

**APPENDIX K**  
**Traffic Analysis**

**CORRIDOR STUDY  
PHASE D  
TRAFFIC STUDY REPORT**

**PROJECT NUMBER NCPD - PE02 (910)**

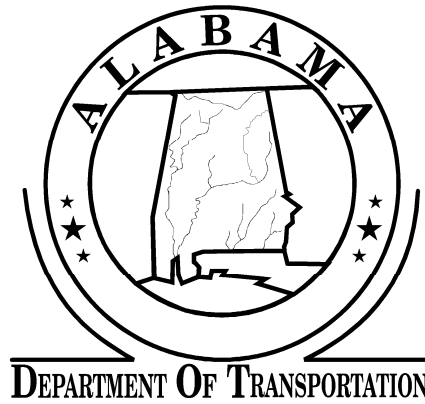
**I-85 EXTENSION**

**FROM I-59/I-20 NEAR the MISSISSIPPI STATE LINE**

**NE OF CUBA TO I-65 NEAR MONTGOMERY**

**MULTIPLE COUNTIES**

**PREPARED FOR**



**PREPARED BY**

**VOLKERT**

**December 20, 2006**

**January 30, 2007 (Revised)**

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## **EXECUTIVE SUMMARY**

This report analyzes the projected traffic for the year 2030 to determine roadway requirements for I-85 extension (Project NCPD-PE02(910)) from I-59/I-20 near the Mississippi state line NE of Cuba to I-65 near Montgomery. The results of this report are the number of lanes required for roadway segments.

Based on this level of service (LOS) analysis, the I-85 Extension is proposed to be a four (4) lane divided highway for all segments. This will allow the project to operate at a LOS of B or better for all segments and for all alternative combinations of segments.

## **1.0 INTRODUCTION**

The study for the I-85 Extension Preliminary Design, Project NCPD-PE02(910), encompasses the development of future traffic volumes for the year 2030 and determination of facility requirements to serve the projected traffic.

The preliminary design for this project extends from I-59/I-20 near the Mississippi state line NE of Cuba to I-65 near Montgomery (see Figure A-1 for a location map). I-85 will be an access controlled freeway.

The traffic data for the project was supplied by the Carter and Burgess. Traffic was supplied for the year 2030. Carter and Burgess supplied traffic volumes, truck percentage, directional distribution factors and peak hour distribution factors (see Appendix A for traffic data).

A capacity analysis was performed to determine the roadway facilities required for the project to operate at an acceptable level of service (LOS). The results of this report, the number of lanes will be used to estimate construction cost, right of way requirements and traffic impacts. All the facilities shown in this report provide a sufficient level of service.

## 2.0 METHODOLOGY

The traffic data supplied by Carter and Burgess was used to perform a capacity analysis on I-85 Extension.

### 2.1 LOS Criteria

The 2000 Highway Capacity Manual (HCM) was used to determine the number of lanes for roadways. Roadway number of lanes was recommended to match a LOS of C or better.

Table 2-1: Level of Service

Levels of Service	General Operating Conditions
A	Free Flow
B	Reasonably Free Flow
C	Stable Flow
D	Approaching Unstable Flow
E	Unstable Flow
F	Forced or Breakdown Flow

### 2.2 Reduction of ADT

The traffic projections supplied by Carter and Burgess were given in Average Daily Traffic (ADT). In order to perform the Capacity Analysis for freeways, the ADT must be reduced to Directional Design Hour Volumes (DDHV). DWA supplied the K and D factors of 12% and 60% respectively. The DDHV is calculated as follows:

$$DDHV = \text{One-Way ADT} (2)(K)(D)$$

or

$$DDHV = \text{Two-Way ADT} (K)(D).$$

$$DDHV_{AM \text{ or } PM} = \text{one way ADT} (2)(1-K)(D) \text{ for non-peak direction}$$

### **2.3 Roadway Analysis**

There was one roadway type analyzed for this study. The roadway type is defined by how the facility would be evaluated using the HCM. The following was used for this study:

Freeways: I-85 Extension

The method of analysis for the roadway type is discussed below:

### 2.3.1 Freeway Segments

Chapter 22 of the 2000 HCM was used to evaluate freeway segments. For analysis purposes, the following assumptions were made:

1. Design Speed = 70 mph
2. PHF = 0.90
3. Driver Population Factor = 1.0
4. No Obstructions
5. Lane Width = 12 ft

The level of service was obtained using the Highway Capacity Software (HCS) and compared to a LOS of C or better for evaluation.

### 3.0 RESULTS AND RECOMMENDATIONS

The results of the capacity analysis along different segments of the proposed I-85 Extension are presented in this section. Table 3-1 summarizes the results of the capacity analysis. The HCS outputs of the capacity analysis are also presented in this section. Upon completion of the traffic analysis, it is recommended that I-85 extension, in all locations, be a four lane divided highway that will operate at a LOS of C or greater.

