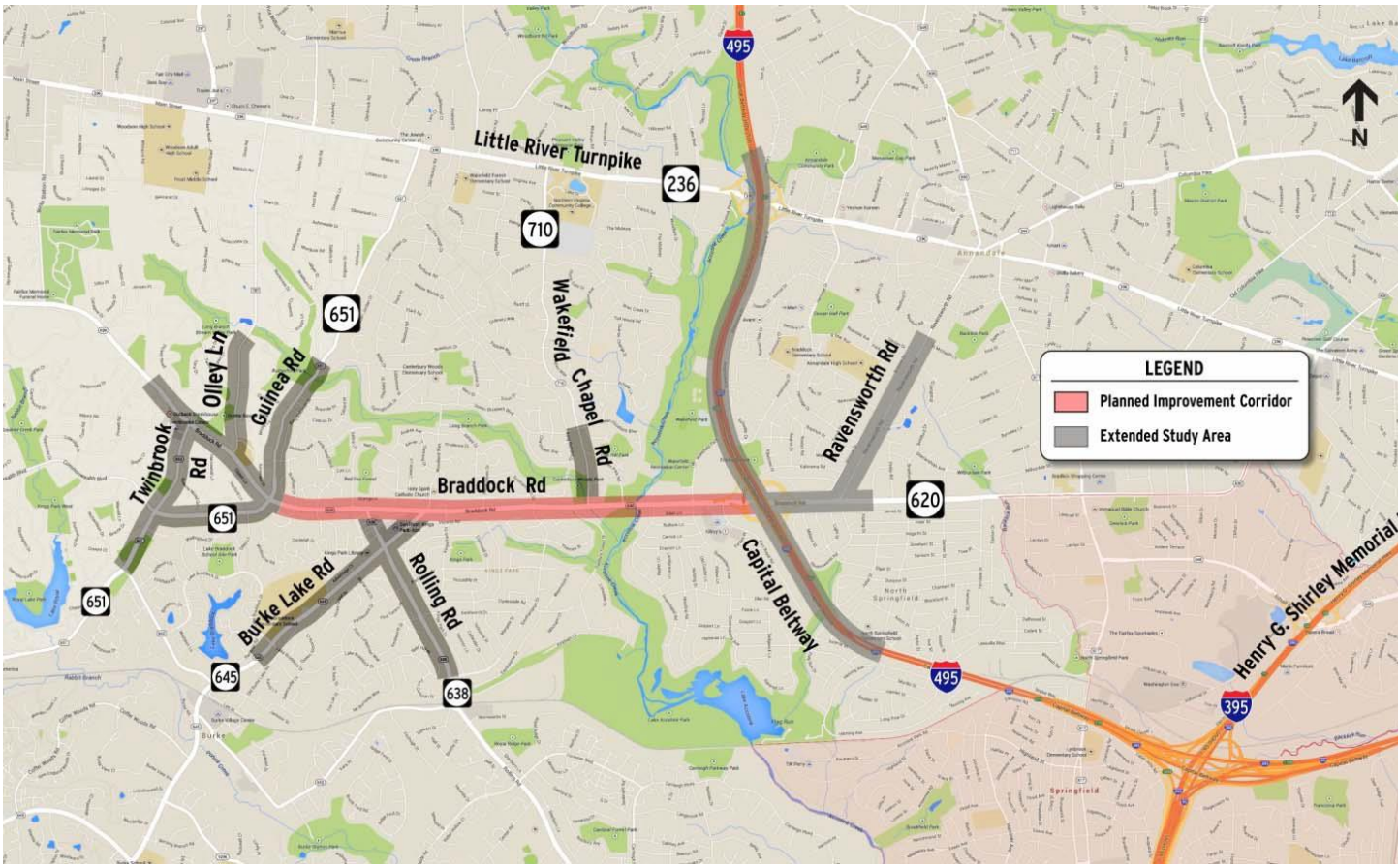
KINGS PARK COMMUNITY UPDATE
BRADDOCK ROAD TRAFFIC FLOW IMPROVEMENT STUDY

Brought To You by the Kings Park Civic Association



Version 1

September 17, 2016

1. Objective of the Kings Park Community Update

1. Write a clear and readable background document, as devoid of traffic flow/control jargon as possible, that will provide Kings Park (KP) residents a clear understanding of the current traffic flow improvement options under study (long, long way from digging and paving, if any).
2. Give you a basis for understanding the most recent options and an opportunity to form a collective KP voice of our views and attitudes about traffic abatement plans for and around Braddock Road that have a direct impact on KP residents and our quality of life.
3. We really need your help to keep KP a place to call home by current and future (read 2024 and beyond) residents.
4. This is a living document. We will update this document with changes as encountered. Expect the next update to occur after the September 2016 meeting of the Braddock Road Multimodal Study Citizen Advisory Group.

2. A Brief History of the Braddock Road Improvement Study

The Fairfax County Board of Supervisors first adopted a plan for widening of Braddock Road in 1990. Later, the Northern Virginia 2010 Transportation Plan recommended High Occupancy Vehicle (HOV) widening on Braddock Road from Burke Lake Road to I-495 and conventional widening from Guinea to Burke Lake Road. These ideas have been around for quite some time, but they were just that, ideas, without a firm and knowledgeable base for actions that improve our experience on Braddock Road. With Commonwealth funding now available, Fairfax County awarded a contract in November 2014 to evaluate potential improvements on Braddock Road from Guinea Road to the Beltway. Fairfax County, through John Cook, the Braddock District Supervisor in whose district the project resides, is conducting the first in-depth study of these suggestions.

In February, 2014, Supervisor Cook formed a Braddock Road Multimodal Study Citizen Advisory Group. The group has, as members, representatives from Home Owners Associations (HOA) and Civic Associations (CA) from each of the communities surrounding Braddock Road and provides the opportunity for each of these communities to have a voice during the course of the Braddock Road Multimodal Study. Kings Park is one of these communities. Multimodal, by the way, is just an official sounding label to show that the study includes motorized and self-propelled vehicles as well as pedestrians, all of which may use or try to cross Braddock Road. By my count, since the kick-off meeting of February 2014, the Citizen Advisory Group has formally met at least 18 times with Fairfax County Department of Transportation (FCDOT) representatives and traffic flow support contractors. Supervisor Cook hosted at least 3 community meetings, the latest on 26 April 2016, and continues to arrange for informative presentations at various individual HOA and CA meetings.

3. Purpose of the Braddock Road Improvement Study

The purpose of the study is to analyze and recommend a plan to increase the capacity of Braddock Road to carry traffic from Guinea Road to I-495, including evaluation of managed (read High Occupancy Vehicle) lanes from Guinea Road to I-495. The study looks at the expected traffic along Braddock Road in the year 2040.

Potential improvements may include additional travel lanes on Braddock Road, some could be High Occupancy Vehicle (HOV) lanes, transit improvements (read additional buses and bus routes), pedestrian and bicycle improvements (lessen the need to run or pedal for your lives when faced with Braddock Road traffic), and intersection improvements. However, at this time, this is simply a study to help arrive at improvement decisions.

Is it certain that these changes are going to be made?

No! At this time Fairfax County has made no decision as to which, if any, of these changes will actually occur. The county is only conducting a study to determine whether or not it is advisable to widen Braddock Road, add bike lanes, improve the overall connectivity between the surrounding neighborhoods, and enhance bicycle and pedestrian access and safety. So now is the time to make our views and concerns known to the study group and representatives from FCDOT so that we in Kings Park have an impact on Braddock Road improvements, if any, beyond 2017.

Braddock Road Improvements Estimated Timeline

Phase	Timeline
Braddock Road Multimodal Study	2015-mid 2017
Design and Environmental	mid 2017-2019
Right-of-Way Acquisition	2019-2021
Construction	2021-2024
Open to Traffic	2024

Your KPCA representatives on the Braddock Road Improvement Study

James Sobecke, President of the Kings Park Civic Association, and Terry Boschert, second Vice President of the Kings Park Civic Association, represent Kings Park residents as members of the Braddock Road Multimodal Study Task Force.

4. Specific Areas of the Braddock Road Improvement Update

Our focus for this update includes the following areas which will impact the residents of Kings Park:

1. A no-build option wherein no major changes are made to Braddock Road and connector streets; leave things as they are.

2. Widen Braddock Road option

   2.1. Add one HOV lane in each direction (east bound and west bound) from Guinea Road to I-495,

   or,

   2.2. Add one general-purpose lane in each direction (east bound and west bound) from Guinea Road to I-495.

3. Build a Transit Center option within the confines of the Kings Park Shopping Center general area.

4. Add Spot Improvement options to the roads that intersect with Braddock Road between Guinea Road and I-495 to improve traffic flow along Braddock Road.

5. Improve Pedestrian and Bicyclist Access and Safety option around the Braddock Road traffic improvement area.

Options 3, 4, and 5 were added during the course of the study.

Note: Options 2 through 5 are not necessarily stand-alone options. A decision as to which of the options, if any, will be built is not yet made. Two or more of these options may be built dependent upon study results. Final results from the study should be available in mid-2017.

Option 1: The No-Build Option

For this option, Fairfax County will not make any major changes to Braddock Road, surrounding streets, and pedestrian paths/crossings. All concrete and blacktop surfaces will remain as they are, to include surface crosswalks. Certainly Fairfax County will make changes to roadways/walkways/crossings in the next 24 years, but such changes would probably fall into routine maintenance or small improvements category. So, what can you expect under this option? Well, for one thing, builders will not stop, well, building; homes, commercial malls and stores, government and business offices, schools, transit centers, and you get the idea. In the next 24 years, the amount of traffic along Braddock Road will increase, traffic flows and driver destinations (spots around the beltway rather than into the District) will change, vehicle and pedestrian/bicyclist co-existence will become more of a challenge, vehicle noise from stop-and-go traffic will increase along roadways and at crowded intersections, entry into and exit from Kings Park will increasingly tax your patience. How do I know this? Well, I have lived in Kings Park for 38 years. I have seen traffic increase, not decrease or stay the same, along Braddock Road in that time and believe that traffic will continue to

increase over the next 24 years. Plus, Fairfax County published a chart which projects traffic flows along Braddock Road in the year 2040.

