.80	22.70	23.75	24.55	24.75
	H		2.55	7.25	10.95	14.00	15.90	16.95	17.75	17.95
	G			4.70	8.40	11.45	13.35	14.40	15.20	15.40
I-405 South	F				3.70	6.75	8.65	9.70	10.50	10.70
	E					3.05	4.95	6.00	6.80	7.00
	D						1.90	2.95	3.75	3.95
SR 167	C							1.05	1.85	2.05
	B								0.80	1.00
	A									0.20

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	7.30	21.85	29.65	32.30	38.95	48.40	50.45	52.10	56.30
	B		14.55	22.35	25.00	31.65	41.10	43.15	44.80	49.00
	C			7.80	10.45	17.10	26.55	28.60	30.25	34.45
I-405 South	D				2.65	9.30	18.75	20.80	22.45	26.65
	E					6.65	16.10	18.15	19.80	24.00
	F						9.45	11.50	13.15	17.35
I-405 North	G							2.05	3.70	7.90
	H								1.65	5.85
	I									4.20

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	10.90	19.15	31.55	35.90	40.85	47.70	51.60	55.55	58.75
	H		8.25	20.65	25.00	29.95	36.80	40.70	44.65	47.85
	G			12.40	16.75	21.70	28.55	32.45	36.40	39.60
I-405 South	F				4.35	9.30	16.15	20.05	24.00	27.20
	E					4.95	11.80	15.70	19.65	22.85
	D						6.85	10.75	14.70	17.90
SR 167	C							3.90	7.85	11.05
	B								3.95	7.15
	A									3.20

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	12.90	30.90	43.40	50.25	57.85	72.55	76.65	79.05	84.75
	B		18.00	30.50	37.35	44.95	59.65	63.75	66.15	71.85
	C			12.50	19.35	26.95	41.65	45.75	48.15	53.85
I-405 South	D				6.85	14.45	29.15	33.25	35.65	41.35
	E					7.60	22.30	26.40	28.80	34.50
	F						14.70	18.80	21.20	26.90
I-405 North	G							4.10	6.50	12.20
	H								2.40	8.10
	I									5.70

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	21.10	29.80	42.80	49.45	55.90	65.60	69.75	74.00	77.45
	H		8.70	21.70	28.35	34.80	44.50	48.65	52.90	56.35
	G			13.00	19.65	26.10	35.80	39.95	44.20	47.65
I-405 South	F				6.65	13.10	22.80	26.95	31.20	34.65
	E					6.45	16.15	20.30	24.55	28.00
	D						9.70	13.85	18.10	21.55
SR 167	C							4.15	8.40	11.85
	B								4.25	7.70
	A									3.45

Table B-8-5
Toll Charge Matrix MD (9:30 am - 2:30 pm)
Study Option 4 - HOV 2+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	3.00	7.50	11.15	13.80	14.95	19.10	21.65	22.55	23.30
	B		4.50	8.15	10.80	11.95	16.10	18.65	19.55	20.30
	C			3.65	6.30	7.45	11.60	14.15	15.05	15.80
I-405 South	D				2.65	3.80	7.95	10.50	11.40	12.15
	E					1.15	5.30	7.85	8.75	9.50
	F						4.15	6.70	7.60	8.35
I-405 North	G							2.55	3.45	4.20
	H								0.90	1.65
	I									0.75

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	4.40	6.65	11.10	13.40	15.70	17.60	19.70	22.35	24.30
	H		2.25	6.70	9.00	11.30	13.20	15.30	17.95	19.90
	G			4.45	6.75	9.05	10.95	13.05	15.70	17.65
I-405 South	F				2.30	4.60	6.50	8.60	11.25	13.20
	E					2.30	4.20	6.30	8.95	10.90
	D						1.90	4.00	6.65	8.60
SR 167	C							2.10	4.75	6.70
	B								2.65	4.60
	A									1.95

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.50	11.90	18.40	22.60	26.80	32.10	36.70	39.10	43.65
	B		7.40	13.90	18.10	22.30	27.60	32.20	34.60	39.15
	C			6.50	10.70	14.90	20.20	24.80	27.20	31.75
I-405 South	D				4.20	8.40	13.70	18.30	20.70	25.25
	E					4.20	9.50	14.10	16.50	21.05
	F						5.30	9.90	12.30	16.85
I-405 North	G							4.60	7.00	11.55
	H								2.40	6.95
	I									4.55

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	8.85	13.80	22.05	27.35	31.90	37.60	43.05	47.80	51.65
	H		4.95	13.20	18.50	23.05	28.75	34.20	38.95	42.80
	G			8.25	13.55	18.10	23.80	29.25	34.00	37.85
I-405 South	F				5.30	9.85	15.55	21.00	25.75	29.60
	E					4.55	10.25	15.70	20.45	24.30
	D						5.70	11.15	15.90	19.75
SR 167	C							5.45	10.20	14.05
	B								4.75	8.60
	A									3.85

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	7.50	19.40	30.30	36.75	42.85	48.85	54.95	58.55	64.65
	B		11.90	22.80	29.25	35.35	41.35	47.45	51.05	57.15
	C			10.90	17.35	23.45	29.45	35.55	39.15	45.25
I-405 South	D				6.45	12.55	18.55	24.65	28.25	34.35
	E					6.10	12.10	18.20	21.80	27.90
	F						6.00	12.10	15.70	21.80
I-405 North	G							6.10	9.70	15.80
	H								3.60	9.70
	I									6.10

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	14.60	21.80	35.95	45.40	53.20	60.40	65.85	70.90	74.75
	H		7.20	21.35	30.80	38.60	45.80	51.25	56.30	60.15
	G			14.15	23.60	31.40	38.60	44.05	49.10	52.95
I-405 South	F				9.45	17.25	24.45	29.90	34.95	38.80
	E					7.80	15.00	20.45	25.50	29.35
	D						7.20	12.65	17.70	21.55
SR 167	C							5.45	10.50	14.35
	B								5.05	8.90
	A									3.85

Table B-8-6
Toll Charge Matrix PM1 (2:30 pm - 3:30 pm)
Study Option 4 - HOV 2+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.70	4.60	7.45	9.75	13.55	18.40	28.10	32.30	40.65
	B		2.90	5.75	8.05	11.85	16.70	26.40	30.60	38.95
	C			2.85	5.15	8.95	13.80	23.50	27.70	36.05
I-405 South	D				2.30	6.10	10.95	20.65	24.85	33.20
	E					3.80	8.65	18.35	22.55	30.90
	F						4.85	14.55	18.75	27.10
I-405 North	G							9.70	13.90	22.25
	H								4.20	12.55
	I									8.35

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	5.80	8.50	13.80	18.85	22.45	26.05	33.60	43.40	47.70
	H		2.70	8.00	13.05	16.65	20.25	27.80	37.60	41.90
	G			5.30	10.35	13.95	17.55	25.10	34.90	39.20
I-405 South	F				5.05	8.65	12.25	19.80	29.60	33.90
	E					3.60	7.20	14.75	24.55	28.85
	D						3.60	11.15	20.95	25.25
SR 167	C							7.55	17.35	21.65
	B								9.80	14.10
	A									4.30

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.50	12.70	20.50	24.50	31.35	39.65	49.35	58.35	83.05
	B		8.20	16.00	20.00	26.85	35.15	44.85	53.85	78.55
	C			7.80	11.80	18.65	26.95	36.65	45.65	70.35
I-405 South	D				4.00	10.85	19.15	28.85	37.85	62.55
	E					6.85	15.15	24.85	33.85	58.55
	F						8.30	18.00	27.00	51.70
I-405 North	G							9.70	18.70	43.40
	H								9.00	33.70
	I									24.70

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	17.00	21.65	31.70	40.45	47.65	53.90	64.55	75.70	84.50
	H		4.65	14.70	23.45	30.65	36.90	47.55	58.70	67.50
	G			10.05	18.80	26.00	32.25	42.90	54.05	62.85
I-405 South	F				8.75	15.95	22.20	32.85	44.00	52.80
	E					7.20	13.45	24.10	35.25	44.05
	D						6.25	16.90	28.05	36.85
SR 167	C							10.65	21.80	30.60
	B								11.15	19.95
	A									8.80

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	9.25	22.50	33.95	41.95	48.80	57.10	69.35		
	B		13.25	24.70	32.70	39.55	47.85	60.10		
	C			11.45	19.45	26.30	34.60	46.85		
I-405 South	D				8.00	14.85	23.15	35.40		
	E					6.85	15.15	27.40		
	F						8.30	20.55		
I-405 North	G							12.25		
	H									
	I									

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I		6.75	17.95	26.70	33.90	41.50	56.60	74.90	86.50
	H		6.75	17.95	26.70	33.90	41.50	56.60	74.90	86.50
	G			11.20	19.95	27.15	34.75	49.85	68.15	79.75
I-405 South	F				8.75	15.95	23.55	38.65	56.95	68.55
	E					7.20	14.80	29.90	48.20	59.80
	D						7.60	22.70	41.00	52.60
SR 167	C							15.10	33.40	45.00
	B								18.30	29.90
	A									11.60

Table B-8-7
Toll Charge Matrix PM2 (3:30 pm - 5:30 pm)
Study Option 4 - HOV 2+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	3.20	7.70	12.10	15.35	19.70	25.20	35.40	42.15	64.95
	B		4.50	8.90	12.15	16.50	22.00	32.20	38.95	61.75
	C			4.40	7.65	12.00	17.50	27.70	34.45	57.25
I-405 South	D				3.25	7.60	13.10	23.30	30.05	52.85
	E					4.35	9.85	20.05	26.80	49.60
	F						5.50	15.70	22.45	45.25
I-405 North	G							10.20	16.95	39.75
	H								6.75	29.55
	I									22.80

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	6.45	9.00	14.00	18.85	22.85	26.85	37.25	48.90	57.05
	H		2.55	7.55	12.40	16.40	20.40	30.80	42.45	50.60
	G			5.00	9.85	13.85	17.85	28.25	39.90	48.05
I-405 South	F				4.85	8.85	12.85	23.25	34.90	43.05
	E					4.00	8.00	18.40	30.05	38.20
	D						4.00	14.40	26.05	34.20
SR 167	C							10.40	22.05	30.20
	B								11.65	19.80
	A									8.15

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	6.00	18.70	28.60	32.95	40.15	49.35	59.55	73.35	106.80
	B		12.70	22.60	26.95	34.15	43.35	53.55	67.35	100.80
	C			9.90	14.25	21.45	30.65	40.85	54.65	88.10
I-405 South	D				4.35	11.55	20.75	30.95	44.75	78.20
	E					7.20	16.40	26.60	40.40	73.85
	F						9.20	19.40	33.20	66.65
I-405 North	G							10.20	24.00	57.45
	H								13.80	47.25
	I									33.45

