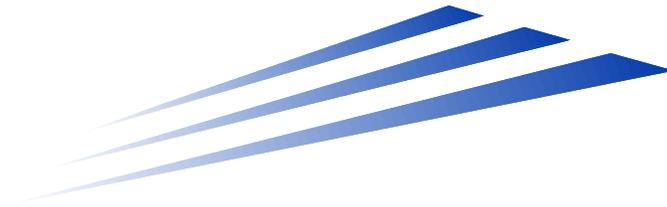


KENTUCKY TRANSPORTATION CENTER

College of Engineering

**ACCOMMODATING PEDESTRIAN AND BICYCLE ACCESS ON
PARKERS MILL ROAD FROM NEW CIRCLE ROAD TO
MAN O WAR BOULEVARD IN LEXINGTON**



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**ACCOMMODATING PEDESTRIAN AND BICYCLE ACCESS ON
PARKERS MILL ROAD FROM NEW CIRCLE ROAD TO
MAN O WAR BOULEVARD IN LEXINGTON**

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Lexington, Kentucky

in cooperation with
Transportation Cabinet
Commonwealth of Kentucky

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December 2001

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Executive Summary

In the fall of 2000 the Kentucky Transportation Center (KTC) began a planning study on behalf of the Kentucky Transportation Cabinet (KYTC) to investigate the bicycle and pedestrian access on KY 1968 (Parkers Mill Road) from Man O War Boulevard to New Circle Road in Lexington. The 1-mile section has a rural design with two 9-foot lanes, limited 3-foot earth shoulders and adjacent objects in the clear zone making travel on this road uncomfortable for pedestrians and cyclists. Yet this section of Parkers Mill Road represents a line of desired non-motorized travel due to parks, neighborhoods, a local high school, the sidewalk network on Man O War and the excellent bicycling to the west of the city in this area. Parkers Mill Road is scheduled to be reconstructed in 10 to 15 years but an interim temporary solution to pedestrian and bicycle access along this travel corridor is being sought. The objective of this planning and design study was to gather background information and include all interested parties in developing alternative plans for bicycle and pedestrian travel along Parkers Mill Road.

The study consisted of collection of background information and extensive field data collection. A well-attended meeting of interested neighborhood and community groups defined problems and possible solutions for the particular route. During the meeting, the stakeholders completed a survey using electronic polling equipment and software. Ideally a solution would address the following community needs:

- provision of recreational opportunities for the neighborhood and community;
- accommodation of pedestrians;
- accommodation of club or advanced bicyclists;
- accommodation of children and more casual bicyclists;
- maintenance of the rural character of the road;
- reduction of the high speed of motorized traffic (relatively high given the geometric design of the road);
- reduction in the volume of motorized traffic using this road; and
- protection of horses from people and people from horses.

This reports summaries nine alternative solutions, the associated costs and the extent to which they address community needs. The following alternatives were developed and are not mutually exclusive:

- Shared Use Path on Either Farm Road South of Parkers Mill Road;
- Shared Used Path on South Side of the Parks Mill Road;
- Provision of a Sidewalk on the South Side of Parkers Mill Road;
- Provision of Dedicated Infrastructure on the North Side of Parkers Mill Road;
- Speed Humps or Other Traffic Calming;
- Reduction in Speed Limit;
- “Share the Road” Signs;
- Road Closure; and
- Convert to One-way Vehicle Traffic with Adjacent Biking/Walking Lane.

It is recommended that the community local officials review these options with KYTC to determine a plan of action.

Accommodating Pedestrian and Bicycle Access on Parkers Mill Road from New Circle Road to Man O War Boulevard in Lexington

Introduction

The section of Parkers Mill Road from New Circle Road to Man O War Boulevard in Lexington is currently designed with a rural low volume cross-section (see Figures 1a and 1b). The 1-mile section has two 9-foot lanes, limited 3-foot earth shoulders and adjacent objects in the clear zone making travel on this road uncomfortable from the point of view of pedestrians and cyclists. Yet this section of Parkers Mill Road represents a line of desired travel for pedestrians and cyclists. At the east end of this section there is one large park, a future park and a well-established neighborhood. The west end of the section ends at Man O War Boulevard, a major arterial with sidewalks that connect to the city's sidewalk network. The Parkers Mill route connects the city of Lexington to established bicycling routes on rural roads outside of Lexington to the west. These routes are used by the Bluegrass Cycling Club and potentially bicycle tourists. Throughout Lexington there are very few points, that like Parkers Mill Road, allow for bicycles and pedestrians to cross New Circle Road to access the area beyond Man O War. Parkers Mill Road is scheduled to be reconstructed in 10 to 15 years but an interim temporary solution to pedestrian and bicycle access along this travel corridor is being sought.

The objective of this planning and design study is to gather background information and include all interested parties in developing alternative plans for bicycle and pedestrian travel along Parkers Mill Road. This report delineates the current conditions and constraints along Parkers Mill Road. It presents the issues raised by community stakeholders. A set of alternatives, their characteristics and approximate costs are presented within this report. Following review of this report, a course of action will be chosen in consultation with the KYTC and the community stakeholders. If needed, detailed plans will be developed for the selected alternative.

Route Description:

Parkers Mill Road or KY1968 is a state-maintained road completely within Fayette county. The section of interest is shown on Figure 2 and runs from Man O War Boulevard at milepoint 3.884 to New Circle Road at milepoint 4.919. The characteristics of the road and the area adjacent to the road change several times along this section. The segment labeled "1" on Figure 2 consists of approximately 0.2 miles of wider open area approaching the Man O War intersection. This segment is shown in Figure 3 while the signalized intersection is shown in Figures 4a and 4b (inbound Parkers Mill is at the back left of the picture). Figure 3 clearly illustrates the dead-end in the city sidewalk network on Man O War at Parkers Mill. Figure 3 illustrates that there are currently no constraints to extending the sidewalk in along segment "1" of Parkers Mill Road.

Segment "2" of Parkers Mill Road (Figure 2) presents barriers to the potential for sidewalk extension or the provision of other infrastructure for bicycles and pedestrians. Several features of the section make biking, hiking and even driving Parkers Mill less

than desirable from a comfort and safety point of view. Figures 5 and 6 illustrate this segment. The north side of the road (on the right) has adjacent brush and utility poles while the south side has mature trees at varying distances from the road. The elevation on the south side of the road is generally above the road but does dip to be significantly below the road near the east end of this segment as illustrated in the profile drawing in Figure 7. This difference in elevation is also evident by contrasting Figure 5 with Figure 6. The exaggerated profile in Figure 7 shows the approximate elevations derived by walking with a Global Positioning System (GPS) receiver¹. Although the absolute value of the elevation above sea level is inaccurate the relative elevation derived with GPS receivers is relatively accurate. The blue line represents the elevation of the southern road edge while the red line represents the elevation approximately five feet from the road edge half the distance to the horse fence. The trees are not in a row at a consistent distance from the road but rather vary making providing any sort of bike or pedway along this segment complicated (even before considering the cut and fill that might be necessary).

Segment “3” of the subject route (Figure 2) is illustrated in Figure 8. A concrete wall along the south side of the road distinguishes this segment. It was originally built by the farm owner in 1927 to enclose sheep. The current land owners report that the current function of the concrete wall is to protect horses from people, people from horses and the wood horse fence from vehicles. A copy of the deed to this property owned by the Hal Price Headley Trust, is shown in Appendix A. Approximate property lines are shown in Figure 9, the deed indicates the property line as the center of the road. However, Kentucky Revised Statue 178.025, shown in Appendix B, indicates that since 1966 the property line reverts to the fence line along any such public road in order to allow for the road right of way. The concrete wall whose original function was to enclose livestock might be considered a fence in the 1966 statute and a legal opinion on property ownership along this section should be sought depending on the alternative pursued. The concrete wall appears stable but has been damaged in several sections including the one shown in Figure 10. The concrete wall ends just outside the park entrance. The opposite side of the road has a more adjacent fence, brush and utility poles.

Segment “4” of the route contains several driveways including one to the new Cardinal Run Park. A traffic signal is planned for this location. A parcel of land north of the road will also be a future park as shown on Figure 9. The route section of interest ends at the New Circle Road underpass (Figure 11). The underpass is relatively wide providing little impedance to bicycle or pedestrian transportation. The city is planning to install a sidewalk on the south side of Parkers Mill from inside New Circle Road to the park (the left hand side of the picture in Figure 11). The section of Parkers Mill Road inside New Circle Road does not have sidewalks all the way to Versailles Road nor does the sidewalk on the south side actually cross Lane Allen Road (the Parkers Mill sidewalk turns down Lane Allen from both sides but does not cross it – there is a relatively steep grade at this location).

The Lexington Fayette Urban County Government (LUCFG) Transportation Planning Division reports a 1999 daily traffic count of 1790 vehicles outside of New

¹ The owners of the property south of Parkers Mill Road expressed concern regarding the use of surveying equipment near the thoroughbreds and therefore the less intrusive GPS receiver was used at this planning stage of the work.

Circle Road on Parkers Mill Road. Inside New Circle Road a 1999 ADT of approximately 6500 vehicles is reported. This traffic has surely increased with the opening of the Cardinal Run Park this year. On Thursday June 21, 2001 at 7 pm, 212 vehicles were parked in the parking lot at the park. Turning movement counts taken at the park entrance on June 27, 2001 from 5:30 to 7:30 PM are shown in Figure 12. These counts suggest that the majority of traffic is through traffic on Parkers Mill Road. Traffic projections for the year 2025 from the LFUCG MINUTP planning software are between 16,000 and 20,000 ADT. This represents a significant projected increase in traffic volume.

