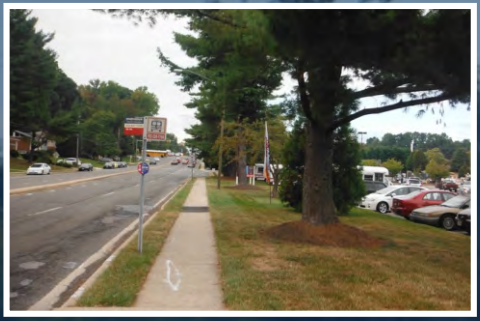
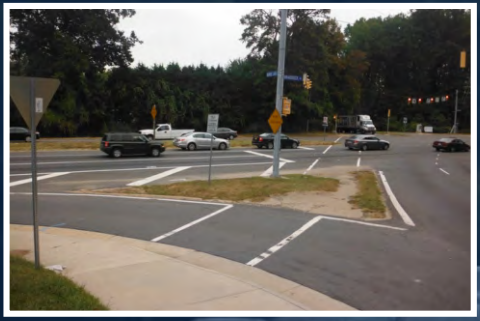
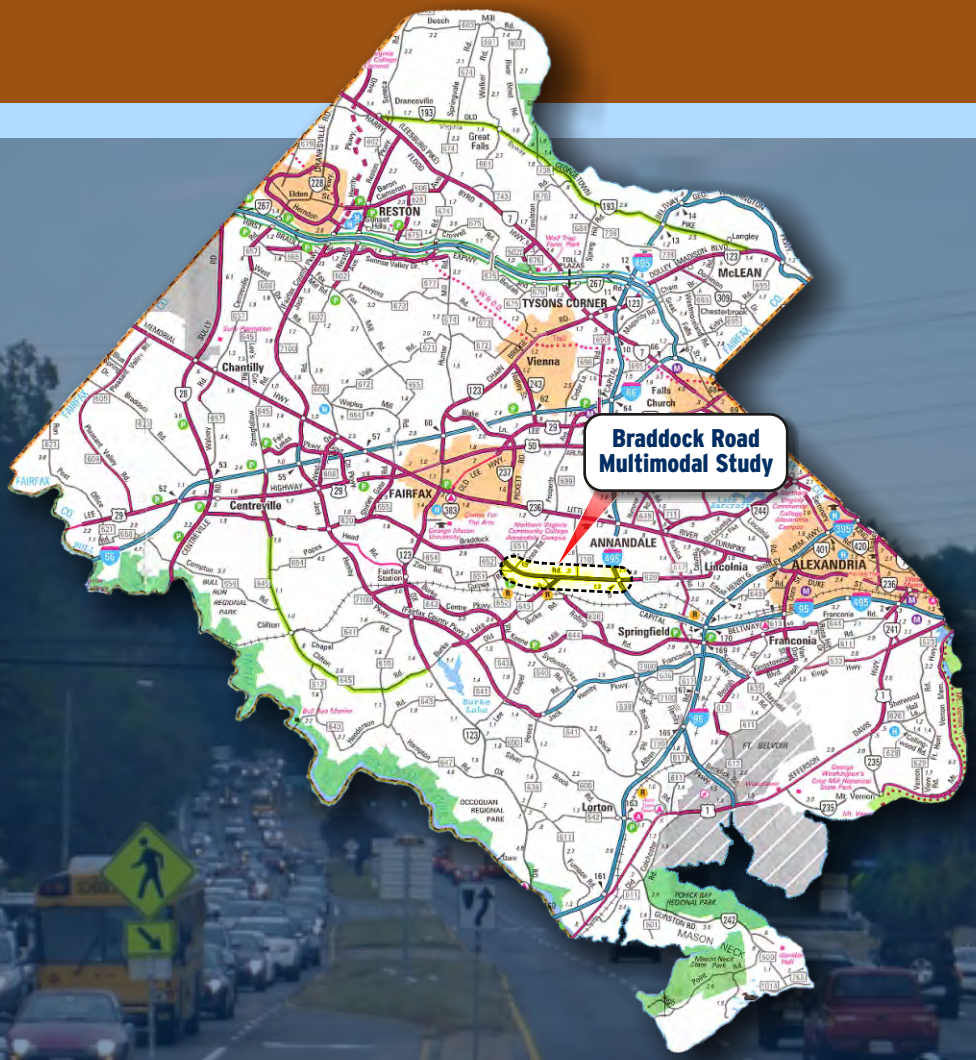
Braddock Road Multimodal Study

County of Fairfax, Virginia

Task Force Meeting Materials







RK&K

Date: September 7, 2016

September 7, 2016

Braddock Road Multimodal Study
Fairfax County, Virginia

Task Force Meeting

I. Introduction (5 minutes) ..... Kevin Morse, Chairman

II. Progress Since Last Task Force Meeting (10 minutes) ..... Tad Borkowski/John McDowell

   a. Community Meeting April 25, 2016

      i. Follow-up activities

      ii. Web site update

   b. Small group meetings:

      i. Faith Community June 22, 2016

      ii. The Elms Community August 16, 2016

III. Discussion Items ..... Tad Borkowski/John McDowell

   a. Concept Plans update (30 minutes)

      i. Bradfield Drive Intersection

      ii. Parkwood Baptist/Holy Spirit Catholic Churrches access

      iii. Wakefield Chapel/Danbury Forest Drive – Conventional Intersection

   b. VISSIM Development (30 minutes)

   c. MOE Development (15 minutes)

   d. Transit Center Options (15 minutes)

   e. Review schedule for upcoming meetings (10 minutes)

IV. Activities for Following Month (5 minutes) ..... Tad Borkowski/John McDowell

   a. Concept refinement

   b. Transit Center refinement

   c. Preparations for Fall 2016 Community Meeting

V. Adjourn Meeting ..... Kevin Morse, Chairman

June 1, 2016

Braddock Road Multimodal Study
Fairfax County, Virginia

Task Force Meeting Minutes

Action Items

- **RK&K / FCDOT** to evaluate bottleneck relief for each Build Scenario
- **RK&K** to further refine the MOE score sheet.
- **Task Force** to evaluate the weights and MOEs and provide questions to the County.

Discussion

The meeting began with Task Force Chair Kevin Morse welcoming all attendees. Tad Borkowski began discussing the progress completed since last meeting, which included the April 25th Community Meeting, at which the county received a lot of feedback and has continued to receive it. He noted that the County will be adding some of the items from the Community Meeting to the website and that the project team has been meeting with small groups including Kings Park Shopping Center about the project.

A Task Force member asked if it is safe to assume that a parking deck going in means the existing building comes down and Tad answered that was still be determined. Another Task Force member asked whether the presentation to the owners was discussed as a high probability or one possibility and Tad noted that the discussions were very preliminary. A follow-up question was asked about whether any future meetings are planned and Tad responded that no additional meetings with the shopping center are currently planned. It was asked whether the Shopping Center is aware of community involvement and Tad said yes.

Tad continued, noting that the County has met with Brook Hill and they want to know about the project and want to have some items addressed for future consideration – John McDowell noted that two specific things came up: 1. HAWK signals at the schools on Ravensworth, and 2. Fixing the back-up for the Westbound Braddock to Southbound I-495 with a flashing yellow arrow and John noted this request was forwarded to VDOT. Tad also noting a meeting at the Korean Presbyterian Church and noted that some additional spot improvements might be needed at Twinbrook and Olley to address their concerns. A question was asked about whether this addresses the issues only at Twinbrook and Olley or is part of a broader strategy from Guinea, but John noted that it is more a correction of isolated issues to provide more thru time for Braddock. Another community meeting was held at Kings Glen Elementary School.

Tad continued noted that the project team is working on developing the data for the MOEs and populating the tables seen by the Task Force previously.

Tad asked a Greg Snow (Task Force member) about whether he had any thoughts and he shared that he feels based on the article shared that we should take Connected Vehicles (CV) / Automated Vehicles (AV) into account. Eric Teitelman (FCDOT) shared his thoughts about lack of a federal standard and dollars to support incorporating this into this project. A Task Force member noted that CV could be taken into account by not accounting for crashes, etc and Eric noted that crashes are not impacting the analysis and are part of incident management. Another Task Force member noted that while he thought the technology was coming it likely wouldn't proliferate the market along Braddock Road within the next 20 years. Another Task Force member noted that one idea would be to continue this study and then have research case studies to determine how well the proposed project plays with the future scenario of CV/AV.