Table 3-1: Mainline Traffic Analysis

<b>MAINLINE TRAFFIC ANALYSIS</b>											
<b>PROJECT NCPD-PE02 (910)</b>											
<b>I-85 EXTENSION</b>											
ROADWAY	FROM	TO	TERRAIN	REQ'D # OF LANES	2030 ADT	D	K	DESIGN SPEED	2030 DDHV	DENSITY (PC/MLN)	LOS
I-85 EXTENSION	A	D	ROLLING	2	27160	0.57	0.09	70	1393	15.0	B
I-85 EXTENSION	D	G	ROLLING	2	28100	0.57	0.09	70	1442	15.5	B
I-85 EXTENSION	G	H	ROLLING	2	30410	0.57	0.09	70	1560	16.8	B
I-85 EXTENSION	H	I	ROLLING	2	20070	0.57	0.09	70	1030	11.1	B
I-85 EXTENSION	I	J	ROLLING	2	23140	0.57	0.09	70	1187	12.8	B
I-85 EXTENSION	J	L	ROLLING	2	19680	0.57	0.09	70	1010	10.9	A
I-85 EXTENSION	L	M	ROLLING	2	18350	0.57	0.09	70	941	10.1	A
I-85 EXTENSION	M	O	ROLLING	2	20940	0.57	0.09	70	1074	11.6	B
I-85 EXTENSION	O	P	ROLLING	2	20190	0.57	0.09	70	1036	11.2	B
I-85 EXTENSION	P	R	ROLLING	2	24020	0.57	0.09	70	1232	13.3	B
I-85 EXTENSION	R	S	ROLLING	2	24250	0.57	0.09	70	1244	13.4	B
I-85 EXTENSION	S	U	ROLLING	2	29310	0.57	0.09	70	1504	16.2	B
I-85 EXTENSION	U	Z	ROLLING	2	26980	0.57	0.09	70	1384	14.9	B
I-85 EXTENSION	Z	AA,Y	LEVEL	2	26520	0.57	0.09	70	1360	12.6	B
I-85 EXTENSION	M	Q	ROLLING	2	17220	0.57	0.09	70	883	9.5	A
I-85 EXTENSION	Q	S	ROLLING	2	16880	0.57	0.09	70	866	9.3	A
I-85 EXTENSION	R	T	LEVEL	2	30970	0.57	0.09	70	1589	14.7	B
I-85 EXTENSION	T	V	LEVEL	2	20760	0.57	0.09	70	1065	9.8	A
I-85 EXTENSION	V	X7	ROLLING	2	19310	0.57	0.09	70	991	10.7	A
I-85 EXTENSION	J	N	ROLLING	2	20930	0.57	0.09	70	1074	11.6	B
I-85 EXTENSION	N	O	ROLLING	2	17640	0.57	0.09	70	905	9.8	A
I-85 EXTENSION	O	Q	ROLLING	2	17760	0.57	0.09	70	911	9.8	A
I-85 EXTENSION	N	P	ROLLING	2	19270	0.57	0.09	70	989	10.7	A
I-85 EXTENSION	I	K	ROLLING	2	28080	0.57	0.09	70	1441	15.5	B
I-85 EXTENSION	K	M	ROLLING	2	19780	0.57	0.09	70	1015	10.9	A
I-85 EXTENSION	D	I	ROLLING	2	28750	0.57	0.09	70	1475	15.9	B
I-85 EXTENSION	B	E	ROLLING	2	23070	0.57	0.09	70	1183	12.7	B
I-85 EXTENSION	E	G	ROLLING	2	23290	0.57	0.09	70	1195	12.9	B
I-85 EXTENSION	C	F	ROLLING	2	19400	0.57	0.09	70	995	10.7	A
I-85 EXTENSION	F	E	ROLLING	2	19390	0.57	0.09	70	995	10.7	A
ASSUMPTIONS: PHF = 0.90, DRIVER POPULATION = 1, FREEWAY, NO OBSTRUCTIONS, LANE WIDTH = 12'											
<b>BOLD LETTERS INDICATE RECOMMENDED LANEAGE</b>											

**APPENDIX A**  
**TRAFFIC DATA**

## HCS+: Basic Freeway Segments Release 5.2

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 E-mail: \_\_\_\_\_

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### Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: A-D  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

---

### Flow Inputs and Adjustments

---

Volume, V	1393	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	387	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fhv	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	983	pc/h/ln