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	27.20	33.20	38.20	46.95	54.55	60.80	71.70	86.55	96.45
	H		6.00	11.00	19.75	27.35	33.60	44.50	59.35	69.25
	G			5.00	13.75	21.35	27.60	38.50	53.35	63.25
I-405 South	F				8.75	16.35	22.60	33.50	48.35	58.25
	E					7.60	13.85	24.75	39.60	49.50
	D						6.25	17.15	32.00	41.90
SR 167	C							10.90	25.75	35.65
	B								14.85	24.75
	A									9.90

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	12.25	30.80	46.90	56.60	64.75	73.95	86.20		
	B		18.55	34.65	44.35	52.50	61.70	73.95		
	C			16.10	25.80	33.95	43.15	55.40		
I-405 South	D				9.70	17.85	27.05	39.30		
	E					8.15	17.35	29.60		
	F						9.20	21.45		
I-405 North	G							12.25		
	H									
	I									

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I		7.50	19.00	28.65	36.65	46.15	62.55	81.65	93.70
	H		7.50	19.00	28.65	36.65	46.15	62.55	81.65	93.70
	G			11.50	21.15	29.15	38.65	55.05	74.15	86.20
I-405 South	F				9.65	17.65	27.15	43.55	62.65	74.70
	E					8.00	17.50	33.90	53.00	65.05
	D						9.50	25.90	45.00	57.05
SR 167	C							16.40	35.50	47.55
	B								19.10	31.15
	A									12.05

Table B-8-8
Toll Charge Matrix PM3 (5:30 pm - 6:30 pm)
Study Option 4 - HOV 2+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	2.60	6.30	9.95	14.30	18.65	23.95	33.15	38.55	55.65
	B		3.70	7.35	11.70	16.05	21.35	30.55	35.95	53.05
	C			3.65	8.00	12.35	17.65	26.85	32.25	49.35
I-405 South	D				4.35	8.70	14.00	23.20	28.60	45.70
	E					4.35	9.65	18.85	24.25	41.35
	F						5.30	14.50	19.90	37.00
I-405 North	G							9.20	14.60	31.70
	H								5.40	22.50
	I									17.10

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	5.80	8.50	13.80	18.40	22.75	27.10	34.90	44.20	50.20
	H		2.70	8.00	12.60	16.95	21.30	29.10	38.40	44.40
	G			5.30	9.90	14.25	18.60	26.40	35.70	41.70
I-405 South	F				4.60	8.95	13.30	21.10	30.40	36.40
	E					4.35	8.70	16.50	25.80	31.80
	D						4.35	12.15	21.45	27.45
SR 167	C							7.80	17.10	23.10
	B								9.30	15.30
	A									6.00

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.50	10.05	15.00	20.70	26.40	33.30	42.50	53.00	84.90
	B		5.55	10.50	16.20	21.90	28.80	38.00	48.50	80.40
	C			4.95	10.65	16.35	23.25	32.45	42.95	74.85
I-405 South	D				5.70	11.40	18.30	27.50	38.00	69.90
	E					5.70	12.60	21.80	32.30	64.20
	F						6.90	16.10	26.60	58.50
I-405 North	G							9.20	19.70	51.60
	H								10.50	42.40
	I									31.90

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	21.10	26.20	35.95	43.55	50.00	54.95	63.80	73.10	80.20
	H		5.10	14.85	22.45	28.90	33.85	42.70	52.00	59.10
	G			9.75	17.35	23.80	28.75	37.60	46.90	54.00
I-405 South	F				7.60	14.05	19.00	27.85	37.15	44.25
	E					6.45	11.40	20.25	29.55	36.65
	D						4.95	13.80	23.10	30.20
SR 167	C							8.85	18.15	25.25
	B								9.30	16.40
	A									7.10

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	6.00	13.95	21.50	30.80	38.40	46.20	57.40		
	B		7.95	15.50	24.80	32.40	40.20	51.40		
	C			7.55	16.85	24.45	32.25	43.45		
I-405 South	D				9.30	16.90	24.70	35.90		
	E					7.60	15.40	26.60		
	F						7.80	19.00		
I-405 North	G							11.20		
	H									
	I									

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I		7.50	20.20	28.50	35.15	43.70	58.80	75.50	86.70
	H		7.50	20.20	28.50	35.15	43.70	58.80	75.50	86.70
	G			12.70	21.00	27.65	36.20	51.30	68.00	79.20
I-405 South	F				8.30	14.95	23.50	38.60	55.30	66.50
	E					6.65	15.20	30.30	47.00	58.20
	D						8.55	23.65	40.35	51.55
SR 167	C							15.10	31.80	43.00
	B								16.70	27.90
	A									11.20

Table B-8-9
Toll Charge Matrix PM4 (6:30 pm - 7:00 pm)
Study Option 4 - HOV 2+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.70	3.80	6.15	8.80	12.20	16.80	25.45	30.25	45.45
	B		2.10	4.45	7.10	10.50	15.10	23.75	28.55	43.75
	C			2.35	5.00	8.40	13.00	21.65	26.45	41.65
I-405 South	D				2.65	6.05	10.65	19.30	24.10	39.30
	E					3.40	8.00	16.65	21.45	36.65
	F						4.60	13.25	18.05	33.25
I-405 North	G							8.65	13.45	28.65
	H								4.80	20.00
	I									15.20

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	3.40	4.90	7.85	11.55	14.60	17.65	21.30	25.25	28.05
	H		1.50	4.45	8.15	11.20	14.25	17.90	21.85	24.65
	G			2.95	6.65	9.70	12.75	16.40	20.35	23.15
I-405 South	F				3.70	6.75	9.80	13.45	17.40	20.20
	E					3.05	6.10	9.75	13.70	16.50
	D						3.05	6.70	10.65	13.45
SR 167	C							3.65	7.60	10.40
	B								3.95	6.75
	A									2.80

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.30	9.85	15.05	20.00	24.75	30.25	39.15	45.15	67.95
	B		5.55	10.75	15.70	20.45	25.95	34.85	40.85	63.65
	C			5.20	10.15	14.90	20.40	29.30	35.30	58.10
I-405 South	D				4.95	9.70	15.20	24.10	30.10	52.90
	E					4.75	10.25	19.15	25.15	47.95
	F						5.50	14.40	20.40	43.20
I-405 North	G							8.90	14.90	37.70
	H								6.00	28.80
	I									22.80

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	9.50	13.40	21.05	26.35	32.25	37.20	44.75	52.15	57.75
	H		3.90	11.55	16.85	22.75	27.70	35.25	42.65	48.25
	G			7.65	12.95	18.85	23.80	31.35	38.75	44.35
I-405 South	F				5.30	11.20	16.15	23.70	31.10	36.70
	E					5.90	10.85	18.40	25.80	31.40
	D						4.95	12.50	19.90	25.50
SR 167	C							7.55	14.95	20.55
	B								7.40	13.00
	A									5.60

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.95	11.30	17.55	25.55	32.40	39.75	50.45		
	B		6.35	12.60	20.60	27.45	34.80	45.50		
	C			6.25	14.25	21.10	28.45	39.15		
I-405 South	D				8.00	14.85	22.20	32.90		
	E					6.85	14.20	24.90		
	F						7.35	18.05		
I-405 North	G							10.70		
	H									
	I									

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I		7.20	19.30	27.10	33.20	40.05	52.55	65.25	73.00
	H		7.20	19.30	27.10	33.20	40.05	52.55	65.25	73.00
	G			12.10	19.90	26.00	32.85	45.35	58.05	65.80
I-405 South	F				7.80	13.90	20.75	33.25	45.95	53.70
	E					6.10	12.95	25.45	38.15	45.90
	D						6.85	19.35	32.05	39.80
SR 167	C							12.50	25.20	32.95
	B								12.70	20.45
	A									7.75

Table B-8-10
Toll Charge Matrix PM5 (7:00 pm - 7:30 pm)
Study Option 4 - HOV 2+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.70	3.80	6.15	8.80	12.20	16.80	22.40	26.00	35.10
	B		2.10	4.45	7.10	10.50	15.10	20.70	24.30	33.40
	C			2.35	5.00	8.40	13.00	18.60	22.20	31.30
I-405 South	D				2.65	6.05	10.65	16.25	19.85	28.95
	E					3.40	8.00	13.60	17.20	26.30
	F						4.60	10.20	13.80	22.90
I-405 North	G							5.60	9.20	18.30
	H								3.60	12.70
	I									9.10

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	3.40	4.90	7.85	11.55	14.60	17.65	21.05	24.75	27.55
	H		1.50	4.45	8.15	11.20	14.25	17.65	21.35	24.15
	G			2.95	6.65	9.70	12.75	16.15	19.85	22.65
I-405 South	F				3.70	6.75	9.80	13.20	16.90	19.70
	E					3.05	6.10	9.50	13.20	16.00
	D						3.05	6.45	10.15	12.95
SR 167	C							3.40	7.10	9.90
	B								3.70	6.50
	A									2.80

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.10	9.65	15.90	21.60	25.80	32.95	40.10	45.05	60.25
	B		5.55	11.80	17.50	21.70	28.85	36.00	40.95	56.15
	C			6.25	11.95	16.15	23.30	30.45	35.40	50.60
I-405 South	D				5.70	9.90	17.05	24.20	29.15	44.35
	E					4.20	11.35	18.50	23.45	38.65
	F						7.15	14.30	19.25	34.45
I-405 North	G							7.15	12.10	27.30
	H								4.95	20.15
	I									15.20

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	6.10	9.10	15.00	20.30	25.80	30.75	38.55	46.25	51.00
	H		3.00	8.90	14.20	19.70	24.65	32.45	40.15	44.90
	G			5.90	11.20	16.70	21.65	29.45	37.15	41.90
I-405 South	F				5.30	10.80	15.75	23.55	31.25	36.00
	E					5.50	10.45	18.25	25.95	30.70
	D						4.95	12.75	20.45	25.20
SR 167	C							7.80	15.50	20.25
	B								7.70	12.45
	A									4.75

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.30	10.15	16.40	25.35	31.45	38.60	48.30	59.55	95.65
	B		5.85	12.10	21.05	27.15	34.30	44.00	55.25	91.35
	C			6.25	15.20	21.30	28.45	38.15	49.40	85.50
I-405 South	D				8.95	15.05	22.20	31.90	43.15	79.25
	E					6.10	13.25	22.95	34.20	70.30
	F						7.15	16.85	28.10	64.20
I-405 North	G							9.70	20.95	57.05
	H								11.25	47.35
	I									36.10

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	17.00	22.40	33.00	41.95	47.65	54.30	64.70	76.90	84.20
	H		5.40	16.00	24.95	30.65	37.30	47.70	59.90	67.20
	G			10.60	19.55	25.25	31.90	42.30	54.50	61.80
I-405 South	F				8.95	14.65	21.30	31.70	43.90	51.20
	E					5.70	12.35	22.75	34.95	42.25
	D						6.65	17.05	29.25	36.55
SR 167	C							10.40	22.60	29.90
	B								12.20	19.50
	A									7.30

Table B-8-11
Toll Charge Matrix PM6 (7:30 am - 8:00 pm)
Study Option 4 - HOV 2+, no toll cap
All Toll Rates are Shown in Current Dollars

