

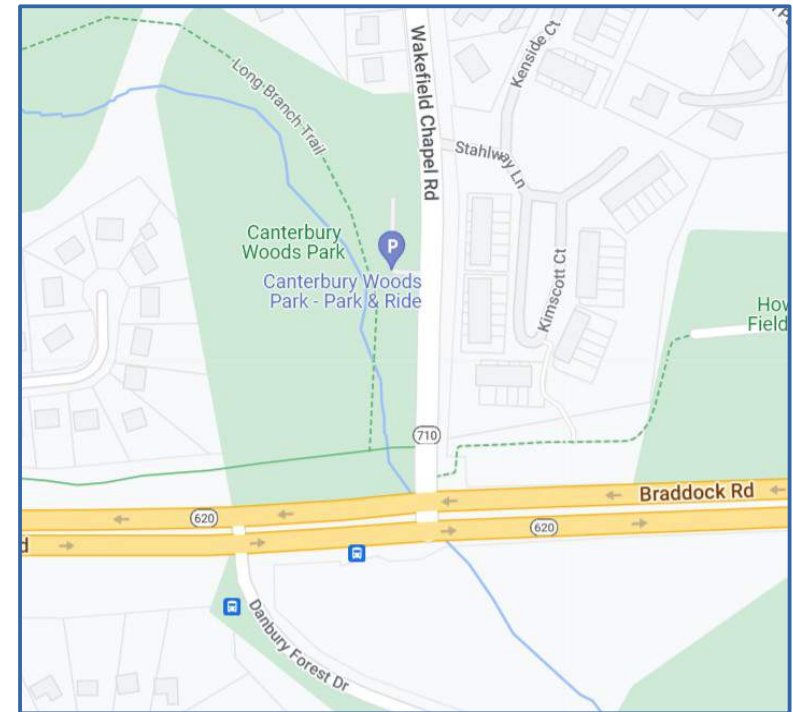
# Braddock Rd Multimodal Improvement Project:

## A safe option to save trees and tax dollars



Focus on

- Braddock Rd
- Wakefield Chapel Rd
- Danbury Forest Dr



# Background

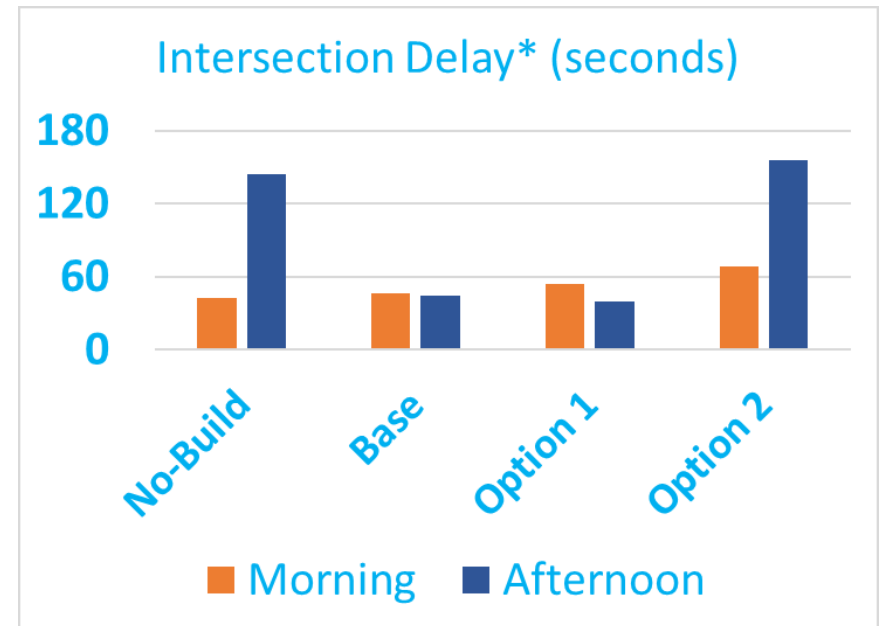
- VDOT held a public meeting on 1/13/22 that described several options for a number of intersections on Braddock Rd.
- The reason was to “transition Braddock Rd to a multimodal corridor”
- One stated goal was to look for “alternatives to reduce overall costs”
- The following is a proposed option to significantly reduce costs for the Wakefield/Danbury Forest part of the Braddock Rd project with no environmental impact

# VDOT Analyses of Options

- Used simple color codes

DANBURY/WAKEFIELD COMPARISON			
Evaluation Categories	Base Option	Option 1	Option 2
Intersection Delay	●	●	●
Safety	●	●	●
Multimodal	●	●	●
Engineering	●	●	●
Environmental	●	●	●
Constructability	●	●	●
Right of Way & Cost Impacts	●	●	●
Public Input	?	?	?