---

### Speed Inputs and Adjustments

---

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, flw	0.0	mi/h
Lateral clearance adjustment, flc	0.0	mi/h
Interchange density adjustment, fid	0.0	mi/h
Number of lanes adjustment, fn	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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### LOS and Performance Measures

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Flow rate, vp	983	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	15.0	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: D-G  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

---

Flow Inputs and Adjustments

---

Volume, V	1442	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	401	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fhv	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	1017	pc/h/ln

---

Speed Inputs and Adjustments

---

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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LOS and Performance Measures

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Flow rate, vp	1017	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	15.5	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: G-H  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

---

Flow Inputs and Adjustments

---

Volume, V	1560	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	433	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fhv	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	1101	pc/h/ln

---

Speed Inputs and Adjustments

---

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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LOS and Performance Measures

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Flow rate, vp	1101	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	16.8	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: H-I  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

---

Volume, V	1030	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	286	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fHV	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	727	pc/h/ln

---

Speed Inputs and Adjustments

---

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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LOS and Performance Measures

---

Flow rate, vp	727	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	11.1	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: I-J  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

---

Volume, V	1187	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	330	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fHV	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	837	pc/h/ln

---

Speed Inputs and Adjustments

---

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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LOS and Performance Measures

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Flow rate, vp	837	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	12.8	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: J-L  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

---

Volume, V	1010	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	281	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fHV	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	713	pc/h/ln

---

Speed Inputs and Adjustments

---

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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LOS and Performance Measures

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Flow rate, vp	713	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	10.9	pc/mi/ln
Level of service, LOS	A	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

Operational Analysis

Analyst: Karman Richardson  
Agency or Company: Volkert  
Date Performed: 12/19/2006  
Analysis Time Period:  
Freeway/Direction:  
From/To: L-M  
Jurisdiction:  
Analysis Year:  
Description: I-85 EXTENSION

Flow Inputs and Adjustments

Volume, V	941	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	261	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fHV	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	664	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	664	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	10.1	pc/mi/ln
Level of service, LOS	A	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: M-O  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

---

Volume, V	1074	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	298	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fhv	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	758	pc/h/ln

---

Speed Inputs and Adjustments

---

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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LOS and Performance Measures

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Flow rate, vp	758	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	11.6	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

---

Operational Analysis

---

Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: O-P  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

---

Flow Inputs and Adjustments

---

Volume, V	1036	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	288	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fHV	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	731	pc/h/ln

---

Speed Inputs and Adjustments

---

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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LOS and Performance Measures

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Flow rate, vp	731	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	11.2	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

---

Operational Analysis

---

Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: P-R  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

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Volume, V	1232	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	342	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fHV	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	869	pc/h/ln

---

Speed Inputs and Adjustments

---

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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LOS and Performance Measures

---

Flow rate, vp	869	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	13.3	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: R-S  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

---

Volume, V	1244	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	346	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fhv	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	878	pc/h/ln

---

Speed Inputs and Adjustments

---

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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LOS and Performance Measures

---

Flow rate, vp	878	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	13.4	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: S-U  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

---

Volume, V	1504	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	418	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fhv	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	1061	pc/h/ln

---

Speed Inputs and Adjustments

---

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

---

LOS and Performance Measures

---

Flow rate, vp	1061	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	16.2	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: U-Z  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

---

Volume, V	1384	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	384	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	4.00	%
Segment length	1.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fhv	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	976	pc/h/ln

---

Speed Inputs and Adjustments

---

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

---

LOS and Performance Measures

---

Flow rate, vp	976	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	14.9	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: Z-AA, Y  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

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Volume, V	1360	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	378	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.917	
Driver population factor, fp	1.00	
Flow rate, vp	824	pc/h/ln

---

Speed Inputs and Adjustments

---

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

---

LOS and Performance Measures

---

Flow rate, vp	824	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	12.6	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: M-Q  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

---

Volume, V	883	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	245	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fHV	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	623	pc/h/ln

---

Speed Inputs and Adjustments

---

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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LOS and Performance Measures

---

Flow rate, vp	623	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	9.5	pc/mi/ln
Level of service, LOS	A	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: Q-S  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

---

Volume, V	866	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	241	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fHV	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	611	pc/h/ln

---

Speed Inputs and Adjustments

---

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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LOS and Performance Measures

---

Flow rate, vp	611	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	9.3	pc/mi/ln
Level of service, LOS	A	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: R-T  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

---

Volume, V	1589	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	441	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.917	
Driver population factor, fp	1.00	
Flow rate, vp	962	pc/h/ln

---

Speed Inputs and Adjustments

---

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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LOS and Performance Measures

---

Flow rate, vp	962	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	14.7	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: T-V  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

---

Volume, V	1065	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	296	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.917	
Driver population factor, fp	1.00	
Flow rate, vp	645	pc/h/ln