2020 Northbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	1.70	3.80	6.15	8.80	12.20	16.80	21.65	24.65	32.25
	B		2.10	4.45	7.10	10.50	15.10	19.95	22.95	30.55
	C			2.35	5.00	8.40	13.00	17.85	20.85	28.45
I-405 South	D				2.65	6.05	10.65	15.50	18.50	26.10
	E					3.40	8.00	12.85	15.85	23.45
	F						4.60	9.45	12.45	20.05
I-405 North	G							4.85	7.85	15.45
	H								3.00	10.60
	I									7.60

2020 Southbound - Minimum Toll $1.00
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	2.70	3.90	6.25	9.45	12.10	14.75	17.60	20.50	22.85
	H		1.20	3.55	6.75	9.40	12.05	14.90	17.80	20.15
	G			2.35	5.55	8.20	10.85	13.70	16.60	18.95
I-405 South	F				3.20	5.85	8.50	11.35	14.25	16.60
	E					2.65	5.30	8.15	11.05	13.40
	D						2.65	5.50	8.40	10.75
SR 167	C							2.85	5.75	8.10
	B								2.90	5.25
	A									2.35

2035 Northbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.10	9.65	15.90	21.60	25.60	32.25	38.90	43.40	51.40
	B		5.55	11.80	17.50	21.50	28.15	34.80	39.30	47.30
	C			6.25	11.95	15.95	22.60	29.25	33.75	41.75
I-405 South	D				5.70	9.70	16.35	23.00	27.50	35.50
	E					4.00	10.65	17.30	21.80	29.80
	F						6.65	13.30	17.80	25.80
I-405 North	G							6.65	11.15	19.15
	H								4.50	12.50
	I									8.00

2035 Southbound - Minimum Toll $1.60
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	4.10	6.50	11.20	16.95	21.90	26.85	32.55	38.40	40.75
	H		2.40	7.10	12.85	17.80	22.75	28.45	34.30	36.65
	G			4.70	10.45	15.40	20.35	26.05	31.90	34.25
I-405 South	F				5.75	10.70	15.65	21.35	27.20	29.55
	E					4.95	9.90	15.60	21.45	23.80
	D						4.95	10.65	16.50	18.85
SR 167	C							5.70	11.55	13.90
	B								5.85	8.20
	A									2.35

2045 Northbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		SR 167			I-405 South			I-405 North		
	from \ to	A	B	C	D	E	F	G	H	I
SR 167	A	4.10	9.65	15.90	24.25	30.15	36.80	44.95	51.70	65.00
	B		5.55	11.80	20.15	26.05	32.70	40.85	47.60	60.90
	C			6.25	14.60	20.50	27.15	35.30	42.05	55.35
I-405 South	D				8.35	14.25	20.90	29.05	35.80	49.10
	E					5.90	12.55	20.70	27.45	40.75
	F						6.65	14.80	21.55	34.85
I-405 North	G							8.15	14.90	28.20
	H								6.75	20.05
	I									13.30

2045 Southbound - Minimum Toll $2.15
Toll Rate ($)
By Toll Zone

		I-405 North			I-405 South			SR 167		
	from \ to	I	H	G	F	E	D	C	B	A
I-405 North	I	11.20	15.10	25.15	32.95	39.05	46.25	55.60	67.00	73.45
	H		3.90	13.95	21.75	27.85	35.05	44.40	55.80	62.25
	G			10.05	17.85	23.95	31.15	40.50	51.90	58.35
I-405 South	F				7.80	13.90	21.10	30.45	41.85	48.30
	E					6.10	13.30	22.65	34.05	40.50
	D						7.20	16.55	27.95	34.40
SR 167	C							9.35	20.75	27.20
	B								11.40	17.85
	A									6.45

Table B-9-1

Estimated Gross Toll Revenue per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 1 - HOV 3+, no toll cap

All Revenue Values in Current Dollars

2013

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$105	$4,321	$0	$0	$12,619	$290	$17,334
AM Peak	173	5,049	0	0	19,093	408	24,723
Midday	1,041	1,271	0	0	6,294	3,157	11,762
PM Shoulder	512	327	0	0	2,125	8,204	11,168
PM Peak	1,571	1,061	0	0	8,081	34,704	45,417
Evening	1	42	0	0	92	2,082	2,216
Total	3,402	12,071	0	0	48,303	48,844	112,620

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$196	$27,317	$0	$0	$42,891	$710	$71,114
AM Peak	371	21,148	0	0	55,741	1,390	78,651
Midday	2,044	7,805	0	0	26,829	5,863	42,541
PM Shoulder	3,856	903	0	0	9,399	27,827	41,985
PM Peak	12,122	5,064	0	0	32,219	81,002	130,407
Evening	393	70	0	0	695	9,080	10,238
Total	18,983	62,308	0	0	167,774	125,871	374,937

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$244	$22,794	$0	$0	$89,073	$2,146	$114,256
AM Peak	359	26,100	0	0	89,441	4,523	120,423
Midday	4,162	9,881	0	0	129,081	14,433	157,557
PM Shoulder	13,098	5,435	0	0	41,410	54,561	114,504
PM Peak	33,180	20,805	0	0	116,933	152,188	323,107
Evening	1,664	184	0	0	6,085	19,990	27,922
Total	52,708	85,198	0	0	472,023	247,842	857,770

Table B-9-2

Estimated Total Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 1 - HOV3+, no toll cap

2013

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	1,855	9,242	0	0	11,999	2,434	25,530
AM Peak	2,495	7,545	0	0	12,869	2,840	25,749
Midday	10,053	11,685	0	0	18,250	11,507	51,494
PM Shoulder	4,295	3,197	0	0	4,616	10,005	22,113
PM Peak	10,575	7,415	0	0	12,548	20,547	51,085
Evening	1,565	1,136	0	0	489	4,667	7,856
Total	30,837	40,220	0	0	60,771	52,000	183,828

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,261	9,612	0	0	17,917	3,518	33,307
AM Peak	3,192	7,821	0	0	14,861	5,030	30,904
Midday	13,839	18,744	0	0	27,792	17,249	77,624
PM Shoulder	6,241	4,793	0	0	7,356	10,161	28,551
PM Peak	13,169	10,483	0	0	15,835	20,806	60,292
Evening	3,241	1,885	0	0	2,076	5,955	13,158
Total	41,944	53,338	0	0	85,837	62,719	243,837

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,525	9,719	0	0	14,547	4,937	31,728
AM Peak	3,119	8,473	0	0	11,205	7,538	30,334
Midday	15,870	18,530	0	0	28,998	24,089	87,486
PM Shoulder	6,495	5,881	0	0	7,930	10,389	30,694
PM Peak	13,033	12,258	0	0	17,212	21,039	63,542
Evening	4,118	2,446	0	0	4,105	6,003	16,673
Total	45,160	57,307	0	0	83,997	73,994	260,458

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table B-9-3

Estimated Tolled Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 1 - HOV3+, no toll cap

2013

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	244	4,258	0	0	9,109	597	14,208
AM Peak	402	2,683	0	0	9,542	954	13,581
Midday	2,828	3,228	0	0	14,164	7,492	27,712
PM Shoulder	1,234	726	0	0	3,798	8,610	14,368
PM Peak	3,737	2,332	0	0	10,443	17,381	33,892
Evening	2	87	0	0	173	4,046	4,308
Total	8,447	13,313	0	0	47,228	39,081	108,069

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	460	4,351	0	0	14,637	1,433	20,881
AM Peak	973	2,768	0	0	11,009	2,711	17,461
Midday	5,281	8,460	0	0	22,897	13,073	49,711
PM Shoulder	2,264	1,323	0	0	6,102	8,775	18,464
PM Peak	4,571	3,400	0	0	12,909	17,810	38,690
Evening	1,004	150	0	0	1,512	5,300	7,967
Total	14,553	20,452	0	0	69,066	49,103	153,173

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	352	3,725	0	0	11,602	2,807	18,487
AM Peak	574	2,840	0	0	7,615	5,018	16,046
Midday	6,353	6,520	0	0	22,406	18,797	54,076
PM Shoulder	2,154	1,745	0	0	5,784	8,482	18,165
PM Peak	3,740	3,862	0	0	12,387	16,925	36,915
Evening	1,628	270	0	0	3,048	5,052	9,999
Total	14,801	18,962	0	0	62,843	57,082	153,688

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table B-9-4

Estimated Toll-Free Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 1 - HOV3+, no toll cap

2013

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	1,611	4,984	0	0	2,890	1,836	11,322
AM Peak	2,093	4,862	0	0	3,328	1,886	12,168
Midday	7,224	8,457	0	0	4,086	4,014	23,782
PM Shoulder	3,061	2,471	0	0	818	1,395	7,745
PM Peak	6,838	5,083	0	0	2,105	3,166	17,192
Evening	1,563	1,049	0	0	315	621	3,549
Total	22,390	26,906	0	0	13,543	12,919	75,759

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	1,801	5,261	0	0	3,280	2,085	12,427
AM Peak	2,219	5,053	0	0	3,852	2,319	13,442
Midday	8,558	10,285	0	0	4,895	4,176	27,914
PM Shoulder	3,977	3,470	0	0	1,254	1,386	10,087
PM Peak	8,598	7,083	0	0	2,926	2,996	21,603
Evening	2,237	1,735	0	0	564	655	5,191
Total	27,390	32,886	0	0	16,771	13,616	90,664

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,173	5,994	0	0	2,945	2,130	13,241
AM Peak	2,545	5,633	0	0	3,590	2,520	14,288
Midday	9,517	12,010	0	0	6,591	5,292	33,410
PM Shoulder	4,341	4,136	0	0	2,146	1,906	12,529
PM Peak	9,293	8,396	0	0	4,825	4,114	26,628
Evening	2,490	2,176	0	0	1,057	950	6,673
Total	30,359	38,345	0	0	21,154	16,912	106,770

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table B-10-1

Estimated Gross Toll Revenue per Segment

I-405 / SR 167 Express Toll Lanes - Study Option Study Option 1 - HOV 2+, no toll cap

All Revenue Values in Current Dollars

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$171	$27,275	$0	$0	$33,484	$434	$61,363
AM Peak	325	21,146	0	0	40,966	789	63,225
Midday	2,037	7,793	0	0	20,274	3,701	33,805
PM Shoulder	3,846	886	0	0	6,625	18,049	29,406
PM Peak	12,075	4,993	0	0	22,198	49,570	88,836
Evening	391	61	0	0	392	6,271	7,115
Total	18,843	62,154	0	0	123,938	78,815	283,750

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$218	$22,676	$0	$0	$65,729	$1,233	$89,857
AM Peak	338	26,019	0	0	62,674	3,196	92,228
Midday	4,110	9,843	0	0	83,671	7,311	104,934
PM Shoulder	12,567	5,232	0	0	8,687	26,170	52,656
PM Peak	32,506	19,177	0	0	26,902	24,829	103,414
Evening	1,658	164	0	0	3,216	9,355	14,394
Total	51,397	83,111	0	0	250,880	72,094	457,482

