

Shared Use Path Flow Analysis Tool

Trail Level of Service (LOS) Calculator

Draft Spreadsheet Based on Federal Highway Administration Shared Use Path Study
North Carolina State University and Toole Design Group

Trail LOS Scale	
LOS Score	LOS Grade
X≥4.0	A
3.5X<4.0	B
3.0X<3.5	C
2.5X<3.0	D
2.0X<2.5	E
X<2.0	F

ROW #1

Segment Name	Path Width	Centerline	Volume (users per hour in 1 direction) and Mode Split							User Perception		Delayed Passings Adjustment				Prelim LOS Score	Trail Level of Service	
			Closest 0.5 ft.	0=No Centerline	Volume	Mode Split (%)*						Score	Grade	Adj. Factor (subtract from User Percep. score)				LOS Score
Name	Width (ft)	1=Centerline	One-Way (per hour)	Adult Bicyclists	Pedestrians	Runners	In-Line Skaters	Child Bicyclists	All Modes	Score	Grade	Percent	# Per Hr	Pre Adj Fac	Fin Adj Fac	Prelim LOS Score	LOS Score	LOS Grade
Example Trail	11.0	1	155.4	55.0%	20.0%	10.0%	10.0%	5.0%	100.0%	3.47	C	#####	38.17	0.32	0.32	3.15	3.15	C

*Default mode split is 55% adult bicyclists, 20% pedestrians, 10% runners, 10% in-line skaters, and 5% child bicyclists.

[Click Here for Default Mode Split](#)

ROW #2

Segment Name	Path Width	Centerline	Volume (users per hour in 1 direction) and Mode Split							User Perception		Delayed Passings Adjustment				Prelim LOS Score	Trail Level of Service	
			Closest 0.5 ft.	0=No Centerline	Volume	Mode Split (%)*						Score	Grade	Adj. Factor (subtract from User Percep. score)				LOS Score
Name	Width (ft)	1=Centerline	One-Way (per hour)	Adult Bicyclists	Pedestrians	Runners	In-Line Skaters	Child Bicyclists	All Modes	Score	Grade	Percent	# Per Hr	Pre Adj Fac	Fin Adj Fac	Prelim LOS Score	LOS Score	LOS Grade
	14.0	1	147.0	55.0%	20.0%	10.0%	10.0%	5.0%	100.0%	3.79	B	#####	34.18	0.28	0.28	3.50	3.50	B

*Default mode split is 55% adult bicyclists, 20% pedestrians, 10% runners, 10% in-line skaters, and 5% child bicyclists.

[Click Here for Default Mode Split](#)

ROW #3

Segment Name	Path Width	Centerline	Volume (users per hour in 1 direction) and Mode Split							User Perception		Delayed Passings Adjustment				Prelim LOS Score	Trail Level of Service	
			Closest 0.5 ft.	0=No Centerline	Volume	Mode Split (%)*						Score	Grade	Adj. Factor (subtract from User Percep. score)				LOS Score
Name	Width (ft)	1=Centerline	One-Way (per hour)	Adult Bicyclists	Pedestrians	Runners	In-Line Skaters	Child Bicyclists	All Modes	Score	Grade	Percent	# Per Hr	Pre Adj Fac	Fin Adj Fac	Prelim LOS Score	LOS Score	LOS Grade
	8.0	0	1000.0	55.0%	20.0%	10.0%	10.0%	5.0%	100.0%	1.83	F	#####	768.07	6.40	1.50	0.33	0.33	F

*Default mode split is 55% adult bicyclists, 20% pedestrians, 10% runners, 10% in-line skaters, and 5% child bicyclists.

[Click Here for Default Mode Split](#)

ROW #4

Segment Name	Path Width	Centerline	Volume (users per hour in 1 direction) and Mode Split							User Perception		Delayed Passings Adjustment				Prelim LOS Score	Trail Level of Service	
			Closest 0.5 ft.	0=No Centerline	Volume	Mode Split (%)*						Score	Grade	Adj. Factor (subtract from User Percep. score)				LOS Score
Name	Width (ft)	1=Centerline	One-Way (per hour)	Adult Bicyclists	Pedestrians	Runners	In-Line Skaters	Child Bicyclists	All Modes	Score	Grade	Percent	# Per Hr	Pre Adj Fac	Fin Adj Fac	Prelim LOS Score	LOS Score	LOS Grade
	11.0	1	70.0	55.0%	20.0%	10.0%	10.0%	5.0%	100.0%	3.61	B	#####	7.60	0.06	0.06	3.54	3.54	B

*Default mode split is 55% adult bicyclists, 20% pedestrians, 10% runners, 10% in-line skaters, and 5% child bicyclists.

[Click Here for Default Mode Split](#)

ROW #5

Segment Name	Path Width	Centerline	Volume (users per hour in 1 direction) and Mode Split							User Perception		Delayed Passings Adjustment				Prelim LOS Score	Trail Level of Service	
			Closest 0.5 ft.	0=No Centerline	Volume	Mode Split (%)*						Score	Grade	Adj. Factor (subtract from User Percep. score)				LOS Score
Name	Width (ft)	1=Centerline	One-Way (per hour)	Adult Bicyclists	Pedestrians	Runners	In-Line Skaters	Child Bicyclists	All Modes	Score	Grade	Percent	# Per Hr	Pre Adj Fac	Fin Adj Fac	Prelim LOS Score	LOS Score	LOS Grade
	12.0	1	213.4	55.0%	20.0%	10.0%	10.0%	5.0%	100.0%	3.49	C	#####	70.97	0.59	0.59	2.90	2.90	D

*Default mode split is 55% adult bicyclists, 20% pedestrians, 10% runners, 10% in-line skaters, and 5% child bicyclists.

[Click Here for Default Mode Split](#)

MODEL ASSUMPTIONS

Trail volume represents the actual number of users counted in the field (the model adjusts this volume based on a peak hour factor of 0.85).
Bicyclists will pass all trail users that are traveling less than 12.8 miles per hour (average bicyclist speed)