---

Speed Inputs and Adjustments

---

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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LOS and Performance Measures

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Flow rate, vp	645	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	9.8	pc/mi/ln
Level of service, LOS	A	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: V-X7  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

---

Volume, V	991	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	275	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fhv	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	699	pc/h/ln

---

Speed Inputs and Adjustments

---

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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LOS and Performance Measures

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Flow rate, vp	699	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	10.7	pc/mi/ln
Level of service, LOS	A	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: J-N  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

---

Volume, V	1074	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	298	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fHV	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	758	pc/h/ln

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Speed Inputs and Adjustments

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Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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LOS and Performance Measures

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Flow rate, vp	758	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	11.6	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: N-O  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

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Volume, V	905	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	251	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fhv	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	639	pc/h/ln

---

Speed Inputs and Adjustments

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Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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LOS and Performance Measures

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Flow rate, vp	639	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	9.8	pc/mi/ln
Level of service, LOS	A	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: O-Q  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

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Volume, V	911	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	253	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fhv	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	643	pc/h/ln

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Speed Inputs and Adjustments

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Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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LOS and Performance Measures

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Flow rate, vp	643	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	9.8	pc/mi/ln
Level of service, LOS	A	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: N-P  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

---

Volume, V	989	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	275	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fHV	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	698	pc/h/ln

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Speed Inputs and Adjustments

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Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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LOS and Performance Measures

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Flow rate, vp	698	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	10.7	pc/mi/ln
Level of service, LOS	A	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: I-K  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

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Volume, V	1441	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	400	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fhv	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	1017	pc/h/ln

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Speed Inputs and Adjustments

---

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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LOS and Performance Measures

---

Flow rate, vp	1017	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	15.5	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: K-M  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

---

Volume, V	1015	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	282	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fhv	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	716	pc/h/ln

---

Speed Inputs and Adjustments

---

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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LOS and Performance Measures

---

Flow rate, vp	716	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	10.9	pc/mi/ln
Level of service, LOS	A	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: D-I  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

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Volume, V	1475	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	410	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fHV	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	1041	pc/h/ln

---

Speed Inputs and Adjustments

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Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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LOS and Performance Measures

---

Flow rate, vp	1041	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	15.9	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: B-E  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

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Volume, V	1183	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	329	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fHV	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	835	pc/h/ln

---

Speed Inputs and Adjustments

---

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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LOS and Performance Measures

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Flow rate, vp	835	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	12.7	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: E-G  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

---

Volume, V	1195	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	332	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fHV	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	843	pc/h/ln

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Speed Inputs and Adjustments

---

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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LOS and Performance Measures

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Flow rate, vp	843	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	12.9	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: C-F  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

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Volume, V	995	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	276	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fhv	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	702	pc/h/ln

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Speed Inputs and Adjustments

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Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

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LOS and Performance Measures

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Flow rate, vp	702	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	10.7	pc/mi/ln
Level of service, LOS	A	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

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Operational Analysis

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Analyst: Karman Richardson  
 Agency or Company: Volkert  
 Date Performed: 12/19/2006  
 Analysis Time Period:  
 Freeway/Direction:  
 From/To: F-E  
 Jurisdiction:  
 Analysis Year:  
 Description: I-85 EXTENSION

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Flow Inputs and Adjustments

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Volume, V	995	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	276	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fhv	0.787	
Driver population factor, fp	1.00	
Flow rate, vp	702	pc/h/ln

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Speed Inputs and Adjustments

