

## HCS 2010: Basic Freeway Segments Release 6.1

Florence & Hutcheson  
501 Huger Street  
Columbia, SC 29201

Phone: (803)254-5800  
E-mail:

Fax: (803)929-0334

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: AM  
Freeway/Direction: I-85 NB  
From/To: Begin to US276  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

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 Flow Inputs and Adjustments
 

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Volume, V	4134	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1148	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1669	pc/h/ln

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 Speed Inputs and Adjustments
 

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Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

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 LOS and Performance Measures
 

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Flow rate, vp	1669	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	59.9	mi/h
Number of lanes, N	3	
Density, D	27.9	pc/mi/ln
Level of service, LOS	D	

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

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: AM  
Freeway/Direction: I-85 NB  
From/To: US 276 EB  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

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 Flow Inputs and Adjustments
 

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Volume, V	3878	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1077	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1566	pc/h/ln

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 Speed Inputs and Adjustments
 

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Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

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 LOS and Performance Measures
 

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Flow rate, vp	1566	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	60.0	mi/h
Number of lanes, N	3	
Density, D	26.1	pc/mi/ln
Level of service, LOS	D	

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Date Performed: 3/15/2011  
Analysis Time Period: AM  
Freeway/Direction: I-85 NB  
From/To: US 276 EB to US 276 WB  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

## Flow Inputs and Adjustments

Volume, V	4092	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1137	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1652	pc/h/ln

## Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

## LOS and Performance Measures

Flow rate, vp	1652	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	60.0	mi/h
Number of lanes, N	3	
Density, D	27.6	pc/mi/ln
Level of service, LOS	D	

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Date Performed: 3/15/2011  
Analysis Time Period: AM  
Freeway/Direction: I-85 NB  
From/To: US 276 WB  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

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 Flow Inputs and Adjustments
 

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Volume, V	3515	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	976	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1419	pc/h/ln

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 Speed Inputs and Adjustments
 

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Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

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 LOS and Performance Measures
 

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Flow rate, vp	1419	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	60.0	mi/h
Number of lanes, N	3	
Density, D	23.6	pc/mi/ln
Level of service, LOS	C	

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Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: AM  
Freeway/Direction: I-85 NB  
From/To: US-276 to Woodruff  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

## Flow Inputs and Adjustments

Volume, V	4002	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1112	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1616	pc/h/ln

## Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

## LOS and Performance Measures

Flow rate, vp	1616	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	60.0	mi/h
Number of lanes, N	3	
Density, D	26.9	pc/mi/ln
Level of service, LOS	D	

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Date Performed: 3/15/2011  
Analysis Time Period: AM  
Freeway/Direction: I-85 NB  
From/To: I-85NB C-D off - I-85NB C-D on  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

## Flow Inputs and Adjustments

Volume, V	2396	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	666	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	967	pc/h/ln

## Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

## LOS and Performance Measures

Flow rate, vp	967	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	60.0	mi/h
Number of lanes, N	3	
Density, D	16.1	pc/mi/ln
Level of service, LOS	B	

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Freeway/Direction: I-85 NB  
From/To: From NB C-D ROAD to I-385 RAMP  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

## Flow Inputs and Adjustments

Volume, V	2722	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	756	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1099	pc/h/ln

## Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

## LOS and Performance Measures

Flow rate, vp	1099	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	60.0	mi/h
Number of lanes, N	3	
Density, D	18.3	pc/mi/ln
Level of service, LOS	C	

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### Operational Analysis

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Date Performed: 3/15/2011  
Analysis Time Period: AM  
Freeway/Direction: I-85 NB  
From/To: I-385 RAMP to PELHAM ROAD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

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### Flow Inputs and Adjustments

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Volume, V	4546	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1263	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1835	pc/h/ln

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### Speed Inputs and Adjustments

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Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

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### LOS and Performance Measures

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Flow rate, vp	1835	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	59.0	mi/h
Number of lanes, N	3	
Density, D	31.1	pc/mi/ln
Level of service, LOS	D	

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Freeway/Direction: I-85 NB  
From/To: PELHAM ROAD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

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 Flow Inputs and Adjustments
 

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Volume, V	2838	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	788	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1146	pc/h/ln

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 Speed Inputs and Adjustments
 

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Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

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 LOS and Performance Measures
 

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Flow rate, vp	1146	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	60.0	mi/h
Number of lanes, N	3	
Density, D	19.1	pc/mi/ln
Level of service, LOS	C	

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Freeway/Direction: I-85 NB  
From/To: PELHAM ROAD to PELHAM ROAD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

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 Flow Inputs and Adjustments
 

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Volume, V	3494	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	971	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1411	pc/h/ln

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 Speed Inputs and Adjustments
 

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Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

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 LOS and Performance Measures
 

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Flow rate, vp	1411	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	60.0	mi/h
Number of lanes, N	3	
Density, D	23.5	pc/mi/ln
Level of service, LOS	C	

