

Phone: Fax:
E-mail:

Operational Analysis

Analyst:
Agency or Company: Stantec
Date Performed: 11/8/2016
Analysis Time Period: 8:00AM-9:00AM
Freeway/Direction: I-85 Northbound
From/To: US 29 To NC 216
Jurisdiction: SCDOT/NC DOT
Analysis Year: 2040 Build Conditions
Description:

Flow Inputs and Adjustments

| | | |
|-------------------------------|---------|---------|
| Volume, V | 1871 | veh/h |
| Peak-hour factor, PHF | 0.94 | |
| Peak 15-min volume, v15 | 498 | v |
| Trucks and buses | 30 | % |
| Recreational vehicles | 0 | % |
| Terrain type: | Rolling | |
| Grade | - | % |
| Segment length | - | mi |
| Trucks and buses PCE, ET | 2.5 | |
| Recreational vehicle PCE, ER | 2.0 | |
| Heavy vehicle adjustment, fHV | 0.690 | |
| Driver population factor, fp | 1.00 | |
| Flow rate, vp | 1443 | pc/h/ln |

Speed Inputs and Adjustments

| | | |
|-----------------------------------|------|----------|
| Lane width | 11.3 | ft |
| Right-side lateral clearance | 6.0 | ft |
| Total ramp density, TRD | 1.50 | ramps/mi |
| Number of lanes, N | 2 | |
| Free-flow speed: | Base | |
| FFS or BFFS | 75.4 | mi/h |
| Lane width adjustment, fLW | 1.9 | mi/h |
| Lateral clearance adjustment, fLC | 0.0 | mi/h |
| TRD adjustment | 4.5 | mi/h |
| Free-flow speed, FFS | 69.0 | mi/h |

LOS and Performance Measures

| | | |
|--------------------------------|------|----------|
| Flow rate, vp | 1443 | pc/h/ln |
| Free-flow speed, FFS | 69.0 | mi/h |
| Average passenger-car speed, S | 69.3 | mi/h |
| Number of lanes, N | 2 | |
| Density, D | 20.8 | pc/mi/ln |
| Level of service, LOS | C | |

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