---

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	65.5	mi/h
	Urban Freeway	

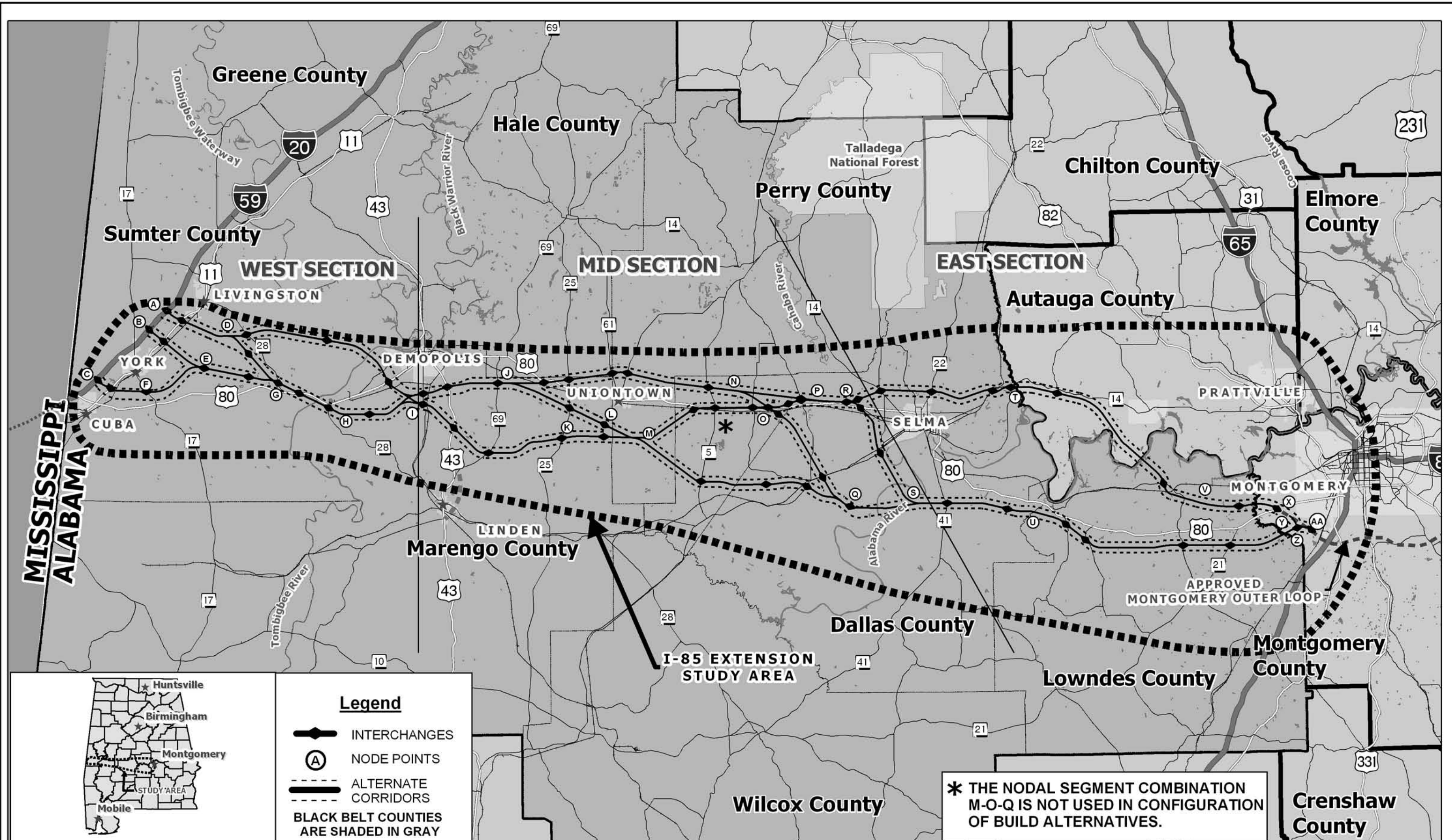
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LOS and Performance Measures

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Flow rate, vp	702	pc/h/ln
Free-flow speed, FFS	65.5	mi/h
Average passenger-car speed, S	65.5	mi/h
Number of lanes, N	2	
Density, D	10.7	pc/mi/ln
Level of service, LOS	A	

Overall results are not computed when free-flow speed is less than 55 mph.



**Legend**

- INTERCHANGES
- NODE POINTS
- ALTERNATE CORRIDORS
- BLACK BELT COUNTIES ARE SHADED IN GRAY

\* THE NODAL SEGMENT COMBINATION M-O-Q IS NOT USED IN CONFIGURATION OF BUILD ALTERNATES.

**VOLKERT**  
& ASSOCIATES, INC.

**Not to Scale**

I-85 EXTENSION ALTERNATE CORRIDORS SCREENING PROCESS  
PROJECT NCPD-PE02(910)  
CONTRACT ID NO. 813  
EXHIBIT 2: PHASE D - ALIGNMENTS FOR BUILD ALTERNATES

NOVEMBER 2006

Note: The proposed alternate corridors and interchange locations shown on this map are preliminary and are subject to change. To be used for presentation only and not to be used for construction purposes.



Figure A-2: Year 2030 Daily Traffic Volume (ADT)

