

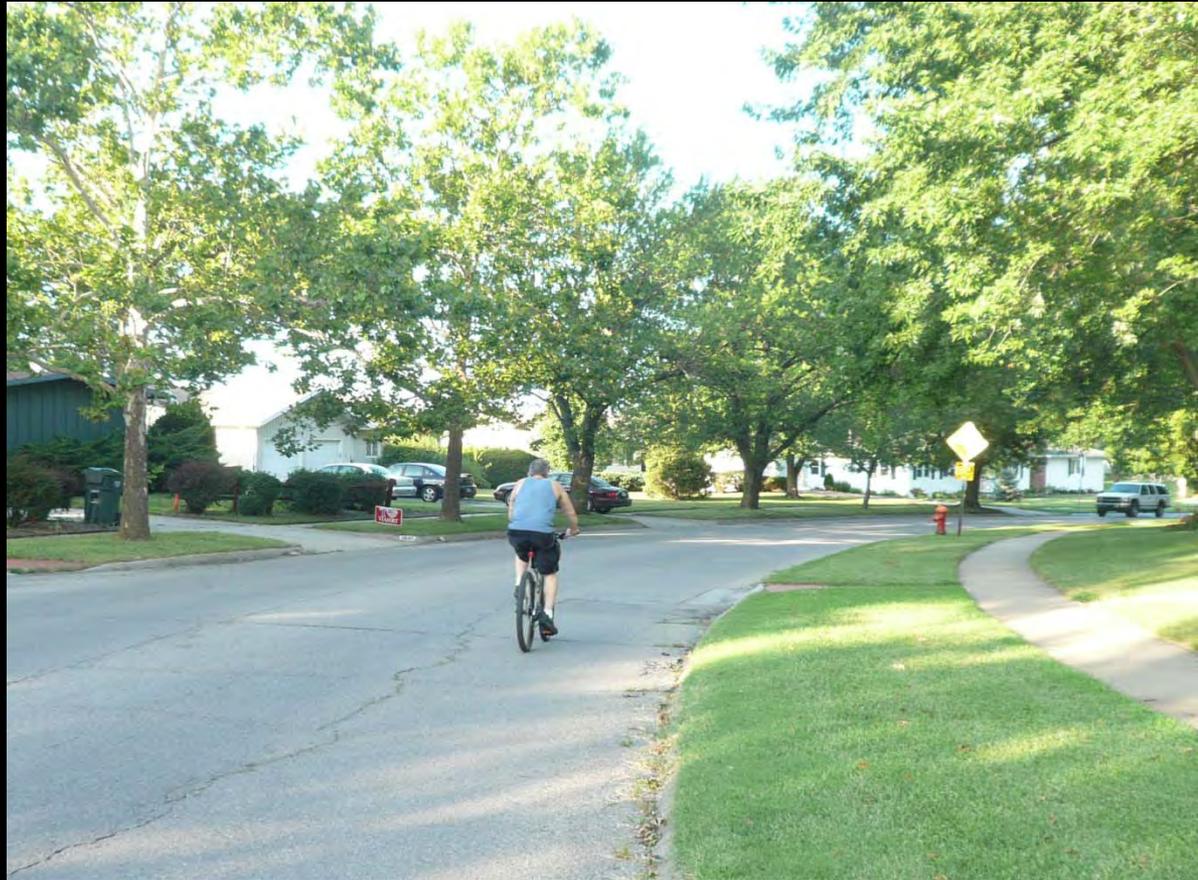
The Topeka Bikeways Master Plan

A Presentation to the
Built Environment and the Outdoors Summit

October 20, 2010

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City of Topeka

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Project Mission and Objectives

To integrate bicycle transportation into Topeka's mobility network.



- Increase the number and frequency of people using bicycles for basic transportation.
- Adapt infrastructure to create a more bicycle-friendly network.
- Guide future street and trail design and investments.

Deliverable Objectives

An evolving system that bicyclists can also use immediately.



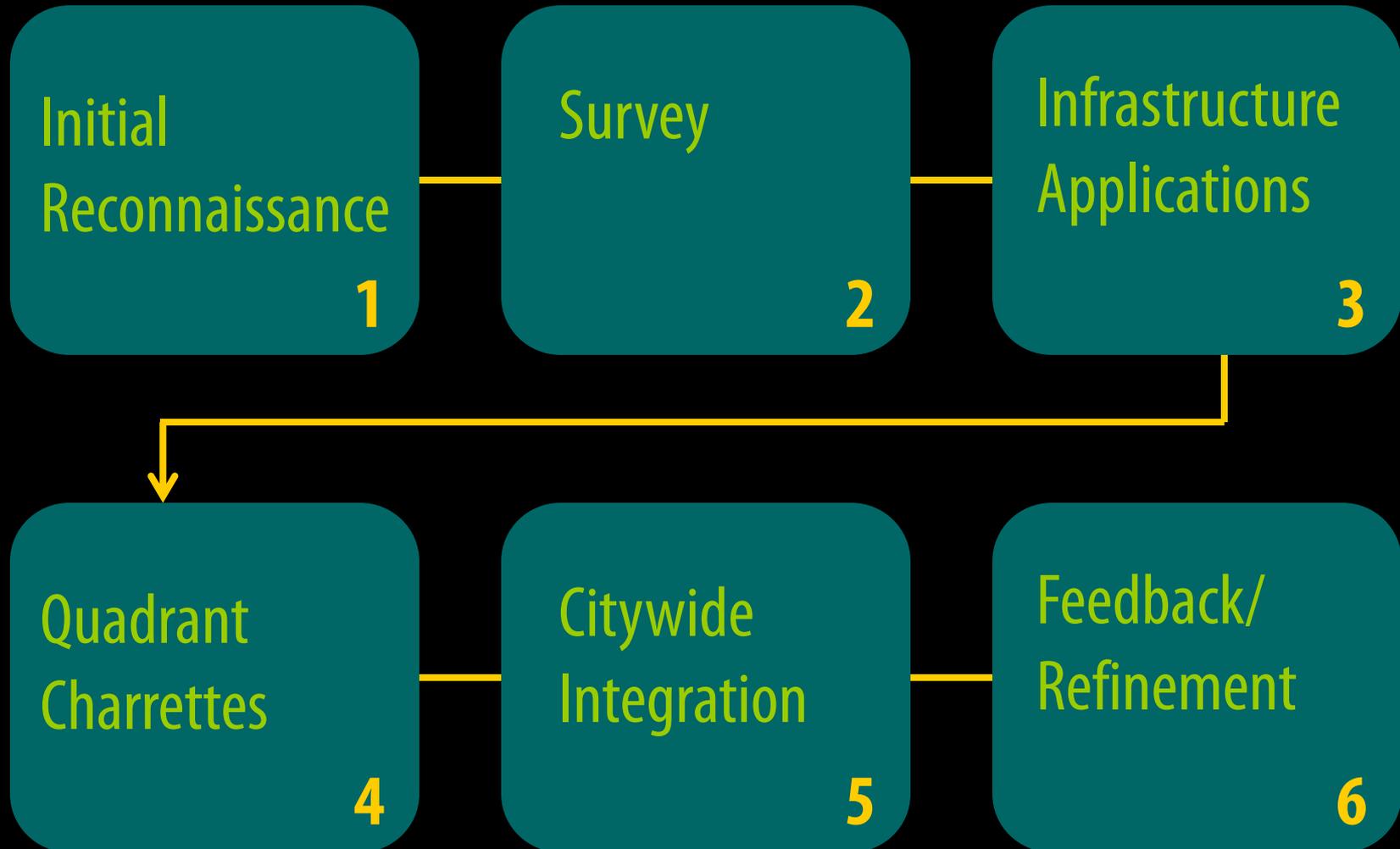
- Bicycle guide to city's street and trail system.
- Short-term, low capital program to adapt selected streets to create a destination based route system.
- Longer-term infrastructure to enhance system over time.

System Criteria

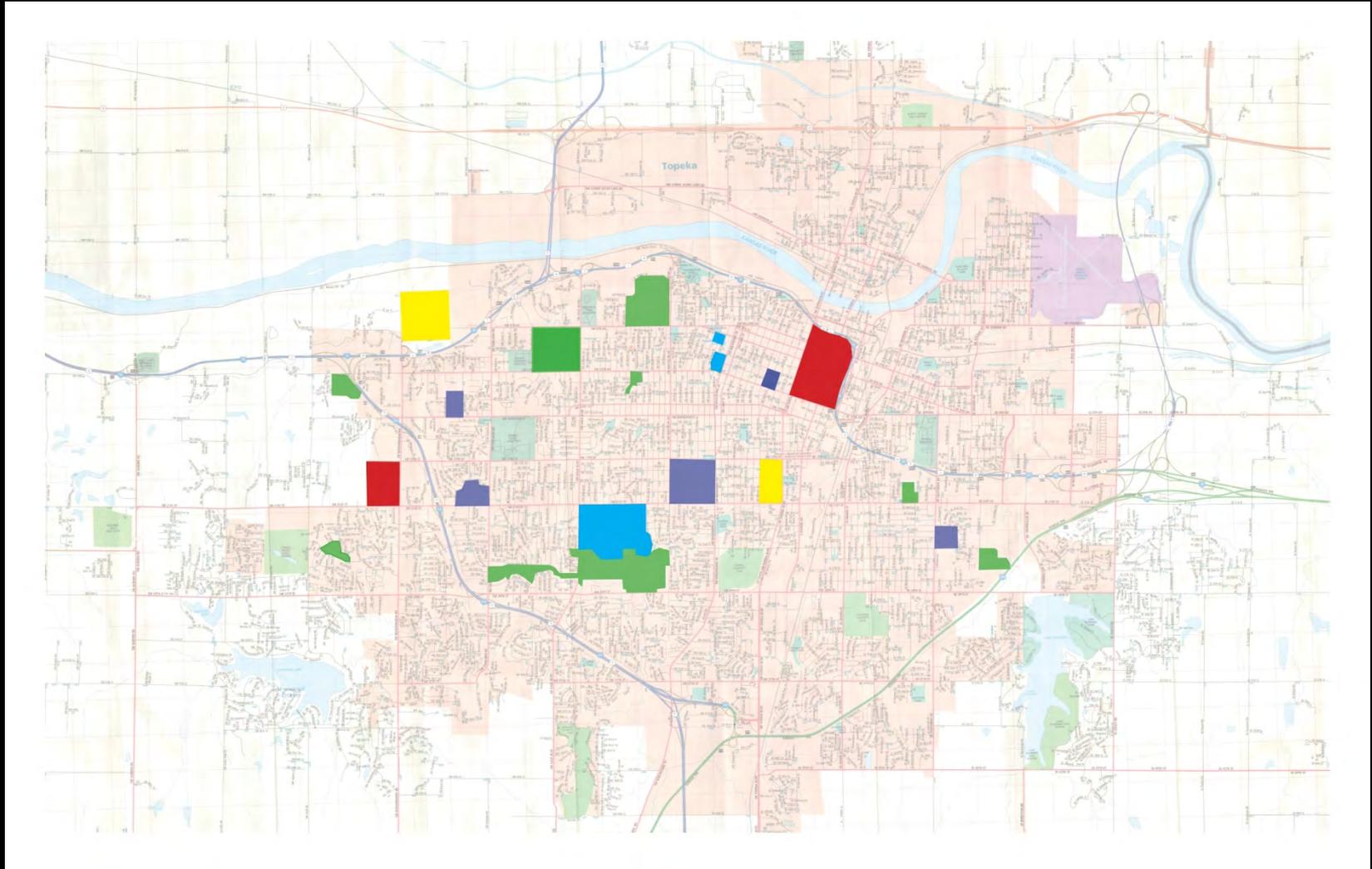
- Directness
- Integrity/Continuity
- Safety
- Comfort
- Experience