- Only presented average delays



# Problems with simplistic presentation

- Public does not see assumptions in models
  - e.g. do analyses include increased traffic from new DMV customer service center or Erickson senior living project?
  - Potential adverse effects of cut through on residential roads
- Average delays may not be indicative of more extreme or typical delays. Confidence intervals for these estimates were not shared with the public.
- VDOT has not made public their detailed studies of the alternatives and need for any of the changes.
- VDOT and Fairfax County have not explored how congestion could be reduced through approaches other than tinkering with intersection designs. e.g. improved land use; mass transit; carpooling support

# VDOT Alternative Designs for Wakefield Chapel-Danbury Forest

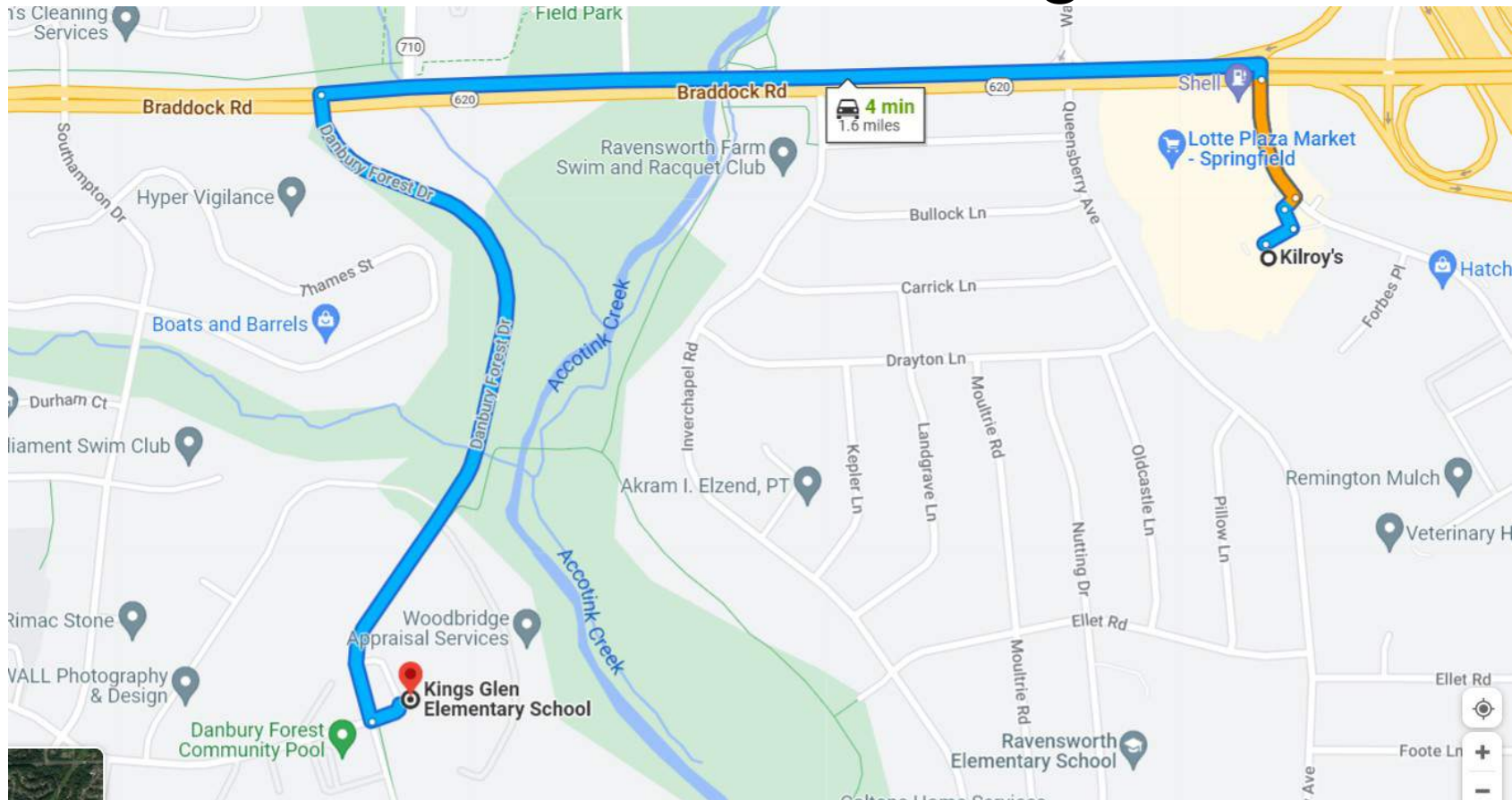
- The Base Option proposes a partial RCUT (or Restricted Crossing U-Turn) intersection, which includes a series of three signalized intersections—this adversely impacts drivers turning onto Wakefield Chapel from East and West bound Braddock due to stops at the additional traffic lights
- Option 1 realigns Danbury Forest with Wakefield Chapel at a conventional traffic light controlled intersection-but is costly and environmentally a negative
- Option 2 adds a traffic light at Danbury Forest to allow left turns from Danbury to Braddock and left turns from Braddock to Danbury but an extra traffic light adversely delays traffic and increases rear-end crash risk