No.	Alternative	A-D	D-G	G-H	H-I	I-J	J-L	L-M	M-O	O-P	P-R	R-S	S-U	U-Z	Z-AA,Y	M-Q	Q-S	R-T	T-V	V-X7	J-N	N-O	O-Q	N-P	I-K	K-M	D-I	B-E	E-G	C-F	F-E	Total	No.
1	A-D-G-H-I-J-L-M-O-P-R-S-U-Z-AA,Y	27,160	28,020	29,670	19,930	22,080	19,530	18,160	20,540	20,030	23,610	23,350	27,750	25,450	25,400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	
2	A-D-G-H-I-J-L-M-Q-S-U-Z-AA,Y	27,100	28,010	30,370	19,870	21,280	18,550	15,740	--	--	--	--	29,160	26,750	26,360	15,060	16,700	--	--	--	--	--	--	--	--	--	--	--	--	--	2		
3	A-D-G-H-I-J-L-M-O-P-R-T-V-X7	27,050	28,010	29,620	19,870	22,050	19,360	17,970	20,280	19,900	22,700	--	--	--	--	--	27,540	16,840	15,530	--	--	--	--	--	--	--	--	--	--	--	3		
4	A-D-G-H-I-J-N-O-Q-S-U-Z-AA,Y	26,150	28,100	29,700	19,930	21,810	--	--	--	--	--	--	28,150	25,790	25,690	--	15,710	--	--	--	20,080	17,590	13,990	--	--	--	--	--	--	--	4		
5	A-D-G-H-I-J-N-P-R-T-V-X7	27,080	28,020	30,410	19,890	21,800	--	--	--	--	22,230	--	--	--	--	--	--	30,850	20,670	19,220	20,580	--	--	19,270	--	--	--	--	--	--	5		
6	A-D-G-H-I-J-N-P-R-S-U-Z-AA,Y	26,150	28,090	29,690	19,970	21,980	--	--	--	--	21,810	21,610	27,840	25,510	25,400	--	--	--	--	--	--	--	18,590	--	--	--	--	--	--	--	6		
7	A-D-G-H-I-K-M-O-P-R-T-V-X7	26,910	28,020	29,570	16,940	--	--	--	20,490	19,790	22,900	--	--	--	--	--	27,570	16,890	15,580	--	--	--	--	--	28,070	18,680	--	--	--	--	7		
8	A-D-G-H-I-K-M-O-P-R-S-U-Z-AA,Y	27,140	28,050	29,560	17,000	--	--	--	20,720	19,980	23,820	23,580	27,750	25,440	25,370	--	--	--	--	--	--	--	--	27,810	18,750	--	--	--	--	8			
9	A-D-G-H-I-K-M-Q-S-U-Z-AA,Y	27,110	28,030	30,390	16,930	--	--	--	--	--	--	--	29,100	26,800	26,380	17,010	16,710	--	--	--	--	--	--	26,350	17,840	--	--	--	--	9			
10	A-D-I-J-L-M-O-P-R-S-U-Z-AA,Y	24,750	--	--	--	23,030	19,540	18,090	20,410	19,880	23,500	23,250	27,680	25,370	25,330	--	--	--	--	--	--	--	--	--	--	28,680	--	--	--	10			
11	A-D-I-J-L-M-Q-S-U-Z-AA,Y	25,640	--	--	--	22,700	18,620	15,580	--	--	--	29,050	26,700	26,210	14,930	16,540	--	--	--	--	--	--	--	--	--	28,540	--	--	--	11			
12	A-D-I-J-L-M-O-P-R-T-V-X7	24,590	--	--	--	22,960	19,390	17,830	20,160	19,790	22,560	--	--	--	--	--	27,380	16,760	15,460	--	--	--	--	--	--	28,580	--	--	--	12			
13	A-D-I-J-N-O-Q-S-U-Z-AA,Y	25,650	--	--	--	23,040	--	--	--	--	--	27,970	25,670	25,570	--	15,480	--	--	--	19,300	17,250	17,760	--	--	--	28,620	--	--	--	13			
14	A-D-I-J-N-P-R-T-V-X7	25,610	--	--	--	23,140	--	--	--	--	21,980	--	--	--	--	--	30,680	20,600	19,130	20,410	--	--	--	18,790	--	--	28,610	--	--	--	14		
15	A-D-I-J-N-P-R-S-U-Z-AA,Y	25,620	--	--	--	23,090	--	--	--	--	21,450	21,230	27,660	25,340	25,220	--	--	--	--	20,530	--	--	18,270	--	--	28,530	--	--	--	15			
16	A-D-I-K-M-O-P-R-T-V-X7	25,730	--	--	--	--	--	--	20,200	19,470	22,570	--	--	--	--	--	27,260	16,750	15,450	--	--	--	--	27,960	18,410	28,740	--	--	--	16			
17	A-D-I-K-M-O-P-R-S-U-Z-AA,Y	25,740	--	--	--	--	--	--	20,430	19,640	23,510	24,250	27,630	25,320	25,280	--	--	--	--	--	--	--	--	28,080	19,780	28,750	--	--	--	17			
18	A-D-I-K-M-Q-S-U-Z-AA,Y	25,670	--	--	--	--	--	--	--	--	--	--	28,940	26,620	26,230	16,770	16,480	--	--	--	--	--	--	26,000	17,540	28,730	--	--	--	18			