The route section of interest has a speed limit of 55 mph. As indicated in Table 1, a spot check of speed using a radar gun from a hidden location revealed that most people are not exceeding the speed limit. Note also in this table that the total traffic flow in the two half hour periods combined is higher than a quarter of the 1999 traffic count suggesting that traffic volumes have increased in the interim.

The crash history of this route was obtained for the three year period including 1997 through 1999. A summary of the crash circumstances and statistics is contained in Appendix C while the details of the one fatal crash are shown in Appendix D. Of the six mile total length of Parkers Mill Road, only one mile falls within this study area. However, 20 of the 65 total crashes fell into the stretch of road under study between Man O War and New Circle Road. The crash circumstances are not untypical for a rural character road near an urban area. A total of 9 of the 20 crashes were single vehicle with fixed objects. A third of the crashes were reported to involve driver inattention while three involved alcohol. Only 5 of the 20 crashes involved slippery roads. The one fatality occurred in a crash resulting from driver attention and the passenger was not using any safety restraints. The KTC traffic and safety section does not list any section of Parkers Mill Road as having a critically high crash rate.

Gathering Stakeholder Input

In November 2000 a letter and input form (Appendix E) was mailed to approximately 75 individuals or groups regarding the accommodation of bicycles and pedestrians on this section of Parkers Mill Road. The objective of the communication was to inform neighborhood groups, local decision makers, and other stakeholders such as the Bluegrass Cyclists Club, that the study was being undertaken. The input form asked individuals to identify their needs for non-motorized transportation along the route. The replies are summarized in Appendix F. In general, neighbors were for the provision of some form of facility. Government representatives differed between noting that such accommodation of bicycles and pedestrians would be consistent with current planning goals and noting that accommodation could wait until the road was reconstructed. The Headley Property Trust opposed any changes, such as a path on the south side of the road, which could place horses and people adjacent to each other.

In February 2001, the meeting announcement shown in Appendix G was mailed to the original mailing list plus any other parties who had contacted us or been recommended on the fall feedback forms. The public discussion took place on March 6, 2001 at the Beaumont Public Library in Lexington. The two-hour meeting was attended by 24 people as well as Mr. John Carr of KYTC and four representatives of KTC. A

slide presentation was used to communicate background information including some of the factors discussed in the previous section of this report. Following brief clarification questions, the facilitator went around the room asking each person to raise a single issue or concern about this section of Parkers Mill Road. People were asked to keep their comments brief so everyone could speak. Two rounds were completed before no additional issues were left to be raised. The comments made in this session can be found in Appendix H.

The remainder of the meeting was used to conduct an electronic poll using the Sharpe Decisions 2000 computerized tool. A series of questions were posed and all individuals except KYTC and KTC staff used wireless electronic keypads to answer using numbers from 1 through 10. These questions are shown in Appendix I along with the summary of results that are discussed in the next section of this report. Two additional surveys were available for people to take and mail back: one on typical non-motorized transportation origins and destinations and one allowing people representing groups to describe their group and communicate any interests the group might have (this allowed us to use the electronic keypads for people to respond about themselves and their interests as an individual).

In the electronic polling exercise people were asked to provide information about themselves, their non-motorized transportation/recreation activities, their preference for different types of bicycle/pedestrian accommodation and the specific location where they needed accommodations. Five locations or areas were delineated, as shown in Figure 13, for the group to rate their need for bicycle or pedestrian accommodation in that section of the study area. Sections D and E were not along Parkers Mill Road but rather farm roads on adjacent properties. The farm road in section D is part of a shared use path corridor proposed, but not yet funded, for a transportation enhancement grant. Section E is along the farm road that comprises the property boundary between the Headley Trust Property and the Cardinal Run Park (see also Figure 7). The LFUCG hopes to eventually use this road as a shared use path. However, resolution of this property boundary issue may take some time. These two off-road corridors were seen as potential alternative solutions to provision of dedicated infrastructure along Parkers Mill itself.

Community Input

Many concerns and issues regarding Parkers Mill Road and accommodation of bicycle and pedestrian travel were discussed at the meeting. The problems that the State should aim to address can be summarized into a relatively small list. No alternative will satisfy all objectives but an ideal solution would accomplish the following:

- provision of recreational opportunities for the neighborhood and community;
- accommodation of pedestrians;
- accommodation of club or advanced bicyclists;
- accommodation of children and more casual bicyclists;
- maintenance of the rural character of the road;
- reduction of the high speed of motorized traffic (relatively high given the geometric design of the road);
- reduction in the volume of motorized traffic using this road; and
- protection of horses from people and people from horses.

The input forms mailed back after the public discussion meeting indicated that if this road was expanded bicycle lanes were wanted. Several cyclists reported using this route 3 or 4 times a week to access the areas beyond Lexington in Jessamine and Woodford counties (cyclists' homes were in Cherokee Park, Ashland Park, Lane Allen and south Lexington). Other cyclists reported that they had stopped using this route in recent years due to increased traffic and speed. The cyclists reported a "fear" on this road that they do not feel on other rural character roads in the area.

The polling data provided an indication of the makeup of the 24 stakeholders who completed the survey while attending the meeting (Appendix I). Only 37% of the attendees were from the area around Parkers Mill Road while 58% were from the rest of Lexington. Three quarters of the group belonged to a neighborhood association. A third of the group belonged to a bicycle club while 4 attendees were transportation professionals. Half of the group either occasionally or frequently bicycled in the area while only 20% jogged. None of the group rode horses, used rollerblades or used strollers or wheelchairs in the area. Although cyclists were over represented when compared to the general population, it was not felt that any one group dominated the meeting either through review of these statistics or observation of the sense of cooperation at the meeting.

The electronic polling data revealed that on average people viewed the utility of all 5 locations within the area (Figure 12) as serving their non-motorized transportation needs. Closer review of the results for area residents (Appendix J) and bicycle club members (Appendix K) reveal that the different groups have different preferences. The residents place high utility on having any facility in any of the four longer distance areas (i.e. anything but section A). The cyclists place high utility on having a facility along sections B and C (Parkers Mill Road) but not the others. A sidewalk, mulched path, gravel path and gravel shoulders were rated very low on average as well as by the two specific groups. Paved shared use paths, paved shoulders and bicycle lanes were rated high by all groups. Wider travel lanes had a moderate utility on average but high utility by bicycle club members.

Alternatives to Accommodate Bicycle and Pedestrian Travel Along Parkers Mill Road

This section describes nine potential solutions that would improve the non-motorized transportation accommodation in this area. These alternatives are not mutually exclusive and several could be pursued. The advantages and disadvantages of each are discussed. The next section presents a cross tabulation of which alternatives address which of the concerns delineated above.

Shared Use Path on Either Farm Road South of Parkers Mill Road

A shared use path provides ideal and preferred accommodation for pedestrians and many cyclists. A paved path was rated highly by the discussion group while gravel and mulch paths were not. The provision of a shared use path, as planned along either old farm road corridor in the areas to the south of Parkers Mill Road, would provide the residents with a place for biking and walking and could connect New Circle Road and

Parker Mill to Man O War slightly to the south or through the Beaumont neighborhood. This option would do nothing to address current safety concerns for this section of Parkers Mill Road or to accommodate the bicycle travel to areas west of this corridor. The advantage of this option is that the corridors already exist and plans are in the works to undertake these projects. The disadvantage of the Fallon Road option is that a property boundary dispute must be resolved before plans can proceed. Either shared used path would cost approximately \$90,000.

Shared Used Path on South Side of the Parks Mill Road

In order to place a path along the south side of Parkers Mill Road the property ownership behind the concrete wall would have to be resolved likely requiring legal proceedings. The space between the wall and the road is only 10 feet which is the minimum width of a standard shared use path. Although the concrete wall provides a pleasant buffer from road traffic it would also present a path-side hazard to path users. A means to protect the horses would be required such a second fence inside the existing wire mesh and wood horse fence. As evident in Figure 7 at least one section of fill and one section of cut would be necessary along the concrete wall section to ensure vertical curvature was reasonable for bicycle and wheelchair access. Once the path was beyond the concrete wall towards Man O War, the removal of numerous mature trees would be necessary as well as more cut and fill. Even if the wall and trees were removed to facilitate the path, the path would be closer than is reasonable to the road given AASHTO standards. Therefore to safely place a shared use paved path along the south side of Parkers Mill Road purchase of adjacent property would likely be necessary. Without purchasing property the path would cost approximately \$250,000. The club cyclists would likely not use this path but would prefer to stay on the road.

Provision of a Sidewalk on the South Side of Parkers Mill Road

A five-foot wide sidewalk could be built in the same location as the path described above. It could be placed between the concrete wall and the fence. If cycling were prohibited on the sidewalk, the concrete wall could remain in place but the ownership of the land behind the concrete wall would still require resolution. Only three trees would need to be removed towards the Man O War end if the sidewalk was narrowed or turned around the other trees. Sections of cut and fill would be necessary. An additional fence to protect horses would be necessary. A sidewalk was not rated highly by the stakeholders and is unlikely to fit with the rural character of the road which people wish to maintain. This option will cost approximately \$125,000.