# Money and Tree Saving Options Not Proposed by VDOT

- Make Danbury Forest a right turn only exit
- Prohibit left turn directly onto Danbury Forest from Braddock Rd
- Westbound Braddock drivers going to Danbury Forest have 2 options:
  - 1. Make U turn at Southhampton Dr traffic signal and then Right onto Danbury Forest Dr
  - 2. Make Left at Southhampton; then left at Clydesdale Rd to Danbury Forest Dr
- Drivers on Danbury Forest going Westbound on Braddock have options to
  - Take Clydesdale to Southhampton to Braddock and make left at traffic light
  - Take Clydesdale to connect to Victoria, Parliament, Rolling Rd, and left at Braddock Rd

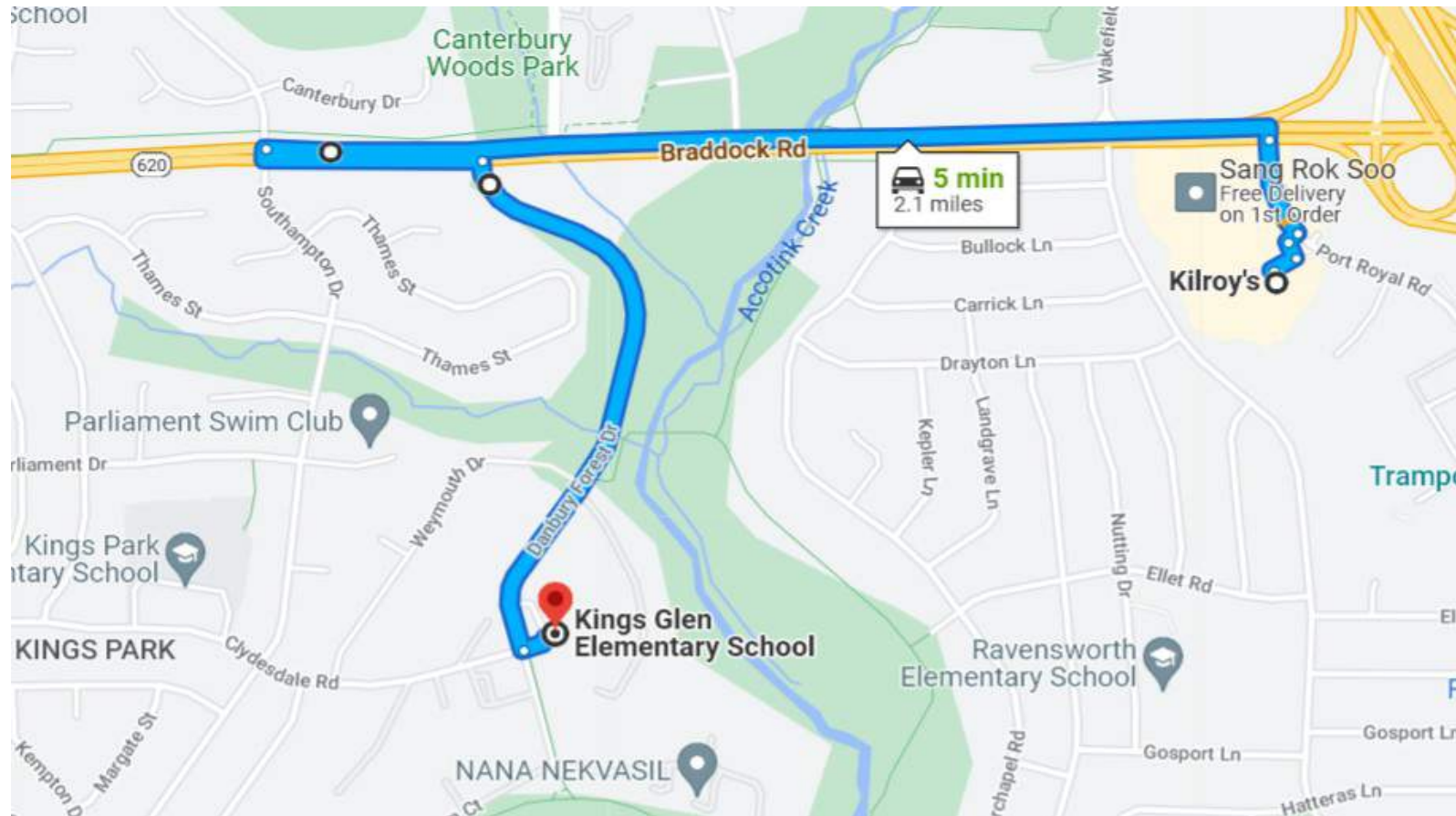
# Left Turn onto Danbury Forest

## Current design



This hypothetical route from Kilroy's to Kings Glen elementary school on Danbury Forest Dr. requires drivers to wait for a gap in East Bound traffic to make a left turn across 3 lanes of Braddock Rd to access Danbury Forest Dr.