The Process

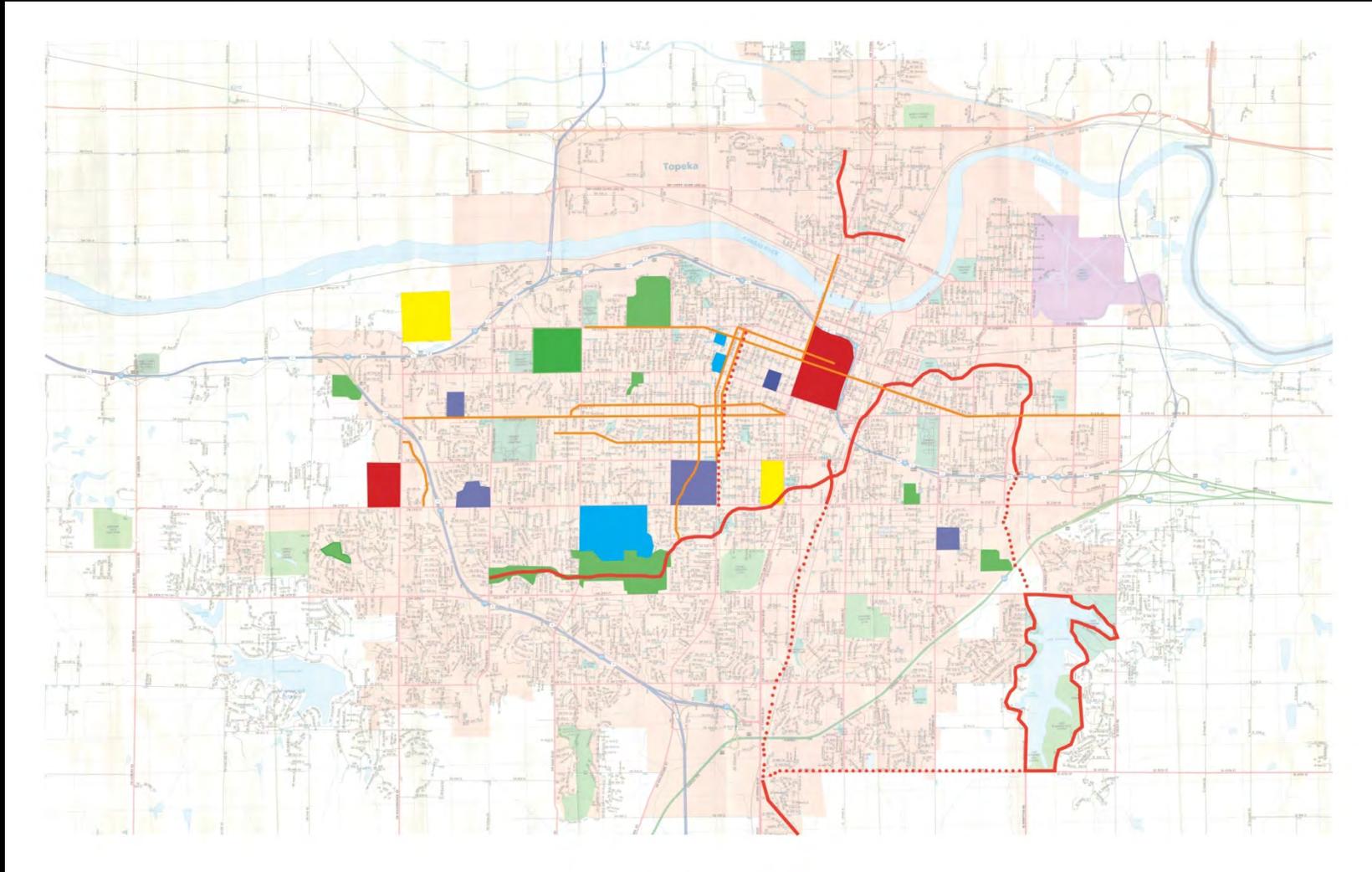


Initial Reconnaissance



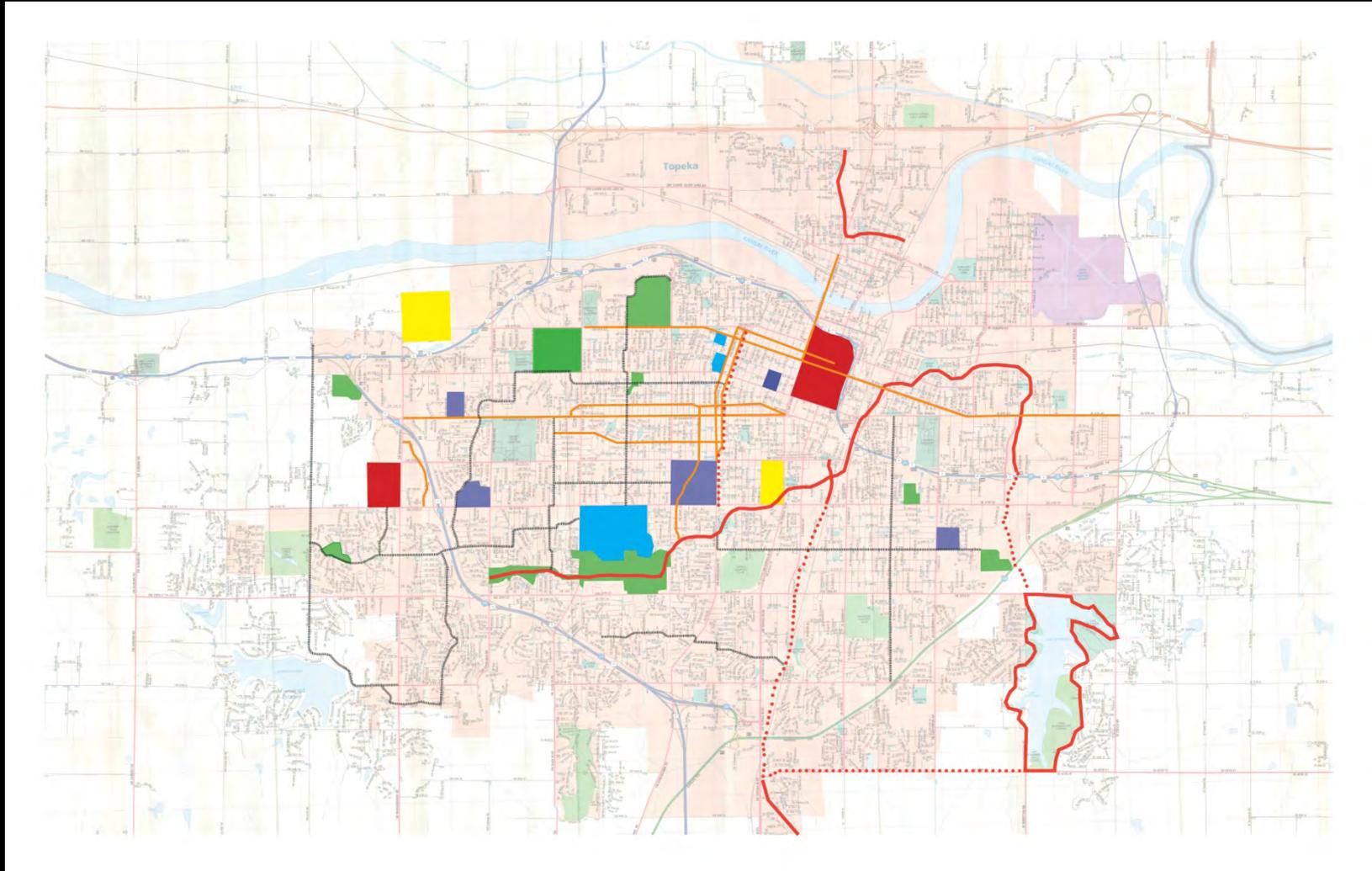
Destinations

Initial Reconnaissance



Trails and Bike Topeka Blog Routes

Initial Reconnaissance



Potential "Bicycle Boulevards"

Initial Reconnaissance: Topeka Contexts

Streets

- 2-lane Continuous Local
- 2-lane Continuous Collector
 - Inter- and Intra-neighborhood
- 2-lane Parkway or Boulevard
- 2-lane Avenues
- Transit/Civic Avenues
- 2-3 lane Through Street
- 4-lane Through Street
- 5+-lane Through Street
- 2-lane, one-way through street
- Multi-lane downtown street
- Multi-lane downtown boulevard

Pathways

- Sidepaths
- Park Trails
- Through Trails
 - Geometric variables



2-lane continuous collector



Belle Avenue, 25th Street, Indiana Street

- 2 lanes
- On-street parking
- 24-32 foot width
- 25 mph
- 1.5 mile minimum continuity
- Traffic control at major streets
- Both residential and commercial contexts
- Continuity through connected streets

2-lane avenues



College Avenue, Oakley Avenue

- 2 lanes
- On-street parking typically permitted
- 30-42 foot width
- 25-30 mph
- 1-2 mile minimum continuity
- Traffic control at major streets
- Mixed uses at intersections, street-oriented houses
- Direct continuity

Transit and civic avenues



6th Avenue

- 2 wide/4 narrow lanes
- On-street parking typically permitted
- 42-60 foot width
- 30-35 mph
- Long distance, direct continuity
- Traffic control at major streets
- Mixed uses

2/3-lane through streets



10th Avenue, 17th Street

- 2-3 lanes
- On-street parking typically prohibited
- 24-36 foot width
- 30-35 mph
- Long distance, direct continuity
- Traffic controls
- Mixed commercial and residential uses

4-lane through streets



21st Street

- 4 lanes, often narrow widths
- On-street parking typically prohibited
- 44-48 foot width
- 35-40 mph
- Long distance, direct continuity
- Traffic controls
- Mixed commercial and residential uses

5-lane through streets



Wanamaker Road

- 5 lanes with center left-turn lane
- On-street parking prohibited
- 56-60 foot width
- 35-45 mph
- Long distance, direct continuity
- Traffic controls
- Commercial uses predominate

2-lane one-way through streets



- 2 lanes
- On-street parking on at least one side
- 32-40 foot width
- 30-35 mph
- Long distance, direct continuity
- Traffic controls
- Mixed uses

Huntoon/12th pair; Lane/Washburn pair

Multilane downtown street



Jackson Street, 7th Street

- 3-4 lanes; 2-3 lanes with diagonal parking
- One and two-way traffic
- On-street parallel and diagonal parking
- 60 foot width
- 25-30 mph
- Continuity through district
- Traffic controls at most intersections
- Downtown, high intensity uses

Multilane downtown boulevard



Kansas Avenue

- 4-6 lanes
- Two-way traffic
- On-street parallel and diagonal parking
- 60+ foot width
- 25-30 mph
- Continuity through district, section changes outside of CBD
- Traffic controls
- Downtown, high intensity uses

Park Trails



Shawnee Trail

- Standard paved trails
- Primarily recreational/exercise uses
- Currently disconnected from system
- Possibility of integration

Through Trails: “Low Performance”



- Older standards
- “Scenic” alignment
- Curves, sometimes noncompliant grades
- 10-15 mph
- Popular for recreation and some commuter uses

Shunga Trail at some locations

Through Trails: “High Performance”



Landon Trail

- Contemporary standards
- Straight or standard geometric alignments
- 15-25 mph
- Popular for commuter uses

Survey

- 1,020 Responses
- User Descriptions
- Uses and Destinations
- Cycling Environments

Topeka Bikeways Master Plan Survey - Windows Internet Explorer

https://www.surveymonkey.com SurveyMonkey.com, ... iowa apa conference

SurveyMonkey - Survey Re... Topeka Bikeways Mast...

Topeka Bikeways Master Plan [Exit this survey](#)

1. Welcome!

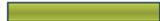
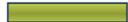
The City of Topeka is developing a Bikeways Master Plan, designed to increase the number of people who use bicycles for various purposes and make bicycling a greater part of the city's transportation picture. During the next several months, there will be a number of events that will invite your participation in helping to improve bicycling facilities and programs in Topeka. Now, at the beginning of the planning process, you can help us greatly by completing this short survey about bicycling in the city. We hope you enjoy it and thank you for your help.