Provision of Dedicated Infrastructure on the North Side of Parkers Mill Road

The space to provide dedicated infrastructure on the north side of the road does not exist. Fewer elevation problems exist on this side of the road requiring less cut and fill. Property would have to be purchased and the farm fence replaced. Trees and brush would have to be removed. The path or sidewalk could be placed on the inside of the

utility poles eliminating the need to move them. The cost for a paved path without land purchase would also be approximately \$200,000.

Speed Humps or Other Traffic Calming

Efforts at traffic calming could slow traffic on Parkers Mill Road and improve the bicycle friendliness of the route for experienced club cyclist or bicycle tourists. Signs, speed humps and reduced speed limit could be accomplished for under \$10,000. This would not improve the area for pedestrians or casual cyclists.

Reduction in Speed Limit

The provision of signs to reduce the speed limit along this rural section of road from 55mph to 35mph (the norm throughout the city) would improve the route for road cyclists and might decrease the through traffic. Compliance with the speed limit would be an issue that may require use of traffic calming devices as indicated above. This alternative would cost under \$1000.

“Share the Road” Signs

Even if no physical alteration is undertaken on this road, the numerous cyclists reporting routine use of this route to access rural bicycling routes to the west of Lexington dictates consideration of “Share the Road” signs (see Figure 14). The W11-1 diamond warning sign is placed above the W16-1 “share the road” placard. The signs should be placed at the beginning and midpoint of the section in each direction (cost approximately \$1000).

Road Closure

An innovative solution to maintaining the rural character of a road while eliminating through traffic has been implemented elsewhere in Fayette county: road closure. In this case, access to Parkers Mill Road could be precluded at either the Man O War or New Circle Road end. If motorized vehicles were allowed only local access then lower traffic volumes would make the road friendlier for bicycles. Further traffic calming or speed limit reduction would be necessary to accommodate pedestrians but still in a less than ideal manner. Temporary barriers could be used to try this solution for a limited time. If implemented permanently a budget for barriers and some plantings would result in an approximate cost of \$10,000. Closure at the Man O War end has the advantage of providing the park and homes direct access to the city. However closure at the New Circle End would prevent the park traffic from traveling through the established neighborhood inside New Circle Road. Given the lack of driveways outside the area immediately near the park, closure at the mid-point does not seem to serve any purpose. Any closure might preclude access to Dunbar High School. This action would require further public consultation that could be undertaken during this research project. It would be necessary to determine the implications for emergency vehicle access.

Convert to One-way Vehicle Traffic with Adjacent Biking/Walking Lane

The configuration of a one-way inbound or outbound travel lane with a shared bicycle/pedestrian lane is shown in Figure 15. In either case, the 18 feet of road width is delineated as one standard 12-foot motorized vehicular lane and a 6-foot bike/pedestrian lane. Because the 6 feet is less than required for safe two-way bicycle travel, the bicycles traveling in the same direction as the motorized traffic would use the travel lane as shown on the Figure. Such a contra-flow bicycle lane is in place on a one-way street on the University of Kentucky campus. Pedestrians traveling either direction would use the non-motorized lane. This alternative reduces the traffic volume and moves motorized traffic away from the adjacent objects in the clear zone. The one-way designation could begin at either New Circle Road or after the park entrance. Starting at New Circle Road would eliminate park related traffic in at least the one direction from the neighborhood inside New Circle Road. However, this must be balanced with the needs of the homes outside New Circle Road on Parkers Mill that would have the inconvenience of traveling around to Man O War on either their inbound or outbound trips. The one-way outbound option offers the potential for this route to continue to be used as a PM peak alternative to Versailles Road during Keeneland season. The one-way option has the advantage over the road closure option of sustaining emergency service access. The approximate cost for this alternative with use of traffic calming is \$10,000.

Summary and Recommendations

The alternatives to achieve better bicycle and pedestrian accommodation on the Parker Mill Road section between New Circle Road and Man O War Boulevard vary greatly in cost and in effectiveness. Table 2 illustrates the cross tabulation of alternative solutions and community concerns. No one option addresses all of the concerns raised by community stakeholders. However, the road closure and one-way options do address all but the speed concern. Both of these alternatives are relatively low-cost but opposition from the community is possible and further input is required to consider all the ramifications of such drastic design changes in the transportation system. While the speed limit reduction, “share the road” signs, and traffic calming address advanced cyclists’ needs to some degree, these options do nothing for pedestrians or casual/child cyclists. Provision of paths and sidewalks are expensive options. Such provision along Parkers Mill itself would require acquisition of right of way which may not be acceptable for a path. Existing plans related to the park development to provide off-road paths to the south should be supported.

Ultimately it is necessary for the community, local officials and KYTC to work together to decide what if any alternatives should be pursued. Currently no funding is programmed but one or more of these alternatives could be pursued as a transportation enhancement project under the TEA21.

Table 1: Summary of Parkers Mill Road Speed Observations (May 17, 2001)

	Vehicles Inbound (per 30 min)*	Vehicles Outbound (per 30 min)*	Average Inbound Speed (mph)	Average Outbound Speed (mph)
AM Period 7:22 - 7:52 AM	259	23	39.4	42
PM Period 5:10 - 5:40 PM	96	238	43.5	42.3

* Note that only 80-90% of all traffic was "caught" with the radar detector.

Table 2: Comparison of Alternatives

	Old Farm Road Paths	South side Path	South side sidewalk	North side path	Traffic Calming	Reduce Speed Limit	Signs	Road Closure	One-way @ Pedway
Recreational opportunities	X	X	X	X				X	X
Accommodation of pedestrians	X	X	X	X				X	X
Accommodation of advanced bicyclists					X	X	X	X	X
Accommodation children/causal bicyclists	X	X	X	X				X	X
Maintain road's rural character	X				X	X	X	X	X
Reduce speed					X	X			
Reduce traffic volume					X			X	X
Protect horses	X			X	X	X	X	X	X

Figure 1a: Parkers Mill Road Midway between New Circle Road and Man O War Boulevard (looking east towards city)



Figure 1b: Parkers Mill Road General Cross Section

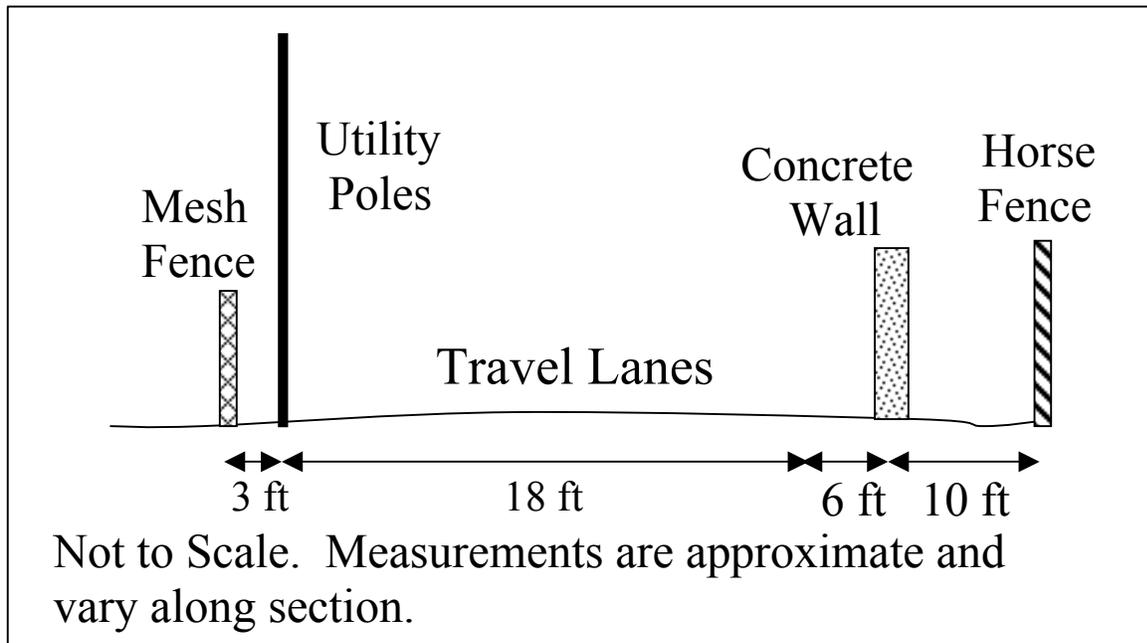
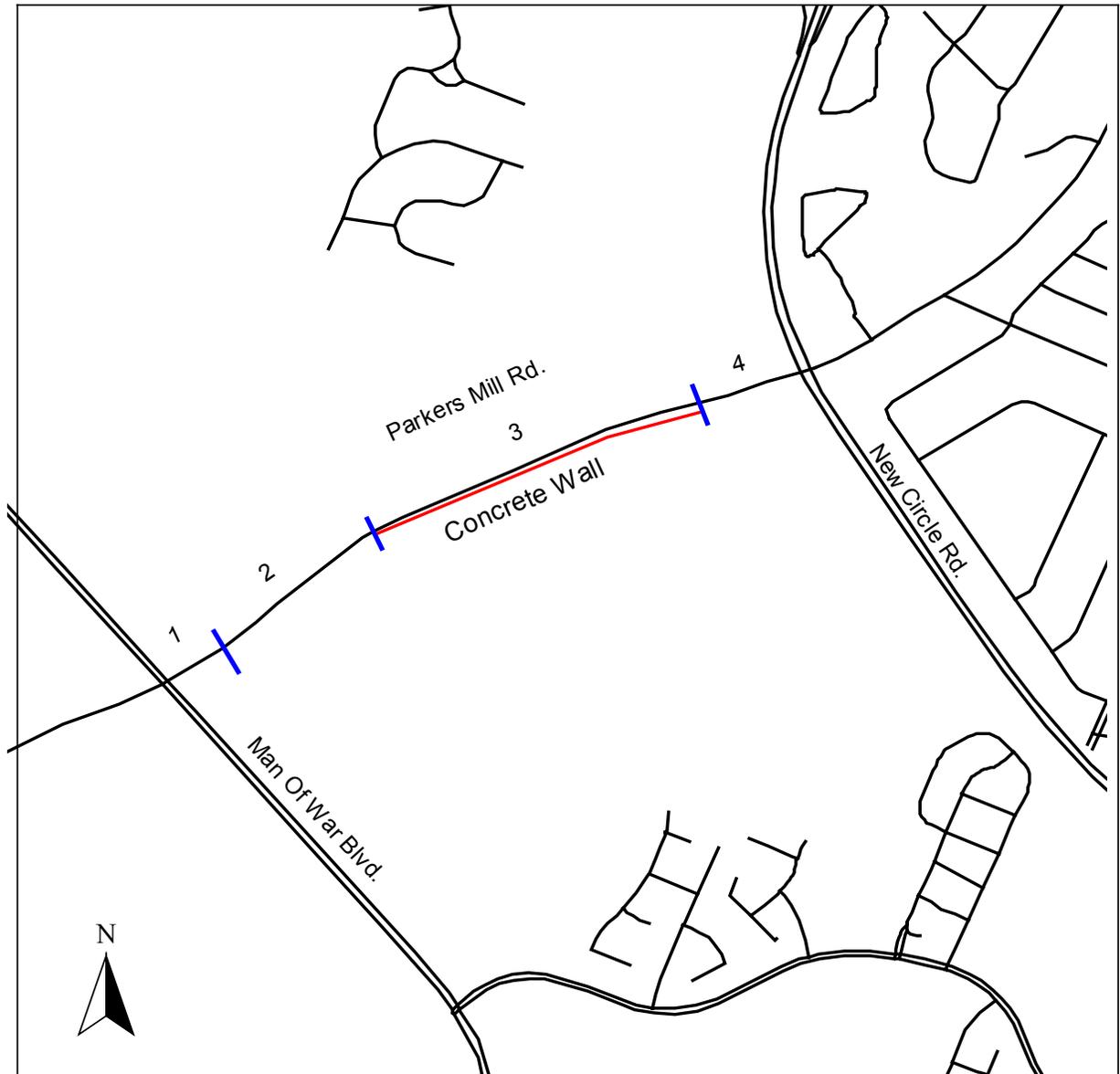


