

# HCS7 Multilane Highway Report

## Project Information

Analyst	BH	Date	6/15/2020
Agency	PDE	Analysis Year	2020
Jurisdiction	NYS DOT	Time Period Analyzed	Existing
Project Description	US -90	Unit	United States Customary

## Direction 1 Geometric Data

Direction 1	EB		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Access Point Density, pts/mi	1.5
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	4
Median Type	Divided	Total Lateral Clearance (TLC), ft	10
Free-Flow Speed (FFS), mi/h	64.2		

## Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

## Direction 1 Demand and Capacity

Volume(V) veh/h	1879	Heavy Vehicle Adjustment Factor (fHV)	0.855
Peak Hour Factor	0.90	Flow Rate (Vp), pc/h/ln	1221
Total Trucks, %	16.99	Capacity (c), pc/h/ln	2284
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2284
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.53

## Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Total Lateral Clearance Adj. (fLLC)	0.4	Density (D ), pc/mi/ln	19.0
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	C
Access Point Density Adjustment (fA)	0.4		

## Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	1044	Effective Speed Factor (St)	5.07
Effective Width of Volume (Wv), ft	18	Bicycle LOS Score (BLOS)	9.59
Average Effective Width (We), ft	24	Bicycle Level of Service (LOS)	F

# HCS7 Multilane Highway Report

## Project Information

Analyst	BH	Date	6/15/2020
Agency	PDE	Analysis Year	2020
Jurisdiction	NYS DOT	Time Period Analyzed	Existing
Project Description	US -90	Unit	United States Customary

## Direction 2 Geometric Data

Direction 2	WB		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Access Point Density, pts/mi	1.5
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	4
Median Type	Divided	Total Lateral Clearance (TLC), ft	10
Free-Flow Speed (FFS), mi/h	64.2		

## Direction 2 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

## Direction 2 Demand and Capacity

Volume(V) veh/h	1749	Heavy Vehicle Adjustment Factor (fhv)	0.855
Peak Hour Factor	0.90	Flow Rate (Vp), pc/h/ln	1136
Total Trucks, %	16.99	Capacity (c), pc/h/ln	2284
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2284
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.50

## Direction 2 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Total Lateral Clearance Adj. (fLLC)	0.4	Density (D ), pc/mi/ln	17.7
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (fA)	0.4		

## Direction 2 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	972	Effective Speed Factor (St)	5.07
Effective Width of Volume (Wv), ft	18	Bicycle LOS Score (BLOS)	9.55
Average Effective Width (We), ft	24	Bicycle Level of Service (LOS)	F

# HCS7 Two-Lane Highway Report

## Project Information

Analyst	BH	Date	06/15/2020
Agency	PDE	Analysis Year	2020
Jurisdiction	NYS DOT	Time Period Analyzed	Existing
Project Description	NY 14	Unit	United States Customary

## Segment 1

### Vehicle Inputs

Segment Type	Passing Zone	Length, ft	5280
Lane Width, ft	12	Shoulder Width, ft	6
Speed Limit, mi/h	45	Access Point Density, pts/mi	3.0

### Demand and Capacity

Directional Demand Flow Rate, veh/h	466	Opposing Demand Flow Rate, veh/h	418
Peak Hour Factor	0.90	Total Trucks, %	14.69
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.27

### Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.1
Speed Slope Coefficient	3.08387	Speed Power Coefficient	0.49398
PF Slope Coefficient	-1.28685	PF Power Coefficient	0.76925
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	4.9
%Improved % Followers	0.0	% Improved Avg Speed	0.0

### Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	48.2

### Vehicle Results

Average Speed, mi/h	48.2	Percent Followers, %	51.1
Segment Travel Time, minutes	1.25	Followers Density, followers/mi/ln	4.9
Vehicle LOS	B		

# HCS7 Two-Lane Highway Report

## Project Information

Analyst	BH	Date	06/15/2020
Agency	PDE	Analysis Year	2020
Jurisdiction	NYS DOT	Time Period Analyzed	Existing
Project Description	Packwood Road	Unit	United States Customary

## Segment 1

### Vehicle Inputs

Segment Type	Passing Zone	Length, ft	5280
Lane Width, ft	11	Shoulder Width, ft	0
Speed Limit, mi/h	45	Access Point Density, pts/mi	3.0