Tad moved on to schedule for upcoming meetings. He noted that with summer vacations, and the need for the project team to refine the VISSIM, collect some additional information and pull the complete package together for MOE evaluation, that the County felt that skipping July/August and coming back in September would be beneficial. John noted that work back in office is necessary and having to come back in a month with anything of substance was impractical and with a few months the team could pull a package together of more complete information and present data to go along with MOEs. A Task Force member noted one concern was that if the improvements modeled shifted an area of concern and additional spot improvement needed the visibility of committee is lost. It was suggested that a monthly email might be useful in this case to keep the committee abreast. Eric noted that the goal was not to stop and redo, but to push through everything on the table and come back in September with a large package to review by the Task Force.

The meeting continued with discussion regarding the April 25th Community Meeting. John presented the summary in the packet. The first part of the packet information was a description of the meeting and the summary of questions and answer session moderated by Michael Guarino (FCDOT) and Supervisor Cook. The second part of the packet information was a summary of the information received from the sticky notes at each station. He noted that no specific themes have been identified yet, although he did note that additional review of this information would occur. John noted that on page 29 of the packet is a "living document" of common misconceptions and any additional items which could be added are welcome. John opened it up to the Task Force regarding anything they've heard from neighbors, etc:

- A Task Force member noted that their neighborhood is concerned about cut through traffic at the Kings Park triangle and a lot of concern that transit center will make it worse. (Eric noted that the team will show you that delays of 2040 no build which go up substantially – but that doing something will improve the side street travel times).
- Another Task Force member noted concern about the Westbound Braddock left lane closure project at Danbury Forest.
- A question was asked about restricting Centreville traffic from using Braddock Road.
- A Task Force member noted concern about removing left turn lanes and whether evidence could be shared as to the benefit of removing them. A follow-up was asked about whether the left turns are causing a problem.
- It was noted by a Task Force member that a comment may not simply be addressed through education but also through noting that they have a valid/differing viewpoint.

John moved the discussion to the Spot Improvements by first presenting the original 10 that the Task Force had already seen. He presented them in the following order:

- Guinea Road intersection
- Guinea Road to Rolling Road
    - A Task Force member noted a concern about St. Stephens Church
    - Concern noted by Task Force members about weaving across lanes for a right-turn followed by u-turn
- Burke Lake and Kings Park
- Grantham Street at Burke Lake
- Stone Haven Drive
- Danbury Forest / Wakefield Chapel (Jughandle)
- Glen Park Road
- Inverchapel
- Port Royal / I-495 SB Off-Ramp

- I-495 NB Off-Ramp
- Ravensworth

John then presented the additional Spot Improvements that came out of the problem spots noted in the modeling. They were presented in the following order:

- Twinbrook / Olley
    - John noted that the concern is the Westbound left from Braddock at Twinbrook and spillback blocking the left most thru lane along Westbound Braddock. He noted that a concern with this concept is the removal of on-street parking.
    - A Task Force member noted that parking isn't only used by people who live there – with no other option – but also the older townhomes and that those spaces are used consistently and regularly.
    - A follow-up question was asked about how if you take away on-street parking and now all homes need to use their driveway, how do they get out?
    - John noted a concern about the Eastbound left from Braddock at Olley and extending the existing turn lane along Olley to receive.
    - A Task Force member noted concern about people trying to make a left out of the Outback Steakhouse and a right-in/right-out should be considered.
- Olley to Guinea
    - John noted that the original concept was to stop the widening at Guinea but that it appears that this creates a series of bottlenecks. He noted that the daycare center and Humphries Drive have reduced sight distance and therefore they have the right-out and u-turn in this concept. Tad noted that the alignment was shifted south approaching Guinea to avoid homes on the north.
- Southampton Drive
    - John noted that this concept has an additional Northbound right-turn lane
    - A Task Force member made note about the slope away from the road and that it might be tough to fit this concept in
- Danbury Forest / Wakefield Chapel (Displaced Left-Turn)
    - John explained the functionality of this concept. He noted that the Northbound and Southbound legs do not have the displaced lefts.
    - A question was asked about whether the left turns would hit two red lights, but John responded no.
    - John noted that this intersection type is not necessarily pedestrian friendly. Eric noted a pedestrian overpass would likely be needed.
    - A Task Force member noted that people park along Wakefield Chapel to walk across Braddock to the bus stop on south side of road.
    - A question was asked about the trees in the median west of Wakefield Chapel and Tom noted that the County is aware these need to be relocated
- I-495 SB
    - John noted that this improvement is already a project included in the County Long Range Plan

A Task Force member asked how much the spot improvements are severable from the widening and transit center – i.e. will they be built before? John responded that some are part of larger projects, some are standalone, etc, and these specific details are still to be determined

Planned Activities for June, July and August 2016:

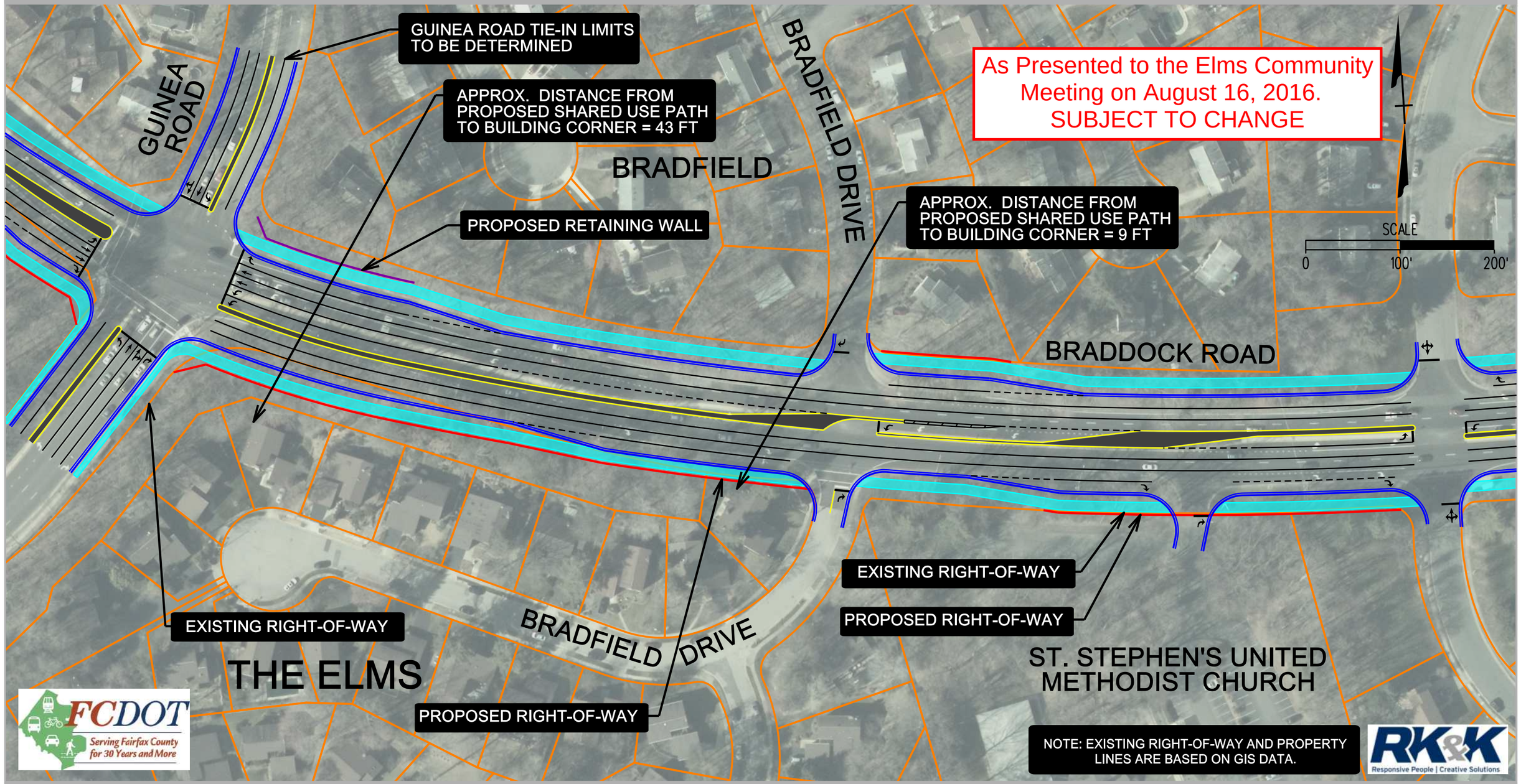
- VISSIM Simulations – Refinements to Spot Improvements, HOV 2 and General Purpose Lane Widening models
- Further development of MOE parameters