This chart (Figure 1) gives the average wait time for a vehicle that enters Braddock Road from a side street with traffic signals as measured in 2015 and projected for 2040 during morning and evening rush hours. The average wait time to enter Braddock Road east bound during the AM rush in 2015 is a little less than 1 minute and will increase to nearly 2 ½ minutes in 2040. The average wait time to enter Braddock Road west bound during the PM rush in 2015 is a little over 1 minute and will increase to over 3 minutes in 2040.

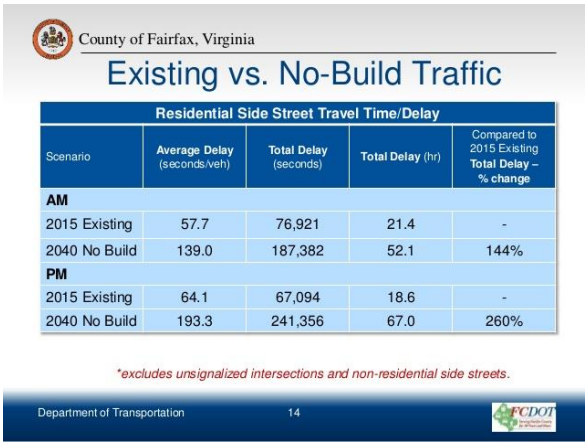


Figure 1 Wait Times

The chart below (Figure 2) gives measured (2015) and estimated (2040) travel times on Braddock Road during rush hour. East Bound traffic on Braddock Road during morning rush hour between Guinea Road and I-495 will increase from around 13 minutes to 33 minutes. West Bound traffic on Braddock Road during evening rush hour between I-495 and Guinea Road will increase from around 14 minutes to 23 minutes.

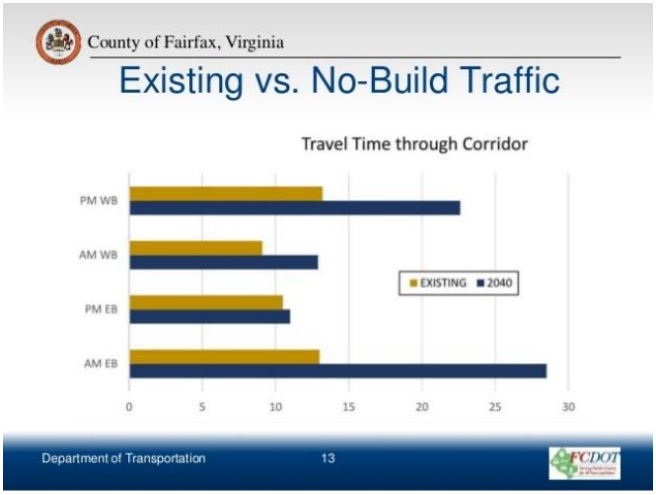


Figure 2 Travel Times

Pros:

1. No construction mess. "Construction Mess" includes road machinery noise; dirt and dust; frequent traffic flow changes along Braddock Road and side streets because of construction, temporarily blocked streets.
2. Have 24 years to adapt to increased traffic flow along Braddock Road such that 3 minute waits and 33 minute travel times (to go 2.4 miles along Braddock Road between Guinea Road and I-495 or about 5 miles per hour) become the expected norm.

Cons:

1. Pedestrian and bicycle safety will probably deteriorate as crosswalks will continue to cross the surface of an ever-increasingly traveled Braddock Road.
2. Entry to and exit from Kings Park streets becomes more difficult during morning and afternoon rush hours.
3. Travel time on Braddock Road between Guinea Road and I-495 may double by 2040.
4. No additional bus routes for commuters who prefer non-driver travel options.
5. Extended traffic noise from increased stop-and-go traffic, especially at lighted intersections.

Option 2: Widen Braddock Road

This option studies the addition of two lanes on Braddock Road from Guinea Road to I-495, one east bound and one west bound. The lanes could be High Occupancy Vehicle (managed lanes) or general purpose lanes (not managed lanes). The additional lanes on Braddock Road could be either inside lanes or outside lanes. The slides below (Figures 3 and 4) illustrate the study options. Note that the slides state that the widening options are from Burke Lake Road to I-495. The Guinea Road to I-495 option reflects an update as of the June 1, 2016 Braddock Road Multimodal Study Citizen Advisory Group meeting. The concept of widening Braddock Road remains under study. Will the widening be worth the traffic and noise aggravation from 2021-2024, the build years? Not yet known, but the study results should give us more facts to assess the question and add more informed pros and cons.

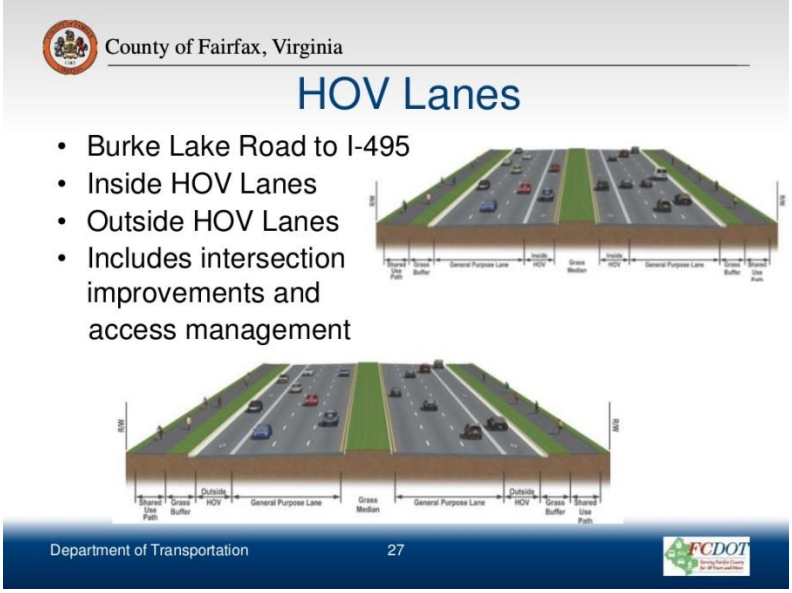


Figure 3 High Occupancy Vehicle Lanes

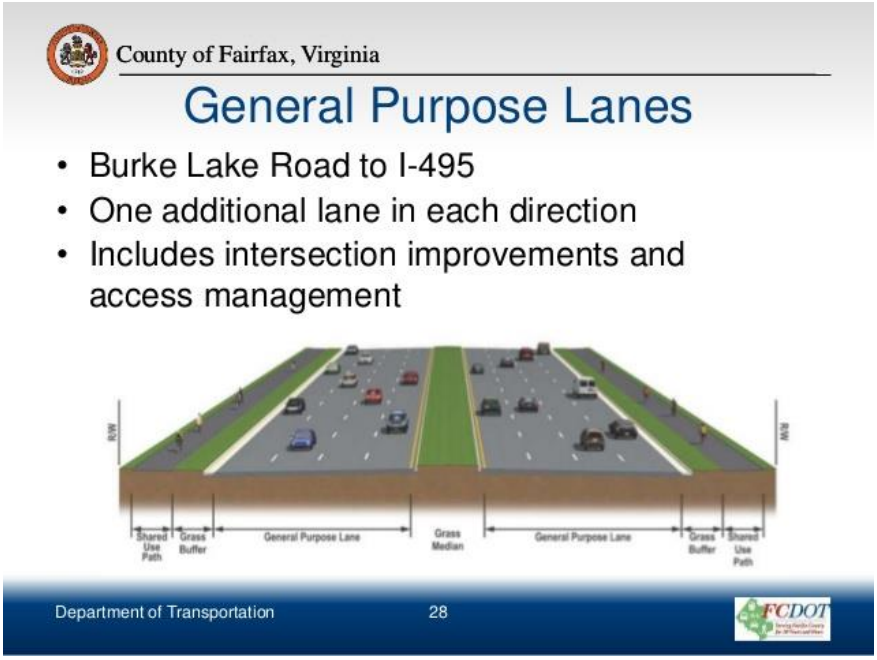


Figure 4 General Purpose Lanes

Pros:

The overall goal is to ease traffic congestion and delays on Braddock Road between I-495 and Guinea Road from 2024 and beyond, however, this particular option is still under active analysis.

Cons:

From a Kings Park resident standpoint a “Construction Mess” that includes road machinery noise; dirt and dust; frequent traffic flow changes along Braddock Road and side streets because of construction, temporarily blocked local streets.

Option 3: Build a Transit Center at Kings Park Shopping Center

This option received many comments at public meetings as well as committee meetings. I will present all sub-options as factually as I can. If those of you who favor a transit center at the Kings Park Shopping Center think I have taken a too negative approach and those of you who do not favor a transit center at the Kings Park Shopping Center think I have taken a too positive approach, then perhaps I succeeded in my attempt to stay unbiased. Please recall that this option remains as a study topic under analysis. No decisions have been made on this option.

Fairfax County Department of Transportation (FCDOT) representatives point out, based on transit center studies, that transit centers by-and-large provide services to their surrounding communities. Drivers from communities appreciably farther away from transit centers will very seldom use transit center facilities; they will instead continue the drive to their destinations. So for the discussion to follow, remember that the Kings Park Shopping Center Transit Center will provide services to the residents of the immediate surrounding communities including those of us who live in Kings Park.