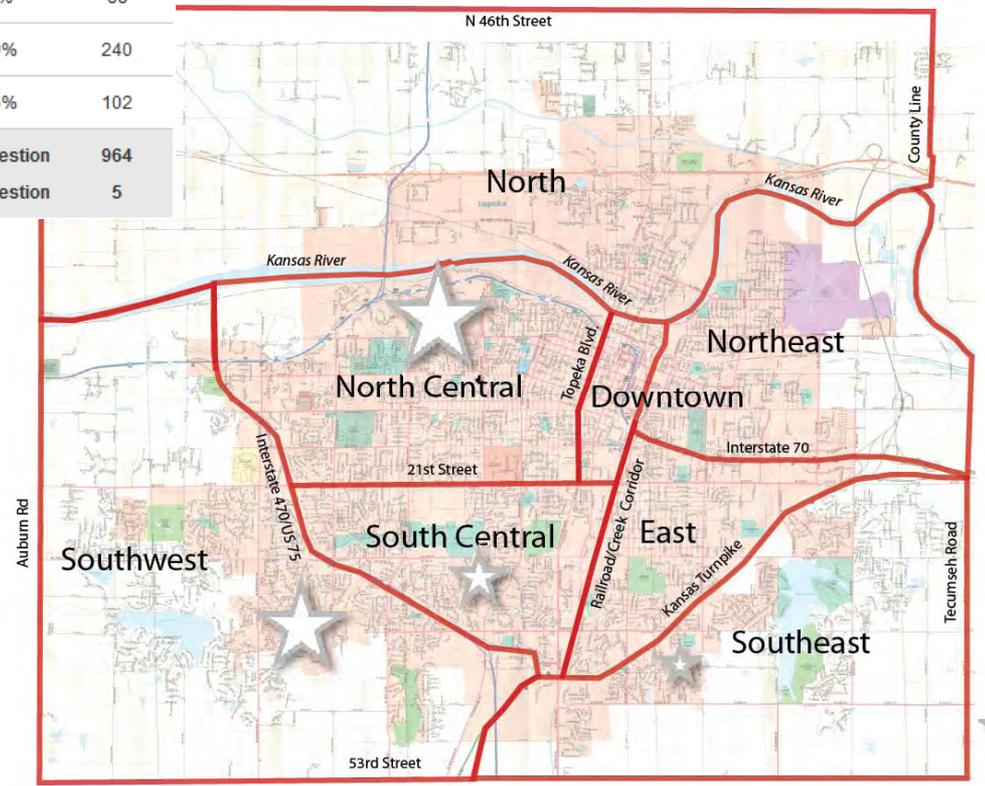


Next

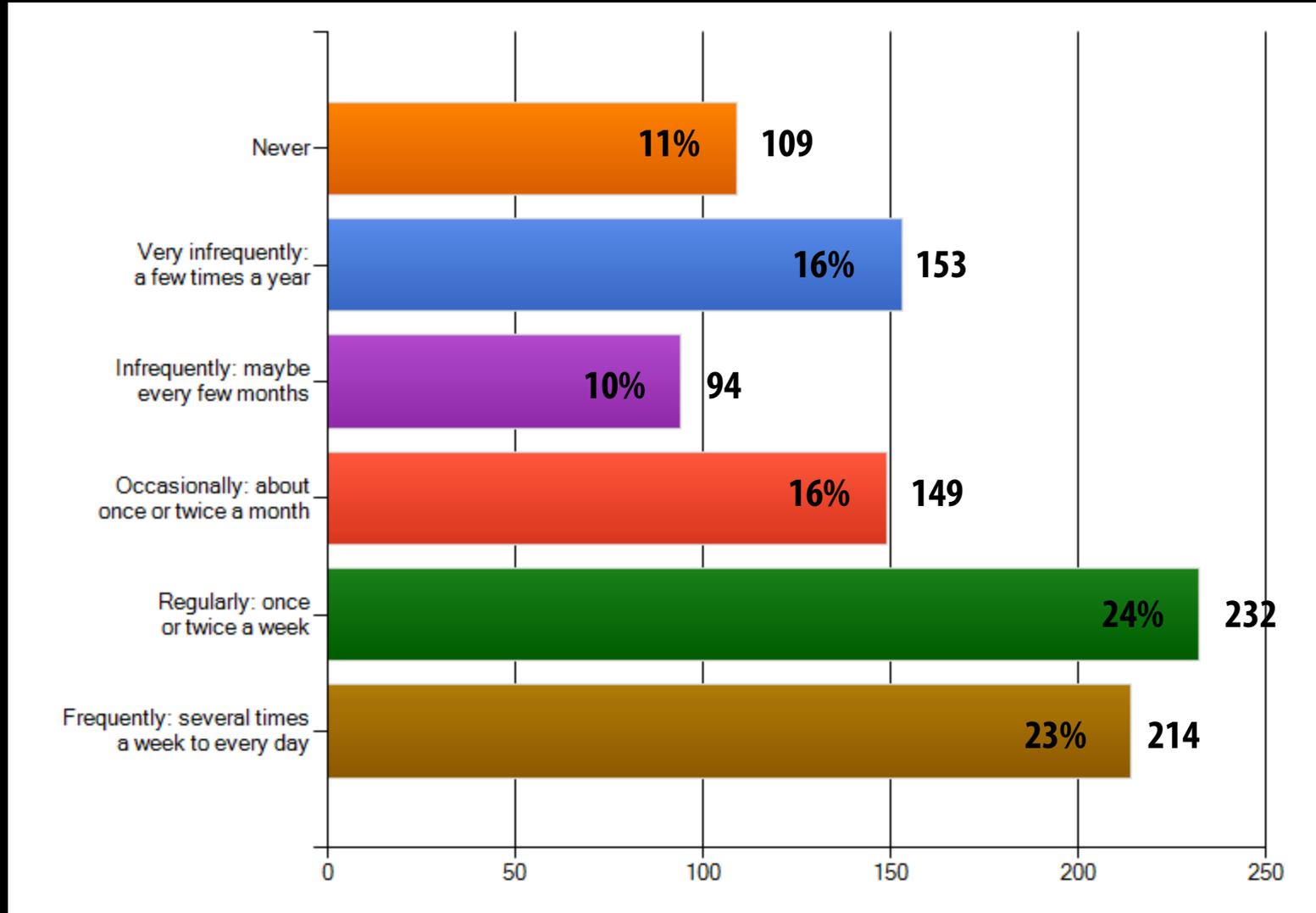
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1. Indicate the area of Topeka where you live.

		Response Percent	Response Count
NORTH		6.1%	59
NORTHEAST		1.8%	17
NORTH CENTRAL		31.5%	304
DOWNTOWN		1.2%	12
SOUTH CENTRAL		13.5%	130
EAST		1.2%	12
SOUTHEAST		9.1%	88
SOUTHWEST		24.9%	240
Outside of the map boundaries		10.6%	102
		answered question	964
		skipped question	5



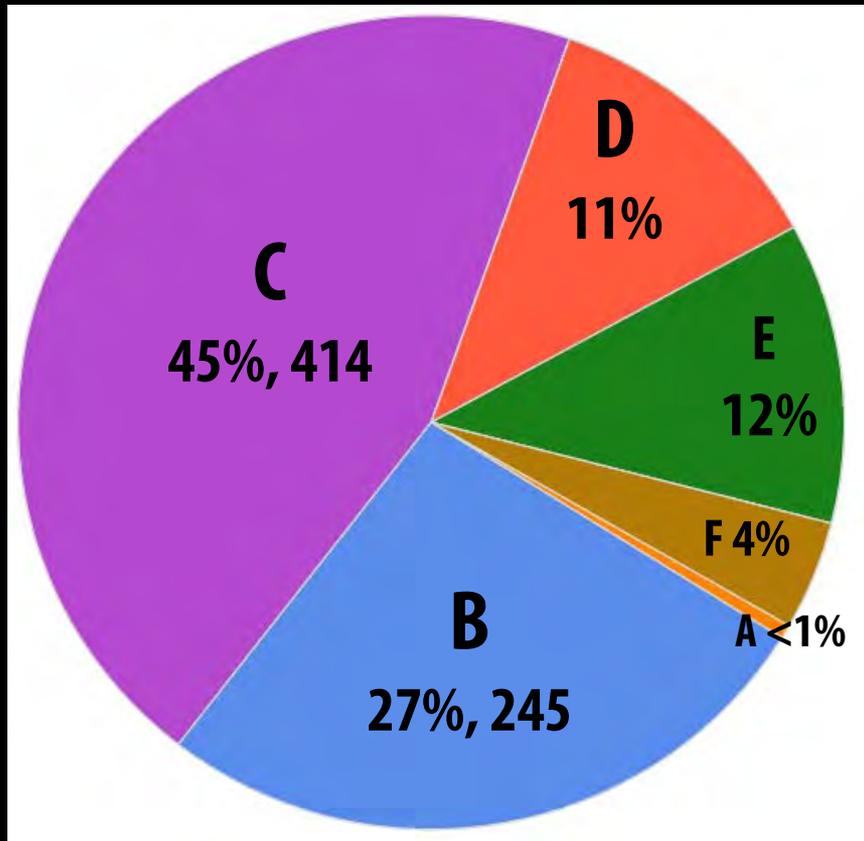
3. How often do you ride a bicycle?



4. If you ride a bike, which of the following describes why you use it. Check all those that apply

		Response Percent	Response Count
a. Regular exercise or workout		75.8%	705
b. Commuting to work or school		28.0%	260
c. Shopping		10.8%	100
d. Routine errands		17.7%	165
e. Trips to parks or recreational facilities		37.8%	352
f. Trips to the library, museums, and similar places		15.3%	142
g. Going to meetings or in the conduct of business		4.9%	46
h. Social visits		23.2%	216
i. Family outings		30.9%	287
j. Bicycle touring		30.4%	283
k. Other (please indicate)		3.3%	31
l. I do not ride a bike		11.2%	104
		answered question	930
		skipped question	39

5. If you ride a bike, which of the following best describes you.



A. I am a committed bicyclist who rides in mixed traffic on every street. I don't believe that any significant further action on bicycle facilities is necessary.

B. I am a committed bicyclist who rides in mixed traffic on most streets, but believes that new facilities like bike lanes, bike routes, and trails are needed to improve Topeka's biking environment for me and encourage other people to ride more often.

C. I am interested in bicycling and use low-traffic streets, but am concerned about the safety of riding in mixed automobile traffic. More trails and bike lanes and routes would increase the amount of trips that I make by bicycle.

D. I am a recreational or occasional bicyclist and ride primarily on trails like the Shunga and Landon. I would like to see more trails, but am unlikely to ride on city streets even with bike lanes

E. I do not ride a bicycle now, but might be interested if Topeka developed facilities that met my needs better or made me feel safer.

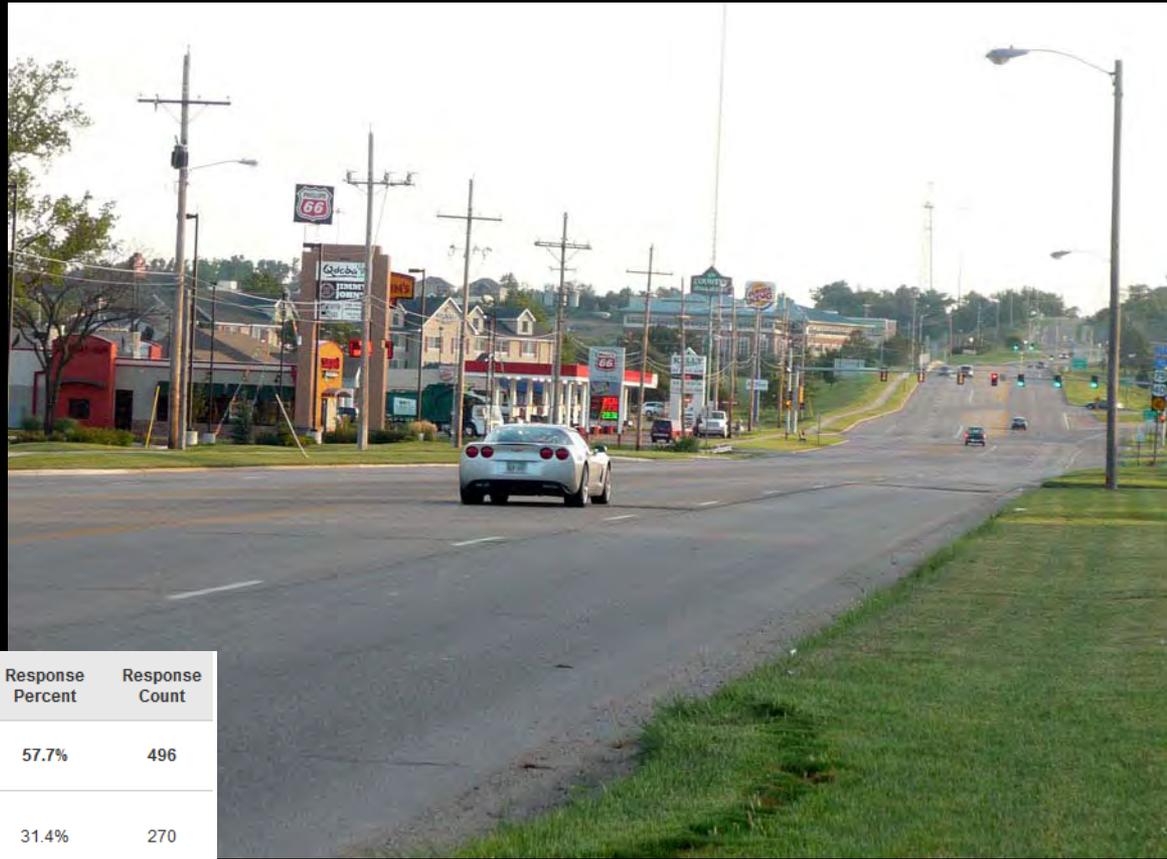
F. I do not ride a bicycle, and am unlikely ever to do so.

6. Please rate how important you think good bicycle access is to each of the following destinations or groups of destinations.