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Date Performed: 3/15/2011  
Analysis Time Period: AM  
Freeway/Direction: I-85 NB  
From/To: PELHAM ROAD to END  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

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 Flow Inputs and Adjustments
 

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Volume, V	3954	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1098	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1596	pc/h/ln

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 Speed Inputs and Adjustments
 

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Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

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 LOS and Performance Measures
 

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Flow rate, vp	1596	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	60.0	mi/h
Number of lanes, N	3	
Density, D	26.6	pc/mi/ln
Level of service, LOS	D	

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Analysis Time Period: PM  
Freeway/Direction: I-85 NB  
From/To: BEGIN to US 276 EB  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

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 Flow Inputs and Adjustments
 

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Volume, V	4298	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1194	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1735	pc/h/ln

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 Speed Inputs and Adjustments
 

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Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

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 LOS and Performance Measures
 

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Flow rate, vp	1735	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	59.7	mi/h
Number of lanes, N	3	
Density, D	29.1	pc/mi/ln
Level of service, LOS	D	

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Analysis Time Period: PM  
Freeway/Direction: I-85 NB  
From/To: US 276 EB  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

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 Flow Inputs and Adjustments
 

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Volume, V	3120	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	867	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1260	pc/h/ln

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 Speed Inputs and Adjustments
 

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Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

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 LOS and Performance Measures
 

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Flow rate, vp	1260	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	60.0	mi/h
Number of lanes, N	3	
Density, D	21.0	pc/mi/ln
Level of service, LOS	C	

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Analysis Time Period: PM  
Freeway/Direction: I-85 NB  
From/To: US 276 EB to US 276 WB  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

## Flow Inputs and Adjustments

Volume, V	3527	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	980	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1424	pc/h/ln

## Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

## LOS and Performance Measures

Flow rate, vp	1424	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	60.0	mi/h
Number of lanes, N	3	
Density, D	23.7	pc/mi/ln
Level of service, LOS	C	

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

## HCS 2010: Basic Freeway Segments Release 6.1

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: PM  
Freeway/Direction: I-85 NB  
From/To: US 276 WB  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

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 Flow Inputs and Adjustments
 

---

Volume, V	3172	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	881	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1281	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

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 LOS and Performance Measures
 

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Flow rate, vp	1281	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	60.0	mi/h
Number of lanes, N	3	
Density, D	21.4	pc/mi/ln
Level of service, LOS	C	

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

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: PM  
Freeway/Direction: I-85 NB  
From/To: US 276 WB to WOODRUFF RD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

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 Flow Inputs and Adjustments
 

---

Volume, V	3753	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1043	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1515	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

---

 LOS and Performance Measures
 

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Flow rate, vp	1515	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	60.0	mi/h
Number of lanes, N	3	
Density, D	25.3	pc/mi/ln
Level of service, LOS	C	

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



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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: PM  
Freeway/Direction: I-85 NB  
From/To: I-85NB C-D off - I-85NB C-D on  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

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Volume, V	2154	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	598	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	870	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

---

 LOS and Performance Measures
 

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Flow rate, vp	870	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	60.0	mi/h
Number of lanes, N	3	
Density, D	14.5	pc/mi/ln
Level of service, LOS	B	

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

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 Operational Analysis
 

---

Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: PM  
Freeway/Direction: I-85 NB  
From/To: from NB C-D ROAD to I-385 RAMP  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

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 Flow Inputs and Adjustments
 

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Volume, V	3296	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	916	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1331	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

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 LOS and Performance Measures
 

---

Flow rate, vp	1331	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	60.0	mi/h
Number of lanes, N	3	
Density, D	22.2	pc/mi/ln
Level of service, LOS	C	

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

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### Operational Analysis

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: PM  
Freeway/Direction: I-85 NB  
From/To: I-385 RAMP to PELHAM ROAD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

### Flow Inputs and Adjustments

---

Volume, V	5946	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1652	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	2400	pc/h/ln

---

### Speed Inputs and Adjustments

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Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

---

### LOS and Performance Measures

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Flow rate, vp	2400	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	48.4	mi/h
Number of lanes, N	3	
Density, D	49.6	pc/mi/ln
Level of service, LOS	F	

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

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: PM  
Freeway/Direction: I-85 NB  
From/To: PELHAM ROAD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	4064	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1129	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1641	pc/h/ln

---

 Speed Inputs and Adjustments
 

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Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

---

 LOS and Performance Measures
 

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Flow rate, vp	1641	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	60.0	mi/h
Number of lanes, N	3	
Density, D	27.4	pc/mi/ln
Level of service, LOS	D	

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

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 Operational Analysis
 

---

Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: PM  
Freeway/Direction: I-85 NB  
From/To: PELHAM ROAD to PELHAM ROAD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	4942	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1373	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1995	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, FLW	-	mi/h
Lateral clearance adjustment, FLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

