

Pedestrian and Bicycle Prioritization Criteria

This criteria provides a data driven approach to selecting projects based on priorities identified in approved plans, infrastructure that provides access to priority destinations and crash history.

This process provides the first step in identifying corridors that should be considered for bicycle and/or pedestrian improvements. There are many other conditions that need to be considered by the Transportation Commission in the final selection of corridors and ultimately in project design. The Transportation Commission should also consider project distribution (environmental justice areas), equity, opportunities for parallel routes, grant funding opportunities and available funding in final project selection.

Staff used the following considerations for developing the attached criteria to be used in a prioritization system:

- Using clear measurable criteria to highlight Pedestrian/Bicycle Task Force priority areas.
- Using easily obtainable data from previous plans, studies and current GIS data.
- Recognizing that an annual allocation of pedestrian funds would need to be set-aside for ADA ramps. All ramps would be prioritized separately using the pedestrian criteria.

Pedestrian Prioritization

Criteria for prioritizing pedestrian infrastructure projects is broken into three areas: 1. Priority Networks (5 max points) 2. Pedestrian Access to Priority Destinations (5 max points) and 3. Safety (20 max points). Safety is weighted the highest.

1. Priority Networks

Projects that improve connectivity along priority networks recognized in adopted plans have the highest weight. This criteria recognizes the [Regional Pedestrian Plan](#) Priority network and the priority network from the [Ped Bike Issues Taskforce Report](#). Safe Routes to School Routes are the highest priority, followed by Arterial and Collector Streets without sidewalks on either side followed by Arterial Streets, Collector Streets and finally Local streets.

2. Pedestrian Access to Priority Destinations

Projects within closer proximity to priority destinations receive higher priority to promote access around high demand pedestrian destinations. This score is symbolized on a map produced by creating buffers (based on the pedestrian network routing) of identified locations.

3. Safety

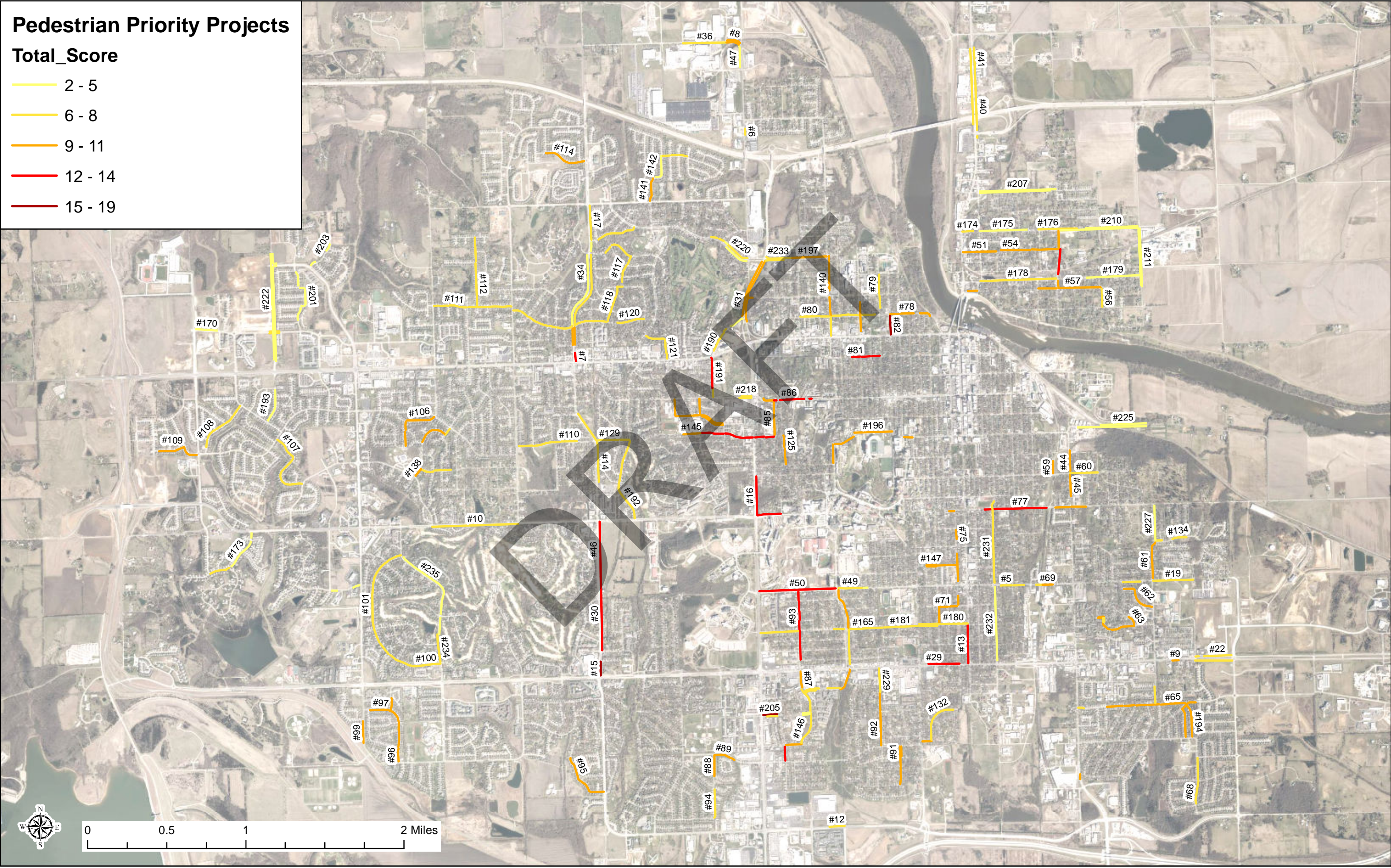
Projects that address and improve locations with pedestrian crash histories have the highest priority. Higher volume roadways have greater priority as well as projects that improve crossing on roadways over 15,000 AADT. *Note: The draft scores provided on 9-8-17 do not include points for crossing improvements.*