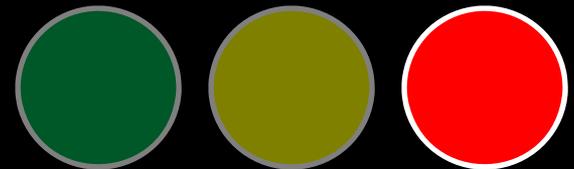
	Unimportant or inappropriate destination	Neutral	Moderately important	Important	Very important destination	Response Count
Topeka's high schools	3.9% (34)	8.5% (74)	16.3% (142)	32.8% (286)	38.6% (337)	873
Topeka's middle schools	4.0% (35)	8.5% (74)	15.7% (137)	31.0% (270)	40.8% (356)	872
Topeka's elementary schools	8.0% (69)	12.8% (111)	17.3% (150)	25.0% (217)	36.9% (320)	867
Washburn University	1.8% (16)	3.1% (27)	8.2% (72)	32.8% (289)	54.1% (476)	880
Washburn Tech.	3.6% (31)	10.7% (91)	14.8% (126)	32.9% (280)	38.0% (324)	852
Brown v. Board Historical Site	16.0% (134)	36.1% (303)	24.4% (205)	14.7% (123)	8.8% (74)	839
Sunflower Soccer Complex	11.3% (96)	27.3% (231)	27.2% (230)	20.7% (175)	13.5% (114)	846
Gage Park and Zoo	2.8% (25)	4.2% (37)	17.9% (157)	37.2% (327)	37.8% (332)	878
Westridge Mall/Wanamaker Corridor	12.0% (102)	15.4% (131)	23.4% (199)	24.8% (211)	24.5% (209)	852
Fleming Place Shopping Center	8.7% (74)	19.8% (169)	25.1% (214)	27.3% (233)	19.1% (163)	853
Garfield Park	5.6% (47)	20.3% (170)	25.6% (214)	28.7% (240)	19.7% (165)	836
Lake Shawnee	2.9% (25)	2.1% (18)	12.4% (109)	28.8% (252)	53.9% (472)	876
State Capitol and surrounding buildings	5.2% (45)	9.6% (84)	16.4% (143)	28.9% (252)	39.8% (347)	871
Kansas Historical Museum	6.8% (59)	17.5% (151)	24.8% (214)	25.9% (223)	24.9% (215)	862
Hummer Sports Park	4.8% (41)	11.7% (101)	23.2% (200)	32.2% (277)	28.1% (242)	861
Holiday Square shopping center	11.5% (96)	29.0% (242)	27.7% (231)	18.8% (157)	13.1% (109)	835
				answered question		888
				skipped question		81

	Unimportant or inappropriate destination	Neutral	Moderately important	Important	Very important destination	Response Count
Holiday Square shopping center	12.1% (98)	32.5% (264)	26.7% (217)	16.6% (135)	12.1% (98)	812
Kansas Avenue/ Downtown	4.5% (38)	4.7% (40)	15.6% (133)	28.7% (244)	46.5% (395)	850
Topeka Public Library	3.8% (32)	3.4% (29)	11.1% (94)	29.1% (247)	52.7% (448)	850
VA Hospital	7.9% (66)	24.3% (202)	27.1% (225)	22.6% (188)	18.1% (150)	831
St. Francis Health Center/Stormont-Vail	8.0% (67)	23.1% (193)	25.7% (215)	22.3% (186)	20.8% (174)	835
Neighborhood parks	2.5% (21)	4.6% (39)	16.2% (137)	31.3% (264)	45.4% (383)	844
River Hill Office/Commercial Area	10.4% (86)	33.5% (276)	26.6% (219)	18.3% (151)	11.1% (91)	823
Security Benefit Group/Tallgrass Medical and surrounding offices	11.0% (92)	29.6% (247)	27.1% (226)	19.1% (159)	13.2% (110)	834
Golf courses	24.4% (202)	39.9% (330)	19.1% (158)	9.3% (77)	7.4% (61)	828
Downtown North Topeka	7.2% (60)	20.7% (173)	25.1% (209)	22.5% (188)	24.5% (204)	834
Great Overland Station	8.3% (69)	27.6% (229)	27.3% (227)	20.1% (167)	16.6% (138)	830
Community Centers (like Central Park, Crestview, Hillcrest, Oakland, Shawnee North)	3.4% (28)	5.4% (45)	16.8% (140)	30.4% (253)	43.9% (365)	831
Resers Foods/Payless Shoes Center	14.6% (120)	34.9% (287)	25.4% (209)	15.4% (127)	9.7% (80)	823
Shunga Creek Parks and Trail	2.5% (21)	2.1% (18)	7.7% (66)	22.3% (191)	65.4% (559)	855
10th Avenue Sports Center	6.6% (54)	22.6% (185)	26.2% (214)	23.8% (195)	20.8% (170)	818
Cedarcrest/McClellan Park	4.1% (34)	11.3% (93)	18.2% (150)	28.0% (231)	38.3% (316)	824
Other major shopping areas	10.1% (82)	19.9% (162)	30.8% (251)	23.2% (189)	16.0% (130)	814
Other	17.6% (46)	32.4% (85)	14.1% (37)	10.3% (27)	25.6% (67)	262
				Show replies	Other (please specify)	73
					answered question	865
					skipped question	104

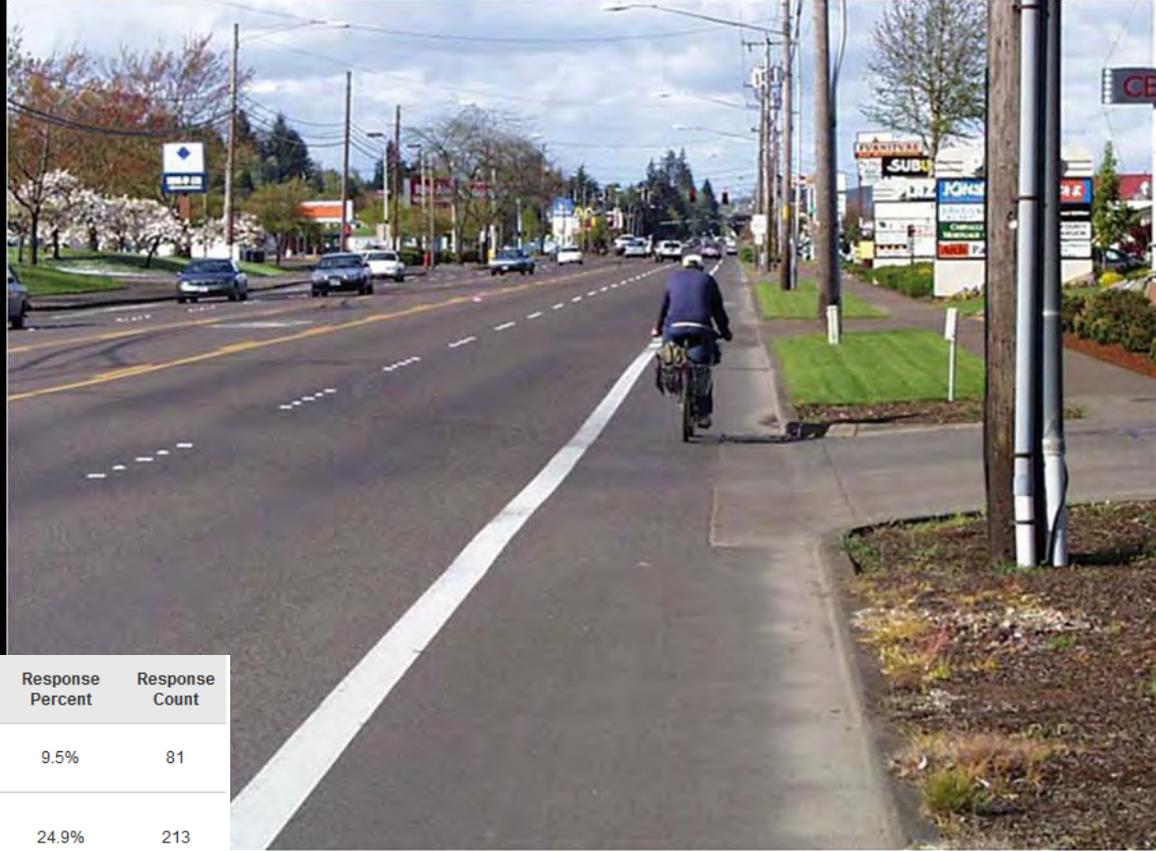
A. 5-Lane major commercial street (like Wanamaker Road)



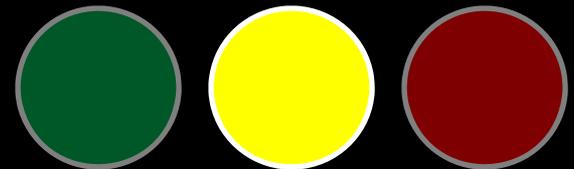
		Response Percent	Response Count
1: I am very uncomfortable riding here and would never ride on it.		57.7%	496
2: I am uncomfortable with this street, but might use it for very short distances.		31.4%	270
3: I am comfortable using this street myself, but do not advise it for inexperienced cyclists or younger riders.		10.0%	86
4: This is a comfortable cycling route for most users.		0.6%	5
5: This presents a very safe route that can be used by all people (including families and children) with little hesitancy.		0.2%	2
answered question			859
skipped question			110



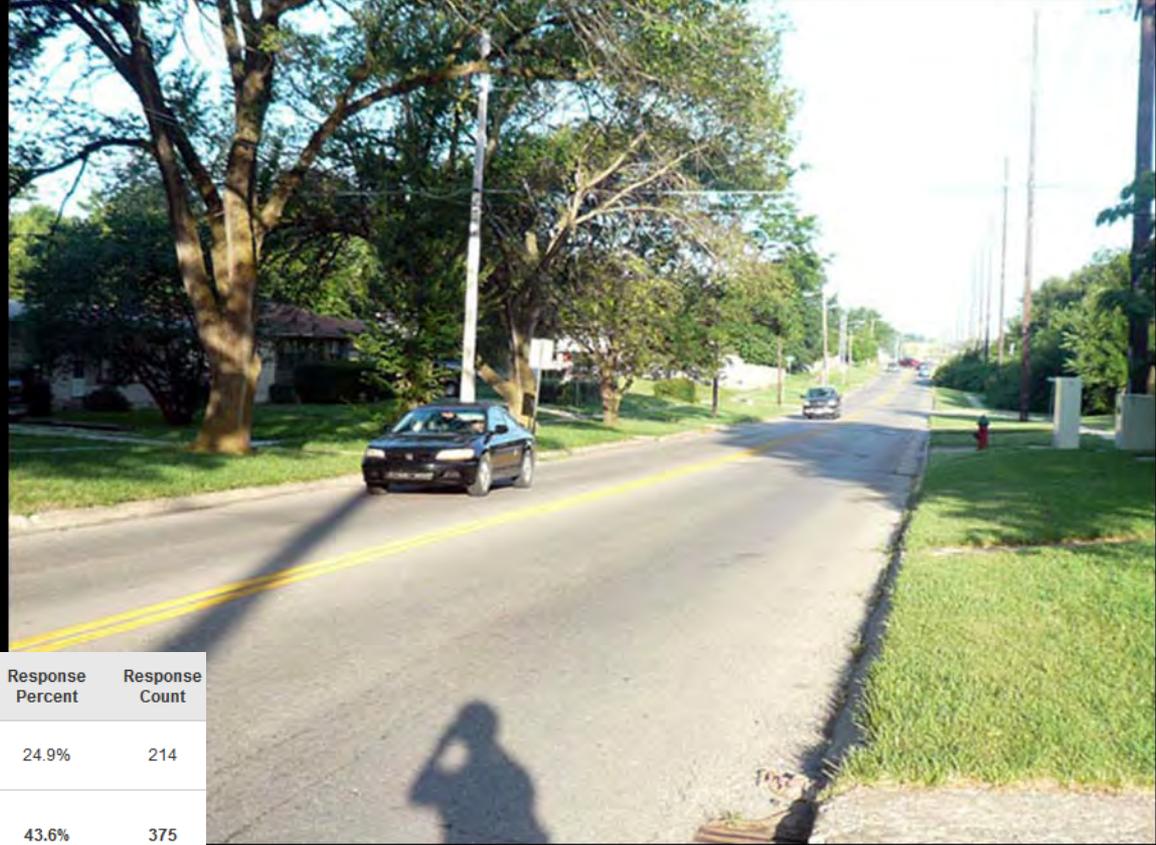
B. 5-Lane major commercial street



		Response Percent	Response Count
1: I am very uncomfortable riding here and would never ride on it.		9.5%	81
2: I am uncomfortable with this street, but might use it for very short distances.		24.9%	213
3: I am comfortable using this street myself, but do not advise it for inexperienced cyclists or younger riders.		36.1%	309
4: This is a comfortable cycling route for most users.		26.0%	223
5: This presents a very safe route that can be used by all people (including families and children) with little hesitancy.		3.6%	31
		answered question	857
		skipped question	112



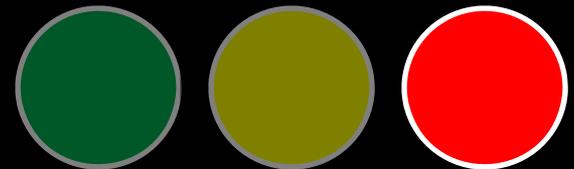
D. 2-Lane major street with curbs (like West 17th Street)