Upcoming Schedule:

- The next Task Force meetings will be on September 7, 2016 – Community Meeting debrief and continued MOE development

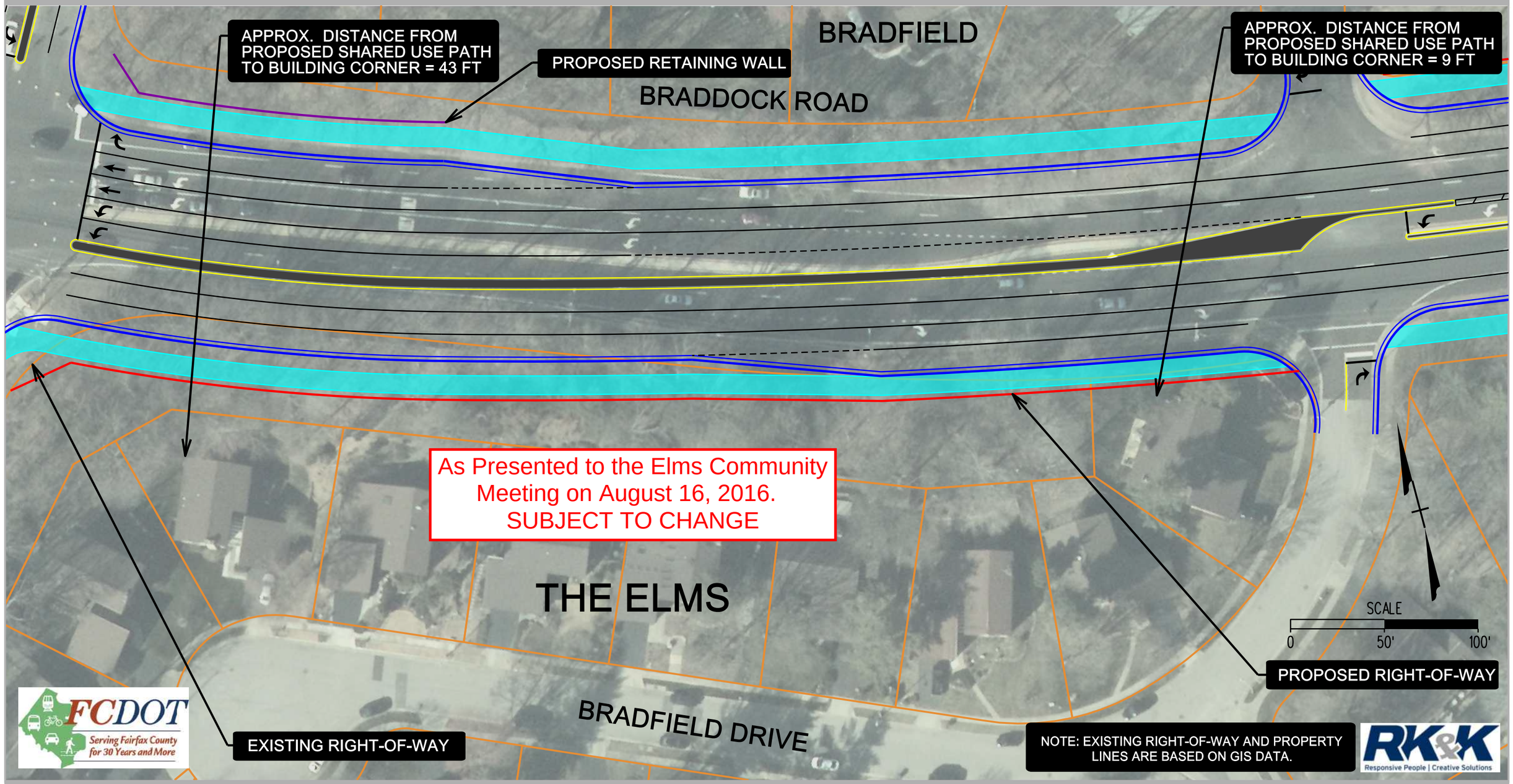
Should any revisions to these meeting minutes be required, please advise Tad Borkowski at tad.borkowski@fairfaxcounty.gov or John McDowell, PE at jmcdowell@rkk.com.