Pedestrian Infrastructure Prioritization Criteria		Points
1	Priority Network (select one, max 5 pts)	
	Safe Routes to School Route	5
	Arterial/Collector Street Classification of Roadway and/or Parallel Roadway for Off-Road Facilities with no sidewalks on either side	4
	Arterial Street Classification of Roadway and/or Parallel Roadway for Off-Road Facilities	3
	Collector Street Classification of Roadway and/or Parallel Roadway for Off-Road Facilities	2
	Local Street Classification of Roadway and/or Parallel Roadway for Off-Road Facilities	1
2	Pedestrian Access to Priority Destinations (select one, max 5 pts)	
	Within ¼ mi of school or 1/8 mi of transit stop	5
	Within ½ mi of school, ¼ mi of transit stop, , ¼ mi of neighborhood or community retail (includes grocery store, farmers market and retail food outlets), 1/8 mi of park, 1/8 mi of library, or 1/8 of post office	3
	Farther than ½ mi of school, ¼ mi of transit stop, ¼ of neighborhood or community retail, 1/8 mi of park, 1/8 mi of library, or 1/8 mi of post office	1
3	Safety - Crash History (select all that apply, max 12 pts)	
	Project addresses reported pedestrian-related crash in the last five years (3 pts per crash -max 12)	12
	Safety - Roadway Volume (select one, max 5 pts)	
	Project on a road that has over 25,000 AADT on roadway	5
	Project on a road that has over 20,000 AADT on roadway	3
	Project on a road that has over 15,000 AADT on roadway	1
	Safety - Crossing (max 3 pts)	
	Project adds crossing improvements on a road over 15,000 AADT	3
Max Points - 30		

Pedestrian Priority Projects

Total_Score

- 2 - 5
- 6 - 8
- 9 - 11
- 12 - 14
- 15 - 19



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Map#	Road	From	To	Network_Score	PedAccess_Score	Crash_Score	AADT_Score	Crossing_Score	Total_Score
205	W 25th St	Iowa St	Ridge Ct	2	5	12	0	0	19
15	Kasold Dr	Clinton Pkwy	W 22nd Ter	3	5	3	5	0	16
82	Mississippi St	W 5th St	W 6th St	5	5	6	0	0	16
7	Kasold Dr	W 6th St	Westridge Dr	3	5	6	0	0	14
16	Iowa St	15th St/Bob Billings Pkwy	University Dr	3	3	3	5	0	14
30	Kasold Dr	W 22nd St	Tam O'Shanter Dr	3	3	3	5	0	14
50	W 19th St	Iowa St	Naismith Dr	3	5	6	0	0	14
195	W 15th St	Engel Rd	Iowa St	2	5	6	1	0	14
28	W 23rd St	Tennessee St	Vermont St	3	5	0	5	0	13
29	W 23rd St	Ohio St	Tennessee St	3	5	0	5	0	13
46	Kasold Dr	Tam O'Shanter Dr	Bob Billings Pkwy	3	5	0	5	0	13
52	Ridge Ct	W 26th St	W 27th St	5	5	3	0	0	13
77	E 15th St	Rhode Island St	240 LF West of Hanscom St	5	5	3	0	0	13
81	W 7th St	Missouri St	Illinois St	5	5	3	0	0	13
86	W 9th St	Hilltop Dr	400 LF West of Avalon Rd	5	5	0	3	0	13
93	Ousdahl Rd	W 19th Ter	W 22nd Ter	5	5	3	0	0	13
143	N 7th St	Lincoln St	Locust St	5	5	3	0	0	13
144	Harvard Rd	Crestline Dr	Iowa St	5	5	3	0	0	13
177	N 7th St	Lincoln St	Maple St	5	5	3	0	0	13
191	Rockledge Rd	W 6th St	National Ln	2	5	6	0	0	13
236	Ousdahl	W 19th St	W 19th Ter	2	5	6	0	0	13
13	Massachusetts St	21st St	23rd St	3	3	6	0	0	12
9	E 23rd St	West of Anderson Rd		3	5	0	3	0	11
11	Haskell Ave	E 12th St	85 LF North of E 12th St	3	5	0	3	0	11
26	W 9th St	Highland Dr	Hilltop Dr	3	5	0	3	0	11
44	Haskell Ave	E 12th St	E 13th St	3	5	0	3	0	11
45	Haskell Ave	E 13th St	E 14th St	3	5	0	3	0	11
95	Winterbrook Dr	450 LF South of W 25th Ter	Kasold Dr	5	3	3	0	0	11
27	McDonald Dr	Princeton Blvd/W 2nd St	Bluffs Dr	4	3	0	3	0	10
31	McDonald Dr	Princeton Blvd/W 2nd St	Bluffs Dr	4	3	0	3	0	10
51	Lincoln St	N 2nd St	N 4th St	5	5	0	0	0	10
53	Yale Road	Centennial Dr	Crestline Dr	5	5	0	0	0	10
54	Lincoln St	N 4th St	N 7th St	5	5	0	0	0	10
55	N 7th St	Lincoln St	Lyon St	5	5	0	0	0	10
57	Elm St	N 6th St	N 8th St	5	5	0	0	0	10
58	Elm St	200 LF East of N 2nd St	N 3rd St	5	5	0	0	0	10
59	Oregon St	E 13th St	260 LF South of E 12th St	5	5	0	0	0	10
61	Harper St	E 19th St	E 17th St	5	5	0	0	0	10