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$507	$55,235	$0	$0	$87,631	$3,339	$146,712
AM Peak	1,463	46,202	0	0	79,526	8,665	135,855
Midday	9,867	51,720	0	0	135,387	18,445	215,419
PM Shoulder	21,086	9,310	0	0	3,365	36,570	70,330
PM Peak	48,627	30,440	0	0	3,806	4,795	87,669
Evening	6,119	361	0	0	6,204	15,473	28,158
Total	87,670	193,267	0	0	315,918	87,287	684,142

Table B-10-2

Estimated Total Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Study Option Study Option 1 - HOV 2+, no toll cap

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,201	9,565	0	0	19,237	4,937	35,939
AM Peak	3,089	7,818	0	0	15,338	6,181	32,426
Midday	13,810	18,729	0	0	30,478	20,878	83,896
PM Shoulder	6,233	4,763	0	0	8,232	11,449	30,676
PM Peak	13,154	10,427	0	0	17,896	23,114	64,592
Evening	3,237	1,866	0	0	2,873	6,786	14,761
Total	41,724	53,168	0	0	94,053	73,345	262,290

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,488	9,334	0	0	17,770	6,204	35,795
AM Peak	3,090	8,459	0	0	13,818	8,138	33,505
Midday	15,781	18,504	0	0	33,639	26,580	94,504
PM Shoulder	6,435	5,817	0	0	8,261	11,646	32,159
PM Peak	12,952	11,997	0	0	16,647	21,428	63,024
Evening	4,114	2,420	0	0	4,971	7,152	18,657
Total	44,861	56,530	0	0	95,106	81,148	277,645

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,614	8,993	0	0	17,691	7,551	36,848
AM Peak	4,113	7,704	0	0	14,025	8,958	34,801
Midday	18,132	16,559	0	0	35,148	30,368	100,207
PM Shoulder	6,305	5,865	0	0	8,985	11,769	32,925
PM Peak	12,641	11,964	0	0	18,632	20,573	63,811
Evening	4,202	2,701	0	0	5,454	7,402	19,760
Total	48,008	53,786	0	0	99,936	86,622	288,352

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table B-10-3

Estimated Tolled Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Study Option Study Option 1 - HOV 2+, no toll cap

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	400	4,304	0	0	10,668	881	16,253
AM Peak	870	2,767	0	0	5,747	1,711	11,094
Midday	5,251	8,444	0	0	17,346	8,497	39,539
PM Shoulder	2,256	1,293	0	0	4,007	5,253	12,809
PM Peak	4,556	3,344	0	0	8,582	9,366	25,848
Evening	1,000	131	0	0	867	3,553	5,551
Total	14,333	20,283	0	0	47,217	29,261	111,094

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	315	3,340	0	0	8,530	1,761	13,946
AM Peak	545	2,826	0	0	5,086	3,681	12,138
Midday	6,265	6,494	0	0	14,587	10,208	37,553
PM Shoulder	2,094	1,681	0	0	1,440	2,809	8,023
PM Peak	3,659	3,601	0	0	2,159	2,202	11,621
Evening	1,624	244	0	0	1,599	2,236	5,704
Total	14,502	18,185	0	0	33,401	22,897	88,985

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	588	3,716	0	0	7,380	2,389	14,073
AM Peak	1,695	2,811	0	0	4,521	3,808	12,835
Midday	8,481	4,884	0	0	11,448	11,340	36,153
PM Shoulder	1,729	1,582	0	0	331	2,334	5,976
PM Peak	2,949	3,286	0	0	634	326	7,196
Evening	1,454	412	0	0	780	2,092	4,738
Total	16,895	16,692	0	0	25,095	22,289	80,971

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table B-10-4

Estimated Toll-Free Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Study Option Study Option 1 - HOV 2+, no toll cap

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	1,801	5,261	0	0	8,568	4,056	19,686
AM Peak	2,219	5,051	0	0	9,591	4,470	21,332
Midday	8,558	10,285	0	0	13,132	12,381	44,357
PM Shoulder	3,977	3,470	0	0	4,224	6,196	17,867
PM Peak	8,598	7,083	0	0	9,315	13,748	38,743
Evening	2,237	1,735	0	0	2,006	3,233	9,211
Total	27,390	32,885	0	0	46,836	44,083	151,195

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,173	5,994	0	0	9,240	4,443	21,849
AM Peak	2,545	5,633	0	0	8,732	4,457	21,367
Midday	9,517	12,010	0	0	19,052	16,372	56,951
PM Shoulder	4,341	4,136	0	0	6,821	8,838	24,136
PM Peak	9,293	8,396	0	0	14,488	19,226	51,403
Evening	2,490	2,176	0	0	3,372	4,915	12,953
Total	30,359	38,345	0	0	61,705	58,251	188,660

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,026	5,277	0	0	10,311	5,161	22,775
AM Peak	2,418	4,893	0	0	9,504	5,150	21,965
Midday	9,652	11,675	0	0	23,700	19,028	64,055
PM Shoulder	4,577	4,283	0	0	8,654	9,435	26,949
PM Peak	9,692	8,678	0	0	17,998	20,247	56,616
Evening	2,748	2,289	0	0	4,674	5,311	15,022
Total	31,113	37,094	0	0	74,841	64,333	207,381

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table B-11-1

Estimated Gross Toll Revenue per Segment

I-405 / SR 167 Express Toll Lanes - Sensitivity Test Study Option 1 - HOV 3+, with toll cap

All Revenue Values in Current Dollars

2013

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$105	$4,324	$0	$0	$12,605	$289	$17,323
AM Peak	172	5,049	0	0	19,048	408	24,677
Midday	1,041	1,268	0	0	6,278	3,155	11,742
PM Shoulder	512	324	0	0	2,126	8,304	11,266
PM Peak	1,570	1,055	0	0	8,117	33,911	44,652
Evening	1	41	0	0	92	2,071	2,205
Total	3,400	12,062	0	0	48,265	48,138	111,866

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$189	$20,201	$0	$0	$43,230	$714	$64,335
AM Peak	369	9,145	0	0	54,686	1,377	65,576
Midday	2,046	7,807	0	0	26,805	5,862	42,521
PM Shoulder	3,856	900	0	0	9,378	26,948	41,082
PM Peak	12,116	5,067	0	0	32,072	76,007	125,262
Evening	393	68	0	0	695	8,764	9,921
Total	18,969	43,188	0	0	166,867	119,673	348,697

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$267	$15,778	$0	$0	$85,595	$2,133	$103,773
AM Peak	425	11,528	0	0	85,915	4,476	102,344
Midday	4,163	9,874	0	0	128,419	14,395	156,851
PM Shoulder	12,649	5,430	0	0	40,242	53,713	112,034
PM Peak	16,844	20,351	0	0	74,699	43,736	155,631
Evening	1,681	179	0	0	6,081	19,337	27,279
Total	36,029	63,140	0	0	420,951	137,791	657,910

Table B-11-2

Estimated Total Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Sensitivity Test Study Option 1 - HOV 3+, with toll cap

2013

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	1,855	9,244	0	0	12,297	2,434	25,830
AM Peak	2,495	7,546	0	0	13,066	2,843	25,950
Midday	10,052	11,680	0	0	18,437	11,505	51,674
PM Shoulder	4,295	3,193	0	0	4,638	9,595	21,721
PM Peak	10,571	7,405	0	0	12,662	19,003	49,641
Evening	1,565	1,133	0	0	499	4,641	7,838
Total	30,832	40,201	0	0	61,597	50,022	182,653

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,244	9,063	0	0	17,707	3,546	32,559
AM Peak	3,185	6,657	0	0	14,730	5,022	29,594
Midday	13,841	18,746	0	0	28,036	17,247	77,870
PM Shoulder	6,241	4,788	0	0	7,367	9,741	28,137
PM Peak	13,167	10,481	0	0	15,875	19,722	59,245
Evening	3,241	1,881	0	0	2,093	5,774	12,990
Total	41,920	51,617	0	0	85,808	61,052	240,396

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,559	9,054	0	0	15,562	4,886	32,061
AM Peak	3,206	7,608	0	0	13,372	7,147	31,333
Midday	15,870	18,526	0	0	29,251	24,060	87,706
PM Shoulder	6,522	5,879	0	0	7,888	10,179	30,468
PM Peak	11,224	12,107	0	0	12,775	9,688	45,794
Evening	4,090	2,441	0	0	4,142	5,736	16,410
Total	43,470	55,615	0	0	82,990	61,697	243,772

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table B-11-3

Estimated Tolled Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Sensitivity Test Study Option 1 - HOV 3+, with toll cap

2013

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	244	4,260	0	0	9,106	597	14,207
AM Peak	402	2,683	0	0	9,522	955	13,562
Midday	2,828	3,223	0	0	14,134	7,491	27,675
PM Shoulder	1,234	722	0	0	3,800	8,198	13,955
PM Peak	3,733	2,322	0	0	10,472	15,777	32,303
Evening	2	84	0	0	173	4,020	4,279
Total	8,442	13,293	0	0	47,207	37,038	105,981

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	443	3,799	0	0	14,067	1,440	19,749
AM Peak	966	1,606	0	0	10,608	2,684	15,865
Midday	5,283	8,461	0	0	22,877	13,067	49,688
PM Shoulder	2,264	1,318	0	0	6,076	8,356	18,014
PM Peak	4,569	3,398	0	0	12,863	16,719	37,550
Evening	1,004	146	0	0	1,510	5,117	7,778
Total	14,529	18,729	0	0	68,002	47,384	148,644

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	386	3,056	0	0	12,348	2,806	18,596
AM Peak	661	1,996	0	0	10,156	4,972	17,785
Midday	6,353	6,515	0	0	22,303	18,773	53,944
PM Shoulder	2,181	1,743	0	0	5,689	8,285	17,898
PM Peak	1,931	3,711	0	0	8,004	5,597	19,244
Evening	1,600	265	0	0	3,048	4,784	9,698
Total	13,111	17,287	0	0	61,548	45,217	137,164

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table B-11-4

Estimated Toll-Free Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Sensitivity Test Study Option 1 - HOV 3+, with toll cap

2013

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	1,611	4,984	0	0	3,191	1,837	11,623
AM Peak	2,093	4,863	0	0	3,543	1,888	12,388
Midday	7,224	8,457	0	0	4,303	4,014	23,999
PM Shoulder	3,061	2,471	0	0	837	1,397	7,766
PM Peak	6,838	5,083	0	0	2,190	3,226	17,337
Evening	1,563	1,049	0	0	325	621	3,559
Total	22,390	26,908	0	0	14,390	12,984	76,672

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	1,801	5,264	0	0	3,640	2,106	12,810
AM Peak	2,219	5,051	0	0	4,122	2,337	13,730
Midday	8,558	10,285	0	0	5,159	4,180	28,182
PM Shoulder	3,977	3,470	0	0	1,291	1,385	10,123
PM Peak	8,598	7,083	0	0	3,011	3,003	21,695
Evening	2,237	1,735	0	0	583	656	5,212
Total	27,390	32,888	0	0	17,806	13,668	91,752