Figure 2: Study Area / Route Segments



The concrete wall is shown in red.

Figure 3: Segment 1 – Wider Section near Man O War Boulevard (looking east towards city)



Figure 4a: Man O War / Parkers Mill Signalized Intersection (from the northwest corner)



Figure 4b: Man O War / Parkers Mill Signalized Intersection

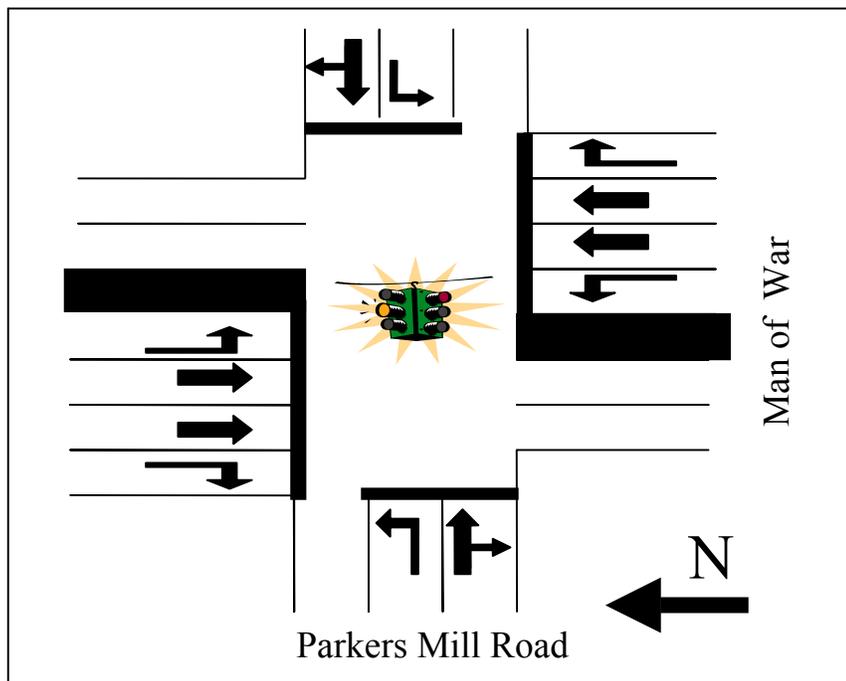


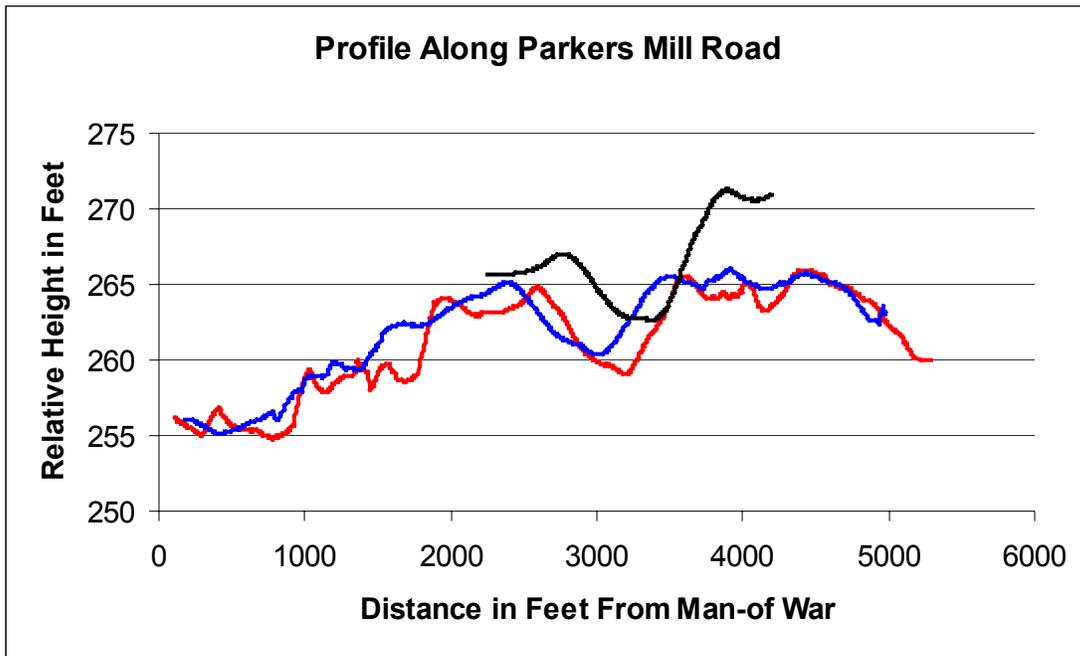
Figure 5: Segment 2 – Tree Lined Section of Parkers Mill Road (looking towards Man O War on the south side of Parkers Mill)



Figure 6: Segment 2 – Tree Lined Section of Parkers Mill Road (looking towards Man O War on the south side of Parkers Mill)



Figure 7: Parkers Mill Road Profile



-  Elevation along the centerline between the concrete fence and the horse fence
-  Elevation of the south road edge of Parkers Mill Road
-  Elevation of the top of the concrete wall

Figure 8: Parkers Mill Concrete Wall Segment (south side of Parkers Mill looking west near the park)