The committee has three design options under study for a Transit Center. One option is, of course, a no-build option at the Kings Park Shopping Center. Another option would provide about 210 spaces for surface parking. The third option would provide about 300 spaces for garage parking. Both of the build options would provide bus lanes and bus bays.

The surface parking option (Figure 8) would eliminate the eastern-most drive from the Exxon Station to eastbound Braddock Road. The parking garage option (Figure 9) would have four levels, one story underground and three stories above ground. In either build case, Kings Park Shopping Center parking would remain untouched in both location as well as number of parking spaces. Pedestrian paths would provide a link between Transit Center parking and the shops in Kings Park Shopping Center.

So what services would a Kings Park Shopping Center Transit Center provide? Well, first of all, it would provide bus services to various destinations, both towards Washington D.C. and points north, east, west, and south as well. The bus routes that now exist for Kings Park residents will become more robust (read added buses); new routes would be added. See Figures 5 and 6.

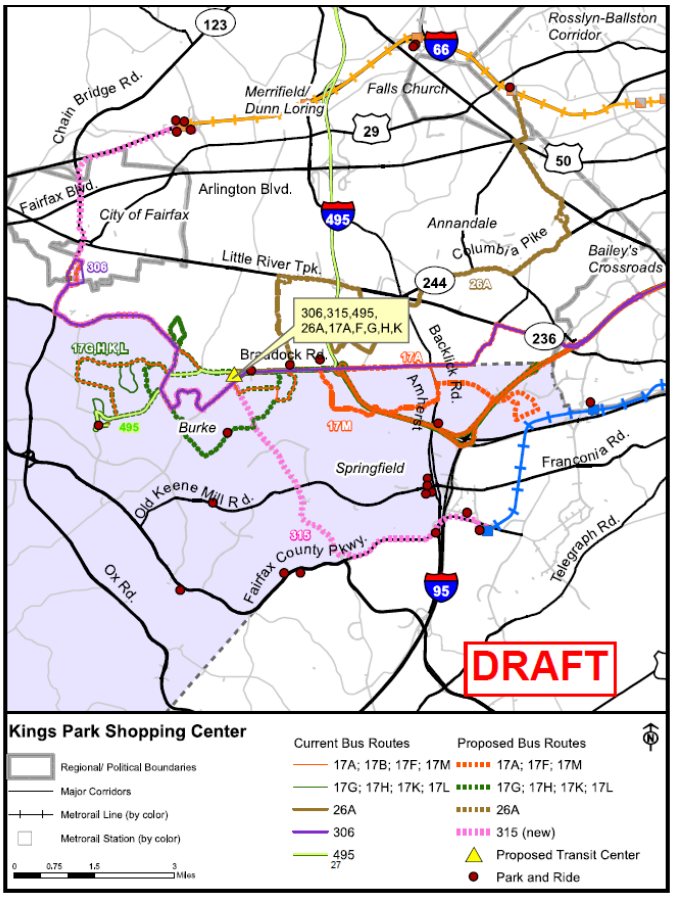


Figure 5 Kings Park Shopping Center Transit Center Possible Bus Routes

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County of Fairfax, Virginia

Transit Center Options

Option	Weekday			
	# of Routes	Buses Per Hour		
		Peak	Midday	Evening
NOVA Training Center				
Existing	3	5	2	0
Proposed	5	15	10	6
Kings Park Shopping Center				
Existing	8	15	4	0
Proposed	9	29	12	6

Department of Transportation 38 FCDOT

Figure 6 Number of Buses per Hour

Please note that Figure 10 also lists the NOVA Training Center site as another possible location for a Transit Center. I did not discuss this possibility because I wanted to elicit views from the reader about the Kings Park Shopping Center site in particular.

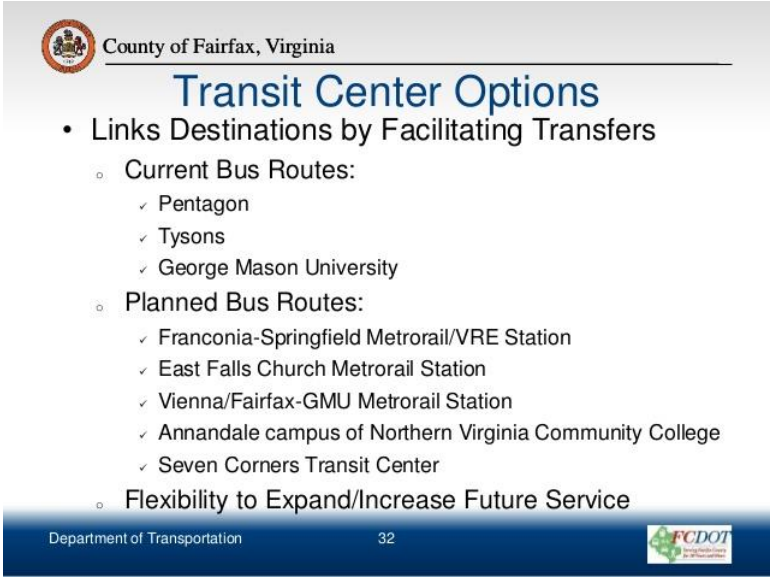

Figure 7 Kings Park Shopping Center Transit Center Bus Service

Also under study for services to be provided at the Transit Center are ticketing booths, Kiss-N-Ride, safe handicap access, access to taxi cabs, safe pedestrian/bicyclist access, bicycle storage, walkway to Kings Park Shopping Center, slug lines, car pool lanes, and an additional traffic light on Rolling Road at Kings Park Shopping Center to facilitate bus and car traffic. Right-in and right-out turns also come into play on both sides of Rolling Road between Burke Lake Road and Braddock Road. Please refer to Figures 12 and 13 to visually understand these options. When you review these figures, notice the new traffic light, right-in/right-out, right-in only, left turn prohibited, and the HAWK pedestrian/bicyclist Beacons that appear in either Transit Center option. The HAWK Beacon is discussed in the **Improve Pedestrian and Bicyclist Access and Safety Option**.