---

 LOS and Performance Measures
 

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Flow rate, vp	1995	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	57.2	mi/h
Number of lanes, N	3	
Density, D	34.9	pc/mi/ln
Level of service, LOS	D	

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

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: PM  
Freeway/Direction: I-85 NB  
From/To: PELHAM ROAD to END  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	5643	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1568	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	2278	pc/h/ln

---

 Speed Inputs and Adjustments
 

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Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

---

 LOS and Performance Measures
 

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Flow rate, vp	2278	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	51.7	mi/h
Number of lanes, N	3	
Density, D	44.1	pc/mi/ln
Level of service, LOS	E	

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

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: AM  
Freeway/Direction: I-85 SB  
From/To: US276EB to Begin  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	4680	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1300	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1889	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

---

 LOS and Performance Measures
 

---

Flow rate, vp	1889	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	58.5	mi/h
Number of lanes, N	3	
Density, D	32.3	pc/mi/ln
Level of service, LOS	D	

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

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## Operational Analysis

Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: AM  
Freeway/Direction: I-85 SB  
From/To: US 276 EB  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

## Flow Inputs and Adjustments

Volume, V	4256	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1182	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1718	pc/h/ln

## Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

## LOS and Performance Measures

Flow rate, vp	1718	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	59.7	mi/h
Number of lanes, N	3	
Density, D	28.8	pc/mi/ln
Level of service, LOS	D	

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



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## Operational Analysis

Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: AM  
Freeway/Direction: I-85 SB  
From/To: US 276 WB to US 276 EB  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

## Flow Inputs and Adjustments

Volume, V	4937	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1371	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1993	pc/h/ln

## Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

## LOS and Performance Measures

Flow rate, vp	1993	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	57.2	mi/h
Number of lanes, N	3	
Density, D	34.8	pc/mi/ln
Level of service, LOS	D	

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

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: AM  
Freeway/Direction: I-85 SB  
From/To: US 276 WB  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

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Volume, V	3891	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1081	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1571	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

---

 LOS and Performance Measures
 

---

Flow rate, vp	1571	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	60.0	mi/h
Number of lanes, N	3	
Density, D	26.2	pc/mi/ln
Level of service, LOS	D	

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

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: AM  
Freeway/Direction: I-85 SB  
From/To: Woodruff to US276 WB  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	4321	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1200	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1744	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

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 LOS and Performance Measures
 

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Flow rate, vp	1744	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	59.6	mi/h
Number of lanes, N	3	
Density, D	29.3	pc/mi/ln
Level of service, LOS	D	

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

## HCS 2010: Basic Freeway Segments Release 6.1

Florence & Hutcheson  
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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: AM  
Freeway/Direction: I-85 SB  
From/To: I-85SB C-D to WOODRUFF RD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	3847	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1069	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1553	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

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 LOS and Performance Measures
 

---

Flow rate, vp	1553	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	60.0	mi/h
Number of lanes, N	3	
Density, D	25.9	pc/mi/ln
Level of service, LOS	C	

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

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 Operational Analysis
 

---

Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: AM  
Freeway/Direction: I-85 SB  
From/To: I-85SB C-D off to C-D ROAD on  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

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 Flow Inputs and Adjustments
 

---

Volume, V	2478	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	688	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1000	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

---

 LOS and Performance Measures
 

---

Flow rate, vp	1000	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	60.0	mi/h
Number of lanes, N	3	
Density, D	16.7	pc/mi/ln
Level of service, LOS	B	

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

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: AM  
Freeway/Direction: I-85 SB  
From/To: PELHAM ROAD to C-D ROAD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	5042	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1401	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	2035	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, FLW	-	mi/h
Lateral clearance adjustment, FLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

---

 LOS and Performance Measures
 

---

Flow rate, vp	2035	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	56.6	mi/h
Number of lanes, N	3	
Density, D	36.0	pc/mi/ln
Level of service, LOS	E	

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---

 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: AM  
Freeway/Direction: I-85 SB  
From/To: PELHAM ROAD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	3708	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1030	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1497	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

---

 LOS and Performance Measures
 

---

Flow rate, vp	1497	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	60.0	mi/h
Number of lanes, N	3	
Density, D	25.0	pc/mi/ln
Level of service, LOS	C	

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---

### Operational Analysis

---

Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: AM  
Freeway/Direction: I-85 SB  
From/To: PELHAM ROAD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

### Flow Inputs and Adjustments

---

Volume, V	3400	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	944	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1373	pc/h/ln

---

### Speed Inputs and Adjustments

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

---

### LOS and Performance Measures

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Flow rate, vp	1373	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	60.0	mi/h
Number of lanes, N	3	
Density, D	22.9	pc/mi/ln
Level of service, LOS	C	

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



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## Operational Analysis

Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: AM  
Freeway/Direction: I-85 SB  
From/To: END to PELHAM ROAD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