BRADDOCK ROAD AT BRADFIELD DRIVE



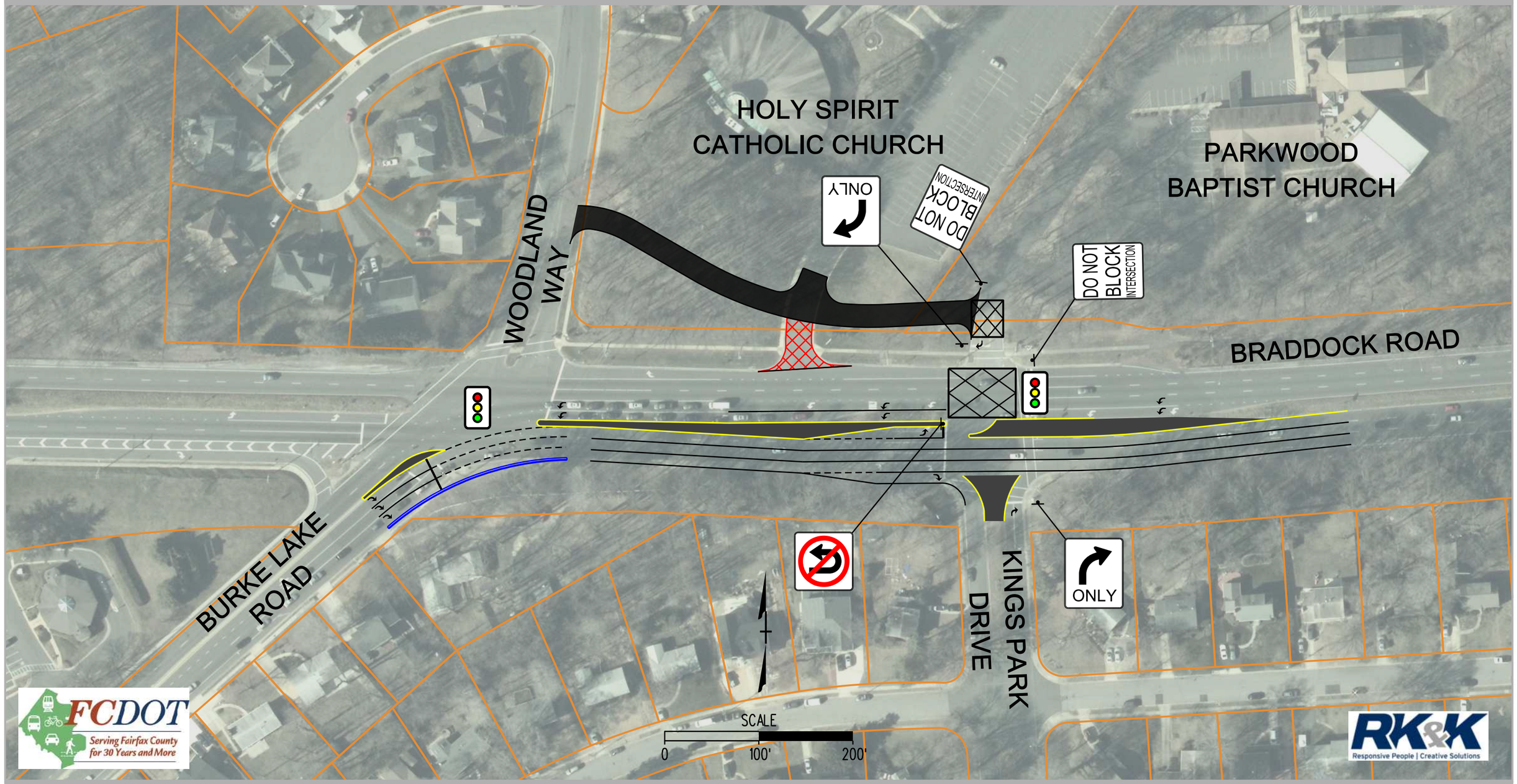
AUGUST 16, 2016

BRADDOCK ROAD AT BRADFIELD DRIVE



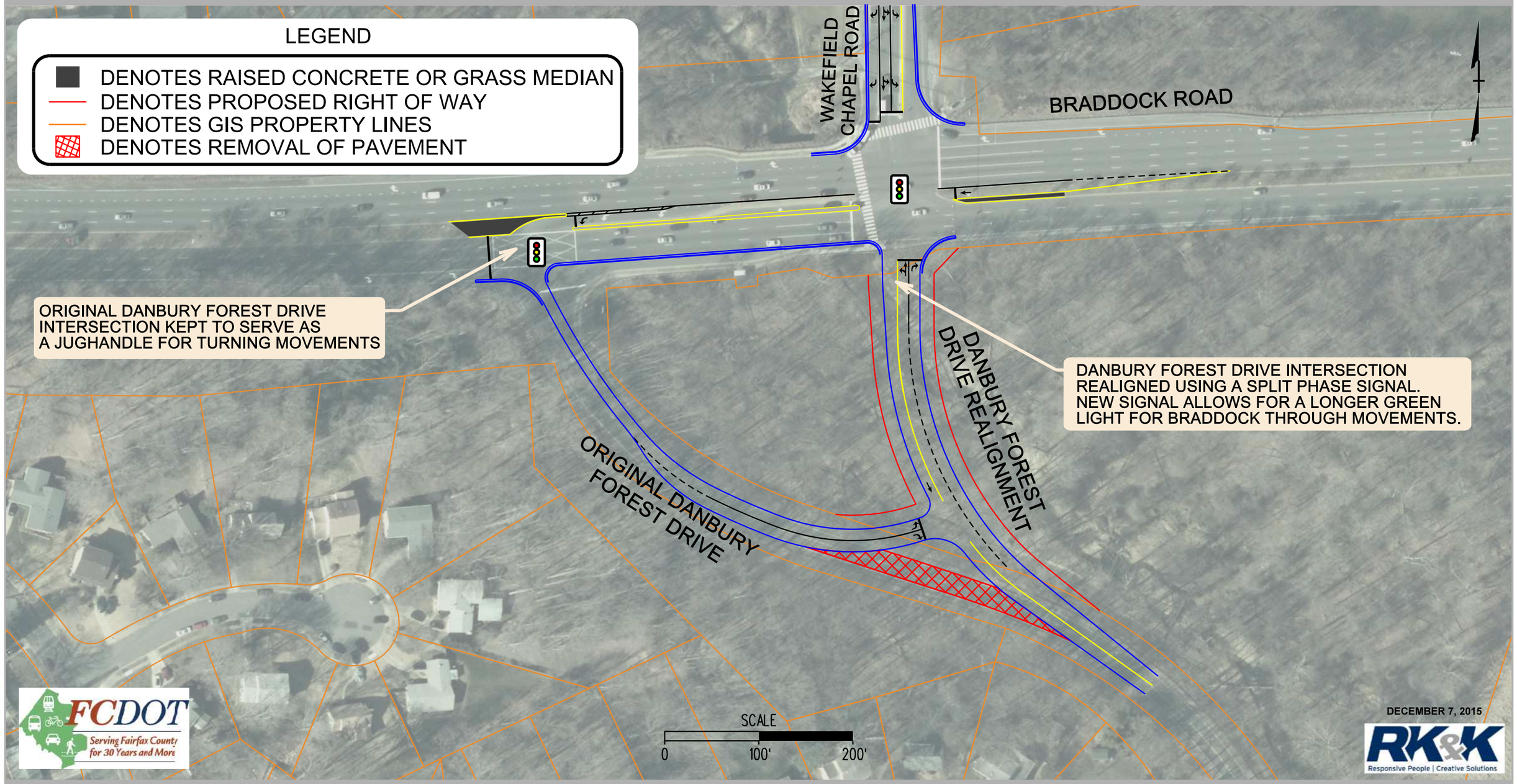
AUGUST 16, 2016

HOLY SPIRIT CATHOLIC CHURCH & PARKWOOD BAPTIST CHURCH ACCESS
OPTION 1

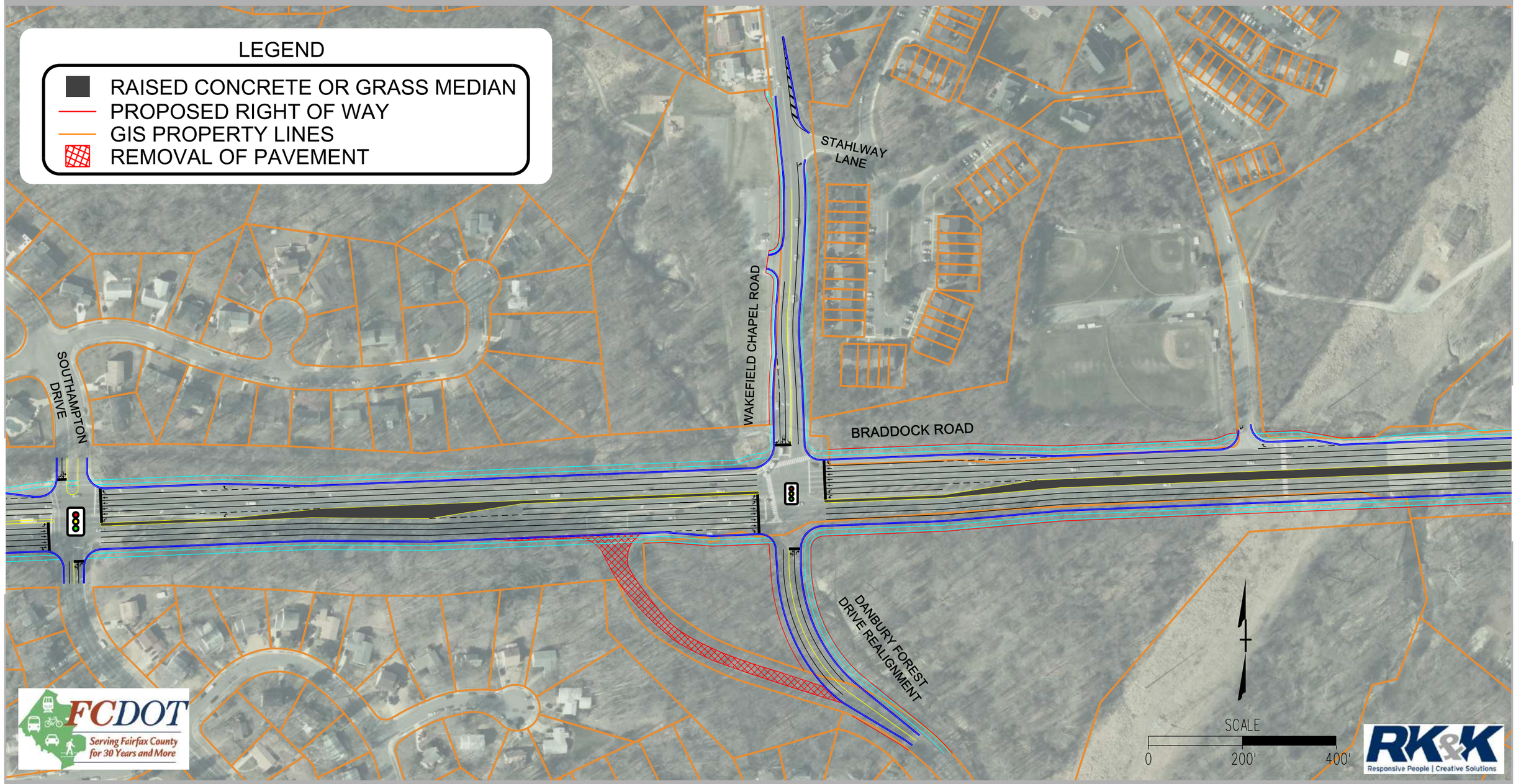


AUGUST 30, 2016

BRADDOCK ROAD AND WAKEFIELD CHAPEL ROAD
SPOT IMPROVEMENTS OPTION 2



BRADDOCK ROAD AND WAKEFIELD CHAPEL ROAD
INTERSECTION IMPROVEMENTS: CONVENTIONAL INTERSECTION



AUGUST 25, 2016

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March 2, 2016

IN PROGRESS

Braddock Road Multimodal Study
Fairfax County, Virginia

Alternative: No-Build

Roadway Measures of Effectiveness (MOE)