19	B-E-G-H-I-J-L-M-O-P-R-S-U-Z-AA,Y	--	--	29,150	19,990	22,210	19,680	18,350	20,740	20,190	23,780	23,640	27,890	25,560	25,470	--	--	--	--	--	--	--	--	--	--	--	21,650	21,190	--	--	19		
20	B-E-G-H-I-J-L-M-Q-S-U-Z-AA,Y	--	--	29,170	19,970	21,380	18,660	15,860	--	--	--	--	29,310	26,980	26,490	15,180	16,780	--	--	--	--	--	--	--	--	--	22,870	23,290	--	--	20		
21	B-E-G-H-I-J-L-M-O-P-R-T-V-X7	--	--	29,140	19,940	22,100	19,440	18,070	20,380	20,040	22,810	--	--	--	--	--	27,620	16,910	15,590	--	--	--	--	--	--	--	23,050	23,290	--	--	21		
22	B-E-G-H-I-J-N-O-Q-S-U-Z-AA,Y	--	--	29,150	19,940	21,830	--	--	--	--	--	--	28,160	25,850	25,700	--	15,730	--	--	20,130	17,640	14,010	--	--	--	22,860	23,280	--	--	22			
23	B-E-G-H-I-J-N-P-R-T-V-X7	--	--	29,150	19,930	22,020	--	--	--	--	22,340	--	--	--	--	--	30,950	20,720	19,250	20,690	--	--	--	19,180	--	--	22,850	23,290	--	--	23		
24	B-E-G-H-I-J-N-P-R-S-U-Z-AA,Y	--	--	29,160	20,030	22,020	--	--	--	--	21,920	21,710	27,840	25,500	25,440	--	--	--	--	20,930	--	--	18,720	--	--	21,630	21,150	--	--	24			
25	B-E-G-H-I-K-M-O-P-R-T-V-X7	--	--	29,130	17,050	--	--	--	20,620	19,950	23,050	--	--	--	--	--	27,670	16,920	15,620	--	--	--	--	27,800	18,760	--	23,070	23,280	--	--	25		
26	B-E-G-H-I-K-M-O-P-R-S-U-Z-AA,Y	--	--	29,130	17,150	--	--	--	20,940	20,180	24,020	23,790	27,840	25,550	25,540	--	--	--	--	--	--	--	--	27,950	18,910	--	21,650	21,190	--	--	26		
27	B-E-G-H-I-K-M-Q-S-U-Z-AA,Y	--	--	29,120	17,140	--	--	--	--	--	--	--	29,260	26,970	26,520	17,160	16,820	--	--	--	--	--	--	26,320	17,870	--	22,870	23,280	--	--	27		
28	C-F-E-G-H-I-J-L-M-O-P-R-S-U-Z-AA,Y	--	--	27,660	20,040	22,200	19,650	18,350	20,700	20,190	23,780	23,540	27,740	25,530	25,470	--	--	--	--	--	--	--	--	--	--	--	20,510	19,210	19,140	--	28		
29	C-F-E-G-H-I-J-L-M-Q-S-U-Z-AA,Y	--	--	27,890	20,050	21,370	18,560	15,930	--	--	--	--	29,310	26,970	26,520	15,240	16,830	--	--	--	--	--	--	--	--	--	20,770	19,400	19,390	--	29		
30	C-F-E-G-H-I-J-L-M-O-P-R-T-V-X7	--	--	27,910	19,990	22,250	19,610	18,130	20,460	20,170	23,060	--	--	--	--	--	29,860	20,750	19,290	--	--	--	--	--	--	--	20,760	19,320	19,390	--	30		
31	C-F-E-G-H-I-J-N-O-Q-S-U-Z-AA,Y	--	--	27,870	19,990	21,860	--	--	--	--	--	--	28,170	25,850	25,700	--	15,740	--	--	20,150	17,630	14,020	--	--	--	20,770	19,400	19,380	--	31			
32	C-F-E-G-H-I-J-N-P-R-T-V-X7	--	--	27,890	19,990	22,030	--	--	--	--	22,380	--	--	--	--	--	30,970	20,760	19,310	20,700	--	--	--	19,210	--	--	20,770	19,390	19,390	--	32		
33	C-F-E-G-H-I-J-N-P-R-S-U-Z-AA,Y	--	--	27,910	20,070	22,020	--	--	--	--	21,890	21,690	27,880	25,530	25,540	--	--	--	--	20,880	--	--	18,690	--	--	20,780	19,400	19,380	--	33			
34	C-F-E-G-H-I-K-M-O-P-R-T-V-X7	--	--	27,910	17,140	--	--	--	20,670	19,990	23,140	--	--	--	--	--	27,700	16,940	15,640	--	--	--	--	27,910	18,800	--	20,810	19,230	19,360	--	34		
35	C-F-E-G-H-I-K-M-O-P-R-S-U-Z-AA,Y	--	--	27,910	17,180	--	--	--	20,860	20,160	24,020	23,770	27,790	25,500	25,490	--	--	--	--	--	--	--	--	27,950	18,900	--	20,800	19,240	19,370	--	35		
36	C-F-E-G-H-I-K-M-Q-S-U-Z-AA,Y	--	--	27,920	17,230	--	--	--	--	--	--	--	29,270	26,930	26,500	17,220	16,880	--	--	--	--	--	--	26,400	17,960	--	20,810	19,390	19,390	--	36		