## Flow Inputs and Adjustments

Volume, V	5027	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1396	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	2029	pc/h/ln

## Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

## LOS and Performance Measures

Flow rate, vp	2029	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	56.7	mi/h
Number of lanes, N	3	
Density, D	35.8	pc/mi/ln
Level of service, LOS	E	

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

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: PM  
Freeway/Direction: I-85 SB  
From/To: US 276 EB to BEGIN  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

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 Flow Inputs and Adjustments
 

---

Volume, V	6027	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1674	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	2433	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

---

 LOS and Performance Measures
 

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Flow rate, vp	2433	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	47.4	mi/h
Number of lanes, N	3	
Density, D	51.3	pc/mi/ln
Level of service, LOS	F	

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

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: PM  
Freeway/Direction: I-85 SB  
From/To: US 276 EB  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	5454	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1515	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	2202	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

---

 LOS and Performance Measures
 

---

Flow rate, vp	2202	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	53.4	mi/h
Number of lanes, N	3	
Density, D	41.2	pc/mi/ln
Level of service, LOS	E	

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

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## Operational Analysis

Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: PM  
Freeway/Direction: I-85 SB  
From/To: US 276 WB TO US 276 EB  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

## Flow Inputs and Adjustments

Volume, V	5892	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1637	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	2379	pc/h/ln

## Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

## LOS and Performance Measures

Flow rate, vp	2379	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	49.0	mi/h
Number of lanes, N	3	
Density, D	48.6	pc/mi/ln
Level of service, LOS	F	

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

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: PM  
Freeway/Direction: I-85 SB  
From/To: US 276 WB  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	5268	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1463	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	2127	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

---

 LOS and Performance Measures
 

---

Flow rate, vp	2127	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	55.0	mi/h
Number of lanes, N	3	
Density, D	38.7	pc/mi/ln
Level of service, LOS	E	

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

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: PM  
Freeway/Direction: I-85 SB  
From/To: WOODRUFF RD to US 276 WB  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	5656	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1571	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	2283	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

---

 LOS and Performance Measures
 

---

Flow rate, vp	2283	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	51.5	mi/h
Number of lanes, N	3	
Density, D	44.3	pc/mi/ln
Level of service, LOS	E	

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

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 Operational Analysis
 

---

Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: PM  
Freeway/Direction: I-85 SB  
From/To: I-85SB C-D on to WOODRUFF RD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	4854	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1348	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1960	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

---

 LOS and Performance Measures
 

---

Flow rate, vp	1960	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	57.6	mi/h
Number of lanes, N	3	
Density, D	34.0	pc/mi/ln
Level of service, LOS	D	

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

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 Operational Analysis
 

---

Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: PM  
Freeway/Direction: I-85 SB  
From/To: I-85SB C-D off to C-D on  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	3490	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	969	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1409	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

---

 LOS and Performance Measures
 

---

Flow rate, vp	1409	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	60.0	mi/h
Number of lanes, N	3	
Density, D	23.5	pc/mi/ln
Level of service, LOS	C	

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



## HCS 2010: Basic Freeway Segments Release 6.1

Florence & Hutcheson  
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---

 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: PM  
Freeway/Direction: I-85 SB  
From/To: PELHAM ROAD to C-D ROAD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	5609	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1558	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	2264	pc/h/ln

---

 Speed Inputs and Adjustments
 

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Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

---

 LOS and Performance Measures
 

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Flow rate, vp	2264	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	52.0	mi/h
Number of lanes, N	3	
Density, D	43.5	pc/mi/ln
Level of service, LOS	E	

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

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## Operational Analysis

Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: PM  
Freeway/Direction: I-85 SB  
From/To: PELHAM ROAD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

## Flow Inputs and Adjustments

Volume, V	4552	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1264	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1838	pc/h/ln

## Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

## LOS and Performance Measures

Flow rate, vp	1838	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	59.0	mi/h
Number of lanes, N	3	
Density, D	31.2	pc/mi/ln
Level of service, LOS	D	

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

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: PM  
Freeway/Direction: I-85 SB  
From/To: PELHAM ROAD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

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 Flow Inputs and Adjustments
 

---

Volume, V	4000	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1111	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1615	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

---

 LOS and Performance Measures
 

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Flow rate, vp	1615	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	60.0	mi/h
Number of lanes, N	3	
Density, D	26.9	pc/mi/ln
Level of service, LOS	D	

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

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: PM  
Freeway/Direction: I-85 SB  
From/To: END to PELHAM ROAD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	4662	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1295	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1882	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	60.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	60.0	mi/h

---

 LOS and Performance Measures
 

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Flow rate, vp	1882	pc/h/ln
Free-flow speed, FFS	60.0	mi/h
Average passenger-car speed, S	58.6	mi/h
Number of lanes, N	3	
Density, D	32.1	pc/mi/ln
Level of service, LOS	D	