# Left Turn Alternative onto Danbury Forest option 1

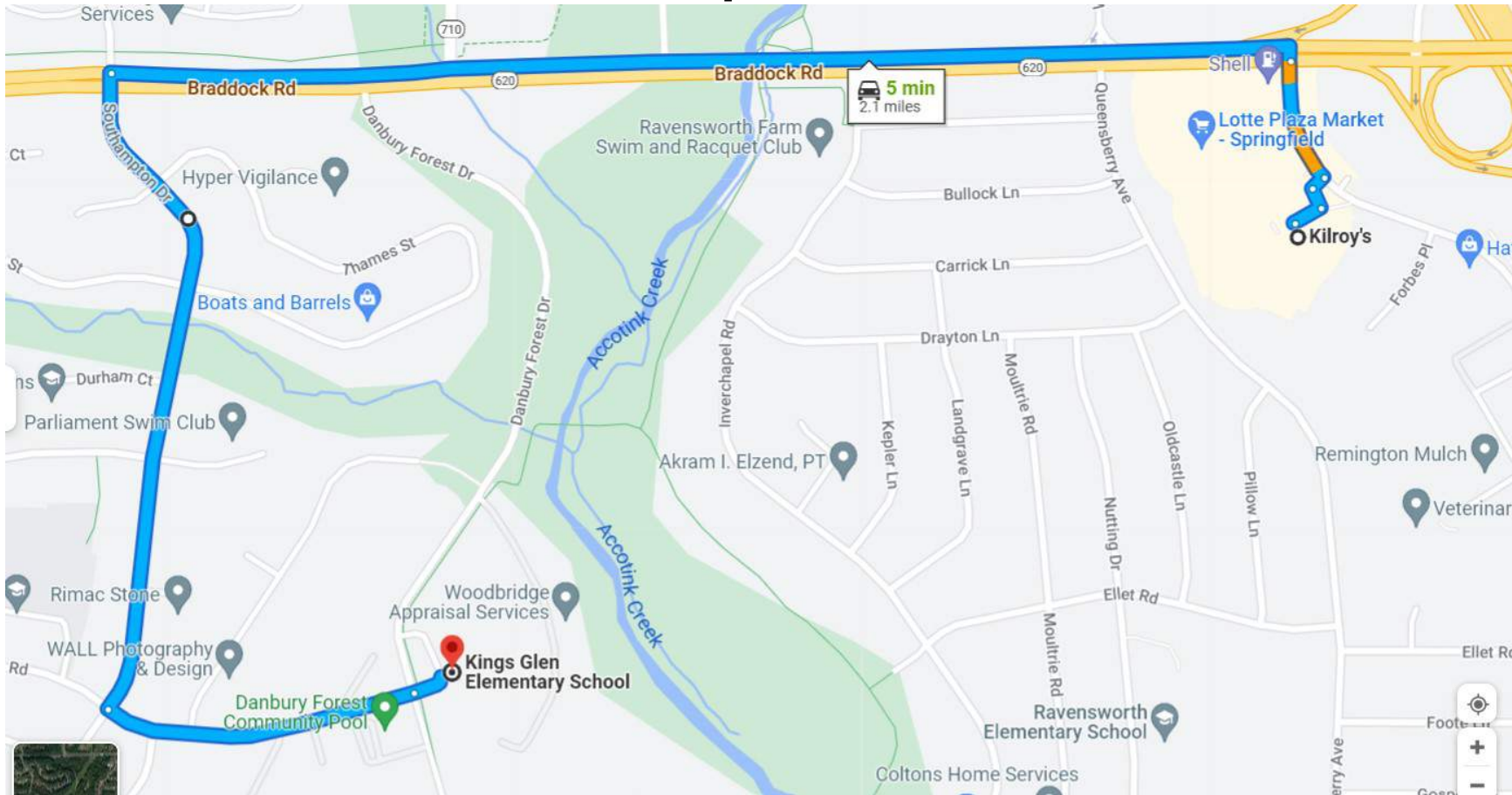


Drivers Westbound on Braddock Rd simply drive up to Southampton, make a safe U