

Appendix E. PEDIndex Methodology

Table E-1 summarizes the eighteen indicators selected to estimate potential walking activity.

Table E-1: Table of Ped INDEX Variables and Weightings

Variable	Score	Rating	Processing Steps	Weighting
Population Density (per acre)	0 – 3	0	Calculate population density per census tract	9/100
	3 - 6	20	Assign value to street centerline file	
	6- 9	40		
	9 - 12	60		
	12 - 15	80		
	15 +	100		
Employment Density (per acre)	0 – 3	0	Calculate employment density per census tract	9/100
	3 - 6	20	Assign value to street centerline file	
	6- 9	40		
	9 - 12	60		
	12 - 15	80		
	15 +	100		
Land Use Mix	1	0	Aggregate zoning to 6 types in new field	9/100
	2	25	Assign a value based on number of land use types	
	3	50	per census tract	
	4	75		
	5 +	100		
	Proximity			
Parks (distance in feet)	0 - 330	100	Using street centerline file and spatial selection	4/100
	330 - 660	75	buffer, assign a value based on distance to nearest	
	660 - 1320	50	park	
	1320 - 2640	25		
	2640 +	0		
Social and Recreational Destinations (distance in feet)	0 - 330	100	Using street centerline file and spatial selection	3/100
	330 - 660	75	buffer, assign a value based on distance to nearest	
	660 - 1320	50	senior center or other major recreational	
	1320 - 2640	25	destination	
	2640 +	0		
Schools (distance in feet)	0 - 330	100	Using street centerline file and spatial selection	5/100
	330 - 660	75	buffer, assign a value based on distance to nearest	
	660 - 1320	50	school	
	1320 - 2640	25		
	2640 +	0		
Bus Transit stops (distance in feet)	0 - 330	100	Using street centerline file, assign a value based on	4/100
	330 - 660	60	distance to nearest bus stop up to ¼ mile	
	660 - 1320	30		
	1320 +	0		
Rail Transit stops (distance in feet)	0 - 330	100	Using street centerline file, assign a value based on	6/100
	330 - 660	75	distance to nearest rail stop, up to ½ mile	
	660 - 1320	50		
	1320 - 2640	25		
	2640 +	0		
Employment Centers (distance in feet)	0-400	100	Using street centerline file, assign a value based on	5/100
	400 +	0	streets within 400 ft of a employment center	
Neighborhood/ Downtown Shopping	0 - 400	100	Using street centerline file, assign a value based on	5/100
	400 – 2640	50	streets within 400 ft of a commercial area, within ½	

Appendix E | High Visibility Crosswalk and Pedestrian Scale Lighting Locations

Variable	Score	Rating	Processing Steps	Weighting
Districts (distance in feet)	2640 +	0	mile, and then everything which does not fall within these two areas.	
Senior Residences (distance in feet)	0 - 330	100	Using street centerline file and spatial selection buffer, assign a value based on distance to nearest senior residence	5/100
	330 - 660	75		
	660 - 1320	50		
	1320 - 2640	25		
	2640 +	0		
Socio-Economic				
Age (% under 18 and over 55)	0 - 30	0	Calculate percentage of walking age population (below 18 or over 55)	5/100
	30 - 35	25		
	35 - 40	50	Assign percentage to street centerline file	
	40 - 43	75		
	43+	100		
Income (% below poverty level)	0 - 2	0	Calculate percentage of population with income below poverty level (according to US Census Bureau definition)	5/100
	2 - 4	20		
	4 - 5	40	Assign percentage to street centerline file	
	5 - 8	60		
	8 - 11	80		
	11 +	100		
Vehicle accessibility (% households with 1 or less vehicles)	0 - 10	0	Calculate percentage of households with access to 1 or less vehicles	5/100
	10 - 20	20		
	20 - 30	40	Assign percentage to street centerline file	
	30 - 40	60		
	40 - 50	80		
	50 +	100		
Priority Development Areas	In corridor	100	Using street centerline file, assign a value based on streets within corridor and not in corridor	3/100
	Not in Corridor	0		
Street Permeability / Accessibility				
Block Length	0 - 300	100	Select street segments that are pedestrian accessible (exclude highway segments where pedestrians cannot walk)	4/100
	300 - 600	75		
	600 - 900	50	Calculate street segment length	
	900 - 1200	25	Assign values based on scoring criteria	
	1200 +	0		
Intersection Density (per square mile)	200 +	100	Calculate average number of intersections per square mile for each census tract	12/100
	150 - 200	75	Assign value to street centerline file	
	100 - 150	50		
	50 - 100	25		
	< 50	0		
Street Connectivity (connectivity score)	Cul-de-sac	0	Calculate intersection junctions with 1 or less connected ends	2/100
	Street connected both ends	100	Assign score to cul de sac and connected streets	
	1320 - 2640	25		
	2640 +	0		

Source: Fehr & Peers, 2011