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

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### Operational Analysis

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 4/19/2011  
Analysis Time Period: AM  
Freeway/Direction: I-385 NB  
From/To: BEGIN to BUTLER RD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

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### Flow Inputs and Adjustments

---

Volume, V	3299	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	916	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1998	pc/h/ln

---

### Speed Inputs and Adjustments

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

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### LOS and Performance Measures

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Flow rate, vp	1998	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	54.0	mi/h
Number of lanes, N	2	
Density, D	37.0	pc/mi/ln
Level of service, LOS	E	

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

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 Operational Analysis
 

---

Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 4/19/2011  
Analysis Time Period: AM  
Freeway/Direction: I-385 NB  
From/To: BUTLER RD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	3010	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	836	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1823	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

 LOS and Performance Measures
 

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Flow rate, vp	1823	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	55.0	mi/h
Number of lanes, N	2	
Density, D	33.2	pc/mi/ln
Level of service, LOS	D	

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

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## Operational Analysis

Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 4/19/2011  
Analysis Time Period: AM  
Freeway/Direction: I-385 NB  
From/To: Butler Rd to Woodruff Rd  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

## Flow Inputs and Adjustments

Volume, V	3841	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1067	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	2326	pc/h/ln

## Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

## LOS and Performance Measures

Flow rate, vp	2326	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	48.2	mi/h
Number of lanes, N	2	
Density, D	48.3	pc/mi/ln
Level of service, LOS	F	

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: AM  
Freeway/Direction: I-385 NB  
From/To: WOODRUFF RD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	3146	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	874	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1905	pc/h/ln

---

 Speed Inputs and Adjustments
 

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Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

 LOS and Performance Measures
 

---

Flow rate, vp	1905	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	54.7	mi/h
Number of lanes, N	2	
Density, D	34.8	pc/mi/ln
Level of service, LOS	D	

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: AM  
Freeway/Direction: I-385 NB  
From/To: WOODRUFF RD to I-85 NB RAMP  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	4229	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1175	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1707	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

 LOS and Performance Measures
 

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Flow rate, vp	1707	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	55.0	mi/h
Number of lanes, N	3	
Density, D	31.0	pc/mi/ln
Level of service, LOS	D	

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### Operational Analysis

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: AM  
Freeway/Direction: I-385 NB  
From/To: I-85 NB RAMP to I-85 SB RAMP  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

### Flow Inputs and Adjustments

---

Volume, V	3263	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	906	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1976	pc/h/ln

---

### Speed Inputs and Adjustments

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

### LOS and Performance Measures

---

Flow rate, vp	1976	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	54.2	mi/h
Number of lanes, N	2	
Density, D	36.4	pc/mi/ln
Level of service, LOS	E	

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

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: AM  
Freeway/Direction: I-385 NB  
From/To: I-85 SB RAMP to I-385 NB RAMP  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	2410	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	669	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1459	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

 LOS and Performance Measures
 

---

Flow rate, vp	1459	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	55.0	mi/h
Number of lanes, N	2	
Density, D	26.5	pc/mi/ln
Level of service, LOS	D	

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

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### Operational Analysis

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/15/2011  
Analysis Time Period: AM  
Freeway/Direction: I-385 NB  
From/To: I-385 NB ramp to Roper Mtn  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

### Flow Inputs and Adjustments

---

Volume, V	4064	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1129	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1230	pc/h/ln

---

### Speed Inputs and Adjustments

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

### LOS and Performance Measures

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Flow rate, vp	1230	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	55.0	mi/h
Number of lanes, N	4	
Density, D	22.4	pc/mi/ln
Level of service, LOS	C	

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

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### Operational Analysis

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: AM  
Freeway/Direction: I-385 NB  
From/To: ROPER MOUNTAIN RD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

### Flow Inputs and Adjustments

---

Volume, V	2714	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	754	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1096	pc/h/ln

---

### Speed Inputs and Adjustments

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

### LOS and Performance Measures

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Flow rate, vp	1096	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	55.0	mi/h
Number of lanes, N	3	
Density, D	19.9	pc/mi/ln
Level of service, LOS	C	

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

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: AM  
Freeway/Direction: I-385 NB  
From/To: ROPER MTN RD to END  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

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 Flow Inputs and Adjustments
 

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Volume, V	3096	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	860	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1250	pc/h/ln

---

 Speed Inputs and Adjustments
 

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Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

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 LOS and Performance Measures
 

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Flow rate, vp	1250	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	55.0	mi/h
Number of lanes, N	3	
Density, D	22.7	pc/mi/ln
Level of service, LOS	C	

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

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### Operational Analysis

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 4/19/2011  
Analysis Time Period: PM  
Freeway/Direction: I-385 NB  
From/To: BEGIN to BUTLER RD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

### Flow Inputs and Adjustments

---

Volume, V	3709	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1030	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	2246	pc/h/ln