Figure 9: Property Boundaries along Parkers Mill Road

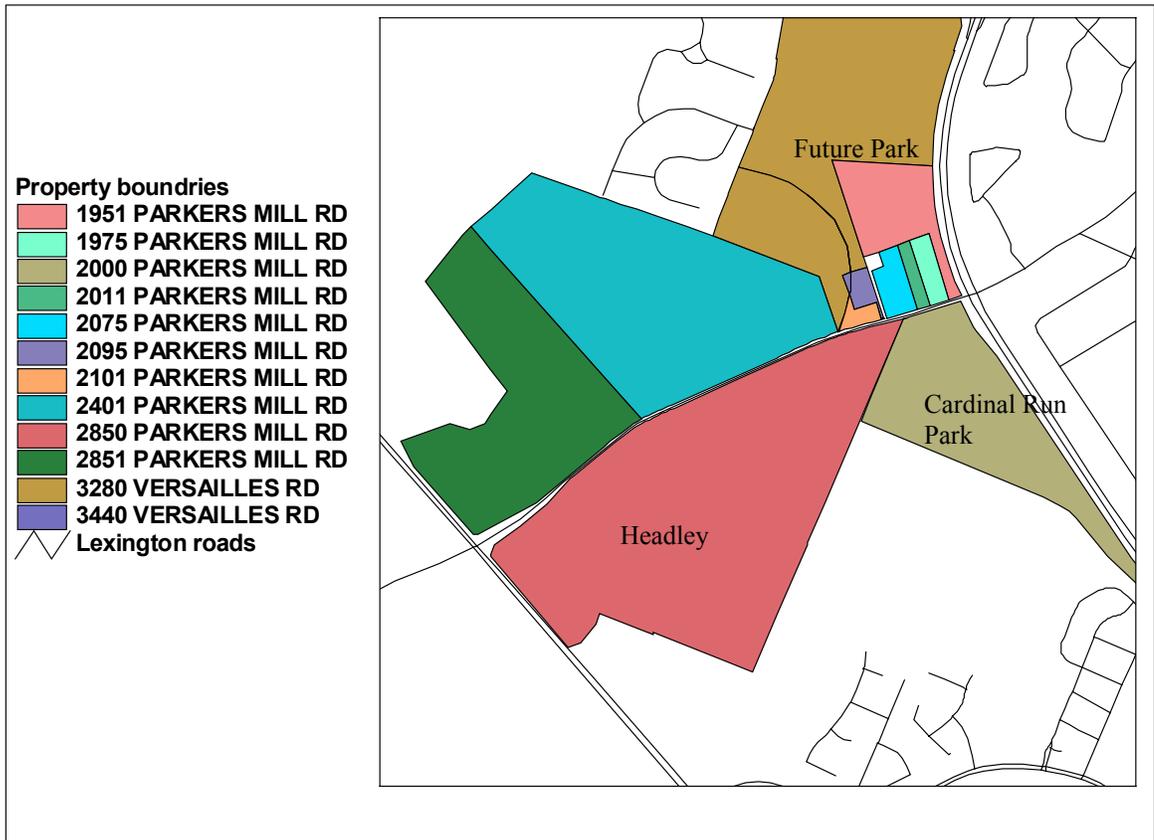


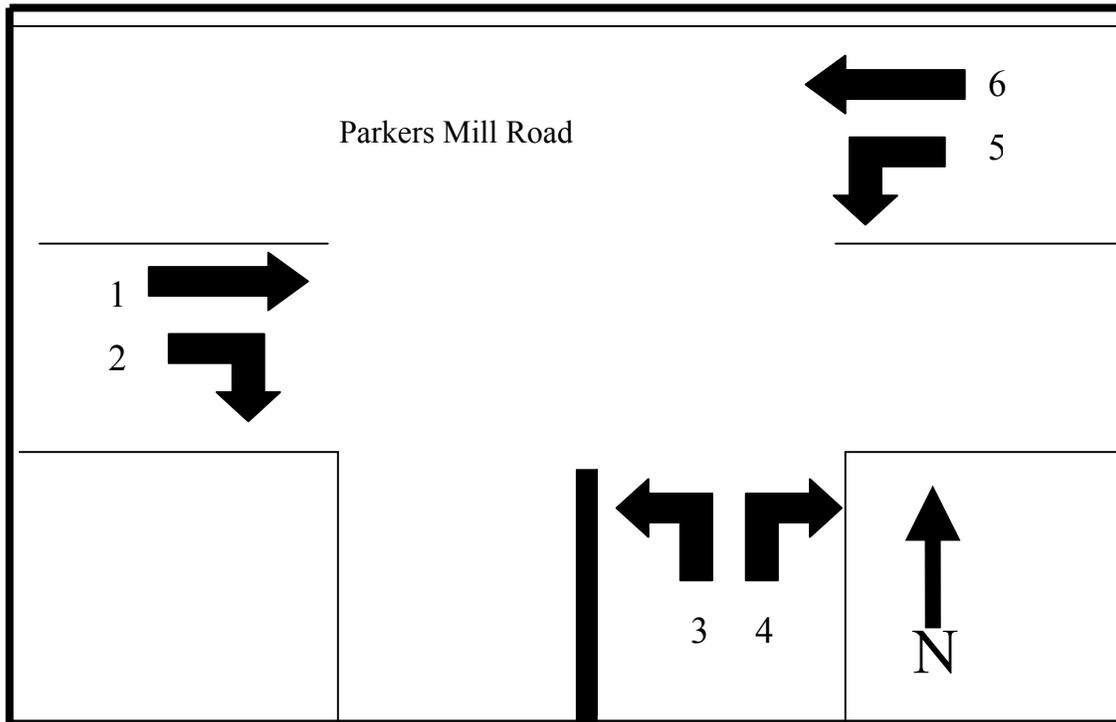
Figure 10: Poor Condition of Some Concrete Wall Sections (south side of Parkers Mill looking east)



Figure 11: New Circle Road Underpass (looking west along Parks Mill from inside New Circle Road)



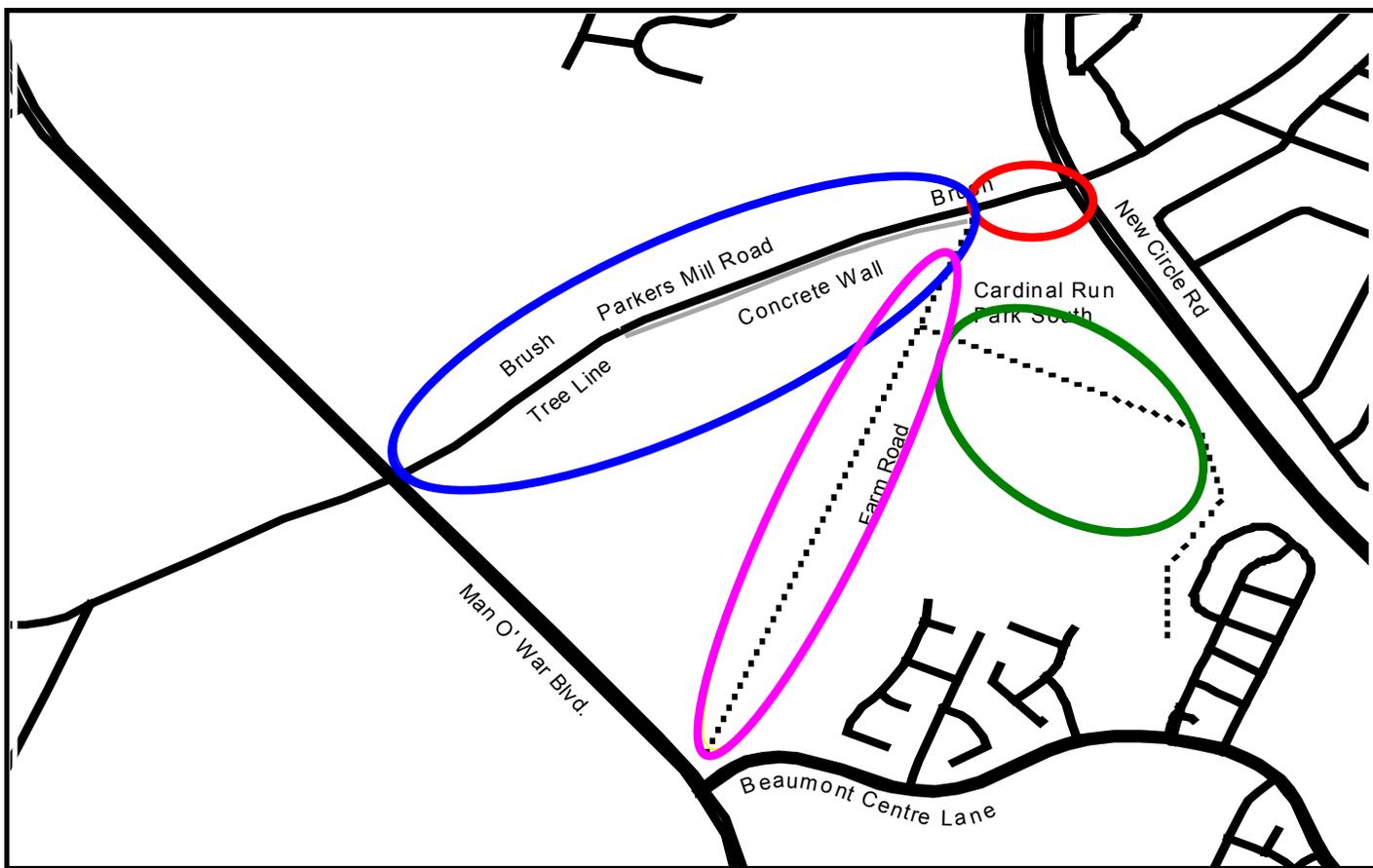
Figure 12: Turning Movements Observed at Entrance to Cardinal Run Park



	MOVEMENT NUMBER					
	1	2	3	4	5	6
Interval *						
1	57	7	2	4	12	146
2	61	8	3	6	8	103
3	47	12	1	0	5	60
4	42	10	0	3	8	56
5	48	14	1	5	6	64
6	45	10	17	10	9	43
7	37	9	10	8	5	52
8	35	3	13	21	10	30
Totals	372	73	47	57	63	554
VPH	186	36.5	23.5	28.5	31.5	277

***8, 15-minute intervals for a total of 2 hours.**

Figure 13: Locations Presented to Discussion Group to Determine Need for Non-Motorized Transportation Accommodations