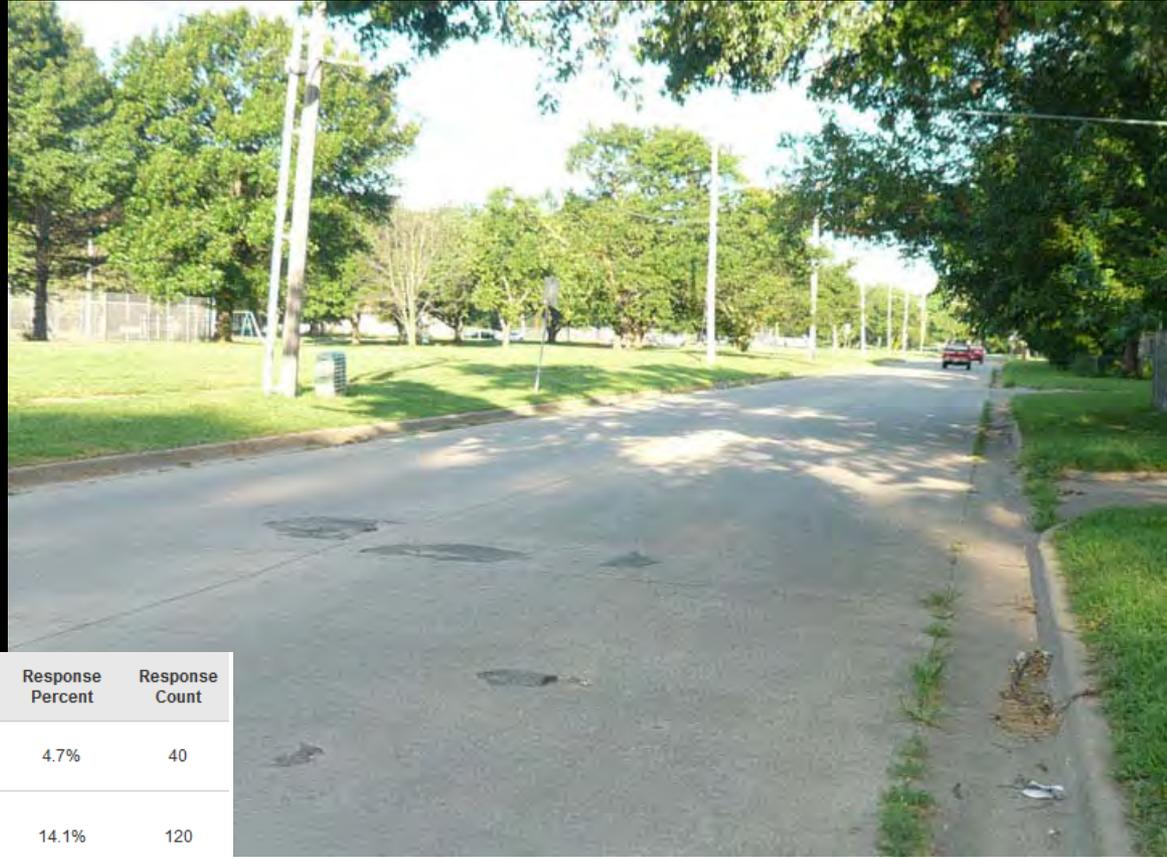
		Response Percent	Response Count
1: I am very uncomfortable riding here and would never ride on it.		24.9%	214
2: I am uncomfortable with this street, but might use it for very short distances.		43.6%	375
3: I am comfortable using this street myself, but do not advise it for inexperienced cyclists or younger riders.		26.8%	231
4: This is a comfortable cycling route for most users.		3.9%	34
5: This presents a very safe route that can be used by all people (including families and children) with little hesitancy.		0.8%	7

answered question 861

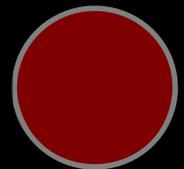
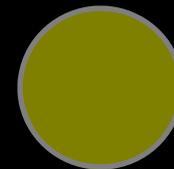
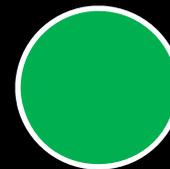
skipped question 108



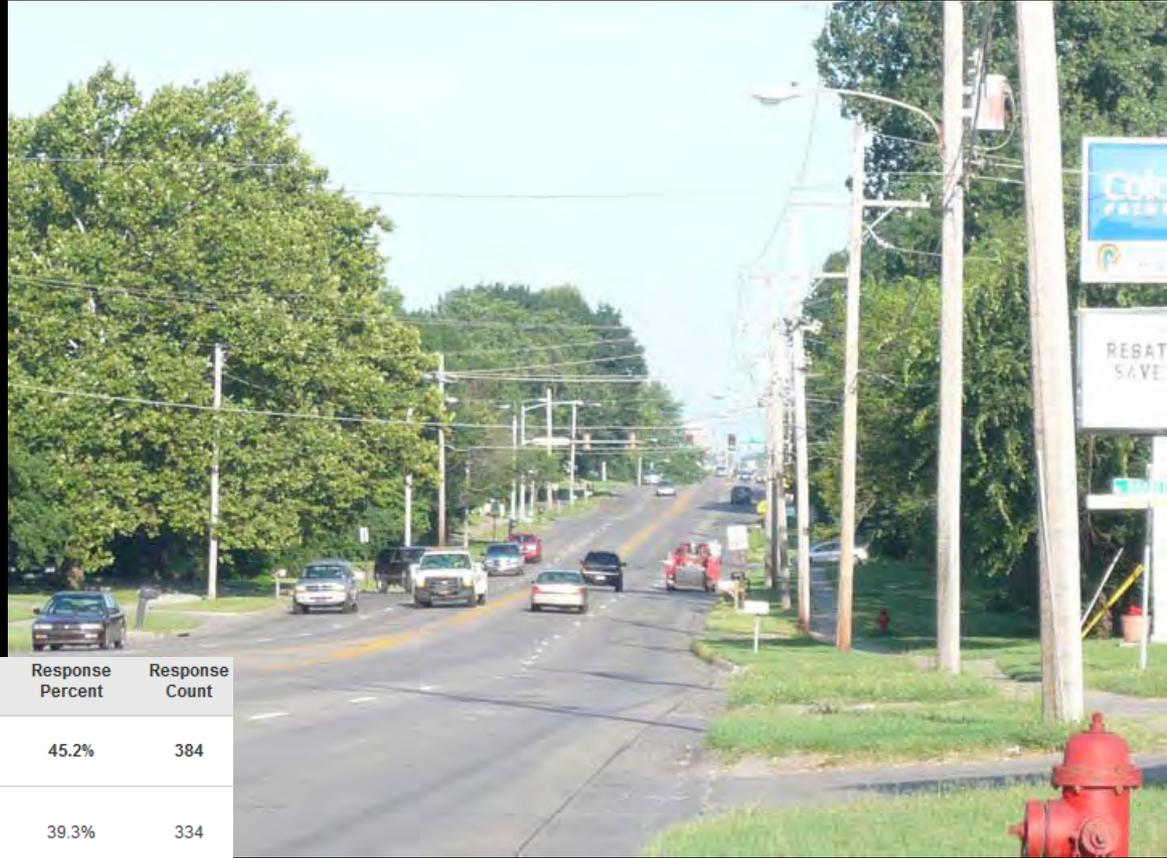
H. 2-lane parkway (like Shunga Drive)



		Response Percent	Response Count
1: I am very uncomfortable riding here and would never ride on it.		4.7%	40
2: I am uncomfortable with this street, but might use it for very short distances.		14.1%	120
3: I am comfortable using this street myself, but do not advise it for inexperienced cyclists or younger riders.		34.8%	297
4: This is a comfortable cycling route for most users.		41.1%	351
5: This presents a very safe route that can be used by all people (including families and children) with little hesitancy.		5.4%	46
	answered question		854
	skipped question		115

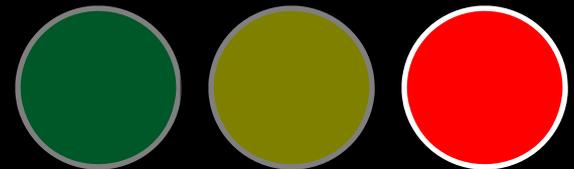


I. 4-lane major street (like 21st Street)

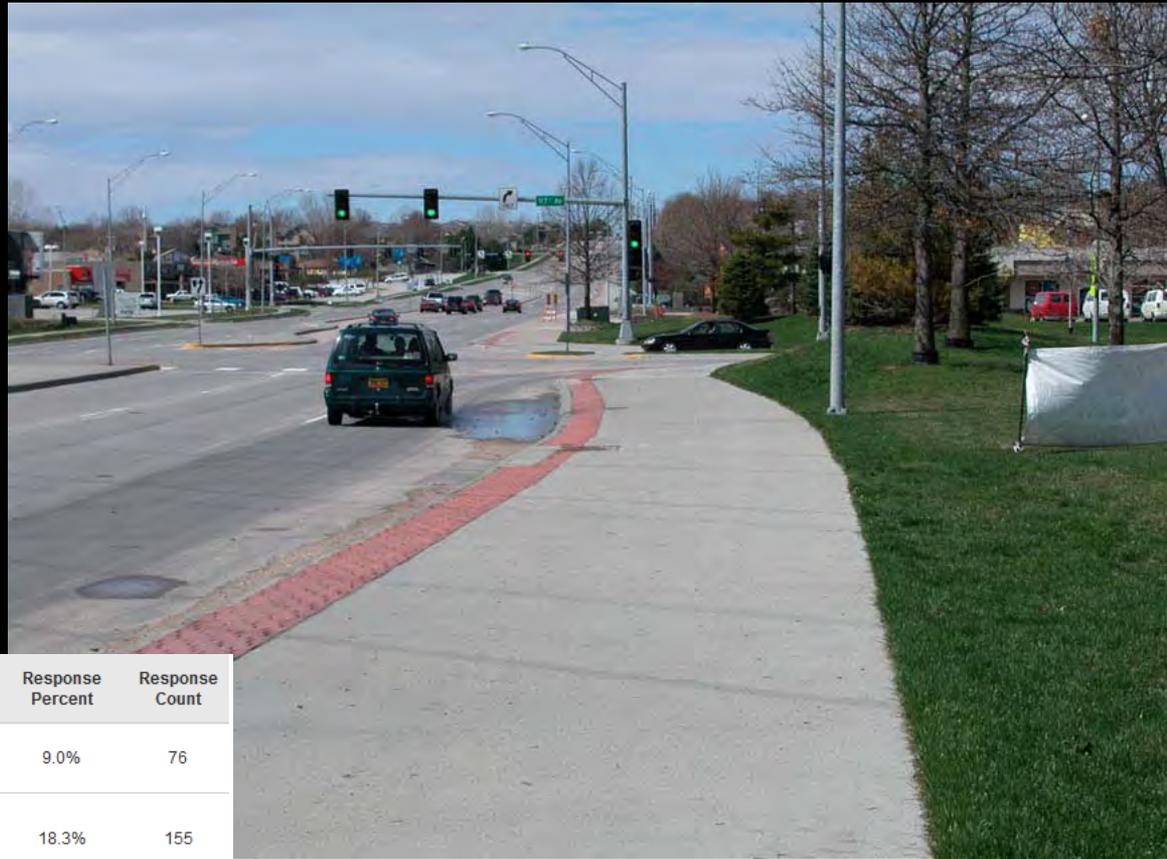


		Response Percent	Response Count
1: I am very uncomfortable riding here and would never ride on it.		45.2%	384
2: I am uncomfortable with this street, but might use it for very short distances.		39.3%	334
3: I am comfortable using this street myself, but do not advise it for inexperienced cyclists or younger riders.		14.2%	121
4: This is a comfortable cycling route for most users.		0.8%	7
5: This presents a very safe route that can be used by all people (including families and children) with little hesitancy.		0.5%	4

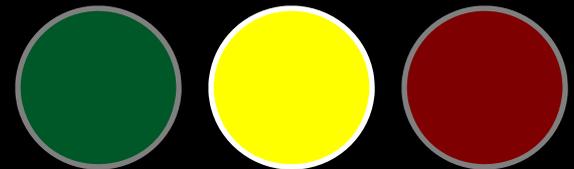
answered question 850
skipped question 119



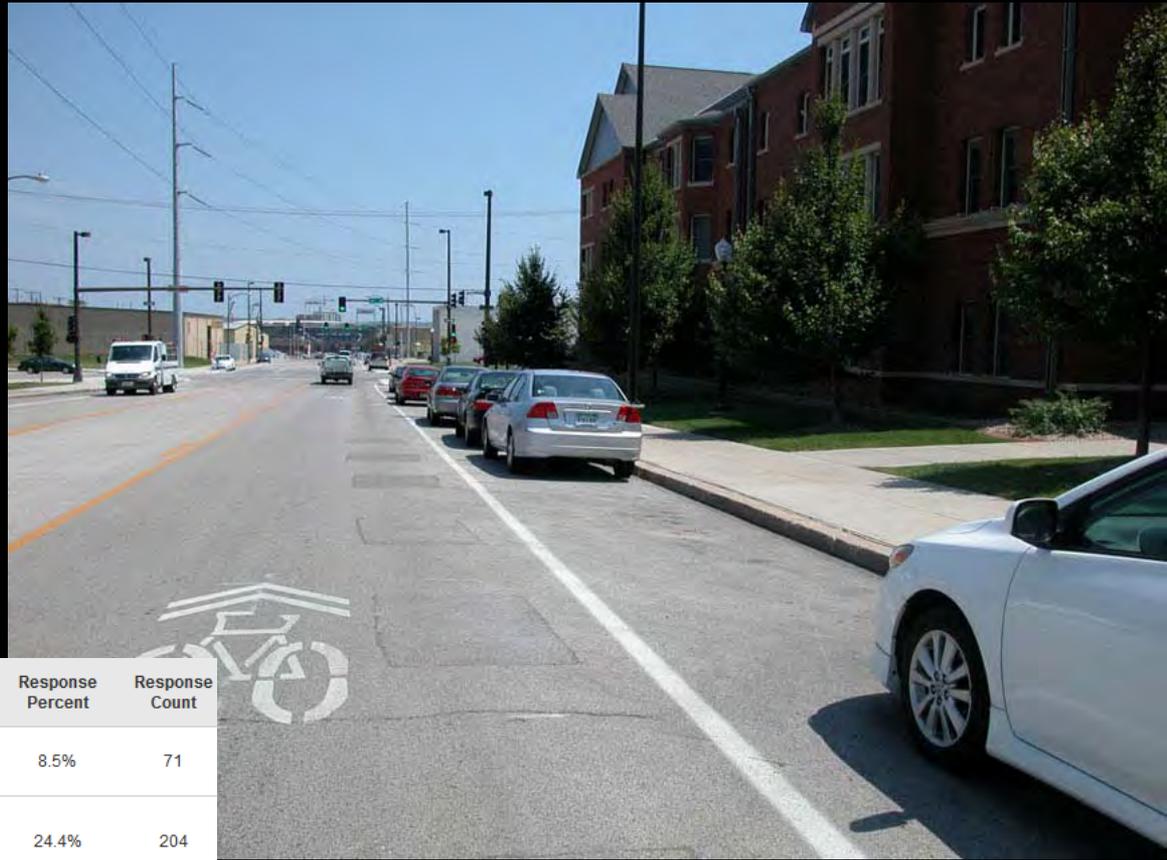
J. Multi-lane major street with adjacent sidepath (wide sidewalk)