---

### Speed Inputs and Adjustments

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

### LOS and Performance Measures

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Flow rate, vp	2246	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	50.1	mi/h
Number of lanes, N	2	
Density, D	44.8	pc/mi/ln
Level of service, LOS	E	

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

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---

 Operational Analysis
 

---

Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 4/19/2011  
Analysis Time Period: PM  
Freeway/Direction: I-385 NB  
From/To: BUTLER RD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	3473	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	965	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	2103	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

 LOS and Performance Measures
 

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Flow rate, vp	2103	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	52.7	mi/h
Number of lanes, N	2	
Density, D	39.9	pc/mi/ln
Level of service, LOS	E	

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



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## Operational Analysis

Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 4/19/2011  
Analysis Time Period: PM  
Freeway/Direction: I-385 NB  
From/To: Butler Rd to Woodruff Rd  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

## Flow Inputs and Adjustments

Volume, V	4394	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1221	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	2661	pc/h/ln

## Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

## LOS and Performance Measures

Flow rate, vp	2661	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	36.7	mi/h
Number of lanes, N	2	
Density, D	72.5	pc/mi/ln
Level of service, LOS	F	

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

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: PM  
Freeway/Direction: I-385 NB  
From/To: WOODRUFF RD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

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 Flow Inputs and Adjustments
 

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Volume, V	3688	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1024	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	2233	pc/h/ln

---

 Speed Inputs and Adjustments
 

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Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

 LOS and Performance Measures
 

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Flow rate, vp	2233	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	50.4	mi/h
Number of lanes, N	2	
Density, D	44.3	pc/mi/ln
Level of service, LOS	E	

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 Operational Analysis
 

---

Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: PM  
Freeway/Direction: I-385 NB  
From/To: WOODRUFF RD to I-85 NB RAMP  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	4690	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1303	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1893	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

 LOS and Performance Measures
 

---

Flow rate, vp	1893	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	54.8	mi/h
Number of lanes, N	3	
Density, D	34.6	pc/mi/ln
Level of service, LOS	D	

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

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### Operational Analysis

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: PM  
Freeway/Direction: I-385 NB  
From/To: I-85 NB RAMP to I-85 SB RAMP  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

### Flow Inputs and Adjustments

---

Volume, V	3641	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1011	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	2205	pc/h/ln

---

### Speed Inputs and Adjustments

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

### LOS and Performance Measures

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Flow rate, vp	2205	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	51.0	mi/h
Number of lanes, N	2	
Density, D	43.3	pc/mi/ln
Level of service, LOS	E	

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

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### Operational Analysis

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: PM  
Freeway/Direction: I-385 NB  
From/To: I-85 SB RAMP to I-385 NB RAMP  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

### Flow Inputs and Adjustments

---

Volume, V	2854	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	793	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1728	pc/h/ln

---

### Speed Inputs and Adjustments

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

### LOS and Performance Measures

---

Flow rate, vp	1728	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	55.0	mi/h
Number of lanes, N	2	
Density, D	31.4	pc/mi/ln
Level of service, LOS	D	

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

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### Operational Analysis

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: PM  
Freeway/Direction: I-385 NB  
From/To: I-85 RAMP to ROPER MNT RD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

### Flow Inputs and Adjustments

---

Volume, V	4483	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1245	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1357	pc/h/ln

---

### Speed Inputs and Adjustments

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

### LOS and Performance Measures

---

Flow rate, vp	1357	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	55.0	mi/h
Number of lanes, N	4	
Density, D	24.7	pc/mi/ln
Level of service, LOS	C	

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

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### Operational Analysis

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: PM  
Freeway/Direction: I-385 NB  
From/To: ROPER MOUNTAIN RD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

### Flow Inputs and Adjustments

---

Volume, V	3724	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1034	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1503	pc/h/ln

---

### Speed Inputs and Adjustments

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

### LOS and Performance Measures

---

Flow rate, vp	1503	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	55.0	mi/h
Number of lanes, N	3	
Density, D	27.3	pc/mi/ln
Level of service, LOS	D	

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

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: PM  
Freeway/Direction: I-385 NB  
From/To: ROPER MNT RD to END  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	4423	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1229	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1786	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

 LOS and Performance Measures
 

---

Flow rate, vp	1786	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	55.0	mi/h
Number of lanes, N	3	
Density, D	32.5	pc/mi/ln
Level of service, LOS	D	

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



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### Operational Analysis

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 4/19/2011  
Analysis Time Period: AM  
Freeway/Direction: I-385 SB  
From/To: BUTLER RD to BEGIN  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

### Flow Inputs and Adjustments

---

Volume, V	1685	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	468	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1020	pc/h/ln

---

### Speed Inputs and Adjustments

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

### LOS and Performance Measures

---

Flow rate, vp	1020	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	55.0	mi/h
Number of lanes, N	2	
Density, D	18.5	pc/mi/ln
Level of service, LOS	C	

