Appendix 16-8

HCS Level of Service Output

HCS7 Two-Lane Highway Report

Project Information

Analyst	BH	Date	06/03/2021
Agency	PDE	Analysis Year	2021
Jurisdiction	NYSDOT	Time Period Analyzed	Existing
Project Description	CR-125_Morris Tract Rd	Unit	United States Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	5280
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	3.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	12	Opposing Demand Flow Rate, veh/h	18
Peak Hour Factor	0.90	Total Trucks, %	5.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	56.4
Speed Slope Coefficient	3.25839	Speed Power Coefficient	0.63001
PF Slope Coefficient	-1.14499	PF Power Coefficient	0.82433
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%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	-	-	56.4

Vehicle Results

Average Speed, mi/h	56.4	Percent Followers, %	3.0
Segment Travel Time, minutes	1.06	Followers Density, followers/mi/ln	0.0
Vehicle LOS	A		

HCS7 Two-Lane Highway Report

Project Information

Analyst	BH	Date	06/03/2021
Agency	PDE	Analysis Year	2021
Jurisdiction	NYSDOT	Time Period Analyzed	Existing
Project Description	NY-12	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	55	Access Point Density, pts/mi	3.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	389	Opposing Demand Flow Rate, veh/h	436
Peak Hour Factor	0.90	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.23

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	61.7
Speed Slope Coefficient	3.71648	Speed Power Coefficient	0.49123
PF Slope Coefficient	-1.24141	PF Power Coefficient	0.80151
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	2.9
%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	-	-	59.6

Vehicle Results

Average Speed, mi/h	59.6	Percent Followers, %	44.1
Segment Travel Time, minutes	1.01	Followers Density, followers/mi/ln	2.9
Vehicle LOS	B		

HCS7 Two-Lane Highway Report

Project Information

Analyst	BH	Date	06/03/2021
Agency	PDE	Analysis Year	2021
Jurisdiction	NYSDOT	Time Period Analyzed	Existing
Project Description	NY-12E	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	418	Opposing Demand Flow Rate, veh/h	418
Peak Hour Factor	0.90	Total Trucks, %	8.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.25

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.3
Speed Slope Coefficient	3.09595	Speed Power Coefficient	0.49398
PF Slope Coefficient	-1.28713	PF Power Coefficient	0.76899
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	4.2
%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	-	-	48.5

Vehicle Results

Average Speed, mi/h	48.5	Percent Followers, %	48.2
Segment Travel Time, minutes	1.24	Followers Density, followers/mi/ln	4.2
Vehicle LOS	B		

HCS7 Two-Lane Highway Report

Project Information

Analyst	BH	Date	06/03/2021
Agency	PDE	Analysis Year	2021
Jurisdiction	NYSDOT	Time Period Analyzed	Existing
Project Description	NY-180	Unit	United States Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	5280
Lane Width, ft	12	Shoulder Width, ft	5
Speed Limit, mi/h	55	Access Point Density, pts/mi	3.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	41	Opposing Demand Flow Rate, veh/h	44
Peak Hour Factor	0.90	Total Trucks, %	15.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	60.8
Speed Slope Coefficient	3.52048	Speed Power Coefficient	0.60540
PF Slope Coefficient	-1.14919	PF Power Coefficient	0.83253
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	-	-	60.8

Vehicle Results

Average Speed, mi/h	60.8	Percent Followers, %	7.7
Segment Travel Time, minutes	0.99	Followers Density, followers/mi/ln	0.1
Vehicle LOS	A		

HCS7 Two-Lane Highway Report

Project Information

Analyst	BH	Date	06/03/2021
Agency	PDE	Analysis Year	2021
Jurisdiction	NYSDOT	Time Period Analyzed	Existing
Project Description	CR-159	Unit	United States Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	5280
Lane Width, ft	10	Shoulder Width, ft	4
Speed Limit, mi/h	55	Access Point Density, pts/mi	3.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	18	Opposing Demand Flow Rate, veh/h	18
Peak Hour Factor	0.90	Total Trucks, %	6.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	59.2
Speed Slope Coefficient	3.40835	Speed Power Coefficient	0.63001
PF Slope Coefficient	-1.13535	PF Power Coefficient	0.83295
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%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	-	-	59.2

Vehicle Results

Average Speed, mi/h	59.2	Percent Followers, %	3.9
Segment Travel Time, minutes	1.01	Followers Density, followers/mi/ln	0.0
Vehicle LOS	A		

HCS7 Two-Lane Highway Report

Project Information

Analyst	BH	Date	06/03/2021
Agency	PDE	Analysis Year	2021
Jurisdiction	NYSDOT	Time Period Analyzed	Existing
Project Description	Vaadi Rd	Unit	United States Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	5280
Lane Width, ft	10	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	24	Opposing Demand Flow Rate, veh/h	24
Peak Hour Factor	0.90	Total Trucks, %	6.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	45.0
Speed Slope Coefficient	2.64625	Speed Power Coefficient	0.62255
PF Slope Coefficient	-1.16606	PF Power Coefficient	0.78506
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%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	-	-	45.0