### Demand and Capacity

Directional Demand Flow Rate, veh/h	98	Opposing Demand Flow Rate, veh/h	108
Peak Hour Factor	0.90	Total Trucks, %	3.24
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.06

### Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	45.6
Speed Slope Coefficient	2.74012	Speed Power Coefficient	0.57084
PF Slope Coefficient	-1.21539	PF Power Coefficient	0.77374
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.4
%Improved % Followers	0.0	% Improved Avg Speed	0.0

### Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	45.6

### Vehicle Results

Average Speed, mi/h	45.6	Percent Followers, %	18.2
Segment Travel Time, minutes	1.31	Followers Density, followers/mi/ln	0.4
Vehicle LOS	A		

# HCS7 Two-Lane Highway Report

## Project Information

Analyst	BH	Date	06/15/2020
Agency	PDE	Analysis Year	2020
Jurisdiction	NYS DOT	Time Period Analyzed	Existing
Project Description	Pre-Emption Street	Unit	United States Customary

## Segment 1

### Vehicle Inputs

Segment Type	Passing Zone	Length, ft	5280
Lane Width, ft	11	Shoulder Width, ft	0
Speed Limit, mi/h	45	Access Point Density, pts/mi	3.0

### Demand and Capacity

Directional Demand Flow Rate, veh/h	98	Opposing Demand Flow Rate, veh/h	77
Peak Hour Factor	0.90	Total Trucks, %	3.71
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.06

### Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	45.6
Speed Slope Coefficient	2.72242	Speed Power Coefficient	0.58555
PF Slope Coefficient	-1.20121	PF Power Coefficient	0.77757
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.4
%Improved % Followers	0.0	% Improved Avg Speed	0.0

### Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	45.6

### Vehicle Results

Average Speed, mi/h	45.6	Percent Followers, %	17.9
Segment Travel Time, minutes	1.32	Followers Density, followers/mi/ln	0.4
Vehicle LOS	A		

# HCS7 Two-Lane Highway Report

## Project Information

Analyst	BH	Date	06/15/2020
Agency	PDE	Analysis Year	2020
Jurisdiction	NYS DOT	Time Period Analyzed	Existing
Project Description	Border City Road	Unit	United States Customary

## Segment 1

### Vehicle Inputs

Segment Type	Passing Zone	Length, ft	5280
Lane Width, ft	12	Shoulder Width, ft	6
Speed Limit, mi/h	40	Access Point Density, pts/mi	3.0

### Demand and Capacity

Directional Demand Flow Rate, veh/h	360	Opposing Demand Flow Rate, veh/h	308
Peak Hour Factor	0.90	Total Trucks, %	5.41
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.21

### Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	44.7
Speed Slope Coefficient	2.76166	Speed Power Coefficient	0.51361
PF Slope Coefficient	-1.27252	PF Power Coefficient	0.75518
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	3.7
%Improved % Followers	0.0	% Improved Avg Speed	0.0

### Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	43.3

### Vehicle Results

Average Speed, mi/h	43.3	Percent Followers, %	44.5
Segment Travel Time, minutes	1.39	Followers Density, followers/mi/ln	3.7
Vehicle LOS	B		

# HCS7 Multilane Highway Report

## Project Information

Analyst	BH	Date	6/15/2020
Agency	PDE	Analysis Year	2020
Jurisdiction	NYS DOT	Time Period Analyzed	Existing
Project Description	NY-96A	Unit	United States Customary

## Direction 1 Geometric Data

Direction 1	NB		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Access Point Density, pts/mi	1.5
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	6
Median Type	Divided	Total Lateral Clearance (TLC), ft	12
Free-Flow Speed (FFS), mi/h	44.6		

## Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

## Direction 1 Demand and Capacity

Volume(V) veh/h	446	Heavy Vehicle Adjustment Factor (fHV)	0.949
Peak Hour Factor	0.90	Flow Rate (Vp), pc/h/ln	261
Total Trucks, %	5.42	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.14

## Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	44.6
Total Lateral Clearance Adj. (fLLC)	0.0	Density (D ), pc/mi/ln	5.9
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (fA)	0.4		

## Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	248	Effective Speed Factor (St)	4.42
Effective Width of Volume (Wv), ft	18	Bicycle LOS Score (BLOS)	3.27
Average Effective Width (We), ft	24	Bicycle Level of Service (LOS)	C

# HCS7 Multilane Highway Report

## Project Information

Analyst	BH	Date	6/15/2020
Agency	PDE	Analysis Year	2020
Jurisdiction	NYS DOT	Time Period Analyzed	Existing
Project Description	NY-96A	Unit	United States Customary

## Direction 2 Geometric Data

Direction 2	SB		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Access Point Density, pts/mi	1.5
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	6
Median Type	Divided	Total Lateral Clearance (TLC), ft	12
Free-Flow Speed (FFS), mi/h	44.6		

## Direction 2 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

## Direction 2 Demand and Capacity

Volume(V) veh/h	515	Heavy Vehicle Adjustment Factor (fHV)	0.949
Peak Hour Factor	0.90	Flow Rate (Vp), pc/h/ln	302
Total Trucks, %	5.42	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.16

## Direction 2 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	44.6
Total Lateral Clearance Adj. (fLLC)	0.0	Density (D), pc/mi/ln	6.8
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (fA)	0.4		

## Direction 2 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	286	Effective Speed Factor (St)	4.42
Effective Width of Volume (Wv), ft	18	Bicycle LOS Score (BLOS)	3.35
Average Effective Width (We), ft	24	Bicycle Level of Service (LOS)	C



# HCS7 Two-Lane Highway Report

## Project Information

Analyst	BH	Date	06/15/2020
Agency	PDE	Analysis Year	2020
Jurisdiction	NYS DOT	Time Period Analyzed	Existing
Project Description	Serven Road	Unit	United States Customary

## Segment 1

### Vehicle Inputs

Segment Type	Passing Zone	Length, ft	5280
Lane Width, ft	11	Shoulder Width, ft	0
Speed Limit, mi/h	45	Access Point Density, pts/mi	3.0

### Demand and Capacity

Directional Demand Flow Rate, veh/h	54	Opposing Demand Flow Rate, veh/h	57
Peak Hour Factor	0.90	Total Trucks, %	5.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

### Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	45.6
Speed Slope Coefficient	2.70736	Speed Power Coefficient	0.59709
PF Slope Coefficient	-1.19014	PF Power Coefficient	0.78058
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improved % Followers	0.0	% Improved Avg Speed	0.0

### Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	45.6

### Vehicle Results

Average Speed, mi/h	45.6	Percent Followers, %	11.5
Segment Travel Time, minutes	1.32	Followers Density, followers/mi/ln	0.1
Vehicle LOS	A		

# HCS7 Multilane Highway Report

## Project Information

Analyst	BH	Date	6/15/2020
Agency	PDE	Analysis Year	2020
Jurisdiction	NYS DOT	Time Period Analyzed	Existing
Project Description	US -20	Unit	United States Customary

## Direction 1 Geometric Data

Direction 1	EB		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Access Point Density, pts/mi	1.5
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	4
Median Type	Divided	Total Lateral Clearance (TLC), ft	10
Free-Flow Speed (FFS), mi/h	44.2		

## Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

## Direction 1 Demand and Capacity

Volume(V) veh/h	625	Heavy Vehicle Adjustment Factor (fHV)	0.951
Peak Hour Factor	0.90	Flow Rate (Vp), pc/h/ln	365
Total Trucks, %	5.12	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.19

## Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	44.2
Total Lateral Clearance Adj. (fLLC)	0.4	Density (D), pc/mi/ln	8.3
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (fA)	0.4		

## Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	347	Effective Speed Factor (St)	4.42
Effective Width of Volume (Wv), ft	18	Bicycle LOS Score (BLOS)	3.36
Average Effective Width (We), ft	24	Bicycle Level of Service (LOS)	C

# HCS7 Multilane Highway Report

## Project Information

Analyst	BH	Date	6/15/2020
Agency	PDE	Analysis Year	2020
Jurisdiction	NYS DOT	Time Period Analyzed	Existing
Project Description	US -20	Unit	United States Customary

## Direction 2 Geometric Data

Direction 2	WB		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Access Point Density, pts/mi	1.5
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	4
Median Type	Divided	Total Lateral Clearance (TLC), ft	10
Free-Flow Speed (FFS), mi/h	44.2		