		Response Percent	Response Count
1: I am very uncomfortable riding here and would never ride on it.		9.0%	76
2: I am uncomfortable with this street, but might use it for very short distances.		18.3%	155
3: I am comfortable using this street myself, but do not advise it for inexperienced cyclists or younger riders.		28.9%	245
4: This is a comfortable cycling route for most users.		33.4%	283
5: This presents a very safe route that can be used by all people (including families and children) with little hesitancy.		10.5%	89
		answered question	848
		skipped question	121



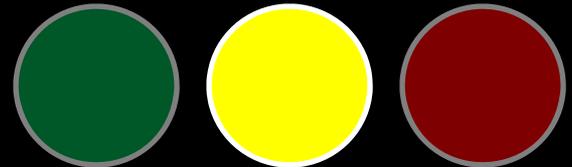
P. 2- or 3-lane street with moderate traffic and shared lane markings



		Response Percent	Response Count
1: I am very uncomfortable riding here and would never ride on it.		8.5%	71
2: I am uncomfortable with this street, but might use it for very short distances.		24.4%	204
3: I am comfortable using this street myself, but do not advise it for inexperienced cyclists or younger riders.		44.4%	371
4: This is a comfortable cycling route for most users.		19.9%	166
5: This presents a very safe route that can be used by all people (including families and children) with little hesitancy.		2.8%	23

answered question 835

skipped question 134



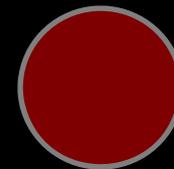
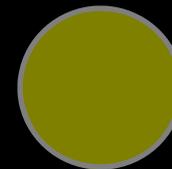
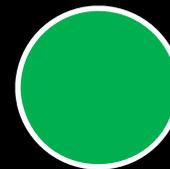
V. Bicycle boulevard



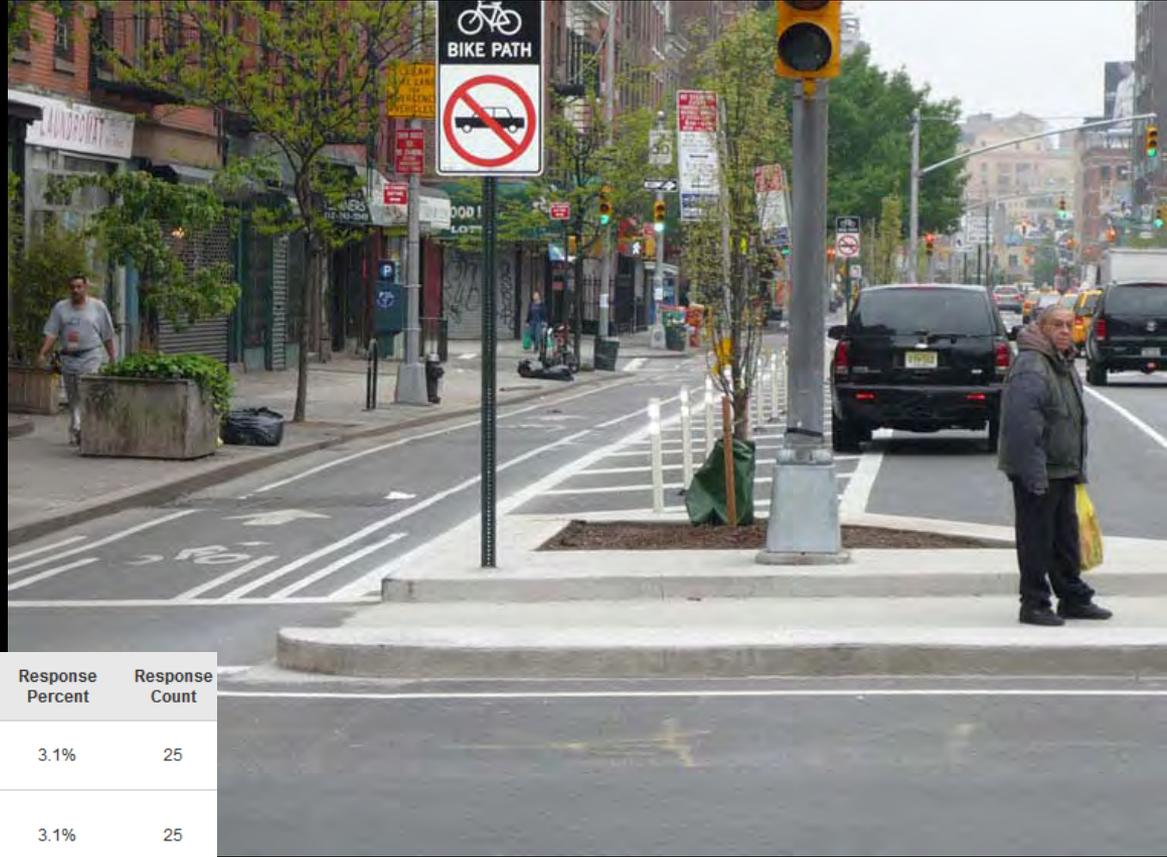
		Response Percent	Response Count
1: I am very uncomfortable riding here and would never ride on it.		5.1%	41
2: I am uncomfortable with this street, but might use it for very short distances.		12.8%	103
3: I am comfortable using this street myself, but do not advise it for inexperienced cyclists or younger riders.		31.1%	251
4: This is a comfortable cycling route for most users.		36.1%	291
5: This presents a very safe route that can be used by all people (including families and children) with little hesitancy.		15.0%	121

answered question 807

skipped question 162

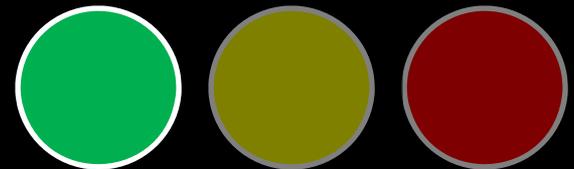


W. Bike track (9th Avenue, New York City)



		Response Percent	Response Count
1: I am very uncomfortable riding here and would never ride on it.	<div style="width: 3.1%; height: 10px; background-color: #92d050;"></div>	3.1%	25
2: I am uncomfortable with this street, but might use it for very short distances.	<div style="width: 3.1%; height: 10px; background-color: #92d050;"></div>	3.1%	25
3: I am comfortable using this street myself, but do not advise it for inexperienced cyclists or younger riders.	<div style="width: 9.0%; height: 10px; background-color: #92d050;"></div>	9.0%	73
4: This is a comfortable cycling route for most users.	<div style="width: 43.9%; height: 10px; background-color: #92d050;"></div>	43.9%	355
5: This presents a very safe route that can be used by all people (including families and children) with little hesitancy.	<div style="width: 40.9%; height: 10px; background-color: #92d050;"></div>	40.9%	331

answered question 809
skipped question 160



Facility Hierarchy (by degree of separation)

- No treatment
- Sharrow/Shared Use Signage
- Sharrow with Defined Parking Area
- Conventional bike lane/shoulder
- Colored bike lane
- Buffered Bike Lane
- Bike track
- Sidepath
- Off-Road Multi-use Pathway at Grade
- Off-Road Multi-Use Pathway with Grade Separations



No Treatment



- Local street network
- Typical low-density residential use
- Very low volumes
- Slow speeds
- Limited through continuity

Sharrow/shared use signage



- Candidates: Indiana Ave, Oakley Ave

- Low to medium ADT
- Inadequate space for other facilities
- Speeds at or below 30 mph
- Define route continuity
- Some application to more intense environments



Sharrows/defined parking area



•Candidates: College Ave, Huntoon/12th St.

- Wide streets with fairly heavy parking use
- Multilane applications
- Medium ADT
- Inadequate space for full bike lanes (under 46 ft. width)
- Speeds at or below 35 mph
- Define route continuity
- Some application to more intense environments

Hybrid Sharrow/Bike Lane



- Inadequate width for two-sided lanes
- Multilane applications
- Medium ADT
- Speeds at or below 35 mph
- Hills or other asymmetry
- Commercial or mixed use settings

Conventional Bike Lane



- Candidates: 6th Avenue

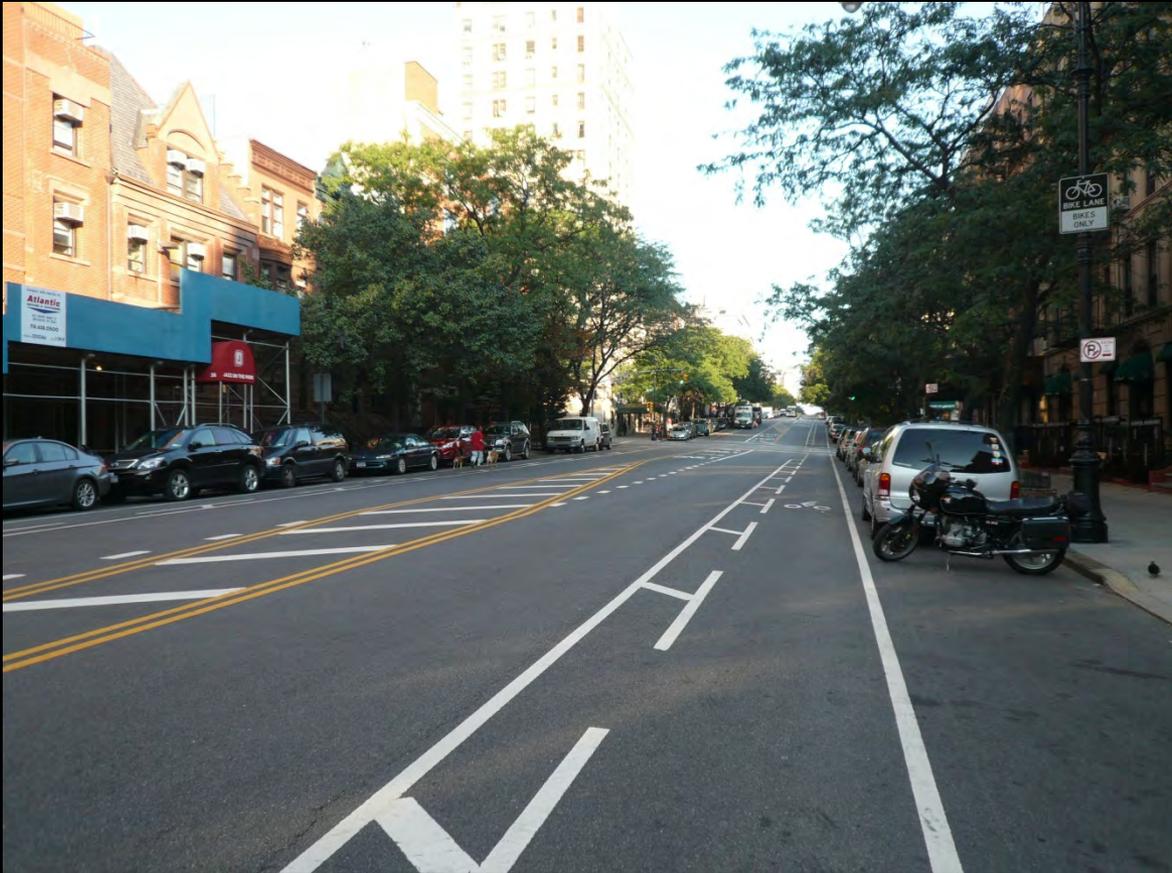
- Adequate street width for 5' lanes
- Multilane applications
- Medium High ADT's
- Speeds at or below 40 mph
- Mixed use settings
- Good system continuity
- Traffic calming/lane management benefits
- Shoulders on rural sections

Colored Bike Lane



- Adequate street width for 5' lanes
- Need for emphasized territory
- Multilane applications
- Medium High ADT's
- Speeds at or below 45 mph
- Mixed use settings
- Good system continuity
- Traffic calming/lane management benefits

Buffered Bike Lane



- Areas where greater separation from moving traffic is warranted.
- Space availability (conversion of a full lane on a one-way street, for example)

Bike Track



- European precedents
- High degree of on-street separation desirable
- Effectively an on-street trail
- Applications in Downtown environment or major conceptual street redesign

Sidepath



- High volume or streets requiring separation
- Safest with minimum intersections
- Separation from street is desirable
- Intersection design is critical

Pathway at Grade



Grade Separated Pathway



- Typically used with available opportunities: streams, grade separated railroads

Complete Street Reconfigurations

- Bicycle Boulevards
- Lane Diets
- Retrofits and New Corridor Design



Bicycle Boulevards



- Low volume streets with good continuity
- Parallel to high ADT arterials, serving similar destinations
- Quiet street/traffic calming features
- Shared use in same space
- Obstacle removal: sensors, sewer grates



Quadrant Charrettes



Help Plan Topeka's Bicycle Friendly Future



Attend your Area's Planning Workshop for the Topeka Bikeways Master Plan

The City of Topeka is sponsoring a series of four Bicycle Planning Workshops to help develop a new Bikeways Master Plan. The Workshops will give you a chance to visit with the consultant and project team, share experiences and favorite routes, and be a part of making our city more friendly to bicyclists and pedestrians.

