

York Ridge.txt

HCS2000: Two-Lane Highways Release 4.1d

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst Steve Brinck
 Agency/Co. Parsons Brinckerhoff
 Date Performed 08/21/03
 Analysis Time Period
 Highway York Ridge
 From/To
 Jurisdiction
 Analysis Year 2003
 Description

Input Data

Highway class	Class 2					
Shoulder width	0.0	ft	Peak-hour factor, PHF	0.89		
Lane width	9.0	ft	% Trucks and buses	2	%	
Segment length	7.4	mi	% Recreational vehicles	4	%	
Terrain type	Level		% No-passing zones	100	%	
Grade: Length		mi	Access points/mi	26	/mi	
Up/down		%				
Two-way hourly volume, v	62	veh/h				
Directional split	81 / 19	%				

Average Travel Speed

Grade adjustment factor, fG	1.00	
PCE for trucks, ET	1.7	
PCE for RVs, ER	1.0	
Heavy-vehicle adjustment factor,	0.986	
Two-way flow rate, (note-1) vp	71	pc/h
Highest directional split proportion (note-2)	58	pc/h
Free-Flow Speed from Field Measurement:		
Field measured speed, SFM	40	mi/h
Observed volume, Vf	0	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	-	mi/h
Adj. for lane and shoulder width, fLS	-	mi/h
Adj. for access points, fA	-	mi/h
Free-flow speed, FFS	40.0	mi/h
Adjustment for no-passing zones, fnp	1.2	mi/h
Average travel speed, ATS	38.2	mi/h

Percent Time-Spent-Following

York Ridge.txt

Grade adjustment factor, fg	1.00	
PCE for trucks, ET	1.1	
PCE for RVs, ER	1.0	
Heavy-vehicle adjustment factor, fhv	0.998	
Two-way flow rate,(note-1) vp	70	pc/h
Highest directional split proportion (note-2)	57	
Base percent time-spent-following, BPTSF	6.0	%
Adj.for directional distribution and no-passing zones, fd/np	34.6	
Percent time-spent-following, PTSF	40.6	%

Level of Service and Other Performance Measures

Level of service, LOS	B	
Volume to capacity ratio, v/c	0.02	
Peak 15-min vehicle-miles of travel, VMT15	128	veh-mi
Peak-hour vehicle-miles of travel, VMT60	457	veh-mi
Peak 15-min total travel time, TT15	3.4	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.