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,173	5,998	0	0	3,214	2,080	13,465
AM Peak	2,545	5,612	0	0	3,216	2,175	13,548
Midday	9,517	12,010	0	0	6,948	5,287	33,762
PM Shoulder	4,341	4,136	0	0	2,199	1,895	12,571
PM Peak	9,293	8,396	0	0	4,771	4,091	26,551
Evening	2,490	2,176	0	0	1,094	952	6,712
Total	30,359	38,328	0	0	21,442	16,480	106,608

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table B-12-1

Estimated Gross Toll Revenue per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 4 - HOV 2+, no toll cap

All Revenue Values in Current Dollars

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$1,814	$41,511	$20,903	$27,552	$36,377	$3,677	$131,834
AM Peak	4,527	36,057	24,542	21,727	48,243	3,853	138,949
Midday	14,511	34,215	37,307	56,727	51,837	14,047	208,644
PM Shoulder	18,180	6,986	22,075	24,044	17,419	36,665	125,368
PM Peak	43,415	21,863	46,836	52,041	48,447	75,617	288,220
Evening	5,741	2,733	12,592	15,729	4,052	16,195	57,042
Total	88,187	143,365	164,254	197,821	206,375	150,054	950,057

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$7,833	$53,544	$58,496	$50,023	$79,811	$8,198	$257,905
AM Peak	7,544	47,104	51,249	40,211	80,093	13,054	239,255
Midday	26,004	43,236	105,294	98,469	116,375	34,300	423,678
PM Shoulder	21,458	12,735	30,841	33,271	33,838	39,055	171,198
PM Peak	52,579	37,359	71,086	71,567	88,149	94,007	414,746
Evening	6,297	3,921	17,896	20,401	7,006	16,680	72,201
Total	121,714	197,899	334,863	313,941	405,272	205,293	1,578,982

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	$10,339	$91,301	$80,977	$67,536	$104,289	$13,675	$368,117
AM Peak	10,355	71,168	69,623	49,462	99,116	21,481	321,205
Midday	36,575	96,651	147,260	138,506	182,266	61,221	662,479
PM Shoulder	35,772	17,340	36,088	33,780	26,532	4,068	153,580
PM Peak	78,855	50,400	81,377	69,205	59,424	7,814	347,074
Evening	14,279	4,792	23,095	27,779	15,018	28,952	113,914
Total	186,174	331,653	438,419	386,267	486,645	137,210	1,966,369

Table B-12-2

Estimated Total Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 4 - HOV 2+, no toll cap

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	4,804	10,800	13,869	19,365	19,171	6,696	74,705
AM Peak	4,586	8,917	13,845	15,334	16,625	6,231	65,539
Midday	15,051	19,915	27,979	37,565	29,243	22,072	151,824
PM Shoulder	6,977	6,421	10,154	11,813	8,934	11,373	55,672
PM Peak	13,278	12,901	19,404	22,739	20,868	22,102	111,291
Evening	4,192	3,100	6,946	7,543	3,824	6,823	32,428
Total	48,888	62,055	92,197	114,359	98,665	75,295	491,460

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	4,550	11,167	16,814	19,610	18,248	7,989	78,379
AM Peak	4,580	8,993	14,014	14,820	15,030	8,436	65,872
Midday	14,553	19,097	33,526	39,213	34,535	24,704	165,629
PM Shoulder	6,494	6,329	10,295	11,764	10,403	11,592	56,878
PM Peak	13,887	13,449	21,487	23,627	23,313	23,963	119,725
Evening	3,509	3,014	7,300	7,540	4,773	6,738	32,873
Total	47,573	62,049	103,437	116,572	106,303	83,422	519,356

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	4,578	11,472	16,551	19,858	18,431	8,780	79,670
AM Peak	4,650	9,210	13,659	14,468	15,315	9,060	66,361
Midday	16,730	21,505	31,323	40,352	37,897	29,708	177,515
PM Shoulder	7,065	6,243	10,690	10,729	11,114	8,921	54,762
PM Peak	14,211	13,131	21,463	21,334	23,391	19,094	112,624
Evening	4,163	3,254	7,099	7,867	6,230	7,630	36,244
Total	51,397	64,815	100,785	114,608	112,378	83,193	527,176

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table B-12-3

Estimated Tolled Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 4 - HOV 2+, no toll cap

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	3,105	5,234	10,056	11,969	10,732	2,268	43,364
AM Peak	2,447	3,722	9,132	8,219	7,133	1,491	32,144
Midday	6,448	8,881	17,292	23,267	14,741	9,058	79,687
PM Shoulder	2,877	2,748	5,851	6,747	4,667	5,067	27,955
PM Peak	4,534	5,386	10,758	11,773	11,218	8,053	51,723
Evening	1,841	1,244	4,161	4,494	1,811	3,409	16,960
Total	21,252	27,215	57,250	66,469	50,301	29,347	251,833

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,476	4,893	12,423	10,170	9,414	2,815	42,191
AM Peak	2,121	3,266	9,258	5,701	6,598	3,309	30,253
Midday	5,255	6,686	20,298	21,712	16,700	9,139	79,789
PM Shoulder	2,202	1,913	4,652	5,706	4,093	3,905	22,471
PM Peak	4,734	4,450	9,989	10,978	9,901	7,138	47,190
Evening	1,022	686	3,433	3,742	1,601	2,573	13,057
Total	17,809	21,894	60,054	58,009	48,307	28,879	234,951

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,586	5,576	12,180	10,048	8,836	3,025	42,250
AM Peak	2,265	3,856	9,031	5,304	6,542	3,621	30,620
Midday	7,364	9,204	18,282	22,402	16,212	11,823	85,287
PM Shoulder	2,494	1,732	4,807	4,470	2,839	349	16,691
PM Peak	4,897	3,953	9,443	7,942	6,033	660	32,928
Evening	1,421	832	3,323	3,895	1,686	2,796	13,953
Total	21,026	25,153	57,067	54,061	42,149	22,273	221,730

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table B-12-4

Estimated Toll-Free Transactions per Segment

I-405 / SR 167 Express Toll Lanes - Study Option 4 - HOV 2+, no toll cap

2020

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	1,699	5,566	3,813	7,396	8,440	4,427	31,341
AM Peak	2,139	5,195	4,713	7,115	9,492	4,739	33,395
Midday	8,603	11,034	10,687	14,297	14,502	13,014	72,138
PM Shoulder	4,100	3,674	4,304	5,066	4,267	6,306	27,717
PM Peak	8,743	7,515	8,645	10,967	9,649	14,048	59,568
Evening	2,352	1,856	2,785	3,049	2,013	3,413	15,468
Total	27,636	34,840	34,948	47,891	48,364	45,949	239,627

2035

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	2,074	6,274	4,391	9,440	8,834	5,174	36,188
AM Peak	2,459	5,727	4,756	9,119	8,432	5,127	35,619
Midday	9,298	12,411	13,228	17,501	17,836	15,566	85,840
PM Shoulder	4,293	4,416	5,643	6,058	6,310	7,687	34,407
PM Peak	9,153	8,999	11,497	12,649	13,412	16,825	72,535
Evening	2,487	2,328	3,868	3,797	3,171	4,165	19,816
Total	29,764	40,155	43,383	58,564	57,996	54,543	284,405

2045

	SR 167		I-405				Total
			I-405 South		I-405 North		
Period	SR 167 SB	SR 167 NB	I-405 South SB	I-405 South NB	I-405 North SB	I-405 North NB	
AM Shoulder	1,992	5,897	4,371	9,810	9,595	5,755	37,420
AM Peak	2,385	5,353	4,628	9,164	8,773	5,439	35,741
Midday	9,367	12,301	13,040	17,950	21,685	17,885	92,228
PM Shoulder	4,571	4,511	5,884	6,259	8,275	8,572	38,071
PM Peak	9,314	9,178	12,020	13,392	17,357	18,435	79,696
Evening	2,742	2,422	3,776	3,972	4,544	4,835	22,290
Total	30,371	39,662	43,718	60,547	70,229	60,920	305,446

Note: A transaction is defined as a passage of a vehicle through one tolling zone. A trip will generate one or more transactions.

Table B-13-1
2013 Estimated Traffic and Gross Toll Revenue
I-405 / SR 167 Express Toll Lanes - Study Option 1 - HOV 3+, no toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	4,000	2,249	6,249	$2.05	$4,610	$1,163,100
AM Peak	3,923	1,665	5,588	3.28	5,457	1,376,800
Midday	7,629	4,427	12,056	1.00	4,427	1,116,900
PM Shoulder	2,357	4,841	7,198	1.76	8,531	2,152,400
PM Peak	5,055	10,278	15,333	3.48	35,765	9,023,500
Evening	1,038	1,966	3,004	1.08	2,124	535,900
Total	24,002	25,426	49,428	$2.40	$60,914	$15,368,600

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	2,752	4,551	7,303	$2.80	$12,724	$3,210,300
AM Peak	3,241	4,773	8,014	4.04	19,266	4,860,800
Midday	7,093	7,335	14,428	1.00	7,335	1,850,600
PM Shoulder	2,367	2,372	4,739	1.11	2,637	665,300
PM Peak	5,324	6,903	12,227	1.40	9,652	2,435,200
Evening	1,177	93	1,270	1.00	93	23,500
Total	21,954	26,027	47,981	$1.99	$51,707	$13,045,700

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	6,752	6,800	13,552	$2.55	$17,334	$4,373,400
AM Peak	7,164	6,438	13,602	3.84	24,723	6,237,600
Midday	14,722	11,762	26,484	1.00	11,762	2,967,600
PM Shoulder	4,724	7,213	11,937	1.55	11,168	2,817,700
PM Peak	10,379	17,181	27,560	2.64	45,417	11,458,700
Evening	2,215	2,059	4,274	1.08	2,217	559,300
Total	45,956	51,453	97,409	$2.19	$112,621	$28,414,300

Table B-13-2
2020 Estimated Traffic and Gross Toll Revenue
I-405 / SR 167 Express Toll Lanes - Study Option 1 - HOV 3+, no toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	4,256	2,747	7,003	$10.20	$28,027	$7,071,200
AM Peak	4,356	2,606	6,962	8.65	22,538	5,686,300
Midday	8,498	9,821	18,319	1.39	13,668	3,448,400
PM Shoulder	2,818	5,198	8,016	5.53	28,730	7,248,600
PM Peak	5,927	10,969	16,896	7.85	86,066	21,714,500
Evening	1,377	2,802	4,179	3.27	9,150	2,308,500
Total	27,232	34,143	61,375	$5.51	$188,179	$47,477,500