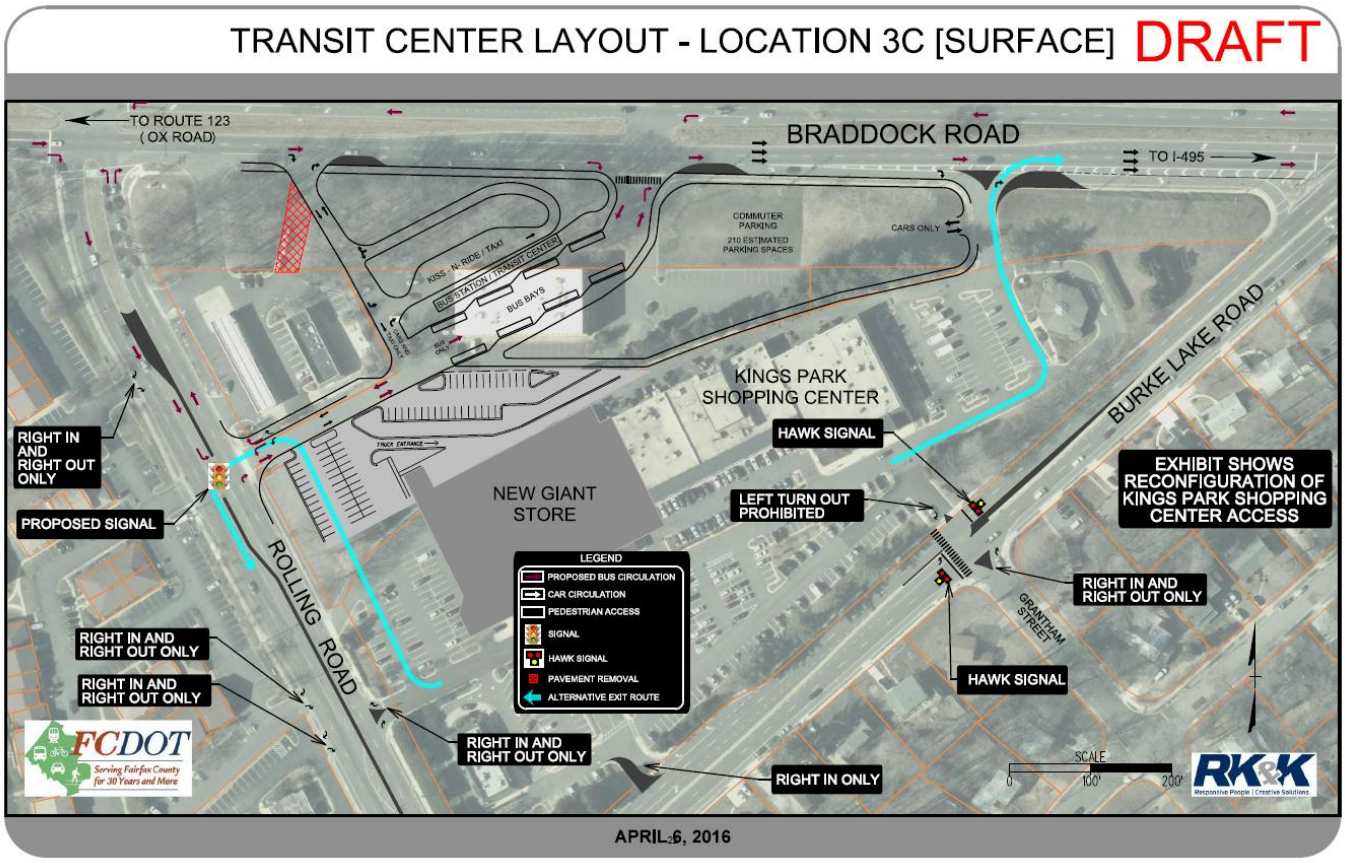

Figure 8 Transit Center Option Surface Parking

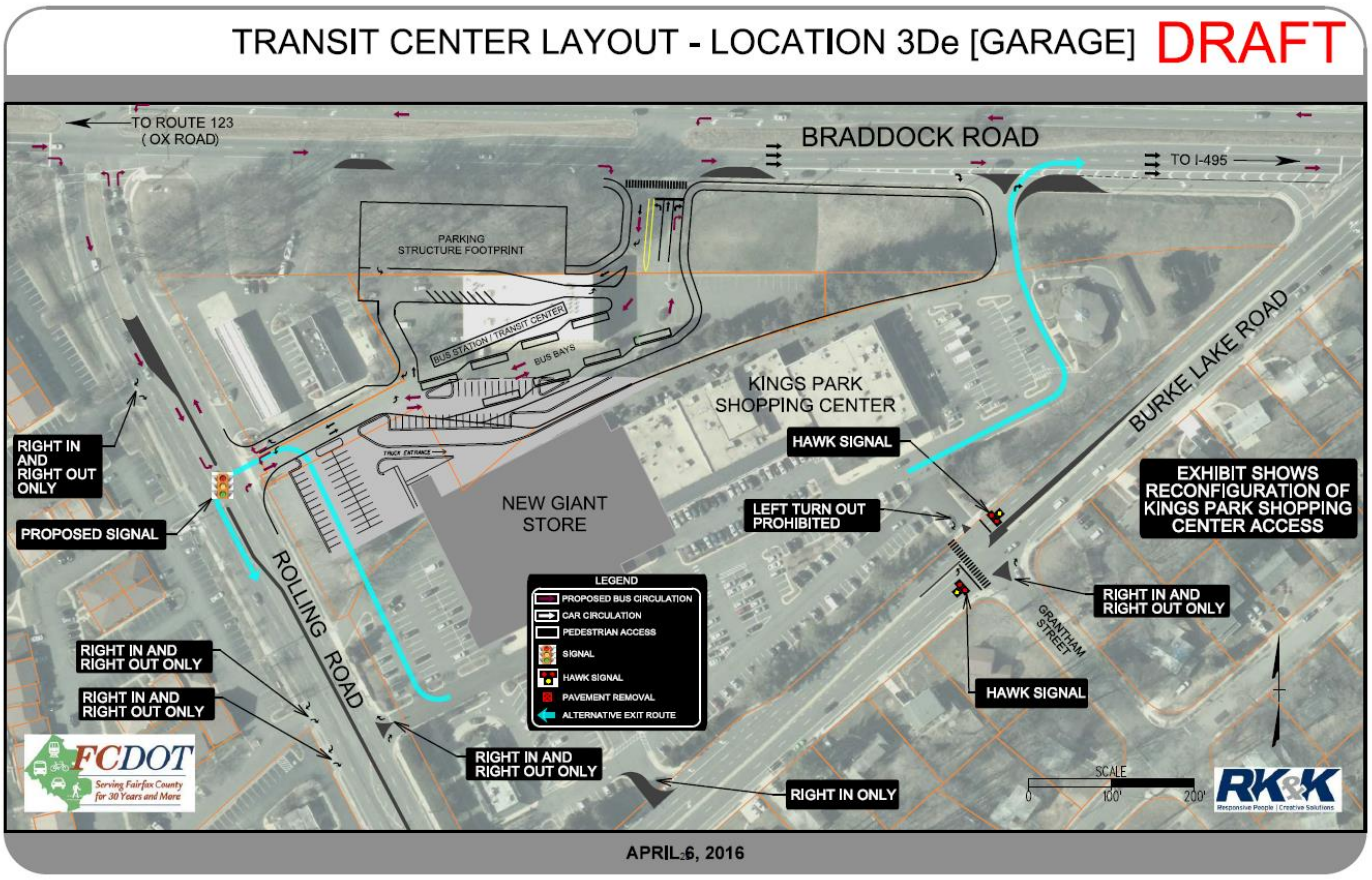

Figure 9 Transit Center Option Garage Parking

The artist rendition of the Transit Center at the Kings Park Shopping Center (Figure 10) may not accurately represent the latest design options for the Transit Center but will give you an idea of the attempt to visually blend the Transit Center with the surrounding structures. Please notice the artist conceptual drawing of a Pedestrian Bridge over an eight through-lane Braddock Road as an example of safe pedestrian/bicyclist access. This is not an accurate rendition or location of Pedestrian Bridges that may be built across Braddock Road.

Figure 10 Transit Center Garage Parking Option Artist Rendition

Pros:

1. Substantial residential population within walking distance on all sides of the Kings Park Shopping Center Transit Center site.

2. More robust existing and planned bus route network to give more alternatives to commuters from surrounding communities, to include residents of Kings Park, who prefer to ride to their destination rather than drive.

3. Kings Park Shopping Center parking spots location and number remain unchanged.

4. Potential for Kings Park Shopping Center patrons to use Transit Center parking.

Cons:

1. Heavy background vehicular and pedestrian traffic within the Kings Park Shopping Center Transit Center site and on opposite sides of Rolling Road

2. Note that the exit route onto Rolling Road from the Kings Park Shopping Center (Giant side) wind through the front parking area – a problem that has been cited and identified as a detractor for Giant store users trying to get in and out of parking places.

3. Substantial traffic on Braddock Road, Burke Lake Road, and Rolling Road surrounding the Kings Park Shopping Center Transit Center site is likely to impede entrance to and exit from the Transit Center site.

4. The Kings Park Shopping Center owner and Fairfax County Department of Transportation representatives must robustly establish, and Fairfax County Police robustly enforce, parking restrictions so that commuters do not use Kings Park Shopping Center parking as overflow parking when garage or surface parking is at capacity.

Option 4: The Spot Improvement Option

Early analysis for **Widen Braddock Road** option presented a surprising result. The initial study showed time eastbound on Braddock Road under the widening option alone increased during the AM rush hours from 33 minutes under the no-build option to 50 minutes under the widen Braddock Road option. Time westbound on Braddock Road during the PM rush hours showed a minor improvement from 23 minutes under the no-build option to 22 minutes under the widening option alone. Clearly the widening of Braddock Road in and of itself does not improve travel times during peak hours. Something was missed. As it turns out, Guinea Road and Ravensworth Drive became bottlenecks to traffic flow along Braddock Road during peak traffic hours in 2040. The missing piece: Spot Improvements.

Okay, this option gets a little complicated; and long. Remember that the intent of the Braddock Road Multimodal Study is to improve traffic flow along Braddock Road especially during AM and PM rush hours; for commuters, the phrase is improved traffic flow; for Kings Park residents the concern is a balance between a three-year construction aggravation versus long-term benefits of improved traffic flow along Braddock Road and ease of entering/leaving Kings Park under heavier traffic. Our Kings Park subdivision could be surrounded on all sides by road improvement work; our residents are right in the bullseye of impacts of the Braddock Road traffic flow spot-improvement options. And, because this document is oriented around Kings Park, I will discuss only options 1 through 6, 13, and 14.

Here are the Spot Improvement Options under study flow as of June 1, 2016 for 2040 Braddock Road traffic.

1. **Guinea Road and Braddock Road:** Construct a northbound Guinea Road right turn lane onto eastbound Braddock Road. Convert the intersection of Guinea

Road/Braddock road such that only one direction of Guinea Road will get a green light at any time. In addition, convert one through lane of northbound Guinea Road to a shared through lane across Braddock Road and right lane onto eastbound Braddock Road. Remove rush hour bottleneck, recently identified during the study as a bottleneck that impacts traffic flow on westbound Braddock Road during evening rush hour. Currently no improvement to the bottleneck is proposed but intersection is under analysis.

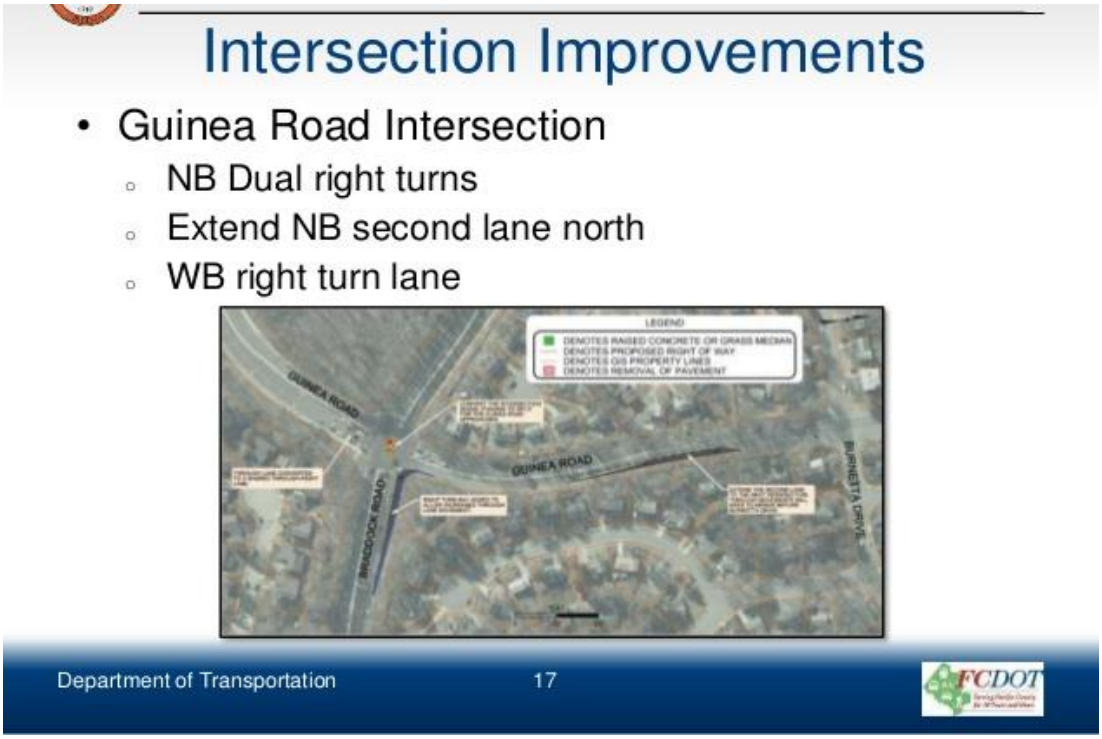

Figure 11 Guinea Road Changes

2. **Burke Lake Road and Braddock Road:** Convert northbound movement on Burke Lake Road (the Kings Park Shopping Center on your left) to triple rights (see Figure 12) onto Braddock Road eastbound; not allow any through traffic to Woodland Way or left turn onto westbound Braddock Road from Burke Lake Road. Traffic bound for westbound Braddock Road or for Woodland Way would use Rolling Road to turn right (eastbound) or left (westbound) onto Braddock Road. A left across eastbound Braddock Road at Woodland Way would then get you onto Woodland Way.