Vehicle Results

Average Speed, mi/h	45.0	Percent Followers, %	6.1
Segment Travel Time, minutes	1.33	Followers Density, followers/mi/ln	0.0
Vehicle LOS	A		

HCS7 Two-Lane Highway Report

Project Information

Analyst	BH	Date	06/03/2021
Agency	PDE	Analysis Year	2021
Jurisdiction	NYSDOT	Time Period Analyzed	Proposed
Project Description	CR-125_Morris Tract Rd	Unit	United States Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	5280
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	3.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	12	Opposing Demand Flow Rate, veh/h	18
Peak Hour Factor	0.90	Total Trucks, %	5.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	56.4
Speed Slope Coefficient	3.25839	Speed Power Coefficient	0.63001
PF Slope Coefficient	-1.14499	PF Power Coefficient	0.82433
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%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	-	-	56.4

Vehicle Results

Average Speed, mi/h	56.4	Percent Followers, %	3.0
Segment Travel Time, minutes	1.06	Followers Density, followers/mi/ln	0.0
Vehicle LOS	A		

HCS7 Two-Lane Highway Report

Project Information

Analyst	BH	Date	06/03/2021
Agency	PDE	Analysis Year	2021
Jurisdiction	NYSDOT	Time Period Analyzed	Proposed
Project Description	NY-12	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	55	Access Point Density, pts/mi	3.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	389	Opposing Demand Flow Rate, veh/h	436
Peak Hour Factor	0.90	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.23

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	61.7
Speed Slope Coefficient	3.71648	Speed Power Coefficient	0.49123
PF Slope Coefficient	-1.24141	PF Power Coefficient	0.80151
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	2.9
%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	-	-	59.6

Vehicle Results

Average Speed, mi/h	59.6	Percent Followers, %	44.1
Segment Travel Time, minutes	1.01	Followers Density, followers/mi/ln	2.9
Vehicle LOS	B		

HCS7 Two-Lane Highway Report

Project Information

Analyst	BH	Date	06/03/2021
Agency	PDE	Analysis Year	2021
Jurisdiction	NYSDOT	Time Period Analyzed	Proposed
Project Description	NY-12E	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	528	Opposing Demand Flow Rate, veh/h	418
Peak Hour Factor	0.90	Total Trucks, %	9.96
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.31

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.2
Speed Slope Coefficient	3.09241	Speed Power Coefficient	0.49398
PF Slope Coefficient	-1.28705	PF Power Coefficient	0.76907
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	6.0
%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	-	-	48.2

Vehicle Results

Average Speed, mi/h	48.2	Percent Followers, %	54.5
Segment Travel Time, minutes	1.25	Followers Density, followers/mi/ln	6.0
Vehicle LOS	C		

HCS7 Two-Lane Highway Report

Project Information

Analyst	BH	Date	06/03/2021
Agency	PDE	Analysis Year	2021
Jurisdiction	NYSDOT	Time Period Analyzed	Proposed
Project Description	NY-180	Unit	United States Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	5280
Lane Width, ft	12	Shoulder Width, ft	5
Speed Limit, mi/h	55	Access Point Density, pts/mi	3.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	41	Opposing Demand Flow Rate, veh/h	44
Peak Hour Factor	0.90	Total Trucks, %	15.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	60.8
Speed Slope Coefficient	3.52048	Speed Power Coefficient	0.60540
PF Slope Coefficient	-1.14919	PF Power Coefficient	0.83253
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	-	-	60.8

Vehicle Results

Average Speed, mi/h	60.8	Percent Followers, %	7.7
Segment Travel Time, minutes	0.99	Followers Density, followers/mi/ln	0.1
Vehicle LOS	A		

HCS7 Two-Lane Highway Report

Project Information

Analyst	BH	Date	06/03/2021
Agency	PDE	Analysis Year	2021
Jurisdiction	NYSDOT	Time Period Analyzed	Proposed
Project Description	CR-159	Unit	United States Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	5280
Lane Width, ft	10	Shoulder Width, ft	4
Speed Limit, mi/h	55	Access Point Density, pts/mi	3.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	18	Opposing Demand Flow Rate, veh/h	18
Peak Hour Factor	0.90	Total Trucks, %	6.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

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Segment Vertical Class	1	Free-Flow Speed, mi/h	59.2
Speed Slope Coefficient	3.40835	Speed Power Coefficient	0.63001
PF Slope Coefficient	-1.13535	PF Power Coefficient	0.83295
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%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	-	-	59.2

Vehicle Results

Average Speed, mi/h	59.2	Percent Followers, %	3.9
Segment Travel Time, minutes	1.01	Followers Density, followers/mi/ln	0.0
Vehicle LOS	A		

HCS7 Two-Lane Highway Report

Project Information

Analyst	BH	Date	06/03/2021
Agency	PDE	Analysis Year	2021
Jurisdiction	NYSDOT	Time Period Analyzed	Proposed
Project Description	Vaadi Rd	Unit	United States Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	5280
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	45	Access Point Density, pts/mi	3.0

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PF Slope Coefficient	-1.16606	PF Power Coefficient	0.78506
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
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Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
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Vehicle Results

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Segment Travel Time, minutes	1.33	Followers Density, followers/mi/ln	0.0
Vehicle LOS	A		