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	2,976	7,106	10,082	$6.06	$43,087	$10,870,900
AM Peak	3,487	5,565	9,052	10.08	56,112	14,157,100
Midday	8,237	13,712	21,949	2.11	28,873	7,284,700
PM Shoulder	3,093	4,082	7,175	3.25	13,255	3,344,200
PM Peak	6,739	8,832	15,571	5.02	44,340	11,187,000
Evening	1,677	1,089	2,766	1.00	1,089	274,800
Total	26,209	40,386	66,595	$4.62	$186,756	$47,118,700

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	7,232	9,853	17,085	$7.22	$71,114	$17,942,100
AM Peak	7,843	8,171	16,014	9.63	78,650	19,843,400
Midday	16,735	23,533	40,268	1.81	42,541	10,733,100
PM Shoulder	5,911	9,280	15,191	4.52	41,985	10,592,800
PM Peak	12,666	19,801	32,467	6.59	130,406	32,901,400
Evening	3,054	3,891	6,945	2.63	10,239	2,583,300
Total	53,441	74,529	127,970	$5.03	$374,935	$94,596,100

Table B-13-3
2035 Estimated Traffic and Gross Toll Revenue
I-405 / SR 167 Express Toll Lanes - Study Option 1 - HOV 3+, no toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	4,708	3,135	7,843	$7.96	$24,940	$6,292,400
AM Peak	4,865	3,945	8,810	7.76	30,623	7,726,200
Midday	10,406	12,088	22,494	2.01	24,314	6,134,400
PM Shoulder	3,531	5,343	8,874	11.23	59,996	15,137,000
PM Peak	7,402	10,915	18,317	15.85	172,994	43,646,400
Evening	1,782	2,799	4,581	7.21	20,173	5,089,600
Total	32,694	38,225	70,919	$8.71	$333,040	$84,026,000

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	3,157	5,695	8,852	$15.68	$89,317	$22,534,700
AM Peak	3,623	3,798	7,421	23.64	89,800	22,656,500
Midday	9,590	13,596	23,186	9.80	133,243	33,617,200
PM Shoulder	3,723	3,922	7,645	13.90	54,508	13,752,400
PM Peak	7,985	7,892	15,877	19.02	150,113	37,873,500
Evening	2,073	2,229	4,302	3.48	7,748	1,954,800
Total	30,151	37,132	67,283	$14.13	$524,729	$132,389,100

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	7,865	8,830	16,695	$12.94	$114,257	$28,827,000
AM Peak	8,488	7,743	16,231	15.55	120,423	30,382,700
Midday	19,996	25,684	45,680	6.13	157,557	39,751,600
PM Shoulder	7,254	9,265	16,519	12.36	114,504	28,889,400
PM Peak	15,387	18,807	34,194	17.18	323,107	81,519,900
Evening	3,855	5,028	8,883	5.55	27,921	7,044,500
Total	62,845	75,357	138,202	$11.38	$857,769	$216,415,100

Table B-14-1
2020 Estimated Traffic and Gross Toll Revenue
I-405 / SR 167 Express Toll Lanes - Study Option 1 - HOV 2+, no toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	5,626	2,449	8,075	$11.31	$27,709	$6,991,000
AM Peak	5,968	2,038	8,006	10.76	21,935	5,534,200
Midday	13,651	7,650	21,301	1.50	11,495	2,900,200
PM Shoulder	5,648	3,311	8,959	5.72	18,935	4,777,300
PM Peak	12,186	6,639	18,825	8.22	54,564	13,766,500
Evening	2,939	1,878	4,817	3.37	6,332	1,597,600
Total	46,018	23,965	69,983	$5.88	$140,970	$35,566,800

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	6,112	5,117	11,229	$6.58	$33,654	$8,490,900
AM Peak	6,619	3,044	9,663	13.56	41,290	10,417,500
Midday	13,499	10,652	24,151	2.09	22,310	5,628,800
PM Shoulder	5,001	2,935	7,936	3.57	10,471	2,641,800
PM Peak	10,832	6,376	17,208	5.38	34,273	8,647,100
Evening	2,620	783	3,403	1.00	783	197,600
Total	44,683	28,907	73,590	$4.94	$142,781	$36,023,700

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	11,738	7,566	19,304	$8.11	$61,363	$15,481,900
AM Peak	12,587	5,082	17,669	12.44	63,225	15,951,700
Midday	27,150	18,302	45,452	1.85	33,805	8,529,000
PM Shoulder	10,649	6,246	16,895	4.71	29,406	7,419,100
PM Peak	23,018	13,015	36,033	6.83	88,837	22,413,600
Evening	5,559	2,661	8,220	2.67	7,115	1,795,100
Total	90,701	52,872	143,573	$5.37	$283,751	$71,590,400

Table B-14-2
2035 Estimated Traffic and Gross Toll Revenue
I-405 / SR 167 Express Toll Lanes - Study Option 1 - HOV 2+, no toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	6,336	2,386	8,722	$10.02	$23,909	$6,032,200
AM Peak	6,179	3,165	9,344	9.23	29,216	7,371,200
Midday	17,124	7,622	24,746	2.25	17,154	4,328,000
PM Shoulder	7,570	2,226	9,796	14.11	31,402	7,922,700
PM Peak	16,207	3,026	19,233	14.54	44,006	11,102,700
Evening	4,102	1,307	5,409	7.28	9,519	2,401,600
Total	57,518	19,732	77,250	$7.87	$155,206	$39,158,400

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	6,826	4,150	10,976	$15.89	$65,947	$16,638,400
AM Peak	6,568	2,566	9,134	24.56	63,012	15,897,900
Midday	17,189	9,579	26,768	9.16	87,781	22,147,100
PM Shoulder	6,500	1,724	8,224	12.33	21,254	5,362,400
PM Peak	13,747	2,807	16,554	21.16	59,408	14,988,600
Evening	3,487	1,456	4,943	3.35	4,875	1,230,000
Total	54,317	22,282	76,599	$13.57	$302,277	$76,264,400

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	13,162	6,536	19,698	$13.75	$89,856	$22,670,700
AM Peak	12,747	5,731	18,478	16.09	92,228	23,269,100
Midday	34,313	17,201	51,514	6.10	104,935	26,475,100
PM Shoulder	14,070	3,950	18,020	13.33	52,656	13,285,100
PM Peak	29,954	5,833	35,787	17.73	103,414	26,091,400
Evening	7,589	2,763	10,352	5.21	14,394	3,631,600
Total	111,835	42,014	153,849	$10.89	$457,483	$115,423,000

Table B-14-3
2045 Estimated Traffic and Gross Toll Revenue
I-405 / SR 167 Express Toll Lanes - Study Option 1 - HOV 2+, no toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	6,483	2,854	9,337	$20.52	$58,574	$14,778,200
AM Peak	6,228	3,257	9,485	16.85	54,866	13,842,700
Midday	19,362	7,911	27,273	8.87	70,165	17,702,600
PM Shoulder	8,264	2,010	10,274	22.83	45,879	11,575,300
PM Peak	17,332	1,978	19,310	17.81	35,235	8,889,800
Evening	4,492	1,310	5,802	12.09	15,835	3,995,200
Total	62,161	19,320	81,481	$14.52	$280,554	$70,783,800

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	7,318	3,729	11,047	$23.64	$88,138	$22,237,200
AM Peak	6,923	2,790	9,713	29.03	80,989	20,433,500
Midday	19,211	9,247	28,458	15.71	145,254	36,647,600
PM Shoulder	7,549	1,086	8,635	22.51	24,450	6,168,700
PM Peak	15,863	2,010	17,873	26.09	52,433	13,228,800
Evening	4,324	1,053	5,377	11.70	12,323	3,109,100
Total	61,188	19,915	81,103	$20.27	$403,587	$101,824,900

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	13,801	6,583	20,384	$22.29	$146,712	$37,015,400
AM Peak	13,151	6,047	19,198	22.47	135,855	34,276,200
Midday	38,573	17,158	55,731	12.56	215,419	54,350,200
PM Shoulder	15,813	3,096	18,909	22.72	70,329	17,744,000
PM Peak	33,195	3,988	37,183	21.98	87,668	22,118,600
Evening	8,816	2,363	11,179	11.92	28,158	7,104,300
Total	123,349	39,235	162,584	$17.44	$684,141	$172,608,700

Table B-15-1
2013 Estimated Traffic and Gross Toll Revenue
I-405 / SR 167 Express Toll Lanes - Sensitivity Test Study Option 1 - HOV 3+, with toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	4,001	2,250	6,251	$2.05	$4,613	$1,163,900
AM Peak	3,927	1,665	5,592	3.28	5,457	1,376,800
Midday	7,629	4,424	12,053	1.00	4,424	1,116,200
PM Shoulder	2,359	4,610	6,969	1.87	8,628	2,176,800
PM Peak	5,080	9,175	14,255	3.81	34,966	8,821,900
Evening	1,038	1,947	2,985	1.08	2,112	532,900
Total	24,034	24,071	48,105	$2.50	$60,200	$15,188,500

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	3,056	4,552	7,608	$2.79	$12,710	$3,206,700
AM Peak	3,455	4,762	8,217	4.04	19,220	4,849,200
Midday	7,310	7,319	14,629	1.00	7,319	1,846,600
PM Shoulder	2,386	2,374	4,760	1.11	2,638	665,600
PM Peak	5,420	6,933	12,353	1.40	9,686	2,443,800
Evening	1,187	93	1,280	1.00	93	23,500
Total	22,814	26,033	48,847	$1.98	$51,666	$13,035,400

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	7,057	6,802	13,859	$2.55	$17,323	$4,370,600
AM Peak	7,382	6,427	13,809	3.84	24,677	6,226,000
Midday	14,939	11,743	26,682	1.00	11,743	2,962,800
PM Shoulder	4,745	6,984	11,729	1.61	11,266	2,842,400
PM Peak	10,500	16,108	26,608	2.77	44,652	11,265,700
Evening	2,225	2,040	4,265	1.08	2,205	556,300
Total	46,848	50,104	96,952	$2.23	$111,866	$28,223,800

Table B-15-2
2020 Estimated Traffic and Gross Toll Revenue
I-405 / SR 167 Express Toll Lanes - Sensitivity Test Study Option 1 - HOV 3+, with toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	4,280	2,989	7,269	$7.00	$20,916	$5,277,100
AM Peak	4,373	2,868	7,241	3.67	10,521	2,654,400
Midday	8,502	9,821	18,323	1.39	13,669	3,448,700
PM Shoulder	2,818	4,906	7,724	5.68	27,848	7,026,100
PM Peak	5,930	9,905	15,835	8.19	81,074	20,455,000
Evening	1,379	2,653	4,032	3.33	8,832	2,228,300
Total	27,282	33,142	60,424	$4.91	$162,860	$41,089,600

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	3,328	6,820	10,148	$6.37	$43,419	$10,954,600
AM Peak	3,721	5,143	8,864	10.70	55,055	13,890,400
Midday	8,500	13,704	22,204	2.11	28,852	7,279,400
PM Shoulder	3,131	4,073	7,204	3.25	13,234	3,338,900
PM Peak	6,827	8,808	15,635	5.02	44,188	11,148,600
Evening	1,696	1,089	2,785	1.00	1,089	274,800
Total	27,203	39,637	66,840	$4.69	$185,837	$46,886,700