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62	Davis Rd	Clare Rd	Harper St	5	5	0	0	0	10
63	Maple Ln	E 21st Ter	280 LF South of Clare Rd	5	5	0	0	0	10
64	E 21st Ter	140 LF South of E 21st St	Maple Ln	5	5	0	0	0	10
65	E 25th Ter	Ponderosa Dr	150 LF West of Carlton Dr	5	5	0	0	0	10
66	Hampton St	Kensington Rd	Mayfair Dr	5	5	0	0	0	10
67	Mayfair Dr	Hampton St	E 27th St	5	5	0	0	0	10
69	E 19th St	Villo Woods Ct (Private)	Moodie Rd	5	5	0	0	0	10
70	Vermont St	150 LF North of W 19th St	250 LF South of W 17th St	5	5	0	0	0	10
71	W 20th St	Tennessee St	Vermont St	5	5	0	0	0	10
72	Tennessee St	W 21st St	W 20th St	5	5	0	0	0	10
73	Vermont St	W 20th St	340 LF South of W 19th St	5	5	0	0	0	10
74	W 18th St	Tennessee St	Vermont St	5	5	0	0	0	10
75	Vermont St	250 LF North of W 17th St	W 16th St	5	5	0	0	0	10
76	W 15th St	150 LF East of Kentucky St	Vermont St	5	5	0	0	0	10
78	W 5th St	Mississippi St	Tennessee St	5	5	0	0	0	10
83	Michigan St	W 5th St	W 4th St	5	5	0	0	0	10
84	Michigan St	W 3rd St	W 2nd St	5	5	0	0	0	10
85	Hilltop Dr	Harvard Rd	W 9th St	5	5	0	0	0	10
87	Ousdahl Rd	W 23rd St	W 24th St	5	5	0	0	0	10
88	Crestline Dr	Crestline Ct	W 27th St	5	5	0	0	0	10
89	W 27th St	Crestline Dr	100 LF East of Chipperfield Rd (Private)	5	5	0	0	0	10
90	Belle Haven Dr	W 27th Ter	W 29th St	5	5	0	0	0	10
91	Belle Haven Drive	W 27th St	W 27th Ter	5	5	0	0	0	10
92	Alabama St	Jasu Dr	W 27th St	5	5	0	0	0	10
96	Scottsdale St	W 25th St	W 27th St	5	5	0	0	0	10
97	W 24th St	Via Linda Dr	W 25th St	5	5	0	0	0	10
98	Ranch St	W 24th St	Ranch Way (Private)	5	5	0	0	0	10
99	Wakarusa Dr	Stoneback Dr	440 LF North of W 27th St	5	5	0	0	0	10
104	Oak Tree Dr	Woodland Dr	Goldfield St	5	5	0	0	0	10
105	Wildwood Dr	Woodland Dr	Grove Dr	5	5	0	0	0	10
106	Grove Dr	Wildwood Dr	Harvard Rd	5	5	0	0	0	10
109	Palisades Dr	Silver Rain Rd	George Williams Way	5	5	0	0	0	10
114	Tillerman Dr	Eagle Pass Dr	N Kasold Dr	5	5	0	0	0	10
123	Yale Rd	Schwarz Rd	Crestline Dr	5	5	0	0	0	10
124	Schwarz Rd	W 9th St	Yale Rd	5	5	0	0	0	10
125	Sunset Dr	Harvard Rd	Stratford Rd	5	5	0	0	0	10
130	W 26th St	Ousdahl	Ridge Ct	5	5	0	0	0	10
131	Park Hill Ter	Louisiana Street	Kansas St	5	5	0	0	0	10
135	E 21st Street	Miller Dr	E 21st Ter	5	5	0	0	0	10
137	Haskell Ave	E 28th Ter	260 LF North of E 29th St	5	5	0	0	0	10
138	Oak Tree Dr	Inverness Dr	W 12th St	5	5	0	0	0	10
139	N 7th St	Locust St	Elm St	5	5	0	0	0	10
140	Michigan St	W 4th St	W 3rd St	5	5	0	0	0	10

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141	Arrowhead Dr	Peterson Rd	Brett Dr	5	5	0	0	0	10
145	Harvard Rd	570 LF West of Crestline Dr	Crestline Dr	5	5	0	0	0	10
147	W 18th St	Ohio St	Tennessee St	5	5	0	0	0	10
148	E 15th St	Hanscom Rd	Haskell Ave	5	5	0	0	0	10
149	E 15th St	Haskell Ave	Maple Ln	5	5	0	0	0	10
152	W 15th St	Midblock W 15th St between Kentucky St and Vermont St	Vermont St	5	5	0	0	0	10
162	Naismith Dr	W 19th St	W 19th Ter	2	5	3	0	0	10
163	Naismith Dr	W 19th Ter	W 20th St	2	5	3	0	0	10
164	Naismith Dr	W 20th St	W 21st St	2	5	3	0	0	10
184	Naismith Dr	W 24th St	W 23rd St	2	5	3	0	0	10
187	Crestline Dr	W 9th St	Yale Rd	2	5	3	0	0	10
194	Kensington Rd	Hampton St	E 27th St	2	5	3	0	0	10
196	Fambrough Dr, W 1	Mississippi St	Stratford	2	5	3	0	0	10
197	W 2nd St	Mount Hope Ct	Michigan St	2	5	3	0	0	10
198	W 4th St	McDonald Dr	Northwood Ln	2	3	0	5	0	10
199	Maine St	W 6th St	W 4th St	2	5	3	0	0	10
200	W 11th St	Indiana St	Louisiana St	2	5	3	0	0	10
8	Lakeview Rd	N Iowa St	Timberledge Rd	4	5	0	0	0	9
32	Kasold Dr	W 5th Ter	Trail Rd	4	5	0	0	0	9
33	Kasold Dr	W 5th Ter	Trail Rd	4	5	0	0	0	9
48	Lakeview Rd	Timberledge Rd	City Limits	4	5	0	0	0	9
2	E 19th St	Clare Rd	Edgelea Rd	3	5	0	0	0	8
3	E 19th St	Delaware St	340 LF West of Moodie Rd	3	5	0	0	0	8
4	E 19th St	Learnard Ave	Delaware St	3	5	0	0	0	8
5	E 19th St	Barker Ave	Learnard Ave	3	5	0	0	0	8
6	N Iowa St	South of Riverridge Rd		3	5	0	0	0	8
10	Bob Billings Pkwy	Inverness Dr	Monterey Way	3	5	0	0	0	8
19	E 19th St	Harper St	Brookwood Mobile Home Park	3	5	0	0	0	8
35	Kasold Dr	Trail Rd	Tomahawk Dr	4	1	3	0	0	8
36	Lakeview Rd	N Iowa St	Timberledge Rd	3	5	0	0	0	8
49	W 19th St	Naismith Dr	Maine St	3	5	0	0	0	8
56	N 8th St	Elm St	Walnut St	5	3	0	0	0	8
60	E 13th St	Haskell Ave	Brook St	5	3	0	0	0	8
68	Kensington Rd	E 28th St	E 30th St	5	3	0	0	0	8
79	Illinois St	W 5th St	W 3rd St	5	3	0	0	0	8
80	W 5th St	Wisconsin St	180 LF West of Alabama St	5	3	0	0	0	8
94	Crestline Dr	W 30th St	Crestline Pl	5	3	0	0	0	8
100	Wimbledon Dr	Killarney Ct	Inverness Dr	5	3	0	0	0	8
101	Carmel Dr	Inverness Dr	Killarney Ct	5	3	0	0	0	8
107	Stonecreek Dr	Harvard Rd	Legends Dr	5	3	0	0	0	8
108	April Rain Rd	Harvard Rd	Stoneridge Dr	5	3	0	0	0	8
110	Harvard Rd	Monterey Way	Randall Rd	5	3	0	0	0	8