3. **Grantham Street and Braddock Road:** Drivers who use Grantham Street and Burke Lake Road intersection will only turn right onto Burke Lake Road from Grantham Street (no direct crossing of Burke Lake Road into the Kings Park Shopping Center or left turn onto Burke Lake Road from Grantham Street) or right from Burke Lake Road onto Grantham Street. This is also known as Right

in/Right out only option for an intersection. Also, left turn from the Kings Park Shopping Center onto northbound Burke Lake Road will not be permitted; right turns only. Note, this is a March 2016 change to the spot improvement options.

4. **Kings Park Drive and Braddock Road:** Drivers who use Kings Park Drive to leave Kings Park onto Braddock Road can only turn right onto eastbound Braddock Road; no straight across Braddock Road or left turn onto westbound Braddock Road will be permitted from Kings Park Drive at any time. Drivers on eastbound Braddock Road can only turn right onto Kings Park Drive if they decide to enter Kings Park. No left turns are permitted from the westbound Braddock Road onto Kings Park Drive. A Right in/Right out only. The traffic signal at Kings Park Drive may be eliminated because no left turns or straight through traffic will be allowed.

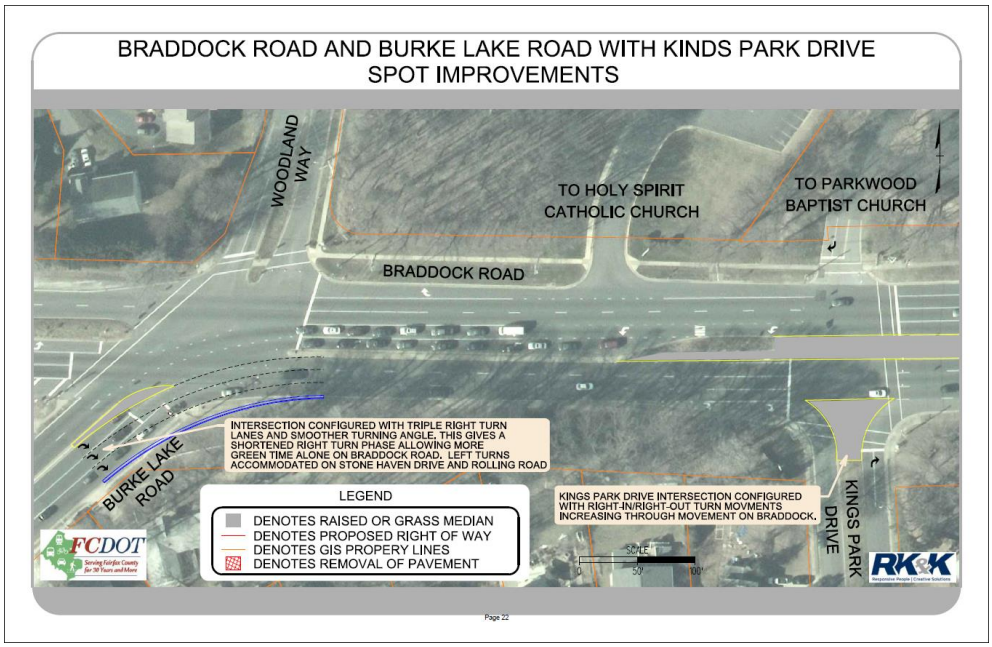

Figure 12 Burke Lake Road and Kings Park Drive Changes

5. **Stone Haven Drive and Braddock Road:** Right in/Right out only.

6. **Danbury Forest Drive/Wakefield Chapel Road at Braddock Road:** See Spot Improvement 14 which is very closely tied to this improvement. Realign Danbury Forest Drive to meet Wakefield Chapel Road as a standard intersection. The traffic light at the new intersection will remain but with changed light options and timing. Note: This is a change as of the June 1, 2016 meeting.

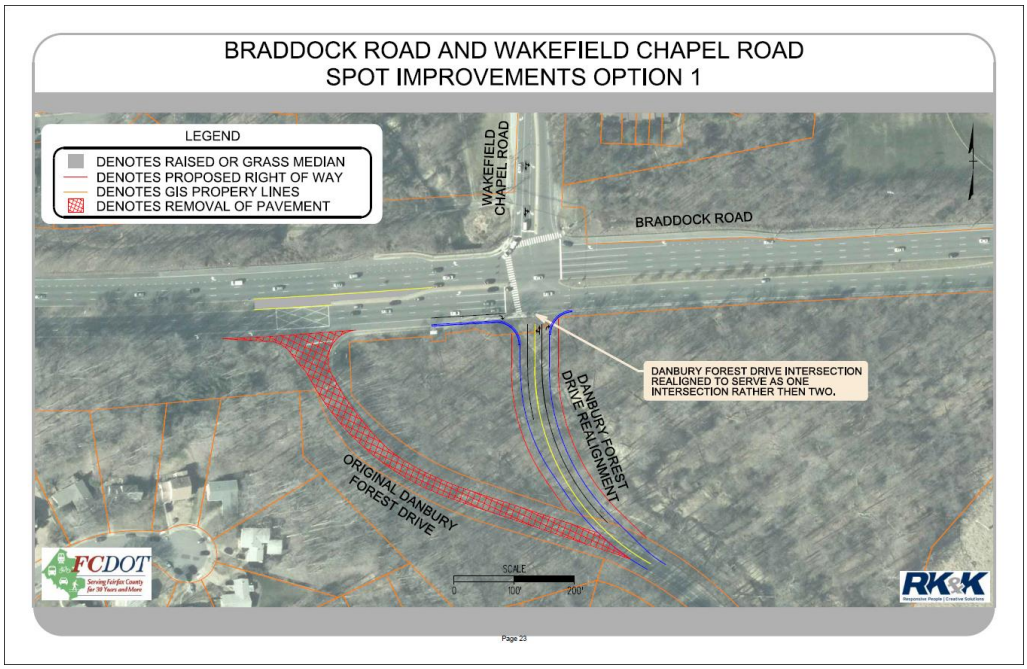

Figure 13 Danbury Forest Drive and Wakefield Chapel Road Changes

7. **Glen Park Drive and Braddock Road:** Right in/Right out only.

8. **Inverchapel Road and Braddock Road:** Right in/Right out only.

9. **Port Royal Road and I-495 ramps:** Close the existing connection from SB I-495 to Port Royal Road; relocating that movement to the loop in the SW quadrant. This would line that movement up with the SB I-495 Express Lanes ramp.

   NB I-495 to EB Braddock Ramp: Realign the ramp to make it more of a right turn, and providing more weave space to Ravensworth Road.

10. **Ravensworth Road and Braddock Road:** Remove rush hour bottleneck. Recently identified during the study as a bottleneck that impacts traffic flow on eastbound Braddock Road during morning rush hour. Currently no improvements proposed but intersection is under analysis. VDOT installed a flashing left turn yellow indication in September 2014 to improve safety at this intersection

11. **Twinbrook Road and Braddock Road:** Widen Twinbrook Road. Note: This is a change as of the June 1, 2016 meeting.

12. **Olley Lane and Braddock Road:** Widen Olley Lane. Note: This is a change as of the June 1, 2016 meeting.

13. **Southampton Drive and Braddock Road:** Add a second right turn lane on Southampton Road to eastbound Braddock Road. Location of the sidewalk may also be moved. Traffic flow across Braddock Road and left onto westbound Braddock Road will still be permitted. Note: This is a change as of the June 1, 2016 meeting.

14. **Braddock Road before Danbury Forest Drive/Wakefield Chapel Road Intersection:** See Spot Improvement 6 which is very closely tied to this improvement. In addition to the realignment of Danbury Forest Drive and Wakefield Chapel Road to cross Braddock Road, changes are also proposed to Braddock Road as a result of this realignment. Braddock Road eastbound will consist of four through lanes, one right turn lane, and two left turn lanes. Braddock Road westbound will consist of four through lanes, one left turn lane, and one right turn lane. Southampton Drive and Danbury Forest Drive/Wakefield Chapel Road intersection traffic lights will remain at their intersections, but probably with different light patterns. I do not have a clear graphic in an electronic form of this improvement option to place in this document. Go back and look at Figure 13, which shows the lanes, but the figure is very blurry. This text picture is best I can do at the moment.

Legal U-Turns

Okay, now we get to the topic of Legal U-turns. The Right-in/Right-out only design may allow legal U-turns further down the road at a green left-turn arrow traffic light to facilitate traffic flow from side streets and along Braddock Road. In 2024, a driver can make a legal U-turn on a green left-turn arrow at some intersections. Traffic on a cross-street that wants to turn right on red must yield to a legal U-turn maneuver from the street with the left turn arrow before the driver of the cross street may turn right on red. Signage will warn of this situation, but alertness and anticipation will be required on the part of a driver at the red light as to whether the left turn driver is turning left onto their street or making a Legal U-Turn. Driver re-education and traffic enforcement must be a part of this option.