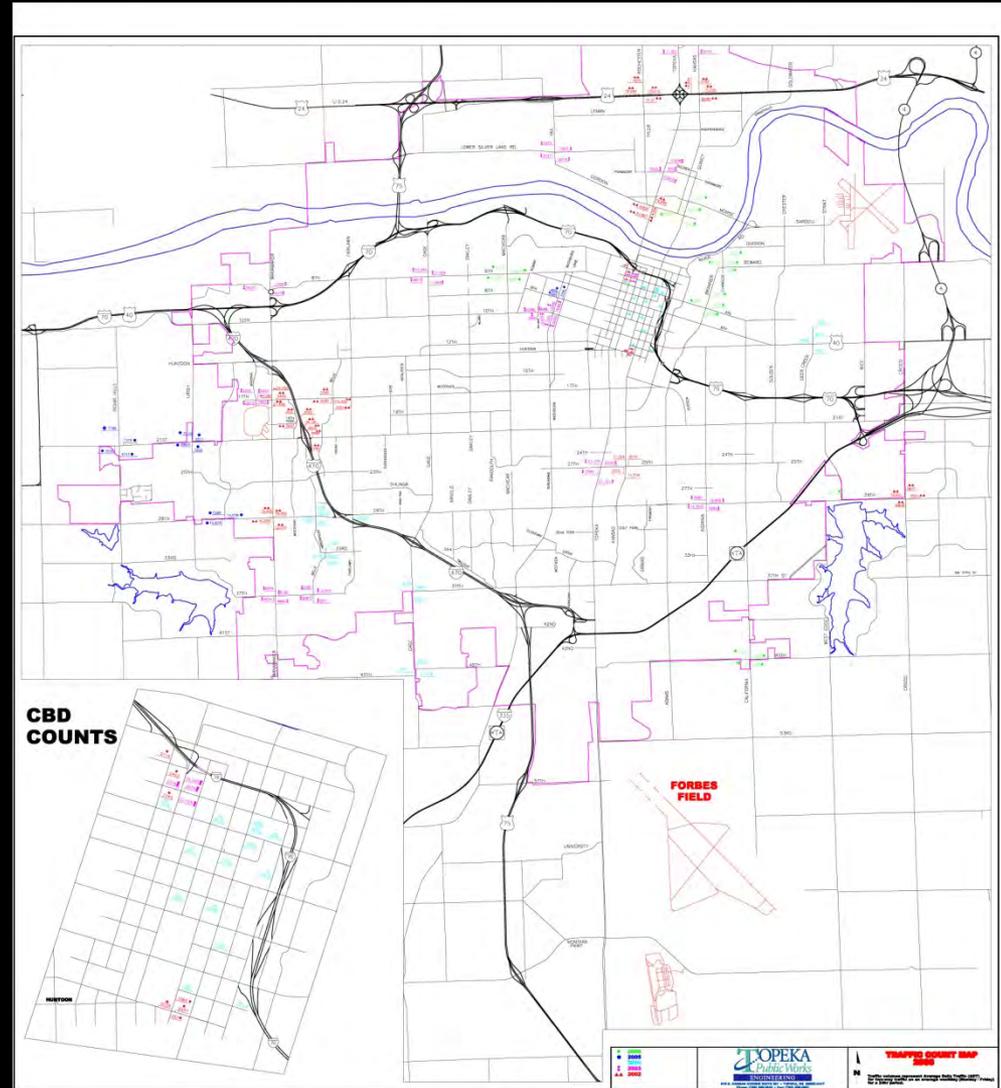
Each two-day workshop will focus on one quadrant of the City. The first evening workshop session is an informal open house, designed to give you a chance to offer ideas and suggestions about streets, pathways, design, routes, and other items. At the second workshop, the team will present findings and concepts for review and discussion.

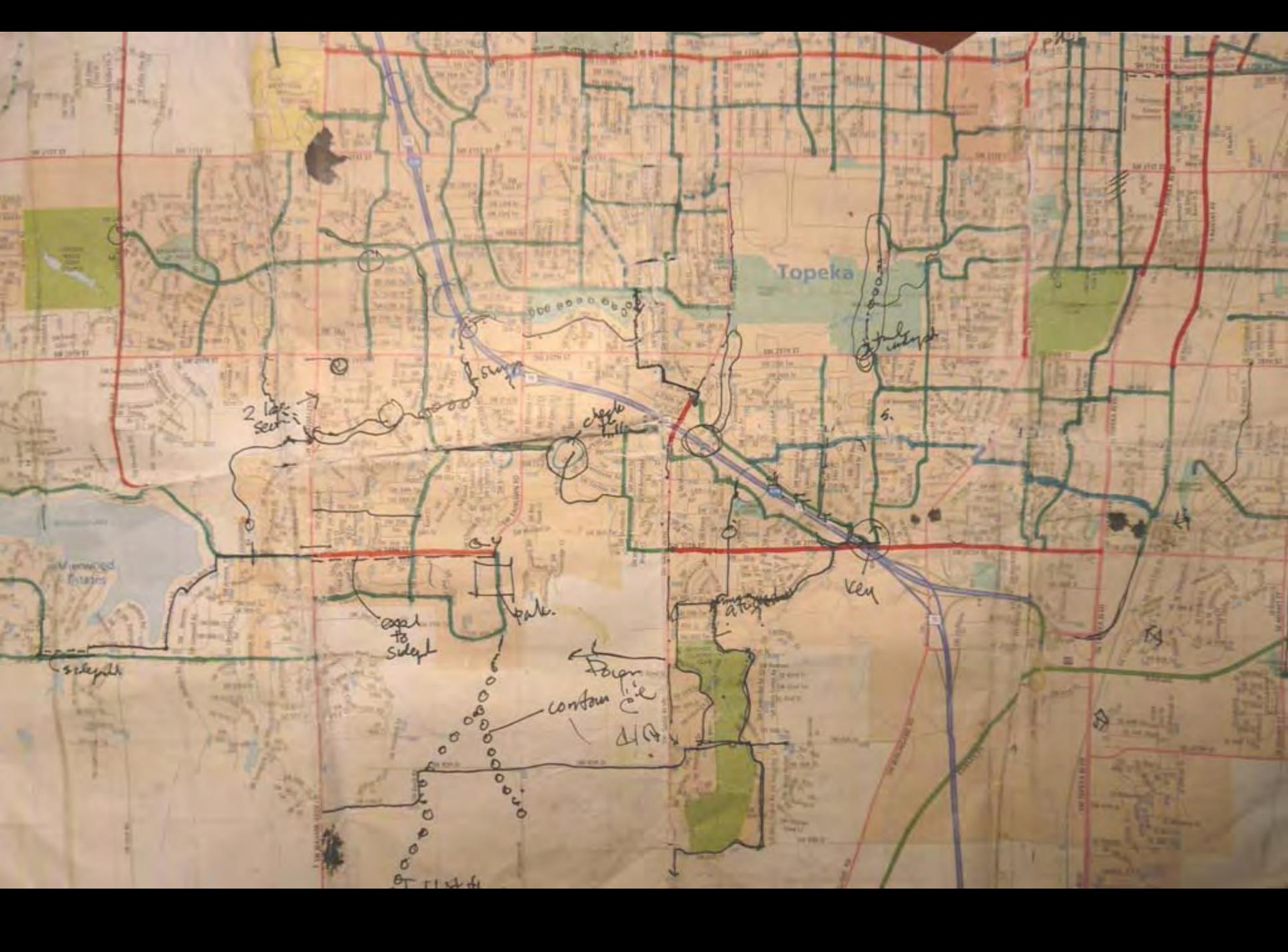


Quadrant	Place	Date	Time
NORTHWEST	Central Park Community Center	September 21, 2010	5:30-7:30 pm
		September 22, 2010	5:30-7:30 pm
NORTHEAST	Oakland Community Center	September 23, 2010	5:30-7:30 pm
		September 24, 2010	4:00-5:30 pm
SOUTHEAST	Hillcrest Community Center	October 7, 2010	5:30-7:30 pm
		October 8, 2010	4:00-5:30 pm
SOUTHWEST	Crestview Community Center	October 14, 2010	5:30-7:30 pm
		October 15, 2010	4:00-5:30 pm

“Streets of Interest” Criteria

- Continuity
- Traffic Volume
- Width
- Grades





2 lake Sec.

sidepath

exp. to Sept

park.