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111	Trail Rd	Folks Rd	Monterey Way	5	3	0	0	0	8
113	Trail Rd	Monterey Way	Kasold Dr	5	3	0	0	0	8
116	Creekwood Dr	Glenview Dr	Princeton Blvd	5	3	0	0	0	8
118	Rockfence Pl	Trail Rd	Riverview Rd	5	3	0	0	0	8
119	Trail Rd	Kasold Dr	Rockfence Pl	5	3	0	0	0	8
120	Trail Rd	290 LF West of Millstone Dr	Settlers Dr	5	3	0	0	0	8
121	Schwarz Rd	Lawrence Ave	W 6th St	5	3	0	0	0	8
126	Tomahawk Dr	Rockfence Pl	Bighorn Ct	5	3	0	0	0	8
132	Kansas St	Park Hill Ter	Montana St	5	3	0	0	0	8
133	E 17th St	Harper St	Powers St	5	3	0	0	0	8
136	E 21st Ter	E 21st St	120 LF South of E 21st St	5	3	0	0	0	8
146	Ousdahl Rd	W 24th St	W 26th St	5	3	0	0	0	8
156	Princeton Blvd	Kingston Dr	Yorkshire Dr	5	3	0	0	0	8
167	E 25th Ter	East of Haskell Ave	<Null>	2	3	3	0	0	8
14	Kasold Dr	Yale Rd	W 14th St	3	1	0	3	0	7
20	E 23rd St	O'Connell Rd	FF St	4	3	0	0	0	7
21	E 23rd St	O'Connell Rd	FF St	4	3	0	0	0	7
22	E 23rd St	O'Connell Rd	280 LF East of FF St	4	3	0	0	0	7
38	N 3rd St	KTA Entrance Rd	City Limits	4	3	0	0	0	7
39	N 3rd St	KTA Entrance Rd		3	3	0	1	0	7
40	N 3rd St	KTA Entrance Rd		4	3	0	0	0	7
41	N 3rd St	KTA Entrance Rd	City Limits	4	3	0	0	0	7
42	N 3rd St	KTA Entrance Rd		4	3	0	0	0	7
150	Rockledge Rd	W 9th St	National Ln	2	5	0	0	0	7
151	Lyon St	N 7th St	600 LF East of N 7th St	2	5	0	0	0	7
153	W 2nd St	McDonald Dr	Mount Hope Ct	2	5	0	0	0	7
157	Naismith Dr	W 22nd Ter	W 23rd St	2	5	0	0	0	7
158	W 21st St	Naismith Dr	Mitchell Rd	2	5	0	0	0	7
159	W 21st St	Owens Ln	Carolina St	2	5	0	0	0	7
160	Naismith Dr	W 22nd St	W 22nd Ter	2	5	0	0	0	7
161	Naismith Dr	W 21st St	W 22nd St	2	5	0	0	0	7
165	W 21st St	Mitchell Rd	Owens Ln	2	5	0	0	0	7
166	Harper St	E 24th St	E 25th Ter	2	5	0	0	0	7
168	Overland Dr	North of Queens Rd	<Null>	2	5	0	0	0	7
169	Overland Dr	South of Queens Rd	<Null>	2	5	0	0	0	7
174	Lyon St	N 2nd St	N 3rd St	2	5	0	0	0	7
176	Lyon St	N 6th St	N 7th St	2	5	0	0	0	7
178	Locust St	N 3rd St	N 7th St	2	5	0	0	0	7
180	W 21st St	Tennessee St	Massachusetts St	2	5	0	0	0	7
181	W 21st St	Carolina St	Louisiana St	2	5	0	0	0	7
182	W 21st St	Iowa St	Ousdahl Rd	2	5	0	0	0	7
183	W 21st St	Emerald Dr	Naismith Dr	2	5	0	0	0	7
185	W 24th St	Eddingham Dr	Naismith Dr	2	5	0	0	0	7
186	W 24th St	94 LF West of Eddingham Dr	Eddingham Dr	2	5	0	0	0	7
188	Rockledge Rd	East of Country Club Ter	<Null>	2	5	0	0	0	7

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189	Rockledge Rd	East of Country Club Ter	<Null>	2	5	0	0	0	7
190	Rockledge Rd	East of Country Club Ter	<Null>	2	5	0	0	0	7
192	Lawrence Ave	Harvard Rd	Bob Billings Pkwl	2	5	0	0	0	7
206	W 25th St	Iowa St	Ridge Ct	2	5	0	0	0	7
213	W 21st St	Tennessee St	Louisiana St	2	5	0	0	0	7
214	W 21st St	Tennessee St	Louisiana St	2	5	0	0	0	7
215	W 24th St	Ousdahl Rd	94 LF West of Eddingham Dr	2	5	0	0	0	7
216	W 24th St	Ousdahl Rd	Eddingham Dr	2	5	0	0	0	7
218	W 9th St	West of Iowa St	<Null>	2	5	0	0	0	7
219	W 9th St	West of Iowa St	<Null>	2	5	0	0	0	7
220	Princeton Blvd	Providence Rd	Iowa St	2	5	0	0	0	7
228	Michigan St	W 6th St	W 5th St	2	5	0	0	0	7
229	Alabama St	W 23rd St	Jasu Dr	2	5	0	0	0	7
231	Barker Ave	E 14th St	E 19th St	2	5	0	0	0	7
233	W 2nd St	McDonald Dr	Mount Hope Ct	2	5	0	0	0	7
234	Inverness Dr	Wimbledon Dr	2012 Inverness Dr	2	5	0	0	0	7
12	W 31st St	East of Ousdahl Rd		3	3	0	0	0	6
17	N Kasold Dr	Creekwood Dr	Peterson Rd	3	3	0	0	0	6
102	W 12th St	Oak Tree Dr	Wagon Wheel Rd	5	1	0	0	0	6
103	Goldfield St	Oak Tree Dr	Harvard Rd	5	1	0	0	0	6
112	Sharon Dr	Springhill Dr	Trail Rd	5	1	0	0	0	6
115	Brett Dr	Brentwood Dr	Stowe Ct	5	1	0	0	0	6
117	Rockfence Pl	Riverview Rd	Tomahawk Dr	5	1	0	0	0	6
122	Princeton Blvd	340 LF East of Yorkshire Dr	240 LF West of Kingston Dr	5	1	0	0	0	6
127	Riverview Rd	Rockfence Pl	Rockfence Pl	5	1	0	0	0	6
128	Bobwhite Dr	George Williams Way	Lake Alvamar Dr	5	1	0	0	0	6
129	Harvard Rd	Kasold Dr	Lawrence Ave	5	1	0	0	0	6
134	E 17th St	Irving Dr	Lindenwood Ln	5	1	0	0	0	6
34	Kasold Dr	Trail Rd	Tomahawk Dr	4	1	0	0	0	5
154	Rockledge Rd	East of Country Club Ter	<Null>	2	3	0	0	0	5
155	Rockledge Rd	East of Country Club Ter	McDonald Dr	2	3	0	0	0	5
170	Overland Dr	George Williams Way	Chimney Rocks Cir	2	3	0	0	0	5
171	W 18th St	Wakarusa Dr	Corporate Centre Dr	2	3	0	0	0	5
172	W 18th St	East of Research Park Dr	<Null>	2	3	0	0	0	5
175	Lyon St	N 3rd St	N 5th St	2	3	0	0	0	5
193	Branchwood Dr	Stoneridge Dr	Stonecreek Dr	2	3	0	0	0	5
201	Eisenhower Dr	Eisenhower Ter	Campbell Pl	2	3	0	0	0	5
204	E 11th St	Haskell Ave	750 LF West of Haskell	2	3	0	0	0	5
207	North St	N 3rd St	N 7th St	2	3	0	0	0	5
208	North St	N 3rd St	N 7th St	2	3	0	0	0	5
209	Lyon St	N 7th St	N 9th St	2	3	0	0	0	5
217	W 25th St	Ousdahl Rd	Cedarwood Ave	2	3	0	0	0	5
221	Princeton Blvd	Providence Rd	Iowa St	2	3	0	0	0	5
224	E 11th St	E 11th St	East City Limits	2	3	0	0	0	5
225	E 11th St	E 11th St	East City Limits	2	3	0	0	0	5