Putting the Right-in/Right-out and Legal U-Turn concepts together with an example

To get to Parkwood Baptist Church from Kings Park Drive, a driver now crosses Braddock Road to the church drive. To get to Holy Spirit Catholic Church from Kings Park Drive, a driver turns left onto Braddock Road and then right onto the church drive or right at Woodland Way. Under the 2040 (actually the 2024) road conditions, a driver must turn right on eastbound Braddock Road and make a Legal U-turn at a left-turn green arrow at the Braddock Road and Southampton Drive intersection to head back west on Braddock Road; then turn right into the church access roads or Woodland Way.

To leave the churches and reenter Kings Park subdivision, the driver must turn right (remember no left turn onto eastbound Braddock Road) from the church drives onto

westbound Braddock Road and then left from westbound Braddock Road onto Burke Lake Road, or travel straight across Braddock Road onto Burke Lake Road from Woodland Way. In all cases, the driver would then turn left on Rolling Road from Burke Lake Road and, if you prefer a traffic light for traffic control on Rolling Road, left onto Southampton Road from Rolling Road (remember Grantham Street in 2024 is Right-in/Right-out only).

I presented the example above to illustrate the Right-in/Right-out only and Legal U-Turn concepts as applied to actual traffic flow. How would I get to either church? I would turn left from Southampton Drive onto westbound Braddock Road.

Now what about walking to the churches? From Kings Park subdivision at Kings Park Drive, a pedestrian must cross 8 lanes of traffic on Braddock Road, perhaps 10 lanes if two lanes (one eastbound and one westbound) are turn lanes; very daunting, and perhaps worth a quick prayer, before you cross the Braddock Road of 2024 at the surface crosswalk. The option to improve Pedestrian and Bicyclist access and safety around the Braddock Road traffic improvement areas will be covered as Option 5 in this document under the **Improve Pedestrian and Bicyclist Access and Safety Option** title.

Remember at the beginning of the discussion of this option, the initial study showed time eastbound during the AM rush hour on Braddock Road increased from 33 minutes under the **No-Build** option to 50 minutes under the **Widen Braddock Road** option. Time westbound on Braddock Road during the PM rush hours showed a minor improvement from 23 minutes under the **No-Build** option to 22 minutes under the **Widen Braddock Road** option alone. Under the **Spot Improvement** option (Figure 14) alone (not combined with any other option), the eastbound Braddock Road travel time during AM rush hours is now predicted to be 28 minutes rather than 33 minutes for the **No-Build** option or 28 minutes rather than 50 minutes under the **Widen Braddock Road** option. The westbound Braddock Road travel time during PM rush hours is now predicted to be 17 minutes rather than 23 minutes under the **No-Build** option or 17 minutes rather than 22 minutes under the **Widen Braddock Road** option. All predicted times in Figure 14 are from Guinea Road to I-495 for morning rush hours and from I-495 to Guinea Road for evening rush hours.

		Braddock Road 2040 Rush Hour Travel Time-Minutes		
	2015 Existing Traffic	**2040 No-Build Option**	**2040 Spot Improvement Option**	**2040 Braddock Road Widening Option**
Morning Rush Hour	13	32.7	28.1	50.5
Evening Rush Hour	14	23.4	16.6	24.6

Figure 14 Braddock Road Travel Times Between Guinea Road and I-495

Pros:

1. Improved traffic flow along Braddock Road. A commuter along Braddock Road may save about 5 minutes in morning rush hour traffic (when compared to the **No-Build** option) and 7 minutes in evening rush hour traffic (when compared to the **No-Build** option) per trip in 2040 despite heavier traffic on Braddock Road; for a year of commutes, say 250 days, save 21 hours in the morning rush and 29 hours in the evening rush.

2. Right-in/Right-out and Legal U-Turns reduces the number of conflict points (read number of potential spots for vehicle collisions) as compared to traffic flow/traffic lights as they currently exist. Potentially results in fewer accidents.

3. Widening of Braddock Road may not be needed. From Figure 14 above, commute time decreases under **The Spot Improvement Option** alone.

4. Spot improvements and elimination of the bottle necks at Ravensworth Road and Guinea Road may carry us into 2040. To my knowledge, the complete study that covers potential solutions to the bottlenecks at Ravensworth Road and Guinea Road has not yet been presented to the Braddock Road Multimodal Study Citizen Advisory Committee.

Cons:

1. From a Kings Park resident view, a "Construction Mess" that includes road machinery noise; dirt and dust; frequent traffic flow changes along Braddock Road and side streets because of construction, temporarily blocked local subdivision streets.

2. Traffic patterns into and out of our Kings Park subdivision will change, both temporarily during construction (2021-2024) and permanently (2024 and later) after the build phase is complete.

3. Fairfax County must provide frequent and readily available driver re-education as well as traffic enforcement for those intersections that allow a Legal U-Turn.

4. Drivers must read, attend, understand and apply any provided Legal U-Turn and Right-in/Right-out Only Turns re-education. Under this option, drivers who live in Kings Park cannot passively assume they can navigate changed traffic patterns on local side streets or Braddock Road without a change in their driving habits.

Option 5: Improve Pedestrian and Bicyclist Access and Safety Option

While this option is the last to be discussed it is, in my opinion, the most important of the five options. This option is last in this document only because I thought it necessary that readers (if any) understand the numerous road and signage changes (if any) that

could happen to Braddock Road and surrounding side streets and combine that with the realization that traffic flow will increase and traffic patterns will change. Even under the no-build option, traffic on Braddock Road and Kings Park side streets will increase by 2040. Human driver, pedestrian, and bicyclist frustrations will only increase with increased stop-and-go traffic; this will lead to unfortunate decisions on the part of all three types of road warriors with possibly tragic consequences. Even under the no-build option, changes to improve safety at street crossings must be addressed.

One point before I continue on the topic of Pedestrian/Bicyclist safety. Think Braddock Road is a suburban street? Consider what you may face if you cross Braddock Road in mid-block on a workday at 7:30 AM compared to a mid-block crossing of Kings Park Drive, Southampton Drive, or Victoria Road at the same day and time. Whether we like it or not, Braddock Road is now a major thoroughfare and a barrier for pedestrians/bicyclists who wish to cross Braddock Road. The Braddock Road widening option, if built, will just make it more so. Keep that thought in mind when reading about safe street crossing options.

There exist four possible designs for street crossings to improve the safety of bicyclists and pedestrians. These four designs (Figure 15) are:

1. High-Visibility Surface Crosswalks.
2. Pedestrian Refuge Islands.
3. Pedestrian Bridges.
4. Improved Underpass, either closed tube or open enclosure constructs.

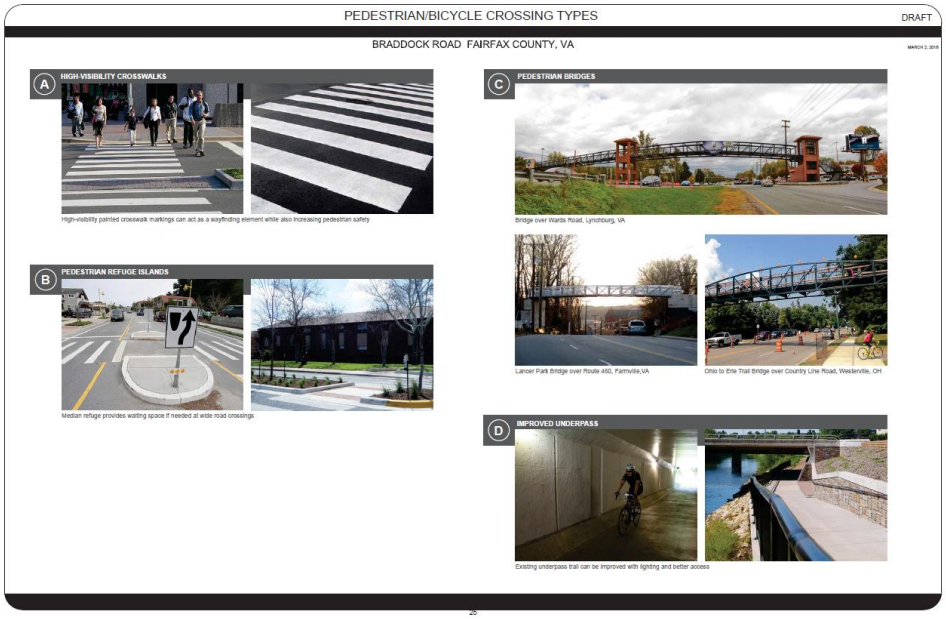

Figure 15 Types of Street Crossings

All of the types of street crossings are under consideration by the Citizens Advisory Committee, but some are more costly than others. Expense is one factor in the decision as to which street crossing may be most appropriate for a given location.

High Visibility Surface crosswalks are the easiest and least costly to build but may not be effective when they cross major roadways, such as an 8-lane traffic-infested (sorry, some bias here) Braddock Road. Pedestrian Refuge Islands include raised medians and/or fencing to mark the refuge to both pedestrians/bicyclists and drivers. While effective in two or four lane road crossings, again an eight lane Braddock Road, perhaps even nine or ten lanes with turn lanes added in, may defeat their objective. Another advantage: one can use existing sidewalks to reach surface street crossings.

Any surface crossing depends upon the timing of a traffic light, or a HAWK Beacon. Can you, no matter what your physical condition or age, cross the road or at least reach a pedestrian island before the traffic signal changes? We are talking safety here, not operations research traffic flow study concepts (such as how many cars, how often, most optimal traffic flows). One pedestrian hit because of flawed evaluation criteria of the street crossing design is one too many (again some bias here)! Additionally, I have observed pedestrians ignore their own mortality by running across the existing surface crosswalk at Braddock Road and Kings Park Drive against flowing rush-hour traffic in order to reach a metro bus waiting at its stop. Lapses in judgement will happen.