What you care about/MOE	Description of MOE	Performance Measures - Metrics	Measurement	Element Score	Average		Weight *	MOE Score
Environment	Availability for screening or landscaping enhancements	Area available for tree planting minus area of tree removal (square feet)	0			X	4.5	
	Will alternative provide additional opportunities for bike/ pedestrian travel?	Linear feet of additional paths and number of crosswalks, crosswalk signals or pedestrian overpasses (length in feet)	0					
	Park Land Impacts	Amount of land taken from parks for road (acres)	0					
	Does the alternative improve or degrade the noise levels experienced by those adjacent to the corridor?	Noise levels as measured by traffic models (decibels average)						
	Does the alternative improve or degrade the air quality experienced by those adjacent to the corridor?	Air quality levels as measured by traffic models (NOx particles average)						
Mobility	Does the alternative facilitate community access to Braddock Road?	Overall travel time for vehicles in the system to and from the neighborhoods (hours)				X	4.7	
	Does the alternative facilitate traffic through the corridor?	Total travel time in network. (hours)						
	Will the alternative provide better access and circulation for pedestrians and bicycles?	Number of new access points to neighborhoods and total length of bike/pedestrian paths along corridor (number)	0					
Safety	Is it likely that existing conflict areas improved?	Number of corridor-wide conflict points (number)	597			X	4.7	
	Is it likely that the suggested improvements will lower or increase potential crashes?	Highway Safety Manual Computed Expected Crash Rate (crashes/year)						
	Are safe movements provided to pedestrians and bicycles?	Number of signal-protected crossings and number of grade separated crossings						
Travel Time	Option that creates the least aggregate travel time	Vehicular travel time (minutes)				X	2.6	
	Travel time represented by critical movements	Transit Travel time (minutes)						
	Pedestrian/Bicycle travel time	Pedestrian/bicycle Travel time (minutes)						
Right-of-Way Impacts	Total area of right-of-way taken	Area of right-of-way taken (square feet or acres)	0			X	3	
	Number of parcels impacted	Number of impacted parcels (each)	0					

* **Initial weight shows the average of scores ranked by the Task Force at the December 2, 2015 Task Force meeting. Final weight factors are to be determined by Task Force.**

March 2, 2016

Braddock Road Multimodal Study
Fairfax County, Virginia

IN PROGRESS

Roadway MOE Measurements

What you care about/MOE	Description of MOE	Performance Measures - Metrics	No-Build	Spot Improvements	HOV2 Inside	HOV2 Outside	General Use Lane Addition
Environment	Availability for screening or landscaping enhancements	Area available for tree planting minus area of tree removal (square feet)	0	-24,500	-489,000	-489,000	-489,000
	Will alternative provide additional opportunities for bike/ pedestrian travel?	Linear feet of additional paths and number of crosswalks, crosswalk signals or pedestrian overpasses (length in feet)	0	2,344 feet 6-8 Crossings	23,680 feet 6-8 Crossings	23,680 feet 6-8 Crossings	23,680 feet 6-8 Crossings
	Park Land Impacts	Amount of land taken from parks for road (acres)	0	0.73	2.71	2.71	2.71
	Does the alternative improve or degrade the noise levels experienced by those adjacent to the corridor?	Noise levels as measured by traffic models (decibels average)					
	Does the alternative improve or degrade the air quality experienced by those adjacent to the corridor?	Air quality levels as measured by traffic models (NOx particles average)					
Mobility	Does the alternative facilitate community access to Braddock Road?	Overall travel time for vehicles in the system to and from the neighborhoods (hours)					
	Does the alternative facilitate traffic through the corridor?	Total travel time in network. (hours)					
	Will the alternative provide better access and circulation for pedestrians and bicycles?	Number of new access points to neighborhoods and total length of bike/pedestrian paths along corridor (number)	0	1 new access point	24,500 feet 1 new access point	24,500 feet 1 new access point	24,500 feet 1 new access point
Safety	Is it likely that existing conflict areas improved?	Number of corridor-wide conflict points (number)	597	510	480	480	480
	Is it likely that the suggested improvements will lower or increase potential crashes?	Highway Safety Manual Computed Expected Crash Rate (crashes/year)					
	Are safe movements provided to pedestrians and bicycles?	Number of signal-protected crossings and number of grade separated crossings					
Travel Time	Option that creates the least aggregate travel time	Vehicular travel time (minutes)					
	Travel time represented by critical movements	Transit Travel time (minutes)					
	Pedestrian/Bicycle travel time	Pedestrian/bicycle Travel time (minutes)					
Right-of-Way Impacts	Total area of right-of-way taken	Area of right-of-way taken (square feet or acres)	0	0.73 Acres	2.98 Acres	2.98 Acres	2.98 Acres
	Number of parcels impacted	Number of impacted parcels (each)	0	2	22	22	22

FCDOT Serving Fairfax County for 30 Years and More

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IN PROGRESS

March 2, 2016

Braddock Road Multimodal Study
Fairfax County, Virginia

Alternative: **Kings Park Shopping Center Surface**

Transit Measures of Effectiveness (MOE)

What you care about/MOE	Description of MOE	Performance Measures - Metrics	Measurement	Element Score	Average		Weight *	MOE Score
Environment	Does the proposed site complement the adjacent land uses?	Conformity to community aesthetics (subjective)						
	Is the proposed site compliant with zoning codes	Will rezoning be required? (Yes or No)	Yes					
	Does the alternative increase noise levels?	Aggregate Noise Levels (decibels)				**X**	**4.5**	
	Does the alternative increase air pollution?	Aggregate Air Quality levels (NOx levels)						
	Will site lighting impact adjacent lands in a negative way?	Degree separation/screening between transit site and adjacent single-family properties (linear feet separation to closest residence)	235					
Mobility	Ease of access in/out for commuter and transit vehicles	Number of entrances (number)	2					
	Ease and convenience of access for pedestrians & bicycles	Number of signalized pedestrian crossings or grade separations to site (number)	1			**X**	**4.7**	
	Ease of access for transit routes	Number of drive entrances and signals for left-turn movements (number)	2 Entrances 0 Signals					
Safety	Will vehicular access in/out of facility be safe?	Number of conflict points at entrances (number)	78			**X**	**4.7**	
	Are safe movements provided to pedestrians and bicycles?	Number of pedestrian/bicycle conflict points (number)						
Roadway Travel Time	Braddock Road vehicle travel time	Travel time accounting for movements into and out of transit center (hours)				**X**	**2.6**	
	Pedestrian/Bicycle Travel time	Travel time over longest path (minutes)						
Trip Diversions	Number of Braddock Road trips converted to transit	Number of bus trips (number)	29 (AM Peak Hour)					
	Number of potential carpool/slugging trips	Number of bus trips generated by ride sharing(number)				**X**	**1.9**	
	Reduction in SOV trips along corridor	Reduction in number of trips along Braddock Road (number)	87 (AM Peak hour)					

* **Initial weight shows the average of scores ranked by the Task Force at the December 2, 2015 Task Force meeting. Final weight factors are to be determined by Task Force.**