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226	Princeton Blvd	Kingston Dr	Providence Rd	2	3	0	0	0	5
227	Harper St	E 15th St	E 17th St	2	3	0	0	0	5
230	W 25th St	Ousdahl Rd	Cedarwood Ave	2	3	0	0	0	5
232	Barker Ave	W 19th St	E 23rd St	2	3	0	0	0	5
18	N Kasold Dr	Tomahawk Dr	Creekwood Dr	3	1	0	0	0	4
23	E 1000 Rd	Wakarusa Dr	City Limits	3	1	0	0	0	4
24	E 1000 Rd	Wakarusa Dr	City Limits	3	1	0	0	0	4
25	W 19th St	Maine St	Maine St	3	1	0	0	0	4
37	Wakarusa Dr	East of Queens Rd		3	1	0	0	0	4
43	Wakarusa Dr	East of Queens Rd		3	1	0	0	0	4
47	N Iowa St	Packer Rd	Lakeview Rd	3	1	0	0	0	4
173	Bobwhite Dr	Lake Alvamar Dr	Bob Billings Pkwl	2	1	0	0	0	3
179	Locust St	N 8th St	N 9th St	2	1	0	0	0	3
202	Dole Dr	Wakarusa Dr	Earhart Cir	2	1	0	0	0	3
203	Dole Dr	North of Earhart Cir	<Null>	2	1	0	0	0	3
210	Lyon St	450 LF West of N 8th St	N 9th St	2	1	0	0	0	3
211	N 9th St	Lyon St	Elm St	2	1	0	0	0	3
212	N 9th St	Lyon St	Elm St	2	1	0	0	0	3
222	Queens Rd	W 6th St	North City Limits	2	1	0	0	0	3
223	Queens Rd	W 6th St	North City Limits	2	1	0	0	0	3
235	Inverness Dr	Carmel Dr	2012 Inverness Dr	2	1	0	0	0	3
142	Brentwood Drive	Brett Dr	Arrowhead Dr	1	1	0	0	0	2

Bikeway Prioritization

Criteria for prioritizing bicycle infrastructure projects is broken into three areas: 1. Adopted Plan Priorities (5 max points) 2. Bicycle Demand (5 max points) and 3. Safety (20 max points). Safety is weighted the highest.

1. Adopted Plan Priorities

Projects that improve connectivity along networks recognized in adopted plans have the highest weight. This criteria recognizes the priority network from the [Ped Bike Issues Taskforce Report](#) and the [Countywide Bikeway Plan](#).

2. Bicycle Demand Model

A scoring system for mapping bicycled demand first provided to the MPO by URS consulting firm. GIS data provided by the consultant included the scores for various buffer distances to five different factors, listed below. The URS model did not include documentation. Therefore, city staff “reverse engineered” this data and scoring documentation and methodology.

The scoring system ranks areas based on 5 proximity factors: High density housing, medium density, K-12 schools, college/university, existing bike infrastructure.

Proximity Factors

High-Density Housing

A buffer of high-density housing. High-density housing as defined in the updated comprehensive plan is greater than or equal to 16 people per acre. The GIS model uses the latest TAZ boundary and population data to determine. Scores in this category carry a higher weight because of higher population.

Medium-Density Housing

A buffer of medium-density housing. Medium density housing as defined in the updated comprehensive plan is greater than or equal to 7 people per acre and less than 16 people per acre. The GIS model uses the latest TAZ boundary and population data to determine. Scores in this category carry a lesser weight than high-density housing.

Schools K-12

A buffer distance from the property boundaries of public and private kindergarten through 12th grade. The GIS model uses the Schools and Parcels layer to determine.

College / University

A buffer distance from college / university boundaries. The GIS model uses the University layer to determine.

Existing Shared Use Path or Bike Lane

A buffer distance from existing shared use path and bike lane infrastructure. The GIS model uses Shared Use Paths and Bike Lane line layers to determine.