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	7,608	9,809	17,417	$6.56	$64,335	$16,231,700
AM Peak	8,094	8,011	16,105	8.19	65,576	16,544,800
Midday	17,002	23,525	40,527	1.81	42,521	10,728,000
PM Shoulder	5,949	8,979	14,928	4.58	41,082	10,365,000
PM Peak	12,757	18,713	31,470	6.69	125,262	31,603,600
Evening	3,075	3,742	6,817	2.65	9,921	2,503,100
Total	54,485	72,779	127,264	$4.79	$348,697	$87,976,200

Table B-15-3
2035 Estimated Traffic and Gross Toll Revenue
I-405 / SR 167 Express Toll Lanes - Sensitivity Test Study Option 1 - HOV 3+, with toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	4,663	3,303	7,966	$5.42	$17,911	$4,518,900
AM Peak	4,498	4,517	9,015	3.54	16,004	4,037,800
Midday	10,401	12,062	22,463	2.01	24,269	6,123,100
PM Shoulder	3,516	5,101	8,617	11.59	59,143	14,921,800
PM Peak	7,376	4,595	11,971	13.95	64,088	16,169,400
Evening	1,783	2,574	4,357	7.58	19,517	4,924,100
Total	32,237	32,152	64,389	$6.25	$200,932	$50,695,100

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	3,493	5,883	9,376	$14.59	$85,862	$21,663,000
AM Peak	3,602	4,687	8,289	18.42	86,340	21,783,600
Midday	9,953	13,548	23,501	9.79	132,582	33,450,400
PM Shoulder	3,785	3,725	7,510	14.20	52,891	13,344,400
PM Peak	8,046	5,393	13,439	16.97	91,543	23,096,300
Evening	2,110	2,222	4,332	3.49	7,762	1,958,400
Total	30,989	35,458	66,447	$12.89	$456,980	$115,296,100

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	8,156	9,186	17,342	$11.30	$103,773	$26,181,900
AM Peak	8,100	9,204	17,304	11.12	102,344	25,821,400
Midday	20,354	25,610	45,964	6.12	156,851	39,573,500
PM Shoulder	7,301	8,826	16,127	12.69	112,034	28,266,200
PM Peak	15,422	9,988	25,410	15.58	155,631	39,265,700
Evening	3,893	4,796	8,689	5.69	27,279	6,882,500
Total	63,226	67,610	130,836	$9.73	$657,912	$165,991,200

Table B-16-1
2020 Estimated Traffic and Gross Toll Revenue
I-405 / SR 167 Express Toll Lanes - Study Option 4 - HOV 2+, no toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	8,366	6,463	14,829	$11.25	$72,740	$18,352,300
AM Peak	8,460	4,486	12,946	13.74	61,637	15,551,000
Midday	19,424	13,892	33,316	7.56	104,989	26,488,700
PM Shoulder	7,523	4,735	12,258	14.30	67,695	17,079,400
PM Peak	16,363	8,120	24,483	18.41	149,521	37,724,100
Evening	4,066	2,991	7,057	11.59	34,657	8,744,000
Total	64,202	40,687	104,889	$12.07	$491,239	$123,939,500

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	7,435	8,057	15,492	$7.33	$59,094	$14,909,400
AM Peak	8,410	6,116	14,526	12.64	77,312	19,505,800
Midday	17,207	11,707	28,914	8.85	103,655	26,152,200
PM Shoulder	6,256	3,929	10,185	14.68	57,673	14,550,900
PM Peak	13,347	8,099	21,446	17.13	138,698	34,993,500
Evening	3,544	2,153	5,697	10.40	22,385	5,647,700
Total	56,199	40,061	96,260	$11.45	$458,817	$115,759,500

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	15,801	14,520	30,321	$9.08	$131,834	$33,261,700
AM Peak	16,870	10,602	27,472	13.11	138,949	35,056,800
Midday	36,631	25,599	62,230	8.15	208,644	52,640,900
PM Shoulder	13,779	8,664	22,443	14.47	125,368	31,630,300
PM Peak	29,710	16,219	45,929	17.77	288,219	72,717,700
Evening	7,610	5,144	12,754	11.09	57,042	14,391,700
Total	120,401	80,748	201,149	$11.77	$950,056	$239,699,100

Table B-16-2
2035 Estimated Traffic and Gross Toll Revenue
I-405 / SR 167 Express Toll Lanes - Study Option 4 - HOV 2+, no toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	10,385	6,088	16,473	$18.36	$111,765	$28,198,300
AM Peak	10,015	4,388	14,403	22.87	100,369	25,323,100
Midday	23,507	13,313	36,820	13.22	176,005	44,406,100
PM Shoulder	9,176	4,061	13,237	20.95	85,061	21,460,900
PM Peak	19,339	7,863	27,202	25.81	202,932	51,199,700
Evening	5,120	2,560	7,680	16.02	41,002	10,344,800
Total	77,542	38,273	115,815	$18.74	$717,134	$180,932,900

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	8,274	8,239	16,513	$17.74	$146,140	$36,871,100
AM Peak	8,313	5,651	13,964	24.58	138,886	35,040,900
Midday	21,034	14,063	35,097	17.61	247,673	62,487,900
PM Shoulder	8,205	3,681	11,886	23.40	86,137	21,732,400
PM Peak	17,192	8,523	25,715	24.85	211,814	53,440,700
Evening	4,797	1,968	6,765	15.85	31,199	7,871,500
Total	67,815	42,125	109,940	$20.46	$861,849	$217,444,500

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	18,659	14,327	32,986	$18.00	$257,905	$65,069,400
AM Peak	18,328	10,039	28,367	23.83	239,255	60,364,000
Midday	44,541	27,376	71,917	15.48	423,678	106,894,000
PM Shoulder	17,381	7,742	25,123	22.11	171,198	43,193,300
PM Peak	36,531	16,386	52,917	25.31	414,746	104,640,400
Evening	9,917	4,528	14,445	15.95	72,201	18,216,300
Total	145,357	80,398	225,755	$19.64	$1,578,983	$398,377,400

Table B-16-3
2045 Estimated Traffic and Gross Toll Revenue
I-405 / SR 167 Express Toll Lanes - Study Option 4 - HOV 2+, no toll cap
All Revenue Values in Current Dollars

Northbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	10,568	6,456	17,024	$26.72	$172,512	$43,524,800
AM Peak	10,053	4,777	14,830	29.75	142,111	35,854,600
Midday	25,408	16,286	41,694	18.20	296,378	74,776,200
PM Shoulder	10,038	2,701	12,739	20.43	55,188	13,923,900
PM Peak	21,093	5,089	26,182	25.04	127,418	32,147,600
Evening	5,796	2,799	8,595	21.98	61,523	15,522,300
Total	82,956	38,108	121,064	$22.44	$855,130	$215,749,400

Southbound Direction

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	8,874	8,271	17,145	$23.65	$195,605	$49,351,100
AM Peak	8,612	5,767	14,379	31.05	179,094	45,185,400
Midday	22,757	14,545	37,302	25.17	366,101	92,367,300
PM Shoulder	9,462	3,986	13,448	24.68	98,392	24,824,300
PM Peak	19,321	7,929	27,250	27.70	219,656	55,419,200
Evening	5,521	2,207	7,728	23.74	52,391	13,218,200
Total	74,547	42,705	117,252	$26.02	$1,111,239	$280,365,500

Both Directions

Period	Weekday Traffic: Toll Free	Weekday Traffic: Tolled	Weekday Traffic: Total	Average Toll Rate	Weekday Revenue	Estimated Annual Toll Revenue
AM Shoulder	19,442	14,727	34,169	$25.00	$368,117	$92,875,900
AM Peak	18,665	10,544	29,209	30.46	321,205	81,040,000
Midday	48,165	30,831	78,996	21.49	662,479	167,143,500
PM Shoulder	19,500	6,687	26,187	22.97	153,580	38,748,200
PM Peak	40,414	13,018	53,432	26.66	347,074	87,566,800
Evening	11,317	5,006	16,323	22.76	113,914	28,740,500
Total	157,503	80,813	238,316	$24.33	$1,966,369	$496,114,900

Table B-17

Estimated Traffic and Toll Revenue for the Express Toll Lanes

I-405 / SR 167 Express Toll Lanes - Study Option 1 - HOV 3+, no toll cap

Annual Revenue in Thousands of $

		Average Weekday Trips				
Year		**Toll Trips**	**Toll-Free Trips**	**Total Trips**	**Annual Toll Revenue (2)**	**Average Toll**
2013	(1)	36,017	**45,956**	**81,973**	**$19,890**	**$2.19**
2014	(1)	48,825	46,957	95,782	30,367	2.47
2015		57,199	47,981	105,179	40,066	2.78
2016		60,308	49,026	109,334	47,577	3.13
2017		63,586	50,094	113,680	56,496	3.52
2018		67,042	51,186	118,228	67,086	3.97
2019		70,687	52,301	122,988	79,662	4.47
2020		**74,529**	**53,441**	**127,970**	**94,596**	**5.03**
2021		74,584	54,022	128,606	99,962	5.31
2022		74,639	54,609	129,247	105,632	5.61
2023		74,694	55,202	129,896	111,624	5.92
2024		74,749	55,802	130,551	117,955	6.25
2025		74,804	56,408	131,212	124,646	6.60
2026		74,859	57,021	131,880	131,716	6.97
2027		74,914	57,640	132,555	139,187	7.36
2028		74,969	58,267	133,236	147,082	7.78
2029		75,025	58,900	133,924	155,425	8.21
2030		75,080	59,540	134,620	164,241	8.67
2031		75,135	60,186	135,322	173,558	9.16
2032		75,191	60,840	136,031	183,402	9.67
2033		75,246	61,501	136,747	193,805	10.21
2034		75,302	62,170	137,471	204,798	10.78
2035		**75,357**	**62,845**	**138,202**	**216,415**	**11.38**
2036		75,219	63,426	138,645	227,941	12.01
2037		75,081	64,013	139,094	240,081	12.67
2038		74,944	64,605	139,549	252,868	13.37
2039		74,807	65,202	140,009	266,335	14.11
2040		74,670	65,805	140,475	280,520	14.89
2041		74,533	66,414	140,947	295,461	15.71
2042		74,397	67,028	141,425	311,197	16.58
2043		74,261	67,648	141,909	327,771	17.49
2044		74,125	68,274	142,398	345,228	18.46
2045		**73,989**	**68,905**	**142,894**	**363,614**	**19.48**
2046		73,989	68,905	142,894	372,705	19.97
2047		73,989	68,905	142,894	382,022	20.46
2048		73,989	68,905	142,894	391,573	20.98
2049		73,989	68,905	142,894	401,362	21.50
2050		73,989	68,905	142,894	411,396	22.04
2051		73,989	68,905	142,894	421,681	22.59
2052		73,989	68,905	142,894	432,223	23.15
2053		73,989	68,905	142,894	443,029	23.73
2054		73,989	68,905	142,894	454,104	24.33
2055		73,989	68,905	142,894	465,457	24.93
2056		73,989	68,905	142,894	477,093	25.56
2057		73,989	68,905	142,894	489,021	26.20
2058		73,989	68,905	142,894	501,246	26.85
2059		73,989	68,905	142,894	513,777	27.52
2060		73,989	68,905	142,894	526,622	28.21
Cumulative Revenue					**$12,299,518**	

(1) Ramp-up adjustment factors are applied to transactions and revenue for the first two years of opoeration. Adjustment factors for 2013 and 2014 are as follows: 2013 - 70% and 2014 - 90%.