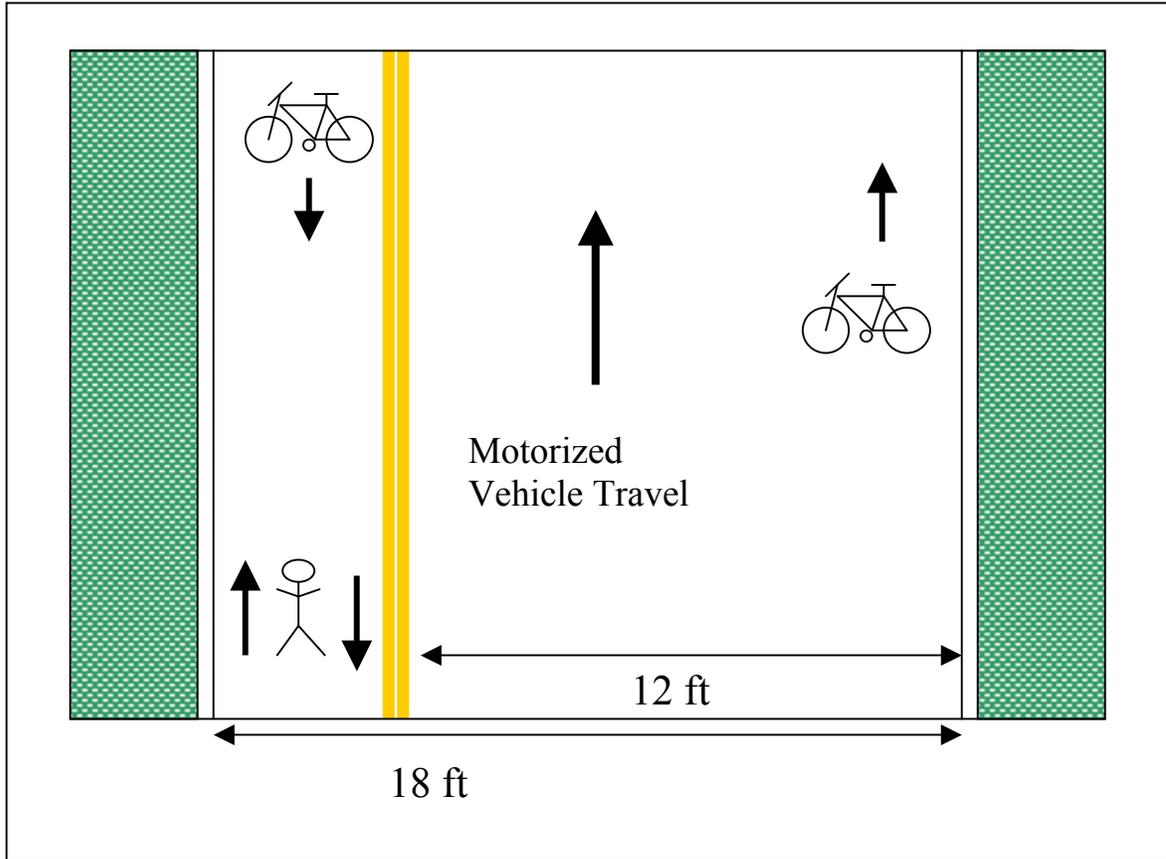


- Section A : Inside New Circle Road to Park Entrance
- Section B : North Side of Parkers Mill from Park Entrance to Man O War Blvd
— Section C : South Side of Parkers Mill from Park Entrance to Man O War Blvd
- Section D : Cardinal Run Park Shared Use Path
- Section E: Fallon Road Shared Use Path

Figure 14: Share the Road Sign



Figure 15: One-way Route Cross-Section



Appendix A: Deed for Headley Trust Property

THIS DEED, made and entered into this 11th day of January, ¹⁹⁸⁸ ~~1987~~, by and between FIRST SECURITY NATIONAL BANK AND TRUST COMPANY OF LEXINGTON, as successor Trustee of the inter vivos trust created by Hal Price Headley, by deeds dated December 30, 1935, March 1, 1945, and July 17, 1956, for the benefit of Genevieve Molloy Headley, Hal Price Headley, Jr. and the issue of Hal Price Headley, Jr., and FIRST SECURITY NATIONAL BANK AND TRUST COMPANY OF LEXINGTON, as Successor Trustee under Article VIII of the Will of Hal Price Headley, for the benefit of Genevieve Molloy Headley, Hal Price Headley, Jr. and the issue of Hal Price Headley, Jr. as grantors, and CITIZENS FIDELITY BANK AND TRUST COMPANY OF LOUISVILLE, as Successor Trustee of the inter vivos trust created by Hal Price Headley by deeds dated December 30, 1935, March 1, 1945, and July 17, 1956, for the benefit of Genevieve Molloy Headley, Hal Price Headley, Jr. and the issue of Hal Price Headley, Jr. (hereinafter the "Inter Vivos Trustee"), and CITIZENS FIDELITY BANK AND TRUST COMPANY OF LOUISVILLE, as Successor Trustee under Article VIII of the Will of Hal Price Headley, for the benefit of Genevieve Molloy Headley (now deceased), Hal Price Headley, Jr. and the issue of Hal Price Headley, Jr. (hereinafter the "Testamentary Trustee"), as grantees, the address of the grantees being Citizens Plaza, Louisville, Kentucky 40296.

W I T N E S S E T H:

THAT, pursuant to the Order of the Payette Circuit Court, Fourth Division, in Civil Action No. 83-2914, styled "First Security National Bank and Trust Company of Lexington vs. Hal Price Headley, Jr., et al" entered August 25, 1987 confirming the resignation of grantor as Successor Trustee of the inter vivos trust created by Hal Price Headley by deeds dated December 30,

1

880122124

Mail to:
Howard + Green
171 North Upper
Lexington, Ky 40507

Being the same property conveyed to grantees by deed from E. Lambert Farmer, Jr., Trustee, dated October 11, 1985, and recorded in Deed Book 1384, Page 751, in the Fayette County Court Clerk's Office.

TO HAVE AND TO HOLD said property unto the grantees, their successors and assigns, in trust, for the benefit of Genevieve Molloy Headley, (now deceased), Hal Price Headley, Jr. and the issue of Hal Price Headley, Jr., upon the following terms and conditions:

(A) The grantees shall hold said property subject to the terms and conditions of the Judgment of the Fayette Circuit Court entered June 25, 1985 in Civil Action No. 83-CI-2914, and particularly paragraph 4(2) of said Judgment.

(B) Subject to the terms of said Judgment, the Inter Vivos Trustee shall hold an undivided 638.704/885.414th interest in the above described property for the benefit of Genevieve Molloy Headley, Hal Price Headley, Jr. and the issue of Hal Price Headley, Jr., upon the terms and conditions of the deed dated December 30, 1935, from Hal Price Headley and Genevieve Molloy Headley to Harold Fallon, Trustee, said deed being of record in Deed Book 288, Page 169, in said Clerk's Office, upon the terms and conditions of the deed dated March 1, 1945, from Hal Price Headley and Genevieve Molloy Headley to Harold Fallon, said deed being of record in Deed Book 369, Page 310, in said Clerk's Office, upon the terms and conditions of the deed dated July 17, 1956, from Hal Price Headley and Genevieve Molloy Headley to Harold Fallon, Trustee, of record in Deed Book 604, Page 183, in said Clerk's Office, and upon the terms and conditions of the deed dated December 27, 1958 from Hal Price Headley, Jr. to Harold Fallon, Trustee, of record in Deed Book 661, Page 387, in said Clerk's Office; and

(C) Subject to the terms of the aforesaid Judgment, the Testamentary Trustee shall hold an undivided 246.71/885.414th interest in the above described tract upon the terms and conditions of Article VIII of the Will of Hal Price Headley of record in Will Book 43, Page 215, in said Clerk's Office.

The grantor does hereby release and relinquish unto the grantees, their successors and assigns, all of grantor's right, title and interest in and to the above described property, and grantor covenants to and with the grantees that it is lawfully seized in fee simple of said property and has a good and perfect right to sell and convey the same as herein done, that the title to said property is clear, perfect and unencumbered, and that it will warrant generally the title to said property; provided, however, that this conveyance and all warranties herein made are made by the grantor solely in its fiduciary capacity as Trustee under Article VIII of the Will of Hal Price Headley and as Trustee of the inter vivos trust created by Hal Price Headley as set out herein, and subject to all easements and restrictions of record applicable thereto.

IN WITNESS WHEREOF, the grantor has hereunto caused its name to be subscribed on this the day and year first above written.

FIRST SECURITY NATIONAL BANK
AND TRUST COMPANY OF LEXINGTON,
Successor Trustee of the inter
vivos trust created by Hal Price
Headley by deeds dated December 30,
1935, March 1, 1945, and July 17,
1956

BY: *Jack R. Lanning*
TITLE: *Senior Vice President*

FIRST SECURITY NATIONAL BANK AND
TRUST COMPANY OF LEXINGTON,
Successor Trustee under Article
VIII of the Will of Hal Price
Headley

Appendix B: Kentucky Revised Statute 178.025

178.025 Road presumed established when -- Width of right-of-way.

(1) Any road, street, highway or parcel of ground dedicated and laid off as a public way and used without restrictions by the general public for five (5) consecutive years, shall conclusively be presumed to be a public road.

(2) In the absence of any record, the width of a public road right-of-way shall be presumed to extend to and include that area lying outside the shoulders and ditch lines and within any landmarks such as fences, fence posts, corner stones or other similar monuments indicating the boundary line.

(3) In the absence of both record or landmark, the right-of-way of a public road shall be deemed to extend to and include the shoulders and ditch lines adjacent to said road, and to the top of cuts or toe of fills where such exist.

History: Created 1966 Ky. Acts ch. 108, secs. 1 to 3.