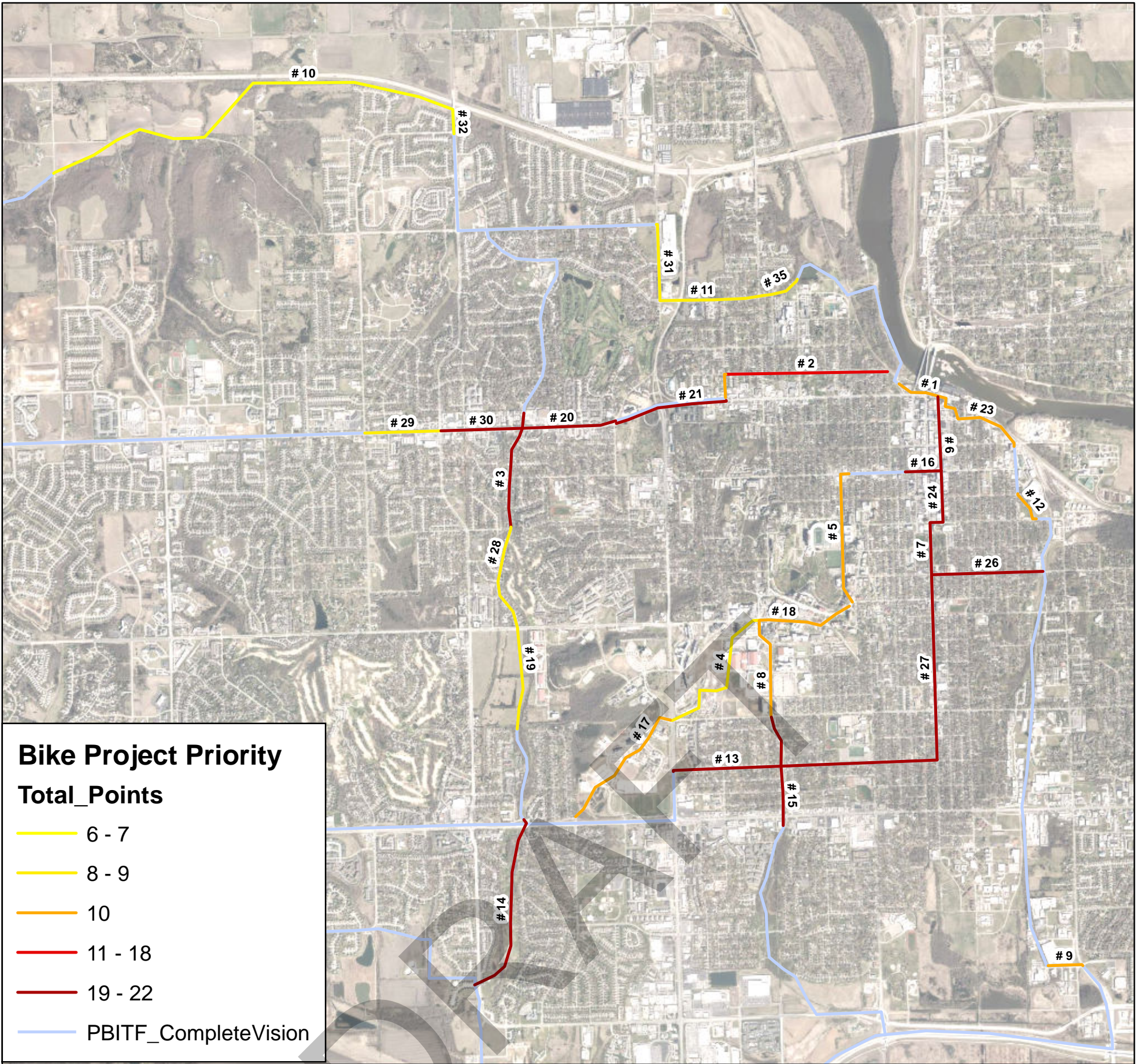
(The possible range of scores with the bicycle demand model are 0 to 81)

Factor	Score
High Density Housing	
within 0.25 mile	16
within 0.5 mile	12
within 1 mile	8
within 2 miles	4
Medium Density Housing	
within 0.25 mile	9
within 0.5 mile	7
within 1 mile	3
within 2 miles	2
Schools K-12	
within 0.25 mile	18
within 0.5 mile	14
within 1 mile	6
within 2 miles	2
College/University	
within 0.25 mile	20
within 0.5 mile	18
within 1 mile	15
within 2 miles	7
Existing Shared Use Path / Bike Lane	
within 0.25 mile	18
within 0.5 mile	14
within 1 mile	6
within 2 miles	2

3. Safety

Projects that address and improve locations with bicycle crash histories have the highest priority. Higher volume roadways have greater priority as well as projects that improve crossing on roadways over 15,000 AADT. *Note: The draft scores provided on 9-8-17 do not include points for crossing improvements.*

Bicycle Infrastructure Prioritization Criteria		Points
1	Adopted Plan Priorities (select one, max 5 pts)	
	Along the Ped/Bike Issues Taskforce Report Long Term Bikeway Priority Network	5
	Along network identified in approved Countywide Bikeway Plan	4
	Arterial/Collector with no Shared Use Path	3
2	Bicycle Demand (select one, max 5 pts)	
	<i>Bicycle demand is calculated on the bicycle demand heat map which is a prioritization score based on proximity to housing density, K-12 private/public schools, college/university and existing bikeway infrastructure.</i>	
	score greater than 66 up to 81	5
	score greater than 49 up to 65	4
	score greater than 33 up to 49	3
	score greater than 17 up to 33	2
	score greater than 0 up to 17	1
3	Safety - Crash History (select all that apply, max 12 pts)	
	Project addresses reported bicycle-related crash in the last five years (3 pts per crash -max 12)	12
	Safety - Roadway Volume (select one, max 5 pts)	
	Project on a road that has over 25,000 AADT on roadway	5
	Project on a road that has over 20,000 AADT on roadway	3
	Project on a road that has over 15,000 AADT on roadway	1
	Safety - Crossing (max 3 pts)	
	Project adds crossing improvements on a road over 15,000 AADT	3
Max Points - 30		