Pedestrian Bridges which cross above a street completely eliminate the driver/pedestrian lapses in judgement but are more expensive to build than surface crossings, require a prepared area around each stair for convenient (avoid mud, poison ivy, ticks, etc.) access, and may require new paved paths to reach them.

The Improved Underpass, either enclosed or open, also completely eliminates the driver/pedestrian lapses in judgement but are the most expensive to build and to maintain. For the build of an Improved Underpass as a tunnel structure, think drainage, electricity for internal underpass lights, ventilation. For maintenance, think electric light replacement, debris removal, pedestrian/bicyclist personal safety concerns. Desirably, the Improved Underpass should be both large and open to the sky, except where it crosses under a road or bridge, but may require new paved paths to reach them. Because the Underpass is the most-costly of the pedestrian/bicyclist crossings, this option is unlikely to be built.

Both the Pedestrian Bridge and the Improved Underpass will require paved paths to reach and to leave; they will not exist as a stand-alone structure but must be part of a path network. That path network may be created or existing paths may be improved.

Figures 16 and 17 show pedestrian/bicyclist crossings currently under consideration. They are marked with the A, B, C, and D legends. A is high visibility surface crossing, B is Pedestrian Refuge Island, C is Pedestrian Bridge, and D is Improved Underpass. Additionally, the Braddock Road Multimodal Study Citizen Advisory Group meetings added the following locations for study that are not reflected in these graphics:

1. Wakefield Chapel Road and Braddock Road: Pedestrian Overpass, the C legend.
2. Kings Park Drive and Braddock Road: Pedestrian Overpass, the C legend.
3. Port Royal Road at Braddock, Pedestrian Overpass, the C legend

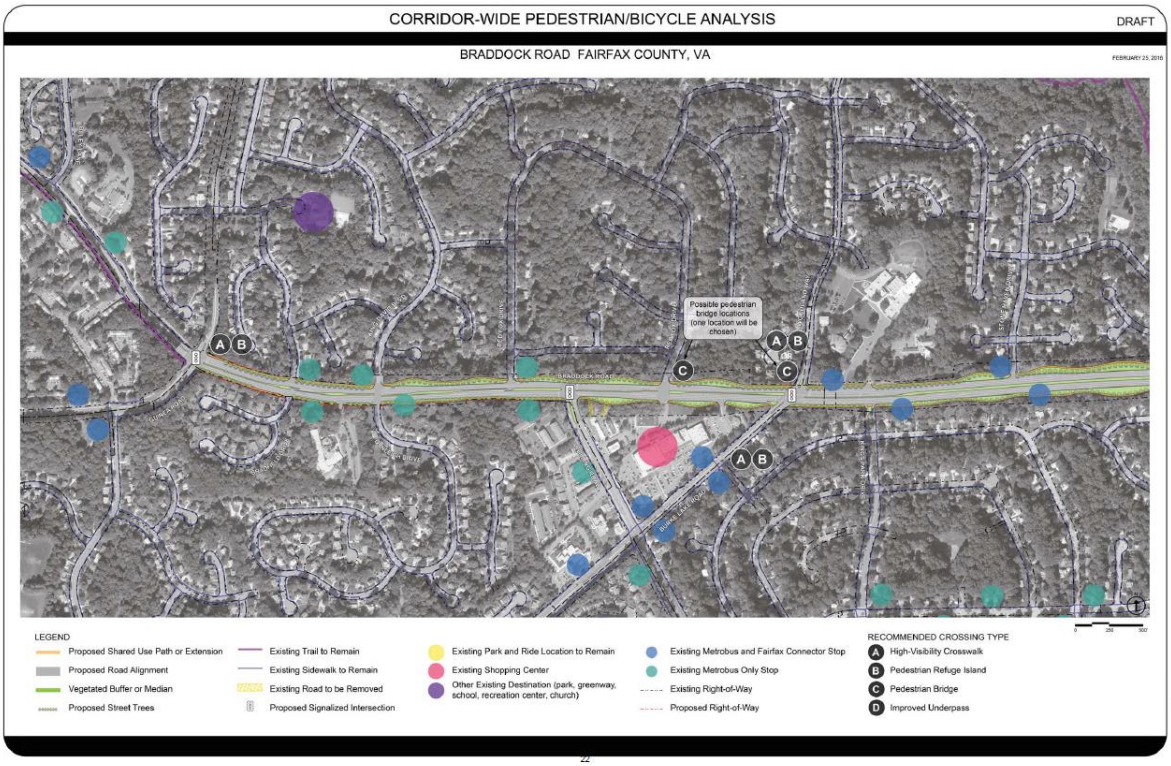

Figure 16 Braddock Road Pedestrian/Bicyclist Analysis Guinea Road to Kings Park Drive

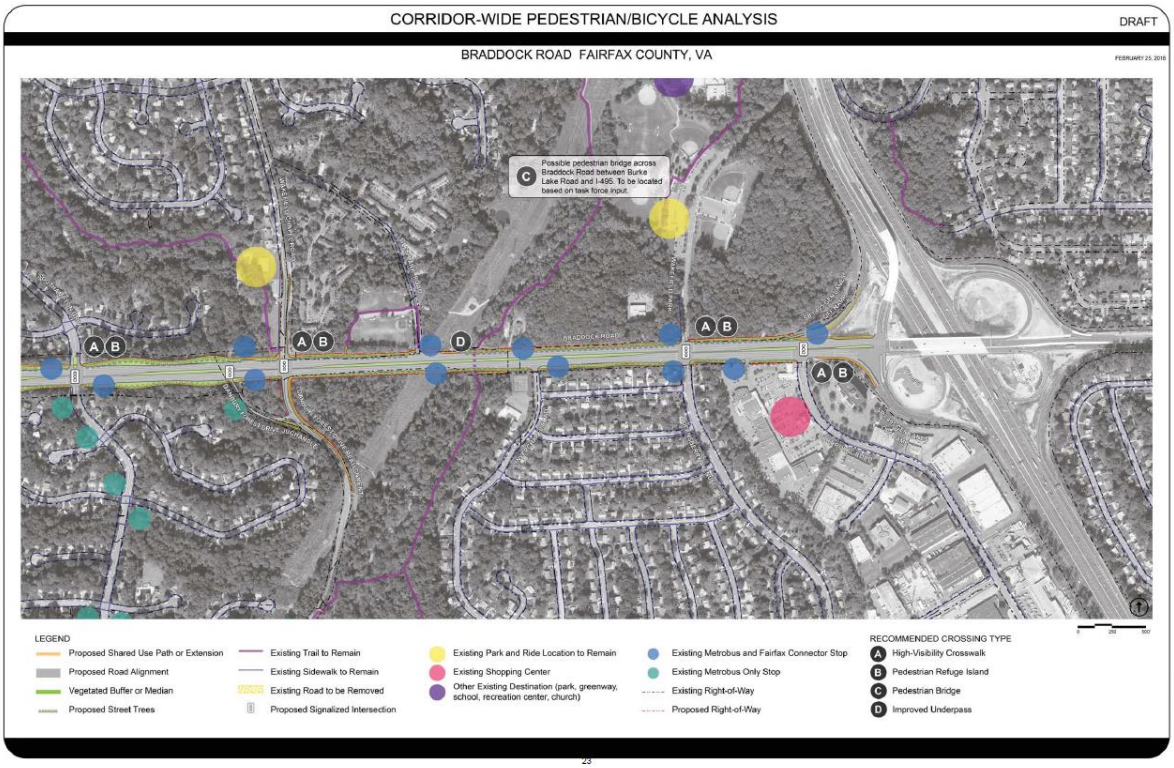

Figure 17 Braddock Road Pedestrian/Bicyclist Analysis Wakefield Chapel to Beltway

During the April 2016 community meeting on the Braddock Road Multimodal Study, attendees were given the opportunity to indicate location and the type of crossing they would desire for Pedestrian/Bicyclist crossings. Here are the results.

Location	Ped/Bike Bridge	Street Level Crossing
Intersection of Braddock and Woodland Way/Burke Lake Road	14	2
Braddock and Wakefield/Queensbury	14	
Braddock and Rolling Road	10	
Braddock and Wakefield Chapel/Danbury Forest	6	
Braddock and Bradford Drive	4	
Braddock and King David/Dunleigh	3	1
Braddock and Red Fox Drive (east)	4	
Braddock and Southampton	3	
Braddock and Red Fox Drive (west)	2	2
Braddock and Kings Park Drive	1	1
Braddock and Rolling Road (between Braddock and Burke Lake Road)	1	
Braddock and Inverchapel Road	1	
Braddock and Guinea Road		1
Braddock and Stone Haven Drive		1

Figure 18 Desired Pedestrian/Bicyclist Crossings

And finally you see the proposed pedestrian and bicyclist paths (the wavy green line) around the Braddock Road area in 2040. The proposed paths would follow the

Braddock Road right of way. The paths will serve as a safe place to walk or bicycle and will also connect to Braddock Road pedestrian/bicyclist crossings.