Appendix C: Crash History Analysis

Parkers Mill Road

January 1997 – December 1999

Parkers Mill Road or KY1968 starts and ends at different points on Versailles Road in Fayette County. Of the six mile stretch only 1 mile falls within this study area. However, 20 of the 65 total crashes fell into the stretch of road under study between Man O War and New Circle Road. The crash circumstances are not untypical for a rural character road near a urban area.

Time of Day

6 of 20 occurred during peak hours 700-800 and 1700-1800

6 of 20 occurred before peak hours 2400-659

3 of 20 occurred after peak hours of 1801-2359

5 of 20 occurred between peak hours of 801-1660

Day of Week

16 of 20 accidents occurred during the weekdays

Crash Type

9 of 20 involved a collision with a fixed object (Single Vehicle)

3 of 20 involved a rear end (2 of 3 hit stationary cars)

2 of 20 involved a car turning and an angular accident

9 of 20 involved a collision with another vehicle

5 of 20 involved a collision with a light support/ utility pole

2 of 20 involved a collision with other fixed object

1 of 20 involved a collision with a tree

1 of 20 involved a collision with curbing

1 of 20 involved a collision with fencing

1 of 20 involved a collision with earth/ ditch/ rock.

Fatalities/Injuries

1 person was killed

18 people were injured

Road Conditions

10 of 20 occurred on dry roads

5 of 20 occurred on wet roads

2 of 20 occurred on slushy roads

2 of 20 occurred on muddy roads

1 of 20 occurred on snowy roads

Intersection Location

4 of 20 at intersection

1 of 20 involved a car leaving a private drive

Light Conditions

13 of 20 occurred in daylight

6 of 20 occurred on highways- not lighted

1 of 20 occurred on highways- lighted/off

7 of 20 due to driver inattention
3 of 20 due to other circumstances
3 of 20 due to alcohol involvement
1 of 20 due to failure to yield ROW
1 of 20 due to distraction
1 of 20 due to unsafe speed
1 of 20 due to not stated

Vehicle Type

15 of 20 were passenger cars
2 of 20 were emergency vehicles
2 of 20 were not stated
1 of 20 was a trailer truck/ semi.

Environmental Factors

13 of 20 no environmental effects were detected
5 of 20 due to slippery roads
2 of 20 not stated

Appendix D: Summary Information on Only Fatal Crash During 1997-1999

Tuesday, 2/17/98 1:35 pm
Head on collision
Mile post: 4.78 (just outside of New Circle Road)
Fatalities: 1 Injuries: 5
Contributing Human Factor: Inattention
No Environmental Effects

Passenger Car 1

Person #1
Incapacitation injury
Not ejected, Harness/lap belt used
Legs/Feet injury
19 yr old Female
Driver

Person #2
Incapacitation injury
Not ejected, Harness/lap belt used
Legs/Feet injury
24 yr old Male
Right Front seat

Person #3
Possible injury
Not ejected, Child safety seat used
Neck Injury
1 yr old Female
Right Rear Seat

Passenger Car 2

Person #4
Incapacitation injury
Not ejected, Air Bag used
Neck injury
61 yr old Female
Driver

Person #5
Fatal injury (Extraction)
Not ejected, No safety equipment used
Legs/Feet injury
68 yr old Male
Right front seat

Person #6
Possible injury
Not ejected, Lap belt used
Back injury
4 yr old Female
Right Rear Seat

Appendix E: First Stakeholder Input – Letter and Survey

«Title» «FirstName» «LastName»
«JobDescription»
«Address1»
«Address2»
«CityState»
«Zip»

RE: Pedestrian and Bicycle Transportation Along Parkers Mill Road

Dear «Title» «LastName»,

The Kentucky Transportation Center at the University of Kentucky acting on behalf of the Kentucky Transportation Cabinet will be undertaking a planning and design study for pedestrian and bicycle transportation along Parkers Mill Road from New Circle Road to Man O' War (see attached map). This one mile section of Parkers Mill Road in Lexington is currently designed with a rural low volume road cross section. The two 9-foot lanes, limited 3-foot earth shoulders and the presence of objects along the roadway make traveling this road undesirable for pedestrians and cyclists. Yet this section of Parkers Mill Road represents a potentially useful route for pedestrians and cyclists. At the east end of this section there are two large future parks and a well established neighborhood. The west end of the section connects to Man O' War Boulevard, a major arterial with sidewalks that connect to the city sidewalk network. The Parkers Mill route connects the city of Lexington to established bicycling routes on rural roads outside of Lexington to the west. These routes are used by the Bluegrass Cycling Club and by potential bicycle tourists. Parkers Mill Road is scheduled to be reconstructed in 10 to 15 years but an interim temporary solution to pedestrian and bicycle access along this travel corridor is being considered.

What can you do?

The planning and design study will involve a public planning meeting in late January. At this time we would like your comments on the need for this route and the function or purpose it will serve for individuals in the group you represent. Please send us your thoughts by fax (or mail) using the attached form. We hope you will join us at the January meeting to provide specific design recommendations.

If you have any questions please contact me at 859-257-9262 or aultman@engr.uky.edu.

Yours sincerely,

Lisa Aultman-Hall, Ph.D.
Assistant Professor

Enclosures

Need and Function Input for Parkers Mill Road Pedestrian and Bicycle Travel

Please fax to 859-257-4404 or mail to by December 10, 2000:

Dr. Lisa Aultman-Hall
Department of Civil Engineering
University of Kentucky
Lexington, KY
40506-0281

Your name:

The name of the group or interest you represent:

What uses do you or your group have for pedestrian and bicycle access along the Parkers Mill corridor?

What function or purpose will bicycle or pedestrian travel along this corridor represent to your group?

Would you like to attend our public planning meeting in January?

Appendix F: Summary of Responses to Need and Function Input Request Parkers Mill Road Bicycle Pedestrian Access (from Fall of 2000)

Prepared by Bejay Nichols, KTC, January 2001

Name/Organization

Robert Kennedy / Lex. Area MPO

Sandra Shafer / 10th District Council Member

Charles Schaub / KTC Multimodal Programs

Jim Kemp / Beaumont Park Nbhd

Pam Miller / Mayor

Gary E. Young / Parkers Mill Resident

Ann Coats / Garden Springs Nbhd

Tim Haymaker / Beaumont Centre

Paula E. Nye & Mike L. Hill / KTC Multimodal Programs

Annette Coffey / KTC Division of Planning

David Uckotter / LFUCG Division of Engineering

Headley Property Trust

Uses for Proposed Path

Four responses from neighborhood associations / residents indicate a desire for such a path. Safety, exercise, enjoyment, and a connection to existing system were all indicated as potential uses for the path.

Three responses from the KTC show that connection to the existing system is a desirable use. Annette Coffey noted that the location of the path falls under the authority of the MPO and Multimodal Programs. Also the Division of Multimodal Programs indicates that this corridor is not a part of the Kentucky Designated Bicycle Routes, and that it will eventually be taken over by the city of Lexington, as it is inside Man O' War.

Three responses from the LFUCG indicate connection to an existing network as a primary use. However, David Uckotter, Division of Engineering, notes the process of developing a Bicycle Plan and Greenways Master Plan to determine the best location for bike/ped facilities is under way. Furthermore, this location is not practicable, as the road is slated for widening in 2010, and bike/ped access can be provided through the use of existing farm roads until the road is widened and the appropriate facilities can be added.

Robert Kennedy from the MPO mentions the project is in keeping with the goals and objectives currently approved for the Year 2018 Transportation Plan and the Year 2025 Transportation Plan. Also, he notes that the MPO and the LFUCG have a policy to consider bicycle and pedestrian connection, wherever possible.

The Headley Property Trust indicated opposition to any path along the south side of Parkers Mill Road due to the operation of a thoroughbred horse farm. They cited a need to protect people from horses and horses from people.

Function or Purpose to Group

Four neighborhood associations / residents list exercise, socializing, safety, and change of scenery. Gary Young mentions that Channel 36 has done several news stories about the danger this corridor presents to bicyclists. Jim Kemp lists possible locations this path could help commuters reach.

The MPO, LFUCG, and KTC lists community building, safety, recreation, and an ease on vehicle congestion. The MPO indicates that the project is desirable and mentions how current conditions aren't satisfactory. Also, Multimodal Programs encourages and endorses all projects including bicycle and pedestrian access.

David Uckotter, Division of Engineering, notes that any bike/ped facilities along Parkers Mill would be a benefit to the citizens, but that a separate facility does not fit into their needs when other options are available.

Public Meeting Attendance

Six responses indicate they will attend, including Charles Schaub, Sandra Shafer, Paula Nye, Gary Young, Jim Kemp, and Ann Coats.

Also, the MPO and the Division of Engineering will send a representative.

Lastly, Pam Miller will "try" to come, Annette Coffey did not mention either way, only that the KTC Division of Planning defers to the MPO and LFUCG. Tim Haymaker indicates that he will not attend.