FID*	FULLNAME	AppPlan_Points	BikeDemand_Points	CrashHist_Points	AADT_points	Crossing_Points	Total_Points
7	Massachusetts Street - at South Park	5	5	12	1	0	22
13	21st Street	5	5	12	0	0	22
15	Naismith Drive - 19th to 23rd	5	5	12	0	0	22
16	9th Street - Downtown	5	5	12	3	0	22
21	6th Street - at low a	5	5	12	3	0	22
27	Massachusetts Street - 13th to 21st	5	5	12	1	0	22
3	Lawrence Ave - Mesa to Harvard	5	4	12	0	0	21
14	Meadows Drainage Area	5	4	12	0	0	21
20	6th Street - Kasold to Rockledge	5	4	12	5	0	21
30	6th Street - Kasold to Lawrence	5	4	12	5	0	21
6	New Hampshire Street - 6th to 9th	5	5	9	0	0	19
24	New Hampshire Street - 9th to 11th	5	5	9	3	0	19
25	11th Street	5	5	9	0	0	19
26	13th Street	5	5	9	0	0	19
2	5th Street	5	4	9	0	0	18
1	Lawrence Loop D	5	5	0	0	0	10
5	Mississippi St	5	5	0	0	0	10
8	Naismith Drive - On KU Campus	5	5	0	0	0	10
9	29th Street	5	5	0	0	0	10
12	Lawrence Loop F	5	5	0	0	0	10
17	KU West Campus	5	5	0	0	0	10
18	KU Main Campus	5	5	0	0	0	10
22	Wisconsin Street	5	5	0	0	0	10
23	Lawrence Loop E	5	5	0	0	0	10
33	9th Street - at Mississippi	5	5	0	5	0	10
34	KU - Mississippi to Jayhawk	5	5	0	0	0	10
4	KU Central District	5	4	0	0	0	9
11	W 2nd Street	5	4	0	0	0	9
19	Lawrence Ave - on KU West Campus	5	4	0	0	0	9
28	Lawrence Avenue - Harvard to BBPW	5	4	0	0	0	9
35	Lawrence Loop C	5	4	0	0	0	9
29	6th Street - Monterey to Kasold	5	3	0	5	0	8
31	N low a Street	5	3	0	0	0	8
32	Lawrence Loop B	5	2	0	0	0	7
10	Lawrence Loop A	5	1	0	0	0	6

Jessica Mortinger

From: Michael Kelly <job4mike6@aol.com>
Sent: Tuesday, September 12, 2017 7:08 PM
To: Charlie Bryan
Cc: Charles Soules; David Cronin; Jessica Mortinger
Subject: Feedback on Project Prioritization Rubric and Dry-Run Draft Results

Charlie-

Thank you for the invitation to the Transportation Commission Study Session on Thursday, September 14th. Accordingly, I have reviewed the Pedestrian and Bicycle Prioritization Criteria and the Draft "Dry Run" results.

At the outset of my comments I wish to state my belief that this draft document is a very good initial step but I will respectfully offer some suggestions for improvement. I also wish to thank Jessica Mortinger for her time discussing some of these items with me on the phone.

I think the following ideas need to be considered in the final prioritization methodology accepted by the Transportation Commission.

I suggest the first step is to deliberate on the relative priority of Bike, Pedestrian, and ADA-mandated infrastructure improvements. I would suggest the Commission start at budget dollar shares of 40% bike, 40% pedestrian and 20% ADA projects as a point of departure and adjust the budget percentages from there as current events and Commission experience, new information, and collective judgement dictates. I would further limit initial prioritization efforts to 1) ADA projects, 2) SRTS Projects, and 3) Arterial or Collector Projects where there no sidewalks built on either side of the roadway. I would suggest the Commission eliminate the Priority Network Scoring for the initial budget cycle.

Next I would suggest the Commission use the output of the project prioritization and see what project are within the funded band and those that fall below the line.

Finally I would adjust any projects at the margin either up or down to accommodate any perceptions of disparity. Suppose there are 10 bike projects, 10 pedestrian projects and 40 ADA projects on the projected-to-be -funded list. The Commission should compare bike projects 10 and 11, pedestrian projects 10 and 11, and ADA projects 40 and 41 to see if the projects proposed for funding are clearly superior to the best unfunded projects in the other categories.

Now I would like to turn to the specific criteria and method of scaling, weighting, and scoring those criteria into a priority list.

Regarding the weights of 1, 3, and 5 points in the Pedestrian Access to Priority Destinations, I believe the draft formulation is a flawed scale. I would use a continuous scoring scale because "distances from" are non-negative real numbers. Therefore I would score 5 points for a project that was immediately adjacent to a school or transit stop. A project 0.1 miles away would get 4.0 points, 0.2 miles away would get 3.0 points and projects more than 0.5 miles from a priority destination would get 0 points. Partial points would be allowed to the granularity limit of the GIS horizontal position data.

Within the priority destinations categories, the term "community retail" appears. I suggest the Commission ask the staff if a breakout of medical facilities (Hospital ER, Hospital, public health clinical facilities, MD offices, DDS offices, pharmacies, retail medical supply, and urgent care clinics) is available. I assert such facilities are higher in priority than general retail stores. The commission might also consider facilities of service providers to the homeless as a high priority for pedestrian, ADA, and bicycle projects.

Other than the schools, parks, post office and library, no mention is made of access to government facilities. In my view, important among these are voter registration offices, voting sites used on election days, court rooms, and licensing offices. I assert such facilities should be designated a higher priority than "community retail" facilities. In general any facility that normally requires your physical presence to conduct business should be a higher priority than typical retail establishments.

Much more could be done, provided the GIS data exists, to prioritize among Priority Destinations. Also to be considered would be the primary users such as children, senior citizens, adults with physical disabilities as having priority over facilities that primarily serve adults of normal ability.

As you may recall from our previous interactions, I am highly biased toward projects that correct public safety problems and I favor doctrine such as Vision Zero. Despite this, I find the proposed method to score Safety-Crash History far from ideal. I learned in presentations to the PBITF that Kansas and Lawrence crash history data is incomplete and may be misleading. For example, a crash site with the most modern safety features may well exist because the victims of the crash were badly impaired by alcohol, medications, street drug use, or other emergent medical problems such as a stroke or heart attack. Adding priority to a project for crash history alone—unless the crash can be attributed to design or maintenance shortcomings in the site infrastructure is not advisable. In some instances, such as the June 2009 Dr. Bob Frederick bicycle fatality near 6th and Kasold, detailed investigation and pre-litigation discovery established that the poorly repaired road surface directly contributed to loss of balance and control, and tragically his fatality. Such sites where the poor design or condition of the infrastructure was a root cause, and if they have not been rebuilt or otherwise remediated are worthy of additional priority scoring.

To address safety I would suggest for those locations where deficient infrastructure was identified by fulsome post-crash analysis, then priority should be applied. If a fatality of unimpaired individuals resulted the site should be at the top of the priority list.

Finally I would add points for project locations that serve multiple priority functions. If a project passes four building with medical clinics, then multiple points should be awarded for service to multiple priority destinations.

The drafters of this document used roadway AADT as a factor for consideration. I think this factor should only be used to rank among Arterial or Collector Projects and should not move any project above an SRTS project.

Thanks again for this opportunity to be heard.