March 29, 2016

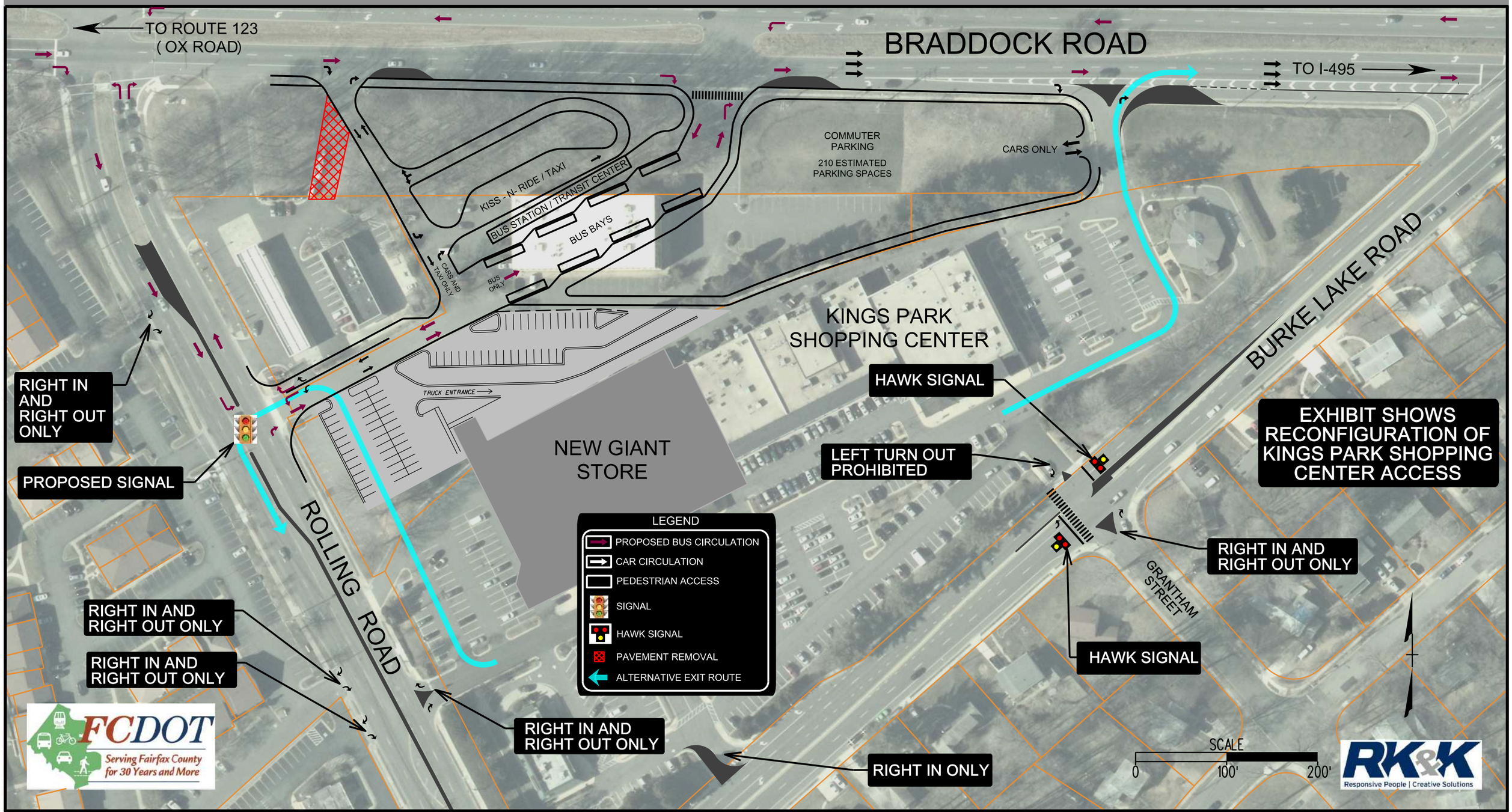
Braddock Road Multimodal Study
Fairfax County, Virginia

IN PROGRESS

Transit Center MOE Measurements

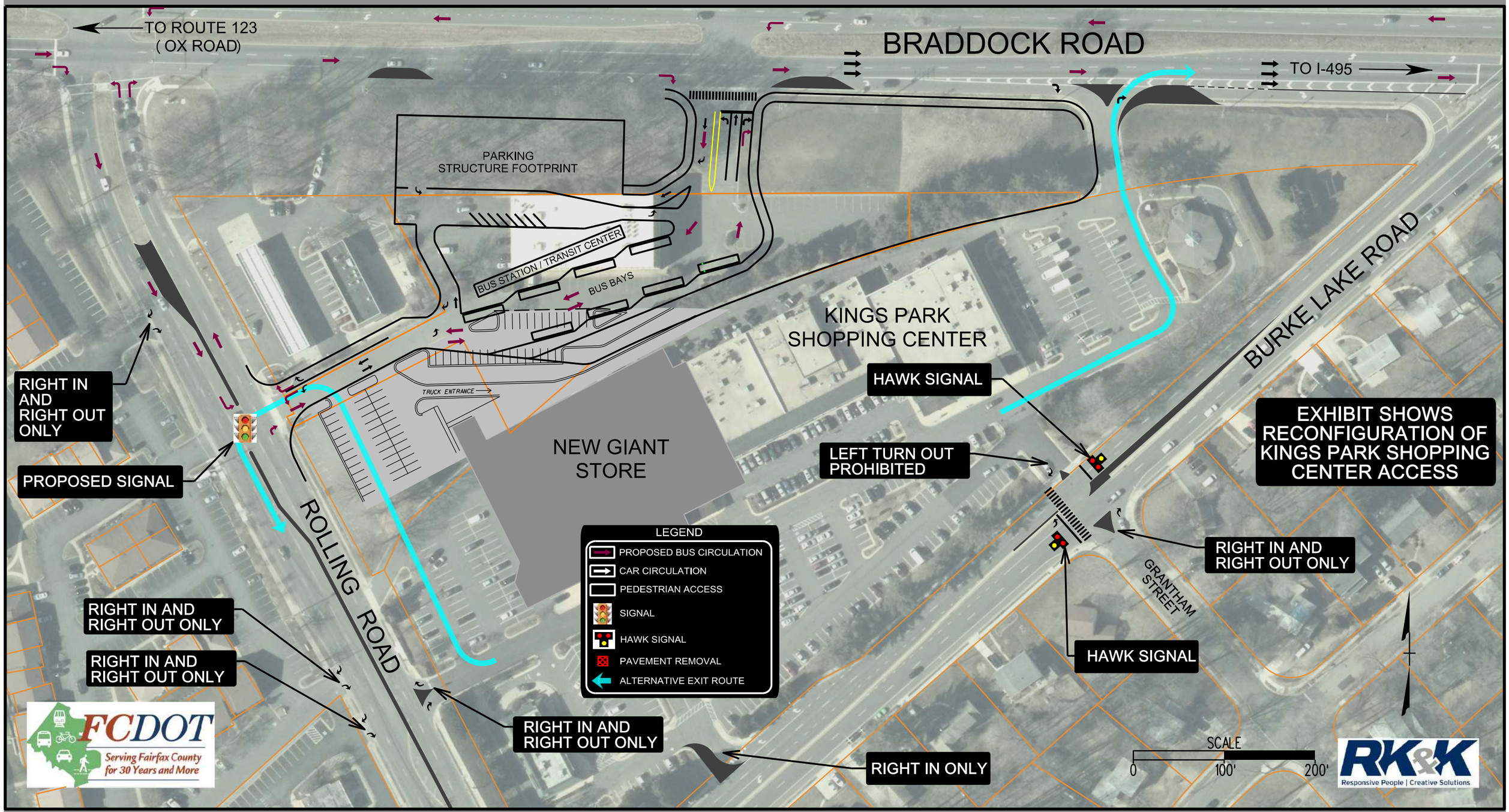
What you care about/MOE	Description of MOE	Performance Measures - Metrics	Kings Park Shopping Center Garage	Kings Park Shopping Center Surface	NOVA Training Center East	NOVA Training Center West
Environment	Does the proposed site complement the adjacent land uses?	Conformity to community aesthetics (subjective)				
	Is the proposed site compliant with zoning codes	Will rezoning be required? (Yes or No)	Yes	Yes	Yes	Yes
	Does the alternative increase noise levels?	Aggregate Noise Levels (decibels)				
	Does the alternative increase air pollution?	Aggregate Air Quality levels (NOx levels)				
	Will site lighting impact adjacent lands in a negative way?	Degree separation/screening between transit site and adjacent single-family properties (linear feet separation to closest residence)	235	235	290	165
Mobility	Ease of access in/out for commuter and transit vehicles	Number of entrances (number)	2	2	2	2
	Ease and convenience of access for pedestrians & bicycles	Number of signalized pedestrian crossings or grade separations to site (number)	1	1	0	0
	Ease of access for transit routes	Number of drive entrances and signals for left-turn movements (number)	2 Entrances 0 Signals	2 Entrances 0 Signals	2 Entrances 1 existing signal for cars only	2 Entrances 1 existing signal for exiting traffic only
Safety	Will vehicular access in/out of facility be safe?	Number of conflict points at entrances (number)	78	78	31 Cars Only Entr/Exit	52
	Are safe movements provided to pedestrians and bicycles?	Number of pedestrian/bicycle conflict points (number)				
Roadway Travel Time	Braddock Road vehicle travel time	Travel time accounting for movements into and out of transit center (hours)				
	Pedestrian/Bicycle Travel time	Travel time over longest path (minutes)				
Trip Diversions	Number of Braddock Road trips converted to transit	Number of bus trips (number)	29 (AM Peak Hour)	29 (AM Peak Hour)	15 (AM Peak Hour)	15 (Peak Hour)
	Number of potential carpool/slugging trips	Number of trips generated by ride sharing (number)				
	Reduction in SOV trips along corridor	Reduction in number of trips along Braddock Road (number)	87 (AM Peak hour)	87 (AM Peak hour)	75 (AM Peak hour)	75 (AM Peak hour)