\* Section T-V volumes reported above reflect the highest volume along the section east of SR 14 (most of the section). However, volumes on the west end of the section are higher, similar to those for section R-T due to location of the interchange for SR 14 just east of node T. Since that higher volume reflects only a small portion of Section T-V, the volumes reflecting conditions east of SR 14 are shown above.

**To:** Mr. Paul Griggs, Volkert, Inc.

**From:** Richard Fangmann, Carter & Burgess, Inc. (C&B)

**Date:** April 12, 2007

**Subject:** I-85 Extension – Traffic Volume Data at Select Locations

**cc:** Rod Wilburn, C&B  
Peng Yue, C&B

As a part of the I-85 extension concept development being performed by Volkert, Inc., Carter & Burgess, Inc. prepared traffic projections for various alternative configurations of the proposed I-85 extension from Montgomery to I-20/I-59 near Cuba, Alabama. As requested, Carter & Burgess has determined the traffic volumes for select locations along existing freeways in Montgomery and crossroads to the proposed I-85 extension. The paragraphs below summarize the volume data and locations examined.

#### **Crossroads Intersecting I-85 Extension**

As requested, Carter & Burgess has projected daily traffic volumes along the crossroads having interchanges with I-85 east of Selma. These volumes are based on examination of the volume assigned by the I-85 Extension Study Travel Demand Model for several potential alignments containing each interchange. The interchange cross-road, assigned year 2030 daily traffic volume and alignment used to determine the volume are indicated in Table 1.

Table 1  
Traffic Volumes Along I-85 Extension Crossroads

Segment	Interchange No.	Crossroad	2030 Daily Volume	2-Lane Daily Capacity
T-V	64	CR 40	7,820	17,800
V-X	69	CR 37	1,850	17,800
S-U	57	CR 7	3,420	17,800
U-Z	60	CR 9	1,200	17,800
U-Z	62	CR 17	3,400	17,800
U-Z	66	SR 97	2,500	17,800
U-Z	68	SR 21	8,100	17,800

As this table shows, the traffic volumes assigned to the crossroads indicate these roads can be effectively served by two through lanes (one in each direction) with turning lanes, as appropriate. Please note, the traffic volumes for many of these roads is well below capacity. This is consistent with recent traffic count data that show many two lane roads in this area having daily traffic volumes less than 1,000 vehicles per day.

**Traffic Volumes Along I-85 and I-65 Near Downtown Montgomery**

As requested, Carter & Burgess has examined traffic volumes along the following segments with and without the I-85 extension:

- I-85 between Montgomery Outer Loop and I-65
- I-65 between Montgomery Outer Loop and I-85

Traffic volume data was reviewed for I-85 between MOL and I-65 and on I-65 between I-85 and Montgomery Outer Loop from 56 Travel Demand model runs that include I-85 extension connecting at either X or AA. The highest volume occurs on the same segment for all 56 alternatives. From the volumes for all alternatives on that segment, two alternatives were selected for each test case as indicated below.

I-85 between Montgomery Outer Loop and I-65

- Alternative AX16 has the highest volume (137,210) on I-85
- The nodes for alternative AX16 are A-D-G-H-I-J-L-M-O-P-R-T-V-X
- Alternative AZ2 has the lowest volume (135,200) on I-85
- The nodes for alternative AZ2 are A-D-I-J-N-O-Q-S-U-Y-Z-AA

I-65 between Montgomery Outer Loop and I-85

- Alternative AX20 has the highest volume (111,280) on I-65
- The nodes for alternative AX20 are A-D-G-H-I-K-O-P-R-T-V-X
- Alternative AX1 has the lowest volume (107,520) on I-65
- The nodes for alternative AX1 are A-D-I-J-N-P-R-T-V-X

For the no build scenario, the highest volume on I-85 between MOL and I-65 is 136,390 and the highest volume on I-65 between I-85 and MOL is 110,000. As this data indicates, these segments are projected to have very consistent volume with the build or no-build cases. Additional through traffic using the I-85 extension under the build scenarios is projected to use the Montgomery Outer Loop from I-85 to the I-85 extension.