Best wishes,

Mike Kelly
Lawrence KS



P.O. Box 1064, Lawrence KS 66044
a Kansas 501(C)(3) not-for-profit

Charlie Bryan, Chair
Lawrence Transportation Commission
6 E. 6th St.
Lawrence KS 66044

14 September 2017

re: Bicycle and Pedestrian Prioritization Criteria

Mr. Bryan and Commissioners:

As the Program Chair for our organization's Bicycle Transportation Program, I am writing to you instead of attending your study session, because it conflicts with our monthly meeting. However, I have requested for several years that the City develop bikeway prioritization protocols, so I appreciate your attention, and the work that the City staff has put into this.

When we walk, we move within the limits of our bodies – our personal age, strength, abilities – typically from 3-5 mph. Walking is a form of mobility, but it is not a vehicle. Vehicles of any sort enhance our mobility, enabling us to travel more efficiently. The bicycle is the most efficient vehicle of all, using only 100 Watts to travel at 20 mph, 400 miles per gallon equivalent, powered entirely on carbohydrates, not hydrocarbons.

An automobile, on the other hand, is the least efficient vehicle. According to physicist Amory Lovins, regardless of fuel type, 99% of a car's energy is consumed to move the 4000lb car, and 1% to move the driver. According to the U.S. Department of Energy, fully one third of U.S. petroleum consumption is by single occupancy autos. Fewer trips by autos, and more trips by bicycle is the easiest way for Lawrence to cut our greenhouse gases and carbon footprint.

With well designed, unimpeded bicycle thoroughways, a cyclist could get across Lawrence in 20 minutes, while walking would take from 1 ½ to 2 hours. For all these reasons, Sustainability Action advocates for bicycle transportation. As the body that oversees Lawrence transportation options, we encourage the Transportation Commission to do all within your power to develop safe and efficient bikeways.

Proposed protocols by Sustainability Action:

The Transportation Planning staff is right when they say that developing bikeway locational priorities is the first step before design and construction. Two years ago, Sustainability Action proposed a set of prioritization protocols. They are:

- 1) An origin-destination study (O.D.S.), conducted on a five year cycle – to identify the most likely bicycle trip origins and destinations, the current bicyclists counts, and the level of cyclists latent demand, if safe bikeways actually existed.
- 2) A level of service (L.O.S.) evaluation, conducted annually – to correlate the data from the O.D.S. with the type, size, speeds and volume of adjoining motorways. This data is used initially to size and locate bikeways, and to re-evaluate their performance over time.
- 3) A Functional Conditions Index (F.C.I.), conducted annually – to maintain bikeways according to a 0-100 scoring protocol of multiple factors such as: pavement condition and markings, protective barriers, signage, ramps, curbs, and presence of sand or debris, etc.

Comments on the staff prioritization criteria:

The Bicycle-Pedestrian Prioritization Criteria rubric before you this evening is a good beginning by the staff. My comments are focused on the bicycle components only. Staff essentially covers the O.D.S. protocol that we proposed, and half of the L.O.S. protocol. It is good, as far as it goes, but I see four shortcomings.

Some of the chosen metrics such as housing and schools are excellent, but others are missing, or else ones based on outdated assumptions. The principal missing metrics are “employment centers”, “public service centers”, and “entertainment”. People are far more likely to bicycle somewhere if there’s little to carry, such as trips to jobs, public agencies, entertainment, or the library (the Lawrence Library Board missed the boat when they under-specified bicycle parking). In contrast, retail trips most often entail carrying packages that are bulky or heavy.

A very important metric that staff missed is “socio-economic”. There is an off-handed reference to “environmental justice areas” for later consideration, but this should actually be one of the highest priorities. Lower socio-economic populations (concentrated in the east side of Lawrence) have a lower percent ownership of automobiles, and greater reliance on bicycles.

The metric relating to bicycle lanes is based on an outdated policy. When pushed at the turn of the century, Lawrence grudgingly adopted a bicycle lane policy to include bicycle lanes in any repaving, reconstruction, or new construction of collector streets or arterials at less than 45 mph. After 17 years, it’s widely recognized that a mere 16% of potential bicyclists consider a single 6” white stripe as safe. The other 84% won’t ride in those lanes, a waste of concrete and City funds. Only protected bicycle lanes are worth investing in.

The shared use path is also an anachronism, an outgrowth of the 1990’s when Parks and Recreation built trails in the parks. When Public Works took over bicycle funding in 1999, they followed the same model, but alongside streets, building “bicycle paths” by simply widening sidewalks for shared use. This design is recognized as one of the more dangerous for bicyclists at driveways and intersections, as well as for conflicts with pedestrians, dog walkers, baby strollers, the elderly, etc. Mode-separated facilities are now preferred by all users – motorists, walkers, and bicyclists – for reasons of speed, predictable expectations, and safety.

We are grateful that Lawrence is coming to grips, after 41 years since the adoption of the Pedalplan for Lawrence, with methods to identify construction priorities for bikeways. But the criteria must accurately reflect reality among the bicycling population, and be done right. Please direct staff to rework the Bicycle-Pedestrian Prioritization Criteria using the protocols listed above.

Thank you,

Michael Almon

Jessica Mortinger

From: MK Kelly <job4mike6@aol.com>
Sent: Thursday, September 14, 2017 1:38 AM
To: Jessica Mortinger; Charlie Bryan
Subject: Fwd: Priority Excerpt
Attachments: Implementation Priorities Pedestrian Environment.docx

Jessica-

Please make sure this excerpt is available for the Study Session today. It's from the PBITF Report.

Thanks,

Mike Kelly

Sent from my iPhone

Subject: Priority Excerpt

Implementation Priorities for the Pedestrian Environment*

The following implementation priorities have been created in response to community feedback and the task force's findings. They should be used to guide commissioners and staff in the selection of projects to be funded first to have the greatest impact on the walking and wheeling environment in Lawrence.



Provide safe routes to schools (SRTS) by filling gaps, repairing and maintaining sidewalks within the designated SRTS network.

The total length of the current proposed safe routes to schools (SRTS) routes is 51 miles. There are sections of missing sidewalk along the SRTS routes.

There are 42,275 ft. of existing sidewalk (about 8 miles) that have defects and need maintenance. There are 1,201 ramps that need improvements to meet ADA standards and 55 instances where there are no ramps at all. The estimated cost to construct sidewalks on one side of all SRTS routes, repair and maintain existing defects and install ADA compliant ramps is \$2.8 million.

* Hull, Marilyn et al, *Lawrence Pedestrian Bicycle Issues Task Force Report*, page 25, February 26, 2016.