(2) For the development of annual toll revenue, a nominal amount equal to 2 percent of average weekday toll revenue was added for each weekend day.

Note: All toll revenue is calculated in current dollars.

Table B-18

Estimated Traffic and Toll Revenue for the Express Toll Lanes

I-405 / SR 167 Express Toll Lanes - Study Option 1 - HOV 2+, no toll cap

Annual Revenue in Thousands of $

		Average Weekday Trips				
Year		**Toll Trips**	**Toll-Free Trips**	**Total Trips**	**Annual Toll Revenue (2)**	**Average Toll**
2020	(1)	37,010	**90,701**	**127,711**	**$50,113**	**$5.37**
2021	(1)	46,861	91,976	138,838	66,516	5.63
2022		51,276	93,270	144,546	76,298	5.90
2023		50,496	94,581	145,078	78,767	6.18
2024		49,728	95,911	145,640	81,315	6.48
2025		48,972	97,260	146,232	83,946	6.79
2026		48,227	98,628	146,855	86,662	7.12
2027		47,494	100,014	147,508	89,466	7.47
2028		46,772	101,421	148,192	92,361	7.83
2029		46,060	102,847	148,907	95,349	8.20
2030		45,360	104,293	149,653	98,434	8.60
2031		44,670	105,760	150,430	101,619	9.02
2032		43,991	107,247	151,238	104,907	9.45
2033		43,322	108,755	152,077	108,301	9.91
2034		42,663	110,284	152,947	111,805	10.39
2035		**42,014**	**111,835**	**153,849**	**115,423**	**10.89**
2036		41,727	112,936	154,664	120,163	11.41
2037		41,443	114,048	155,491	125,097	11.96
2038		41,160	115,172	156,332	130,234	12.54
2039		40,880	116,306	157,185	135,582	13.15
2040		40,601	117,451	158,052	141,149	13.78
2041		40,324	118,608	158,931	146,945	14.44
2042		40,049	119,776	159,824	152,979	15.14
2043		39,776	120,955	160,731	159,261	15.87
2044		39,504	122,146	161,651	165,800	16.64
2045		**39,235**	**123,349**	**162,584**	**172,609**	**17.44**
2046		39,235	123,349	162,584	176,924	17.87
2047		39,235	123,349	162,584	181,347	18.32
2048		39,235	123,349	162,584	185,881	18.78
2049		39,235	123,349	162,584	190,528	19.25
2050		39,235	123,349	162,584	195,291	19.73
2051		39,235	123,349	162,584	200,173	20.22
2052		39,235	123,349	162,584	205,178	20.73
2053		39,235	123,349	162,584	210,307	21.25
2054		39,235	123,349	162,584	215,565	21.78
2055		39,235	123,349	162,584	220,954	22.32
2056		39,235	123,349	162,584	226,478	22.88
2057		39,235	123,349	162,584	232,140	23.45
2058		39,235	123,349	162,584	237,943	24.04
2059		39,235	123,349	162,584	243,892	24.64
2060		39,235	123,349	162,584	249,989	25.25
Cumulative Revenue					**$6,063,689**	

(1) Ramp-up adjustment factors are applied to transactions and revenue for the first two years of opoeration. Adjustment factors for 2020 and 2021 are as follows: 2020 - 70% and 2021 - 90%.

(2) For the development of annual toll revenue, a nominal amount equal to 2 percent of average weekday toll revenue was added for each weekend day.

Note: All toll revenue is calculated in current dollars.

Table B-19

Estimated Traffic and Toll Revenue for the Express Toll Lanes

I-405 / SR 167 Express Toll Lanes - Sensitivity Test Study Option 1 - HOV 3+, with toll cap

Annual Revenue in Thousands of $

		Average Weekday Trips				
Year		**Toll Trips**	**Toll-Free Trips**	**Total Trips**	**Annual Toll Revenue (2)**	**Average Toll**
2013	(1)	35,073	**46,848**	**81,921**	**$19,757**	**$2.23**
2014	(1)	47,564	47,870	95,434	29,881	2.49
2015		55,744	48,914	104,657	39,056	2.78
2016		58,797	49,980	108,778	45,943	3.10
2017		62,018	51,070	113,089	54,045	3.45
2018		65,416	52,184	117,600	63,576	3.85
2019		68,999	53,322	122,321	74,788	4.30
2020		**72,779**	**54,485**	**127,264**	**87,976**	**4.79**
2021		72,422	55,028	127,451	91,780	5.02
2022		72,068	55,577	127,644	95,748	5.27
2023		71,715	56,131	127,845	99,887	5.52
2024		71,363	56,690	128,053	104,206	5.79
2025		71,014	57,255	128,269	108,711	6.07
2026		70,666	57,826	128,492	113,411	6.36
2027		70,319	58,403	128,722	118,314	6.67
2028		69,975	58,985	128,960	123,429	6.99
2029		69,632	59,573	129,205	128,765	7.33
2030		69,291	60,167	129,458	134,332	7.68
2031		68,951	60,766	129,718	140,139	8.06
2032		68,614	61,372	129,986	146,198	8.45
2033		68,277	61,984	130,261	152,518	8.85
2034		67,943	62,602	130,545	159,112	9.28
2035		**67,610**	**63,226**	**130,836**	**165,991**	**9.73**
2036		67,610	63,226	130,836	170,141	9.97
2037		67,610	63,226	130,836	174,395	10.22
2038		67,610	63,226	130,836	178,754	10.48
2039		67,610	63,226	130,836	183,223	10.74
2040		67,610	63,226	130,836	187,804	11.01
2041		67,610	63,226	130,836	192,499	11.28
2042		67,610	63,226	130,836	197,311	11.57
2043		67,610	63,226	130,836	202,244	11.86
2044		67,610	63,226	130,836	207,300	12.15
2045		67,610	63,226	130,836	212,483	12.46
2046		67,610	63,226	130,836	217,795	12.77
2047		67,610	63,226	130,836	223,240	13.09
2048		67,610	63,226	130,836	228,821	13.41
2049		67,610	63,226	130,836	234,541	13.75
2050		67,610	63,226	130,836	240,405	14.09
2051		67,610	63,226	130,836	246,415	14.45
2052		67,610	63,226	130,836	252,575	14.81
2053		67,610	63,226	130,836	258,890	15.18
2054		67,610	63,226	130,836	265,362	15.56
2055		67,610	63,226	130,836	271,996	15.95
2056		67,610	63,226	130,836	278,796	16.34
2057		67,610	63,226	130,836	285,766	16.75
2058		67,610	63,226	130,836	292,910	17.17
2059		67,610	63,226	130,836	300,233	17.60
2060		67,610	63,226	130,836	307,738	18.04
Cumulative Revenue					**$8,109,196**	

(1) Ramp-up adjustment factors are applied to transactions and revenue for the first two years of operation. Adjustment factors for 2013 and 2014 are as follows: 2013 - 70% and 2014 - 90%.

(2) For the development of annual toll revenue, a nominal amount equal to 2 percent of average weekday toll revenue was added for each weekend day.

Note: All toll revenue is calculated in current dollars.

Table B-20

Estimated Traffic and Toll Revenue for the Express Toll Lanes

I-405 / SR 167 Express Toll Lanes - Study Option 4 - HOV 2+, no toll cap

Annual Revenue in Thousands of $

		Average Weekday Trips				
Year		**Toll Trips**	**Toll-Free Trips**	**Total Trips**	**Annual Toll Revenue (2)**	**Average Toll**
2020	(1)	56,524	**120,401**	**176,925**	**$167,789**	**$11.77**
2021	(1)	72,652	121,922	194,575	223,161	12.17
2022		80,701	123,463	204,164	256,498	12.60
2023		80,678	125,023	205,701	265,334	13.04
2024		80,655	126,603	207,258	274,474	13.49
2025		80,631	128,203	208,834	283,929	13.96
2026		80,608	129,823	210,431	293,709	14.44
2027		80,584	131,464	212,048	303,827	14.94
2028		80,561	133,125	213,686	314,293	15.46
2029		80,538	134,807	215,345	325,120	16.00
2030		80,514	136,511	217,025	336,319	16.56
2031		80,491	138,236	218,727	347,905	17.13
2032		80,468	139,983	220,451	359,889	17.73
2033		80,445	141,752	222,196	372,287	18.34
2034		80,421	143,543	223,964	385,111	18.98
2035		**80,398**	**145,357**	**225,755**	**398,377**	**19.64**
2036		80,439	146,528	226,968	407,215	20.06
2037		80,481	147,709	228,190	416,248	20.50
2038		80,522	148,899	229,421	425,482	20.94
2039		80,564	150,099	230,663	434,920	21.40
2040		80,605	151,308	231,913	444,568	21.86
2041		80,647	152,527	233,174	454,430	22.33
2042		80,688	153,756	234,445	464,511	22.82
2043		80,730	154,995	235,725	474,815	23.31
2044		80,771	156,244	237,015	485,348	23.82
2045		**80,813**	**157,503**	**238,316**	**496,115**	**24.33**
2046		80,813	157,503	238,316	508,518	24.94
2047		80,813	157,503	238,316	521,231	25.56
2048		80,813	157,503	238,316	534,261	26.20
2049		80,813	157,503	238,316	547,618	26.86
2050		80,813	157,503	238,316	561,308	27.53
2051		80,813	157,503	238,316	575,341	28.22
2052		80,813	157,503	238,316	589,725	28.92
2053		80,813	157,503	238,316	604,468	29.65
2054		80,813	157,503	238,316	619,580	30.39
2055		80,813	157,503	238,316	635,069	31.15
2056		80,813	157,503	238,316	650,946	31.93
2057		80,813	157,503	238,316	667,219	32.72
2058		80,813	157,503	238,316	683,900	33.54
2059		80,813	157,503	238,316	700,997	34.38
2060		80,813	157,503	238,316	718,522	35.24
Cumulative Revenue					**$18,530,378**	

(1) Ramp-up adjustment factors are applied to transactions and revenue for the first two years of opoeration. Adjustment factors for 2020 and 2021 are as follows: 2020 - 70% and 2021 - 90%.

(2) For the development of annual toll revenue, a nominal amount equal to 2 percent of average weekday toll revenue was added for each weekend day.

Note: All toll revenue is calculated in current dollars.