## Direction 2 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

## Direction 2 Demand and Capacity

Volume(V) veh/h	565	Heavy Vehicle Adjustment Factor (fHV)	0.951
Peak Hour Factor	0.90	Flow Rate (Vp), pc/h/ln	330
Total Trucks, %	5.12	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.17

## Direction 2 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	44.2
Total Lateral Clearance Adj. (fLLC)	0.4	Density (D ), pc/mi/ln	7.5
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (fA)	0.4		

## Direction 2 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	314	Effective Speed Factor (St)	4.42
Effective Width of Volume (Wv), ft	18	Bicycle LOS Score (BLOS)	3.31
Average Effective Width (We), ft	24	Bicycle Level of Service (LOS)	C

# HCS7 Two-Lane Highway Report

## Project Information

Analyst	BH	Date	06/15/2020
Agency	PDE	Analysis Year	2020
Jurisdiction	NYS DOT	Time Period Analyzed	Existing
Project Description	US 20	Unit	United States Customary

## Segment 1

### Vehicle Inputs

Segment Type	Passing Zone	Length, ft	5280
Lane Width, ft	12	Shoulder Width, ft	6
Speed Limit, mi/h	45	Access Point Density, pts/mi	3.0

### Demand and Capacity

Directional Demand Flow Rate, veh/h	597	Opposing Demand Flow Rate, veh/h	530
Peak Hour Factor	0.90	Total Trucks, %	7.37
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.35

### Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.3
Speed Slope Coefficient	3.12385	Speed Power Coefficient	0.47818
PF Slope Coefficient	-1.30305	PF Power Coefficient	0.76397
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	7.3
%Improved % Followers	0.0	% Improved Avg Speed	0.0

### Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	48.1

### Vehicle Results

Average Speed, mi/h	48.1	Percent Followers, %	58.4
Segment Travel Time, minutes	1.25	Followers Density, followers/mi/ln	7.3
Vehicle LOS	C		

# HCS7 Multilane Highway Report

## Project Information

Analyst	BH	Date	6/15/2020
Agency	PDE	Analysis Year	2020
Jurisdiction	NYS DOT	Time Period Analyzed	Construction
Project Description	US -90	Unit	United States Customary

## Direction 1 Geometric Data

Direction 1	EB		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Access Point Density, pts/mi	1.5
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	4
Median Type	Divided	Total Lateral Clearance (TLC), ft	10
Free-Flow Speed (FFS), mi/h	64.2		

## Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

## Direction 1 Demand and Capacity

Volume(V) veh/h	1934	Heavy Vehicle Adjustment Factor (fHV)	0.855
Peak Hour Factor	0.90	Flow Rate (Vp), pc/h/ln	1256
Total Trucks, %	16.99	Capacity (c), pc/h/ln	2284
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2284
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.55

## Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Total Lateral Clearance Adj. (fLLC)	0.4	Density (D), pc/mi/ln	19.6
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	C
Access Point Density Adjustment (fA)	0.4		

## Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	1074	Effective Speed Factor (St)	5.07
Effective Width of Volume (Wv), ft	18	Bicycle LOS Score (BLOS)	9.60
Average Effective Width (We), ft	24	Bicycle Level of Service (LOS)	F

# HCS7 Multilane Highway Report

## Project Information

Analyst	BH	Date	6/15/2020
Agency	PDE	Analysis Year	2020
Jurisdiction	NYS DOT	Time Period Analyzed	Construction
Project Description	US -90	Unit	United States Customary

## Direction 2 Geometric Data

Direction 2	WB		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Measured	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Access Point Density, pts/mi	-
Lane Width, ft	-	Left-Side Lateral Clearance (LCR), ft	-
Median Type	-	Total Lateral Clearance (TLC), ft	-
Free-Flow Speed (FFS), mi/h	65.0		

## Direction 2 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

## Direction 2 Demand and Capacity

Volume(V) veh/h	1804	Heavy Vehicle Adjustment Factor (fHV)	0.855
Peak Hour Factor	0.90	Flow Rate (Vp), pc/h/ln	1172
Total Trucks, %	16.99	Capacity (c), pc/h/ln	2300
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2300
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.51