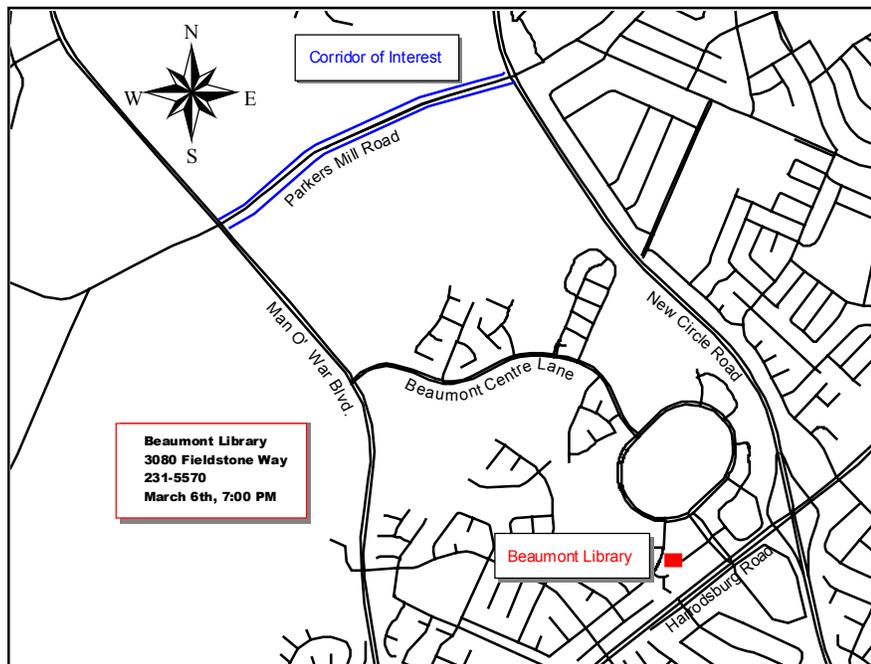
Appendix G: Public Discussion Announcement

Public Discussion Of The Need for Parkers Mill Rd. Bike / Pedestrian Transportation

March 6th, 2001, 7:00 PM
Beaumont Library Meeting Room

TOPICS OF DISCUSSION:

Background of study?
What are all the needs?
Possible types of facilities?
Possible routes / locations?



This meeting is hosted by the Kentucky Transportation Center (KTC). KTC has been asked by the Kentucky Transportation Cabinet to conduct this study of the needs and alternatives for pedestrian and bicycle transportation along Parkers Mill Road between New Circle Road and Man O War Boulevard. For further information call Dr. Lisa Aultman-Hall at 859-257-9262.

EVERYONE IS WELCOME PLEASE PASS THIS INVITATION ON

Appendix H: Issues Raised at March 6 Parkers Mill Public Discussion

- Safety of all users (x2)
- Volume and speed of motorized traffic (x2) (55 mph)
- This is a prime corridor for bicycles from downtown or the main part of Lexington to beyond Man O War but it is limited and cyclists are afraid because of volume speed and geometry (x5)
- Can other options for path corridors suffice
- Protection of horses on the south side of the road (from pedestrians and vehicles) - also the protection of people from the horses
- The safety of non-motorized traffic on Fallon Road (farm road) given that this is a working farm
- The property line between the working farm and the new park along Fallon Road is down the center of the road and it will take time for the issues surrounding public use to be resolved.
- Will this area see urban development (there are currently requests for the urban services boundary to be extended)
- Preservation of rural character of Parkers Mill Road (x3)
- Coordination with the Versailles corridor
- Crashes at New Circle Road have been numerous
- Safety impacts of the wall (x2)
- Promotion of non-motorized transportation for health
- Crossing Parkers Mill Road will be an issue especially at the parks (x2)
- Parkers Mill offers permeability through New Circle Road from intown
- What is the function of the wall (protects wood fence and protect horses from people) (x2)
- Who owns the space behind the wall?
- Should this road be moved up on the road schedule?
- Anything planned will need to have funds found in order to undertake
- Is lighting needed?
- Will rumble strips be provided (cyclists say no)
- Sidewalk connectivity is needed(x2)
- Should traffic calming be used?
- Bicycle commuters also use this route
- Sight distance is an issue along the road particularly at farm road (city plans a traffic signal at park entrance)
- What is the non-motorized demand and volume?
- The future Georgian Way overpass may provide increased New Circle Road permeability
- If a path is built it should be consistent with the rural character and the horse character of the area
- Could share the road signs be used?
- Should the speed limit be lowered?
- Mail boxes are a hazard
- Who will maintain any new facility?
- What increase in traffic will the park cause?

Appendix I: Electronic Poll Survey from Public Discussion (March 6, 2001)

1) Are you a resident of...

24 Votes

1	this area	9	37%	
2	rest of Lexington	14	58%	
3	outside of Lexington	1	4%	

2) Do you belong to a neighborhood association or organization?

24 Votes

1	Yes	18	75%	
2	No	6	25%	

3) Do you represent a business?

23 Votes

1	Yes	2	8%	
2	No	21	91%	

4) Are you a member of....

24 Votes

1	bicycle club	8	33%	
2	walkers club	0	0%	
3	runners club	2	8%	
4	no club affiliation	14	58%	

5) Are you a transportation professional?

24 Votes

1	Yes	4	16%	
2	No	20	83%	

6) Are you a member of a committee for bicyclists or pedestrians, such as the Lexington Bicycle Pedestrian Advisory Committee or the Kentucky Bicycle Commission?

23 Votes

1	Yes	7	30%	
2	No	16	69%	

7) Do you currently drive your motorized vehicle along this section of Parkers Mill Road?

24 Votes

1	Yes	22	91%	
2	No	2	8%	

8) How frequently do you bicycle in this area (given good weather)?

24 Votes

1	Never (zero times per week)	12	50%	
2	Occasionally (between zero and one time per week)	9	37%	

3	Frequently (more than one time per week)	3	12%	
---	--	---	-----	--

9) How frequently do you jog/run in this area (given good weather)?

24 Votes

1	Never (zero times per week)	19	79%	
2	Occasionally (between zero and one time per week)	3	12%	
3	Frequently (more than one time per week)	2	8%	

10) How frequently do you walk with a stroller/wheelchair or other wheeled accessory in this area (given good weather)?

23 Votes

1	Never (zero times per week)	23	100%	
2	Occasionally (between zero and one time per week)	0	0%	
3	Frequently (more than one time per week)	0	0%	

11) How frequently do you ride a horse in this area (given good weather)?

23 Votes

1	Never (zero times per week)	23	100%	
2	Occasionally (between zero and one time per week)	0	0%	
3	Frequently (more than one time per week)	0	0%	

12) How frequently do you bicycle/walk with children in this area (given good weather)?

23 Votes

1	Never (zero times per week)	19	82%	
2	Occasionally (between zero and one time per week)	1	4%	
3	Frequently (more than one time per week)	3	13%	

13) How frequently do you rollerblade in this area (given good weather)?

23 Votes

1	Never (zero times per week)	23	100%	
2	Occasionally (between zero and one time per week)	0	0%	
3	Frequently (more than one time per week)	0	0%	

Rating Scales

Item	Text	Utility
Ungrouped		5.5
1	How well would section A serve your needs?	5.2
2	How well would section B serve your needs?	7
3	How well would section C serve your needs?	6.9
4	How well would section D serve your needs?	6.4
5	How well would section E serve your needs?	6.1
6	To what degree will a sidewalk fulfill your needs?	3.3
7	To what degree will a mulched shared use path fulfill your needs?	2
8	To what degree will a gravel shared use path fulfill your needs?	2
9	To what degree will a paved shared use path fulfill your needs?	7.6
10	To what degree will gravel shoulders fulfill your needs?	2.3
11	To what degree will paved shoulders fulfill your needs?	7.2
12	To what degree will wider travel lanes fulfill your needs?	5
13	To what degree will bicycle lanes fulfill your needs?	7
14	How useful is this tool?	8.9



Appendix J: Average Utility from Electronic Polling for Residents of the Area

For Stakeholders responding
Are you a resident of... = **this area**

Item	Text	Utility
Ungrouped		5.3
1	How well would section A serve your needs?	6
2	How well would section B serve your needs?	7.2
3	How well would section C serve your needs?	7.2
4	How well would section D serve your needs?	7.7
5	How well would section E serve your needs?	5.1
6	To what degree will a sidewalk fulfill your needs?	2.6
7	To what degree will a mulched shared use path fulfill your needs?	1.6
8	To what degree will a gravel shared use path fulfill your needs?	1.8
9	To what degree will a paved shared use path fulfill your needs?	7.7
10	To what degree will gravel shoulders fulfill your needs?	2.7
11	To what degree will paved shoulders fulfill your needs?	5.7
12	To what degree will wider travel lanes fulfill your needs?	4.2
13	To what degree will bicycle lanes fulfill your needs?	5.6
14	How useful is this tool?	8.6

*recall 10 is no improvement possible (high utility)

Appendix K: Average Utility from Electronic Polling for Bicycle Club Members

For Stakeholders responding

Are you a member of..... = **bicycle club**

Item	Text	Utility
Ungrouped		5.6
1	How well would section A serve your needs?	4.3
2	How well would section B serve your needs?	9.6
3	How well would section C serve your needs?	9.3
4	How well would section D serve your needs?	3.1
5	How well would section E serve your needs?	4.6
6	To what degree will a sidewalk fulfill your needs?	3.5
7	To what degree will a mulched shared use path fulfill your needs?	1
8	To what degree will a gravel shared use path fulfill your needs?	1.4
9	To what degree will a paved shared use path fulfill your needs?	8.1
10	To what degree will gravel shoulders fulfill your needs?	1.1
11	To what degree will paved shoulders fulfill your needs?	8.4
12	To what degree will wider travel lanes fulfill your needs?	7.1
13	To what degree will bicycle lanes fulfill your needs?	8.1
14	How useful is this tool?	9

*recall 10 is no improvement possible (high utility)