TRANSIT CENTER LAYOUT - LOCATION 3C [SURFACE] DRAFT



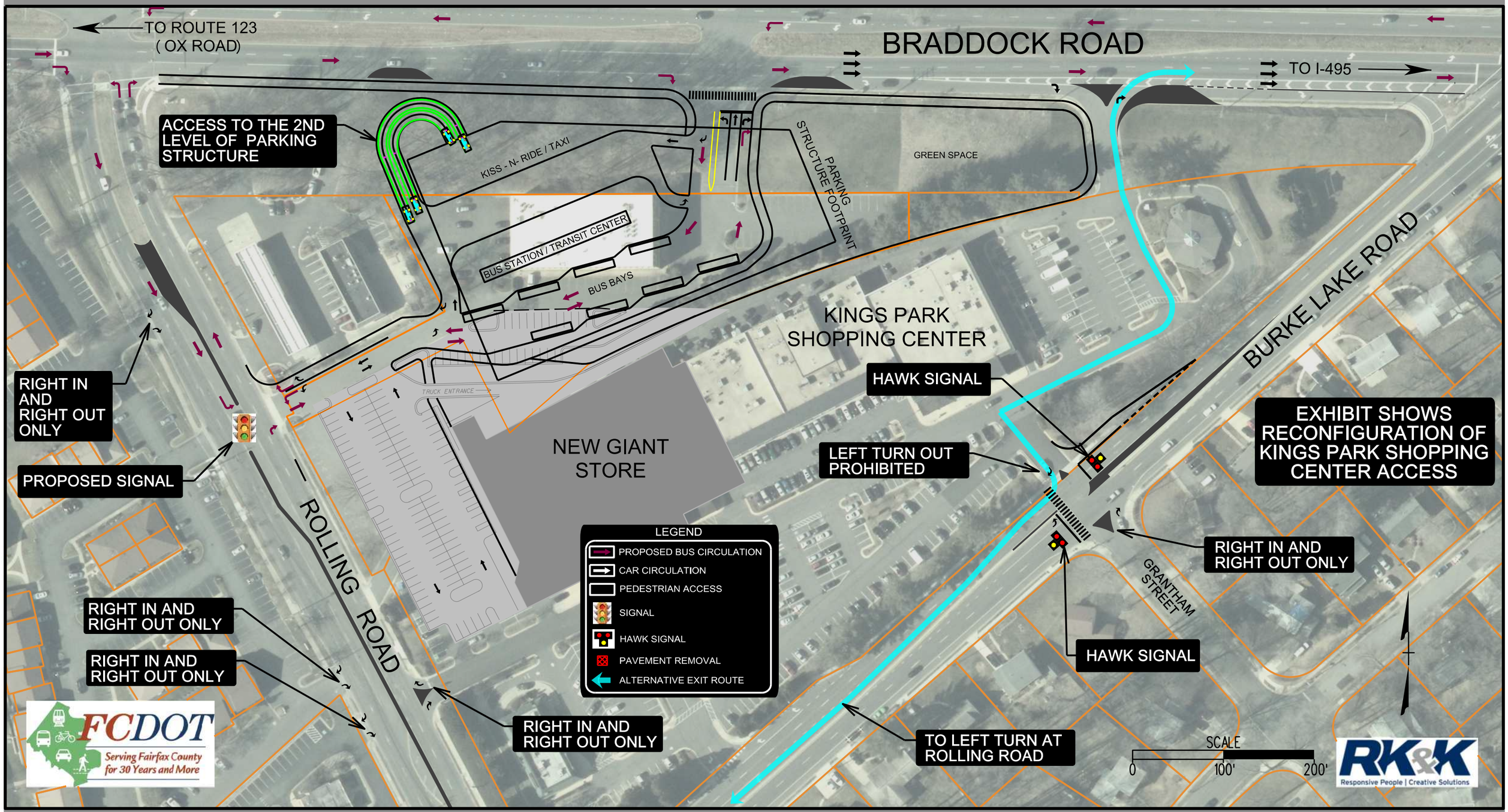
APRIL 6, 2016

TRANSIT CENTER LAYOUT - LOCATION 3De [GARAGE] DRAFT



APRIL 6, 2016

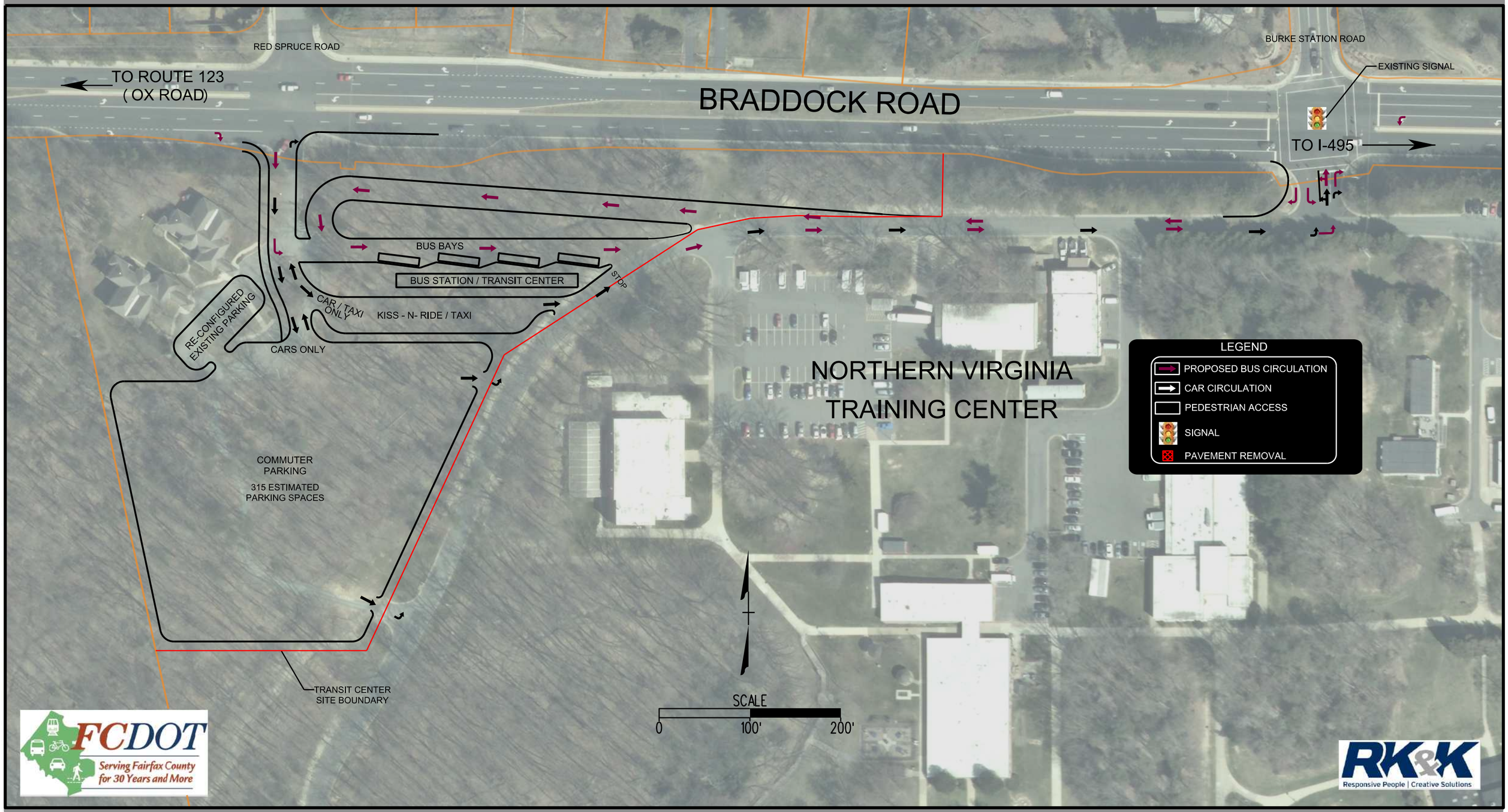
TRANSIT CENTER LAYOUT - LOCATION 3Df [GARAGE] DRAFT