## Direction 2 Speed and Density

Lane Width Adjustment (fLW)	-	Average Speed (S), mi/h	65.0
Total Lateral Clearance Adj. (fLLC)	-	Density (D), pc/mi/ln	18.0
Median Type Adjustment (fM)	-	Level of Service (LOS)	B
Access Point Density Adjustment (fA)	-		

## Direction 2 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	1002	Effective Speed Factor (St)	5.07
Effective Width of Volume (Wv), ft	18	Bicycle LOS Score (BLOS)	9.57
Average Effective Width (We), ft	24	Bicycle Level of Service (LOS)	F

# HCS7 Two-Lane Highway Report

## Project Information

Analyst	BH	Date	06/15/2020
Agency	PDE	Analysis Year	2020
Jurisdiction	NYS DOT	Time Period Analyzed	Construction
Project Description	NY 14	Unit	United States Customary

## Segment 1

### Vehicle Inputs

Segment Type	Passing Zone	Length, ft	5280
Lane Width, ft	12	Shoulder Width, ft	6
Speed Limit, mi/h	45	Access Point Density, pts/mi	3.0

### Demand and Capacity

Directional Demand Flow Rate, veh/h	588	Opposing Demand Flow Rate, veh/h	540
Peak Hour Factor	0.90	Total Trucks, %	14.69
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.35

### Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.1
Speed Slope Coefficient	3.11288	Speed Power Coefficient	0.47693
PF Slope Coefficient	-1.30407	PF Power Coefficient	0.76384
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	7.1
%Improved % Followers	0.0	% Improved Avg Speed	0.0

### Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	47.9

### Vehicle Results

Average Speed, mi/h	47.9	Percent Followers, %	58.1
Segment Travel Time, minutes	1.25	Followers Density, followers/mi/ln	7.1
Vehicle LOS	C		

# HCS7 Two-Lane Highway Report

## Project Information

Analyst	BH	Date	06/15/2020
Agency	PDE	Analysis Year	2020
Jurisdiction	NYS DOT	Time Period Analyzed	Construction
Project Description	Packwood Road	Unit	United States Customary

## Segment 1

### Vehicle Inputs

Segment Type	Passing Zone	Length, ft	5280
Lane Width, ft	11	Shoulder Width, ft	0
Speed Limit, mi/h	45	Access Point Density, pts/mi	3.0

### Demand and Capacity

Directional Demand Flow Rate, veh/h	220	Opposing Demand Flow Rate, veh/h	230
Peak Hour Factor	0.90	Total Trucks, %	3.24
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.13

### Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	45.6
Speed Slope Coefficient	2.78971	Speed Power Coefficient	0.53124
PF Slope Coefficient	-1.25473	PF Power Coefficient	0.76324
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	1.6
%Improved % Followers	0.0	% Improved Avg Speed	0.0

### Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	44.7

### Vehicle Results

Average Speed, mi/h	44.7	Percent Followers, %	32.6
Segment Travel Time, minutes	1.34	Followers Density, followers/mi/ln	1.6
Vehicle LOS	A		



# HCS7 Two-Lane Highway Report

## Project Information

Analyst	BH	Date	06/15/2020
Agency	PDE	Analysis Year	2020
Jurisdiction	NYS DOT	Time Period Analyzed	Construction
Project Description	Pre-Emption Street	Unit	United States Customary

## Segment 1

### Vehicle Inputs

Segment Type	Passing Zone	Length, ft	5280
Lane Width, ft	11	Shoulder Width, ft	0
Speed Limit, mi/h	45	Access Point Density, pts/mi	3.0

### Demand and Capacity

Directional Demand Flow Rate, veh/h	98	Opposing Demand Flow Rate, veh/h	77
Peak Hour Factor	0.90	Total Trucks, %	3.71
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.06

### Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	45.6
Speed Slope Coefficient	2.72242	Speed Power Coefficient	0.58555
PF Slope Coefficient	-1.20121	PF Power Coefficient	0.77757
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.4
%Improved % Followers	0.0	% Improved Avg Speed	0.0

### Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	45.6

### Vehicle Results

Average Speed, mi/h	45.6	Percent Followers, %	17.9
Segment Travel Time, minutes	1.32	Followers Density, followers/mi/ln	0.4
Vehicle LOS	A		