←
Topeka
contour line
D/A

Topeka

Ken

atex

boom
at Sept

17th

5-yr sty @ Oakley
sidekick ends w. of

Ranchoph

31' seal center

Whitson E.S. Ped sigls

RTO added WB @ Gage
Tudor Pk @ Gage intersect

late EB

~~to 1st + st~~

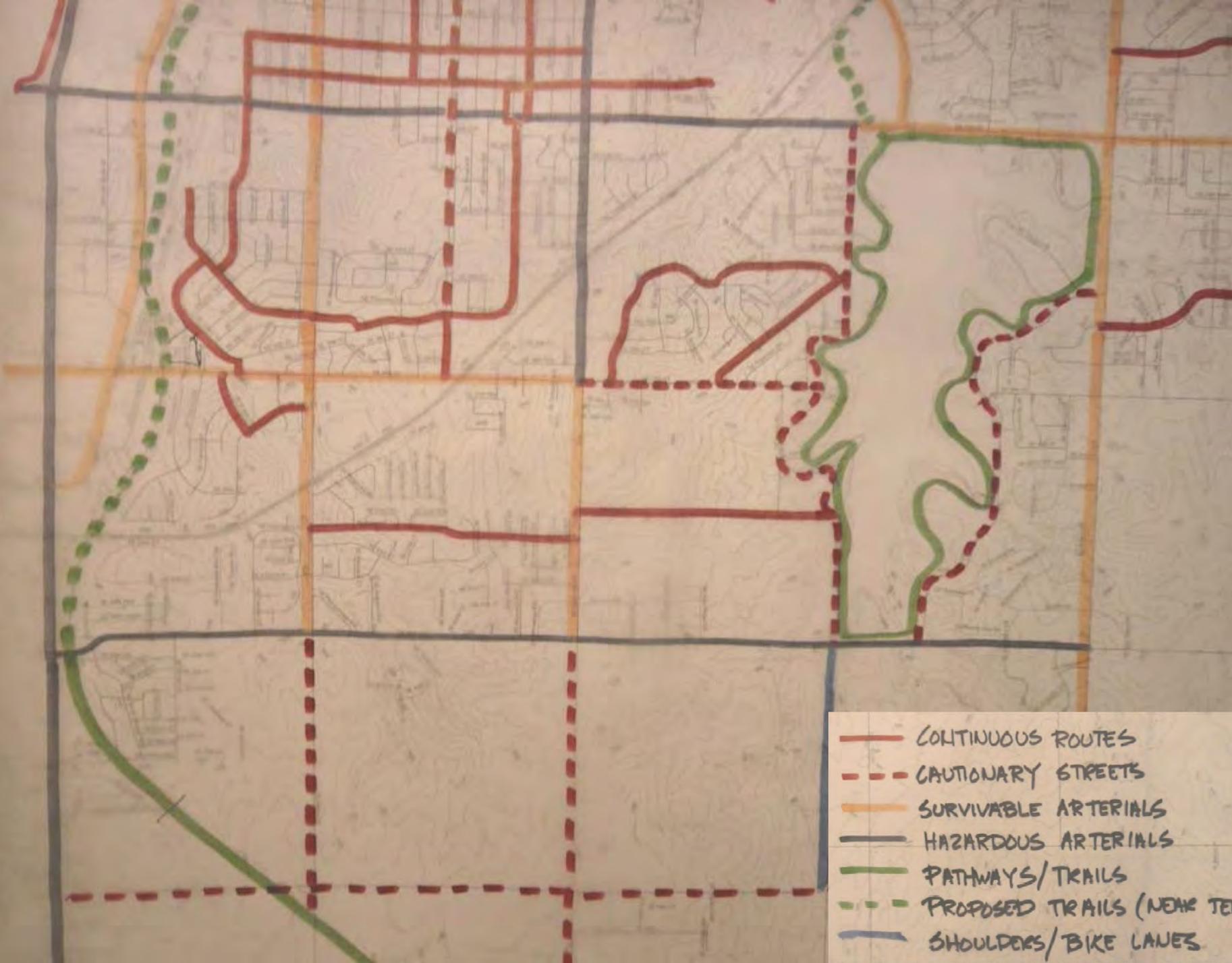
Gage -

31' ~~no P~~ n. side

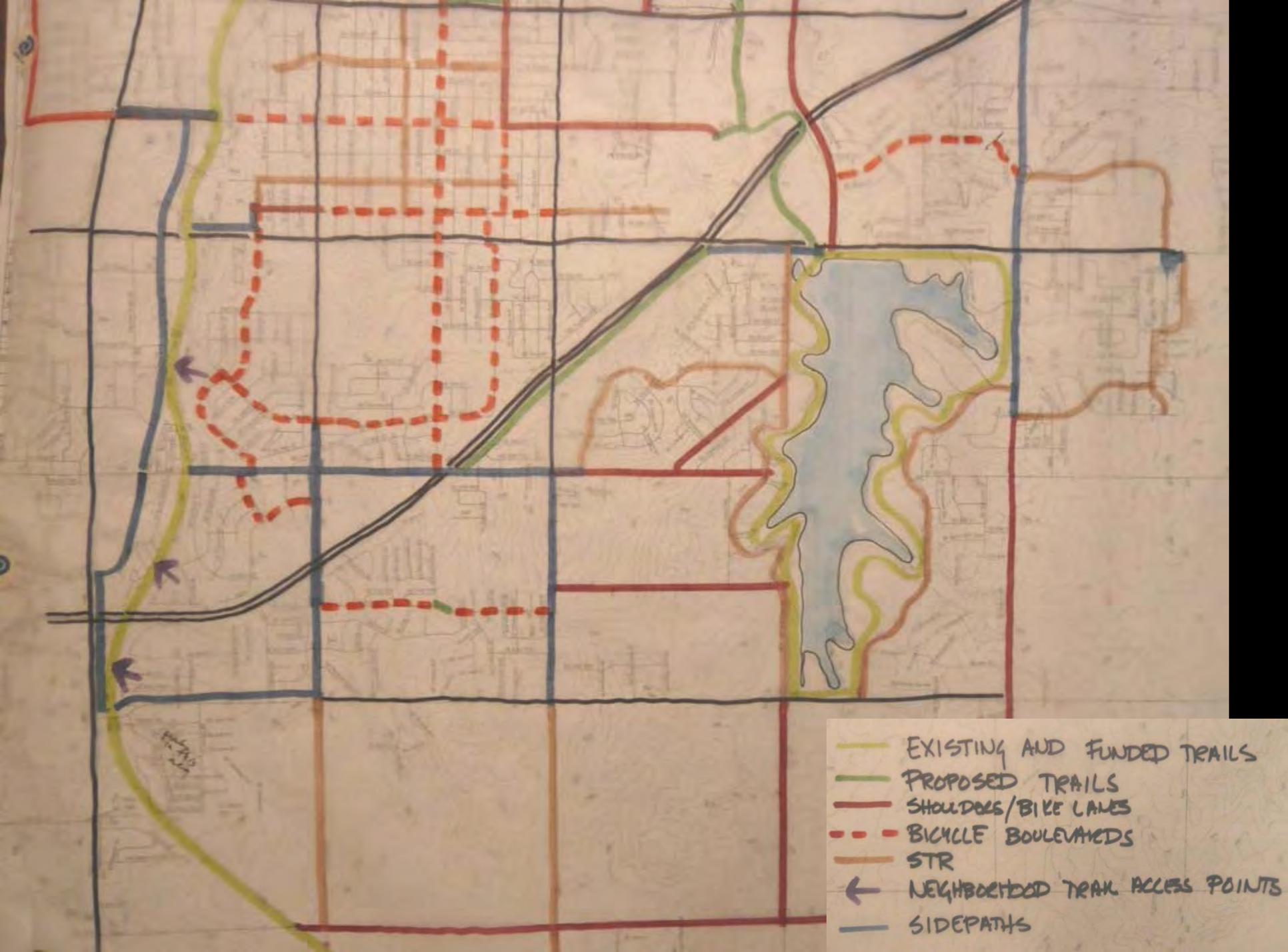
25' E. of Avenida

no P n. side

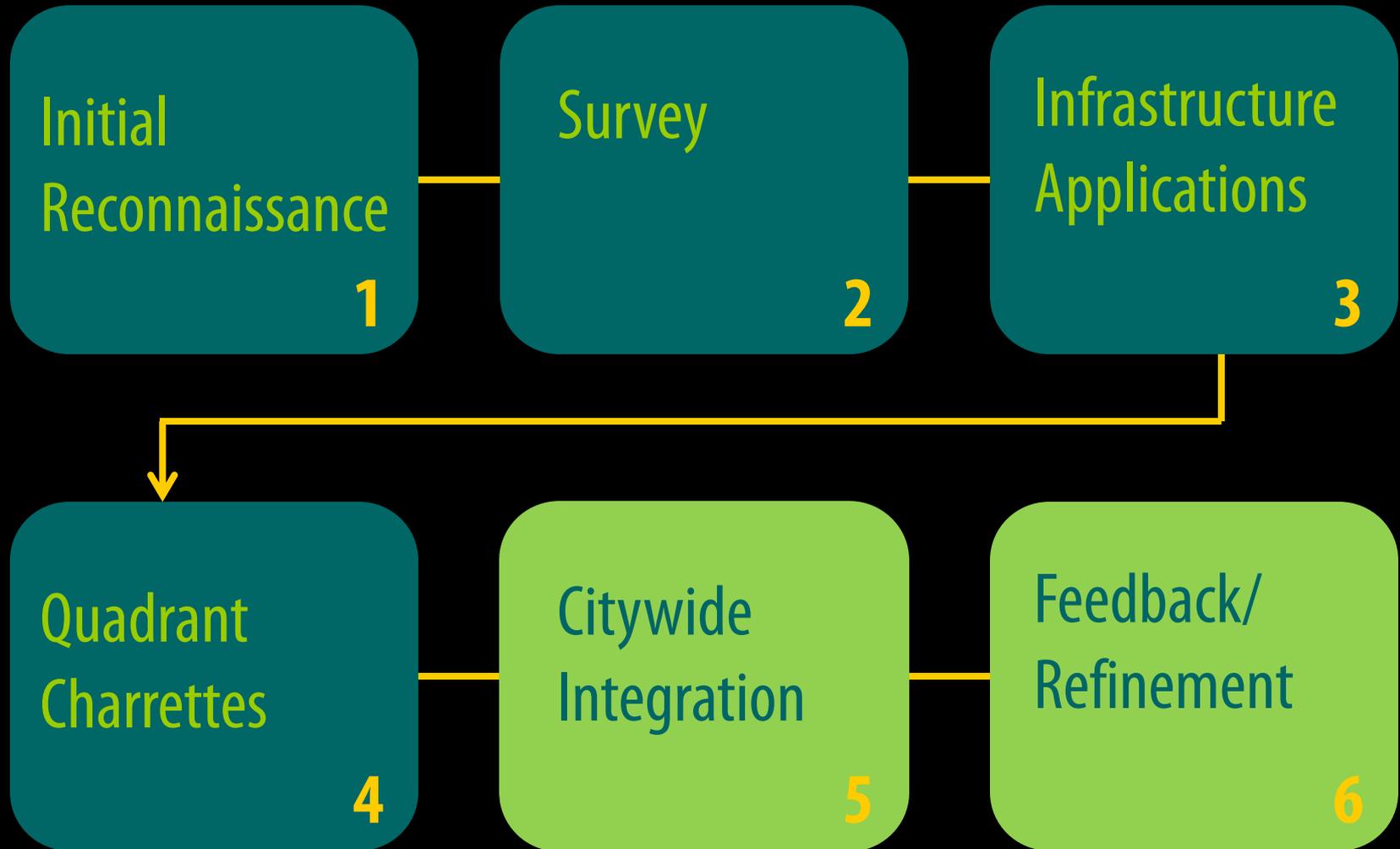
same seal to W.O. end
@ MacVick.



- CONTINUOUS ROUTES
- - - CAUTIONARY STREETS
- SURVIVABLE ARTERIALS
- HAZARDOUS ARTERIALS
- PATHWAYS/TRAILS
- - - PROPOSED TRAILS (NEAR TERM)
- SHOULDERS/BIKE LANES



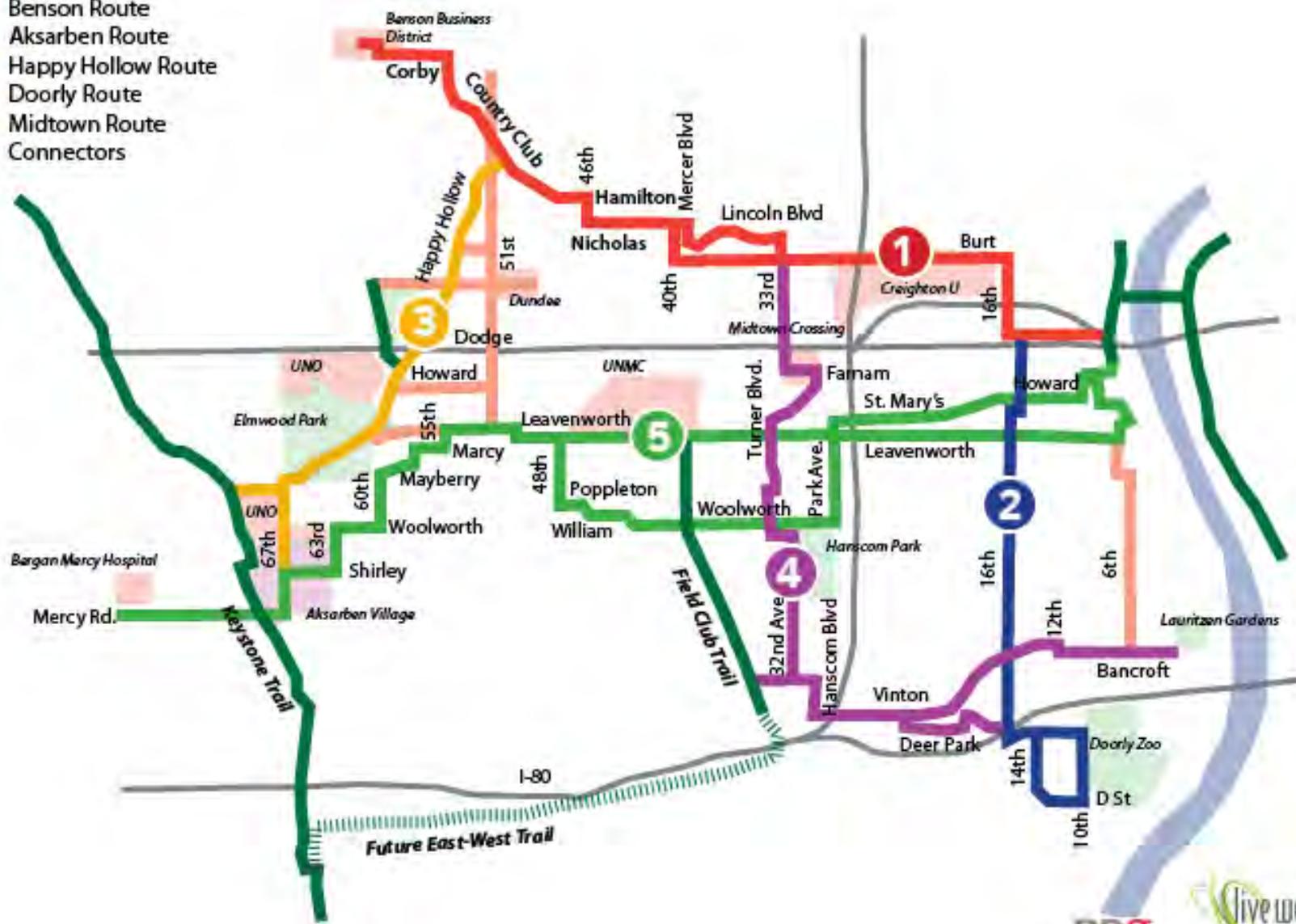
The Process

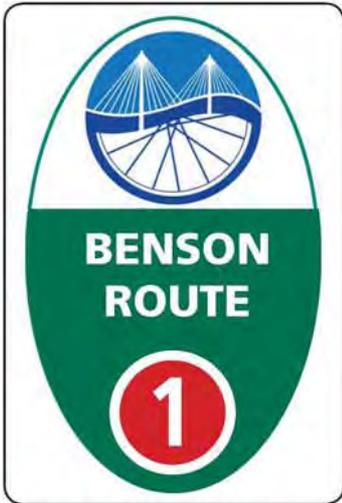




BikeOmaha Pilot Network

- █ Benson Route
- █ Aksarben Route
- █ Happy Hollow Route
- █ Doorly Route
- █ Midtown Route
- █ Connectors





12" identification sign



12" route intersection sign



18" route destination sign



12" route directional sign



12" wayside destination sign

The Topeka Bikeways Master Plan Questions?

David Thurbon, AICP
City of Topeka

Martin Shukert, FAICP
RDG Planning & Design