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

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 4/19/2011  
Analysis Time Period: AM  
Freeway/Direction: I-385 SB  
From/To: BUTLER RD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	1466	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	407	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	888	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

 LOS and Performance Measures
 

---

Flow rate, vp	888	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	55.0	mi/h
Number of lanes, N	2	
Density, D	16.1	pc/mi/ln
Level of service, LOS	B	

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

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 Operational Analysis
 

---

Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 4/19/2011  
Analysis Time Period: AM  
Freeway/Direction: I-385 SB  
From/To: WOODRUFF RD to BUTLER RD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	2187	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	608	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1324	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

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 LOS and Performance Measures
 

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Flow rate, vp	1324	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	55.0	mi/h
Number of lanes, N	2	
Density, D	24.1	pc/mi/ln
Level of service, LOS	C	

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

## HCS 2010: Basic Freeway Segments Release 6.1

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---

 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: AM  
Freeway/Direction: I-385 SB  
From/To: WOODRUFF RD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

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 Flow Inputs and Adjustments
 

---

Volume, V	1997	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	555	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1209	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

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 LOS and Performance Measures
 

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Flow rate, vp	1209	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	55.0	mi/h
Number of lanes, N	2	
Density, D	22.0	pc/mi/ln
Level of service, LOS	C	

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

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: AM  
Freeway/Direction: I-385 SB  
From/To: I-85 NB RAMP to WOODRUFF RD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	3184	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	884	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1285	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

 LOS and Performance Measures
 

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Flow rate, vp	1285	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	55.0	mi/h
Number of lanes, N	3	
Density, D	23.4	pc/mi/ln
Level of service, LOS	C	

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

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### Operational Analysis

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: AM  
Freeway/Direction: I-385 SB  
From/To: I-85SB RAMP to I-85NB RAMP  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

### Flow Inputs and Adjustments

---

Volume, V	2719	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	755	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1647	pc/h/ln

---

### Speed Inputs and Adjustments

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

### LOS and Performance Measures

---

Flow rate, vp	1647	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	55.0	mi/h
Number of lanes, N	2	
Density, D	29.9	pc/mi/ln
Level of service, LOS	D	

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

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### Operational Analysis

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: AM  
Freeway/Direction: I-385 SB  
From/To: I-385SB ramp to I-85SB ramp  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

### Flow Inputs and Adjustments

---

Volume, V	1612	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	448	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	976	pc/h/ln

---

### Speed Inputs and Adjustments

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

### LOS and Performance Measures

---

Flow rate, vp	976	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	55.0	mi/h
Number of lanes, N	2	
Density, D	17.7	pc/mi/ln
Level of service, LOS	B	

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

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### Operational Analysis

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: AM  
Freeway/Direction: I-385 SB  
From/To: ROPER MTN RD to I-85 RAMP  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

### Flow Inputs and Adjustments

---

Volume, V	3028	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	841	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	917	pc/h/ln

---

### Speed Inputs and Adjustments

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

### LOS and Performance Measures

---

Flow rate, vp	917	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	55.0	mi/h
Number of lanes, N	4	
Density, D	16.7	pc/mi/ln
Level of service, LOS	B	

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



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### Operational Analysis

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: AM  
Freeway/Direction: I-385 SB  
From/To: ROPER MOUNTAIN RD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

### Flow Inputs and Adjustments

---

Volume, V	2313	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	643	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	934	pc/h/ln

---

### Speed Inputs and Adjustments

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, FLW	-	mi/h
Lateral clearance adjustment, FLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

### LOS and Performance Measures

---

Flow rate, vp	934	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	55.0	mi/h
Number of lanes, N	3	
Density, D	17.0	pc/mi/ln
Level of service, LOS	B	

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### Operational Analysis

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Analyst: NJ  
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Date Performed: 3/16/2011  
Analysis Time Period: AM  
Freeway/Direction: I-385 SB  
From/To: END to ROPER MTN RD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

### Flow Inputs and Adjustments

---

Volume, V	2984	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	829	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1205	pc/h/ln

---

### Speed Inputs and Adjustments

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

### LOS and Performance Measures

---

Flow rate, vp	1205	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	55.0	mi/h
Number of lanes, N	3	
Density, D	21.9	pc/mi/ln
Level of service, LOS	C	

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### Operational Analysis

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 4/19/2011  
Analysis Time Period: PM  
Freeway/Direction: I-385 SB  
From/To: BUTLER RD to BEGIN  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

### Flow Inputs and Adjustments

---

Volume, V	4112	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1142	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	2490	pc/h/ln

---

### Speed Inputs and Adjustments

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

### LOS and Performance Measures

---

Flow rate, vp	2490	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	43.2	mi/h
Number of lanes, N	2	
Density, D	57.6	pc/mi/ln
Level of service, LOS	F	