AUGUST 30, 2016

TRANSIT CENTER LAYOUT - LOCATION 1 [WEST]

DRAFT



APRIL 5, 2016

TRANSIT CENTER LAYOUT - LOCATION 2 [EAST]

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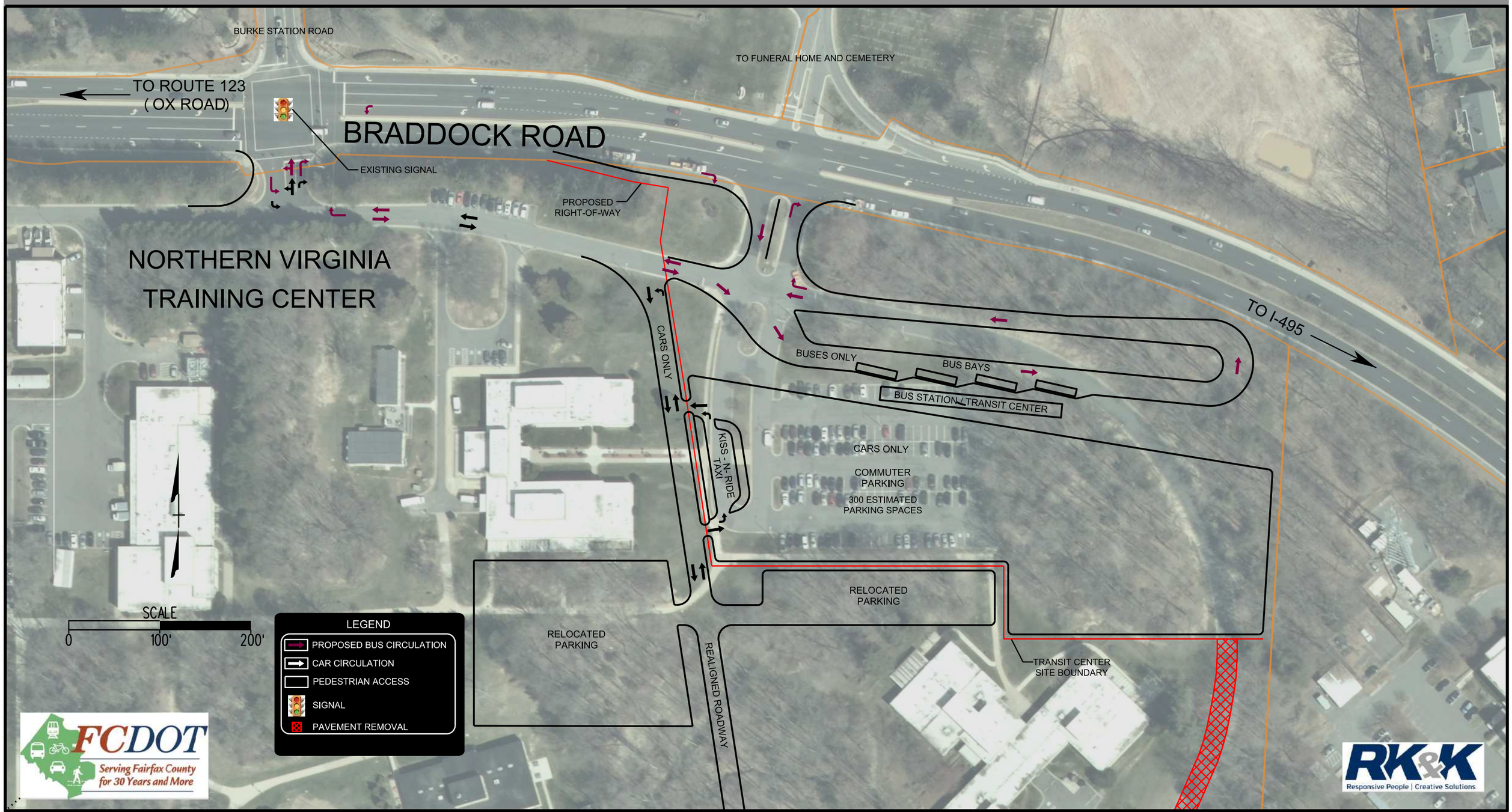

APRIL 5, 2016

September 1, 2016
Braddock Road Multimodal Study
Fairfax County, Virginia

Planning for Upcoming Meetings

Meeting Date	Goals	Materials
	Task Force Meetings	
September 7, 2016 Task Force Meeting	• Review VISSIM model updates • Review concept plan refinements • Review transit center options refinements • Preliminary review of MOEs	• Updated VSSIM models • Updated concept plans • Updated transit center exhibits • Construction cost & Right-of-way estimates • MOE tables partly completed
October 5, 2016 Task Force Meeting	• TF reviews concept alternatives • TF reviews transit center alternatives • Preliminary alternatives assessments with MOEs • Planning for Community Meeting No. 3	• Concept plans • Transit center options • MOE tables populated
November 2, 2016 Task Force Meeting	• Preparation for Community Meeting No. 3	• Updated Concept plans • Updated Transit center options • MOE evaluation tables updated • Draft exhibits for Community Meeting No. 3 • Draft PowerPoint for Community Meeting No. 3
December 7, 2016 Task Force Meeting	• Review of all materials to-date • Community meeting discussions	• Finalized Roadway Concepts • Finalized Transit Concepts • Finalized MOE tables
February 1, 2017 Task Force Meeting	• Review of Community Meeting input • Finalize roadway concept plans recommendations • Finalized transit center recommendations • Finalize MOE evaluations	• Preferred Alignment (draft) • Preferred Transit Center site (draft) • Cost analysis Completed • MOE Evaluation table completed
March 1, 2017 Task Force Meeting	• Finalized preferred alignment • Finalized preferred transit center layout • Cost estimated developed • Impacts addressed • MOEs finalized • Preparation for Community Meeting No. 4	• Preferred Alignment completed (final) • Preferred Transit Center site completed (final) • Cost analysis Completed • MOE Evaluation table finalized

Meeting Date	Goals	Materials
May 3, 2017 **Task Force Meeting** (date subject to change – Post Community Meeting No. 4)	• Review of Community Meeting No. 4 • Address final Community Input	• Summary notes from Community Meeting No. 4 • Task Force final review of materials
June 7, 2017 **Final Task Force Meeting** (date subject to change)	• Final Recommendations and report presented to Task Force • Task Force goals achievement review • Closing items	• Draft Final Report • Final Roadway Alignments • Final Transit Center Layout • Final Estimates and MOE table
Community Meetings		
Community Meeting No. 3	• Respond to comments and concerns raised at 04/25/2016 Community Meeting • Draft MOE presentation • Obtain feedback from community	• Finalized Roadway Concepts • Finalized Transit Center Concepts • Cost and Impacts of recommended alternatives • Draft MOEs • VISSIM simulations • Citizens' Input and Resolution Station • PowerPoint presentation • Timeline update
Community Meeting No. 4	• Final Recommended Roadway Improvement Plan • Final Recommended Transit Center Configurations • Report of final MOE Evaluation • Report on steps forward from this meeting	• Adopted Roadway Alignment and Typical Sections • Adopted Transit Center site configuration • Cost and Impacts of Adopted Roadway Alignment • Cost and Impacts of Adopted Transit Center site • VISSIM simulations recommended alternative • Final MOE Evaluations • Responses to Citizens' Input and Preferences from previous meetings • Steps forward • PowerPoint Presentation • Timeline update

County of Fairfax, Virginia

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