# HCS7 Two-Lane Highway Report

## Project Information

Analyst	BH	Date	06/15/2020
Agency	PDE	Analysis Year	2020
Jurisdiction	NYS DOT	Time Period Analyzed	Construction
Project Description	Border City Road	Unit	United States Customary

## Segment 1

### Vehicle Inputs

Segment Type	Passing Zone	Length, ft	5280
Lane Width, ft	12	Shoulder Width, ft	6
Speed Limit, mi/h	40	Access Point Density, pts/mi	3.0

### Demand and Capacity

Directional Demand Flow Rate, veh/h	360	Opposing Demand Flow Rate, veh/h	308
Peak Hour Factor	0.90	Total Trucks, %	5.41
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.21

### Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	44.7
Speed Slope Coefficient	2.76166	Speed Power Coefficient	0.51361
PF Slope Coefficient	-1.27252	PF Power Coefficient	0.75518
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	3.7
%Improved % Followers	0.0	% Improved Avg Speed	0.0

### Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	43.3

### Vehicle Results

Average Speed, mi/h	43.3	Percent Followers, %	44.5
Segment Travel Time, minutes	1.39	Followers Density, followers/mi/ln	3.7
Vehicle LOS	B		

# HCS7 Multilane Highway Report

## Project Information

Analyst	BH	Date	6/15/2020
Agency	PDE	Analysis Year	2020
Jurisdiction	NYS DOT	Time Period Analyzed	Construction
Project Description	NY-96A	Unit	United States Customary

## Direction 1 Geometric Data

Direction 1	NB		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Access Point Density, pts/mi	1.5
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	6
Median Type	Divided	Total Lateral Clearance (TLC), ft	12
Free-Flow Speed (FFS), mi/h	44.6		

## Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

## Direction 1 Demand and Capacity

Volume(V) veh/h	468	Heavy Vehicle Adjustment Factor (fHV)	0.949
Peak Hour Factor	0.90	Flow Rate (Vp), pc/h/ln	274
Total Trucks, %	5.42	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.14

## Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	44.6
Total Lateral Clearance Adj. (fLLC)	0.0	Density (D), pc/mi/ln	6.1
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (fA)	0.4		

## Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	260	Effective Speed Factor (St)	4.42
Effective Width of Volume (Wv), ft	18	Bicycle LOS Score (BLOS)	3.30
Average Effective Width (We), ft	24	Bicycle Level of Service (LOS)	C

# HCS7 Multilane Highway Report

## Project Information

Analyst	BH	Date	6/15/2020
Agency	PDE	Analysis Year	2020
Jurisdiction	NYS DOT	Time Period Analyzed	Construction
Project Description	NY-96A	Unit	United States Customary

## Direction 2 Geometric Data

Direction 2	SB		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Access Point Density, pts/mi	1.5
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	6
Median Type	Divided	Total Lateral Clearance (TLC), ft	12
Free-Flow Speed (FFS), mi/h	44.6		

## Direction 2 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

## Direction 2 Demand and Capacity

Volume(V) veh/h	537	Heavy Vehicle Adjustment Factor (fHV)	0.949
Peak Hour Factor	0.90	Flow Rate (Vp), pc/h/ln	314
Total Trucks, %	5.42	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.17

## Direction 2 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	44.6
Total Lateral Clearance Adj. (fLLC)	0.0	Density (D), pc/mi/ln	7.0
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (fA)	0.4		

## Direction 2 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	298	Effective Speed Factor (St)	4.42
Effective Width of Volume (Wv), ft	18	Bicycle LOS Score (BLOS)	3.37
Average Effective Width (We), ft	24	Bicycle Level of Service (LOS)	C

# HCS7 Two-Lane Highway Report

## Project Information

Analyst	BH	Date	06/15/2020
Agency	PDE	Analysis Year	2020
Jurisdiction	NYS DOT	Time Period Analyzed	Construction
Project Description	Serven Road	Unit	United States Customary

## Segment 1

### Vehicle Inputs

Segment Type	Passing Zone	Length, ft	5280
Lane Width, ft	11	Shoulder Width, ft	0
Speed Limit, mi/h	45	Access Point Density, pts/mi	3.0