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

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 4/19/2011  
Analysis Time Period: PM  
Freeway/Direction: I-385 SB  
From/To: BUTLER RD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	3696	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1027	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	2238	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

 LOS and Performance Measures
 

---

Flow rate, vp	2238	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	50.3	mi/h
Number of lanes, N	2	
Density, D	44.5	pc/mi/ln
Level of service, LOS	E	

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

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## Operational Analysis

Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 4/19/2011  
Analysis Time Period: PM  
Freeway/Direction: I-385 SB  
From/To: WOODRUFF RD to BUTLER RD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

## Flow Inputs and Adjustments

Volume, V	4443	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1234	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	2690	pc/h/ln

## Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

## LOS and Performance Measures

Flow rate, vp	2690	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	35.4	mi/h
Number of lanes, N	2	
Density, D	75.9	pc/mi/ln
Level of service, LOS	F	

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

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 Operational Analysis
 

---

Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: PM  
Freeway/Direction: I-385 SB  
From/To: WOODRUFF RD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	3888	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1080	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	2354	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, FLW	-	mi/h
Lateral clearance adjustment, FLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

 LOS and Performance Measures
 

---

Flow rate, vp	2354	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	47.4	mi/h
Number of lanes, N	2	
Density, D	49.6	pc/mi/ln
Level of service, LOS	F	

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

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: PM  
Freeway/Direction: I-385 SB  
From/To: I-85 RAMP to WOODRUFF RD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

 Flow Inputs and Adjustments
 

---

Volume, V	4808	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1336	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1941	pc/h/ln

---

 Speed Inputs and Adjustments
 

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

 LOS and Performance Measures
 

---

Flow rate, vp	1941	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	54.5	mi/h
Number of lanes, N	3	
Density, D	35.6	pc/mi/ln
Level of service, LOS	E	

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

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### Operational Analysis

---

Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: PM  
Freeway/Direction: I-385 SB  
From/To: I-85SB RAMP to I-85NB RAMP  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

---

### Flow Inputs and Adjustments

---

Volume, V	3929	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1091	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	2379	pc/h/ln

---

### Speed Inputs and Adjustments

---

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

---

### LOS and Performance Measures

---

Flow rate, vp	2379	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	46.7	mi/h
Number of lanes, N	2	
Density, D	50.9	pc/mi/ln
Level of service, LOS	F	

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



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E-mail:

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### Operational Analysis

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: PM  
Freeway/Direction: I-385 SB  
From/To: I-385SB RAMP to I-85SB RAMP  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

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### Flow Inputs and Adjustments

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Volume, V	3284	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	912	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1989	pc/h/ln

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### Speed Inputs and Adjustments

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Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

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### LOS and Performance Measures

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Flow rate, vp	1989	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	54.1	mi/h
Number of lanes, N	2	
Density, D	36.8	pc/mi/ln
Level of service, LOS	E	

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

## HCS 2010: Basic Freeway Segments Release 6.1

Florence & Hutcheson  
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## Operational Analysis

Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: PM  
Freeway/Direction: I-385 SB  
From/To: ROPER MNT RD to I-85  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

## Flow Inputs and Adjustments

Volume, V	5705	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1585	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1727	pc/h/ln

## Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, FLW	-	mi/h
Lateral clearance adjustment, FLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

## LOS and Performance Measures

Flow rate, vp	1727	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	55.0	mi/h
Number of lanes, N	4	
Density, D	31.4	pc/mi/ln
Level of service, LOS	D	

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

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### Operational Analysis

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: PM  
Freeway/Direction: I-385 SB  
From/To: ROPER MOUNTAIN RD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

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### Flow Inputs and Adjustments

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Volume, V	4183	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1162	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1689	pc/h/ln

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### Speed Inputs and Adjustments

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Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

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### LOS and Performance Measures

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Flow rate, vp	1689	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	55.0	mi/h
Number of lanes, N	3	
Density, D	30.7	pc/mi/ln
Level of service, LOS	D	

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

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 Operational Analysis
 

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Analyst: NJ  
Agency or Company: Florence & Hutcheson  
Date Performed: 3/16/2011  
Analysis Time Period: PM  
Freeway/Direction: I-385 SB  
From/To: END to ROPER MTN RD  
Jurisdiction: Greenville, SC  
Analysis Year: 2010  
Description: I-85/I-385 Existing

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 Flow Inputs and Adjustments
 

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Volume, V	4836	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1343	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	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	1952	pc/h/ln

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 Speed Inputs and Adjustments
 

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Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	55.0	mi/h

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 LOS and Performance Measures
 

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Flow rate, vp	1952	pc/h/ln
Free-flow speed, FFS	55.0	mi/h
Average passenger-car speed, S	54.4	mi/h
Number of lanes, N	3	
Density, D	35.9	pc/mi/ln
Level of service, LOS	E	

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