

## HCS 2010: Basic Freeway Segments Release 6.1

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## Operational Analysis

Analyst: JP  
Agency or Company: Florence & Hutcheson  
Date Performed: 7/7/2011  
Analysis Time Period: PM  
Freeway/Direction: I-85 SB  
From/To: Pelham Rd  
Jurisdiction: Greenville, SC  
Analysis Year: 2035  
Description: I-85/I-385 Alternate 4A

## Flow Inputs and Adjustments

|                               |       |         |
|-------------------------------|-------|---------|
| Volume, V                     | 7579  | veh/h   |
| Peak-hour factor, PHF         | 0.90  |         |
| Peak 15-min volume, v15       | 2105  | 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                 | 2295  | 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                       | 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                  | 2295 | pc/h/ln  |
| Free-flow speed, FFS           | 60.0 | mi/h     |
| Average passenger-car speed, S | 51.2 | mi/h     |
| Number of lanes, N             | 4    |          |
| 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.