### Demand and Capacity

Directional Demand Flow Rate, veh/h	140	Opposing Demand Flow Rate, veh/h	142
Peak Hour Factor	0.90	Total Trucks, %	5.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.08

### Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	45.6
Speed Slope Coefficient	2.75295	Speed Power Coefficient	0.55745
PF Slope Coefficient	-1.22825	PF Power Coefficient	0.77030
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.7
%Improved % Followers	0.0	% Improved Avg Speed	0.0

### Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	45.1

### Vehicle Results

Average Speed, mi/h	45.1	Percent Followers, %	23.7
Segment Travel Time, minutes	1.33	Followers Density, followers/mi/ln	0.7
Vehicle LOS	A		

# HCS7 Multilane Highway Report

## Project Information

Analyst	BH	Date	6/15/2020
Agency	PDE	Analysis Year	2020
Jurisdiction	NYS DOT	Time Period Analyzed	Construction
Project Description	US -20	Unit	United States Customary

## Direction 1 Geometric Data

Direction 1	EB		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Access Point Density, pts/mi	1.5
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	4
Median Type	Divided	Total Lateral Clearance (TLC), ft	10
Free-Flow Speed (FFS), mi/h	44.2		

## Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

## Direction 1 Demand and Capacity

Volume(V) veh/h	702	Heavy Vehicle Adjustment Factor (fHV)	0.951
Peak Hour Factor	0.90	Flow Rate (Vp), pc/h/ln	410
Total Trucks, %	5.12	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.22

## Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	44.2
Total Lateral Clearance Adj. (fLLC)	0.4	Density (D), pc/mi/ln	9.3
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (fA)	0.4		

## Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	390	Effective Speed Factor (St)	4.42
Effective Width of Volume (Wv), ft	18	Bicycle LOS Score (BLOS)	3.42
Average Effective Width (We), ft	24	Bicycle Level of Service (LOS)	C

# HCS7 Multilane Highway Report

## Project Information

Analyst	BH	Date	6/15/2020
Agency	PDE	Analysis Year	2020
Jurisdiction	NYS DOT	Time Period Analyzed	Construction
Project Description	US -20	Unit	United States Customary

## Direction 2 Geometric Data

Direction 2	WB		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Access Point Density, pts/mi	1.5
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	4
Median Type	Divided	Total Lateral Clearance (TLC), ft	10
Free-Flow Speed (FFS), mi/h	44.2		

## Direction 2 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

## Direction 2 Demand and Capacity

Volume(V) veh/h	642	Heavy Vehicle Adjustment Factor (fHV)	0.951
Peak Hour Factor	0.90	Flow Rate (Vp), pc/h/ln	375
Total Trucks, %	5.12	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.20

## Direction 2 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	44.2
Total Lateral Clearance Adj. (fLLC)	0.4	Density (D), pc/mi/ln	8.5
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (fA)	0.4		

## Direction 2 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	357	Effective Speed Factor (St)	4.42
Effective Width of Volume (Wv), ft	18	Bicycle LOS Score (BLOS)	3.37
Average Effective Width (We), ft	24	Bicycle Level of Service (LOS)	C

# HCS7 Two-Lane Highway Report

## Project Information

Analyst	BH	Date	06/15/2020
Agency	PDE	Analysis Year	2020
Jurisdiction	NYS DOT	Time Period Analyzed	Construction
Project Description	US 20	Unit	United States Customary

## Segment 1

### Vehicle Inputs

Segment Type	Passing Zone	Length, ft	5280
Lane Width, ft	12	Shoulder Width, ft	6
Speed Limit, mi/h	45	Access Point Density, pts/mi	3.0

### Demand and Capacity

Directional Demand Flow Rate, veh/h	633	Opposing Demand Flow Rate, veh/h	567
Peak Hour Factor	0.90	Total Trucks, %	7.37
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.37

### Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.3
Speed Slope Coefficient	3.13197	Speed Power Coefficient	0.47371
PF Slope Coefficient	-1.30757	PF Power Coefficient	0.76247
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	8.0
%Improved % Followers	0.0	% Improved Avg Speed	0.0

### Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	48.0

### Vehicle Results

Average Speed, mi/h	48.0	Percent Followers, %	60.3
Segment Travel Time, minutes	1.25	Followers Density, followers/mi/ln	8.0
Vehicle LOS	C		