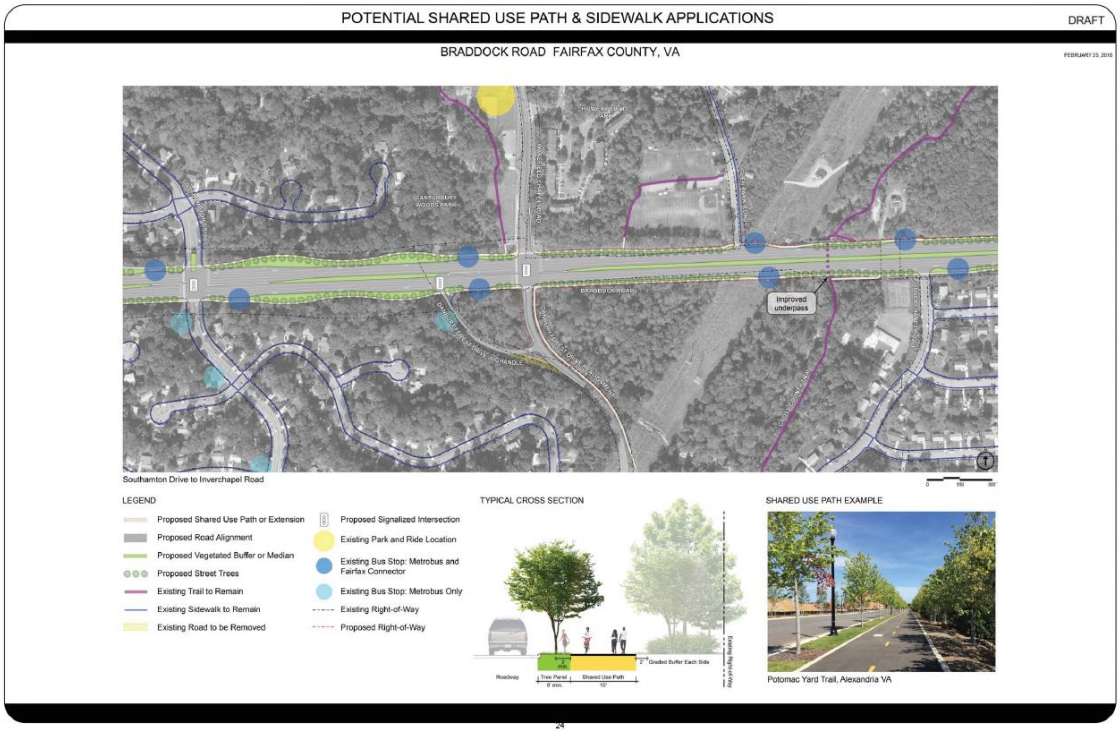

Figure 19 Potential Shared Use Path

High-intensity Activated crossWalK (HAWK) Beacon.

The crossing at Burke Lake Road and Grantham Street, and other intersections, may have a HAWK Beacon. So what is a HAWK Beacon?

The HAWK Beacon manages the benefits of improved traffic flow with safe street crossings of pedestrians/bicyclists. In its rest state (Figure 20), the HAWK Beacon remains unlit. The HAWK Beacon is illuminated when it is activated by a pedestrian, triggering the warning flashing yellow lens on the major street. After a set amount of time, the indication changes to a solid yellow light to inform drivers to prepare to stop. The HAWK Beacon then displays a dual solid red light to drivers on the major street and a walking person symbol to pedestrians. At the conclusion of the walk phase, the HAWK Beacon displays an alternating flashing red light, and pedestrians are shown an upraised hand symbol with a countdown display informing them of the time left to cross the street. During the alternating flashing red lights, drivers can proceed after coming to a full stop and checking that pedestrians have already crossed their lane of travel. Each successive driver is also legally required to come to a full stop and check that pedestrians have crossed their lane of travel before proceeding during the alternating flashing red phase.

The alternating flashing red phase allows a balance between the traffic flow and the actual crossing needs of the pedestrian. Drivers can proceed with a stop-and-go operation during the flashing red phase when a pedestrian clears the lane (for multi-lane roads) or roadway, as appropriate. If pedestrians need more time to cross a lane, then the drivers remain stopped until pedestrians finish crossing that lane. The ability to balance the needs of the pedestrian with driver and traffic flow delay is a valuable component of the HAWK Beacon treatment.

Concerns have been expressed regarding driver behavior and understanding of the dark phase (not illuminated) and the flashing red phase at newly installed HAWK Beacons. When first introduced to an area, traffic enforcement and public education are needed until users understand how the beacon works. When the beacon has not been activated, some drivers have acted as if the signal is dark due to a power outage, but that has not been experienced by all jurisdictions with HAWK Beacons in operation. The flashing red phase is sometimes misunderstood by drivers farther back in the queue, and they followed the lead driver through the crosswalk instead of stopping at the stop line as required. Additionally, motorists sometimes remain stopped during the flashing red phase when the crosswalk is clear due to the similarity to a railroad crossing signal. Experiences in Tucson, AZ, have demonstrated that, with proper education and with experience, drivers understand when they should stop and when they should resume travel. Tucson has conducted public campaigns and increased traffic enforcement to teach and encourage appropriate driver and pedestrian behavior at HAWK Beacon crossings.

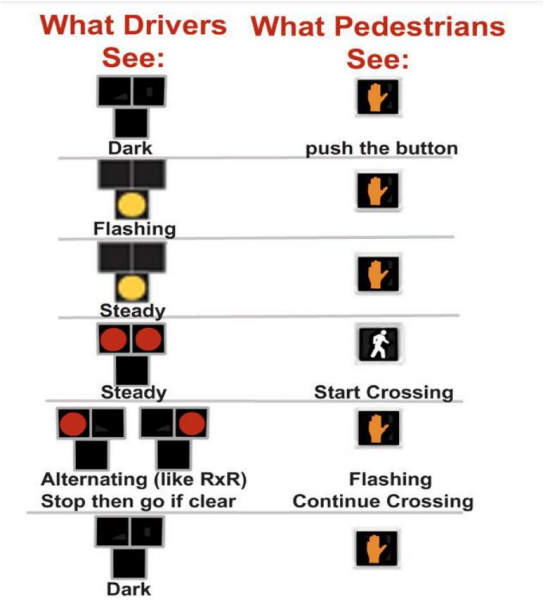

Figure 20 HAWK Beacon Signal Explained

Notice in Figure 20 that, from a pedestrian viewpoint, the signals have not changed from the more familiar pedestrian crossing light. It is the driver who must adapt to the signals of the HAWK Beacon. Pedestrians, however, should remain alert for the potential of a

crossing violation on the part of a driver, also known as run for your life if already crossing or do not cross even if you have the right-of-way.

Pros:

Improve access and safety across busy roads for pedestrians and bicyclists.

Cons:

1. For the HAWK Beacon, some areas have reported motorist confusion where Hawk Beacons are newly installed. Driver and pedestrian education as well as law enforcement actions will be required to assure pedestrian safety marries well with optimal traffic flow.

2. For the HAWK Beacon, should only be used where streets have no more than two lanes of traffic in each direction.

3. Figures 8 and 9 show a vehicle left turn from Burke Lake Road into the Kings Park Shopping Center at the HAWK Beacon. I cannot find literature that allows a HAWK Beacon to support both Pedestrian crossing and Vehicle turns. If this is a hybrid solution, then the safety/experience history of this approach may not exist. Pedestrians/bicyclists who cross Burke Lake Road at Grantham Street could become unwitting test cases.

5. **The Merciful Conclusion.**

Remember that the intent of the Braddock Road Multimodal Study is to improve traffic flow along Braddock Road especially during AM and PM rush hours; for commuters along Braddock Road, which includes our residents, the phrase is improved traffic flow; for Kings Park residents the concern is a balance between a three-year construction aggravation versus long-term benefits of improved traffic flow and increased transportation options along Braddock Road as well as ease of entering/leaving Kings Park under heavier traffic conditions brought on by the addition of about 250,000 residents by the year 2040 within Fairfax County.

All entrances and exits from our Kings Park subdivision could be impacted by road improvement work; our residents are right in the center of the Braddock Road Traffic Flow Improvement options. So, pay attention to the happenings throughout the study period (now to mid-2017) and understand the various options as they evolve. And remember to try to balance two viewpoints. One viewpoint is improved traffic conditions for all travelers on Braddock Road, including ourselves; the other is a focus on the impact of quality of life changes on us as residents of Kings Park.

I have tried to be objective and unbiased as I wrote this document. I addressed only descriptions and alternatives of road/transit changes under study. I read meeting and handout materials obtained from Fairfax County website, and attended meetings and tours as a member of the Braddock Road Multimodal Study Citizen Advisory Group, as

background. I tried to keep the contents focused on the topic of Braddock Road traffic flow and pedestrian and bicyclist access and safety, centered on Kings Park, without use of specialized traffic flow/control jargon or how other communities may be affected. I also avoided the documentation of the intensive discussions that occurred prior to the slide or text summaries that captured the conclusions of those discussions.

I do, however, have an opinion about the future of Kings Park and Braddock Road. This is not the time to retreat from the positive growth we have experienced since the 1960s or fear what the future will bring. This is not the time for isolationism or to close our eyes to the benefits and improved quality of life we all now share because of past far-sighted traffic flow planning. That being written, the study should not only focus on traffic flow alternatives on and around Braddock Road, but also include discussion and commentary about growth, resilience, and the future of Kings Park. Now is the time to make our viewpoints known to the Braddock Road Multimodal Study Citizen Advisory Group.

Kings Park residents can provide feedback to Jim Sobecke or Terry Boschert, the KPCA representatives to the Citizen Advisory Group. The KPCA email address for feedback about the topic of Braddock Road Widening is kpca.braddockroad@gmail.com. Also check the November issue of the Kings Park Gazette, published by the Kings Park Civic Association and delivered door-to-door by volunteers to every home in Kings Park, for study feedback contact information and status of the study as known at that time. The Kings Park Gazette is published six times a year, usually January, March, May, July, September, and November.

You may find much more information at:

http://www.fairfaxcounty.gov/braddock/braddockroadmeetings.htm,
http://www.fairfaxcounty.gov/fcdot/braddockroadmmstudy/,
http://www.fairfaxcounty.gov/braddock/braddockroadstudyhome.htm.

I am done writing. You are done reading. Thank goodness!