

Florence & Hutcheson  
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### Operational Analysis

Analyst: JP  
 Agency or Company: Florence & Hutcheson  
 Date Performed: 8/24/2011  
 Analysis Time Period: AM  
 Freeway/Direction: I-85 NB C-D  
 From/To: BEGIN TO WOODRUFF EXIT  
 Jurisdiction: Greenville, SC  
 Analysis Year: 2035  
 Description: I-85/I-385 Alternate 4A

### Flow Inputs and Adjustments

|                               |       |         |
|-------------------------------|-------|---------|
| Volume, V                     | 2607  | veh/h   |
| Peak-hour factor, PHF         | 0.90  |         |
| Peak 15-min volume, v15       | 724   | 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                 | 1579  | 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                  | 1579 | 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                     | 28.7 | pc/mi/ln |
| Level of service, LOS          | D    |          |

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