turn at traffic signal, and then take short drive to make a right onto Danbury Forest Dr.



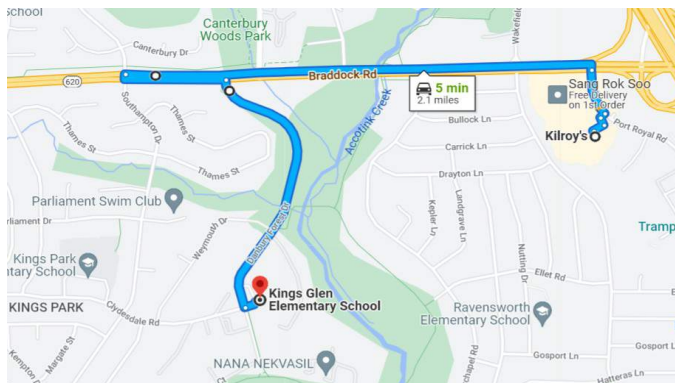
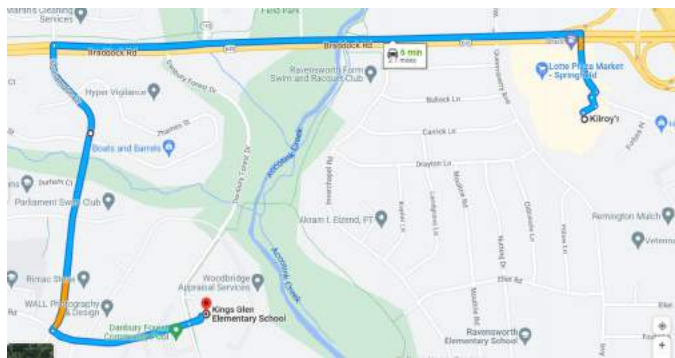
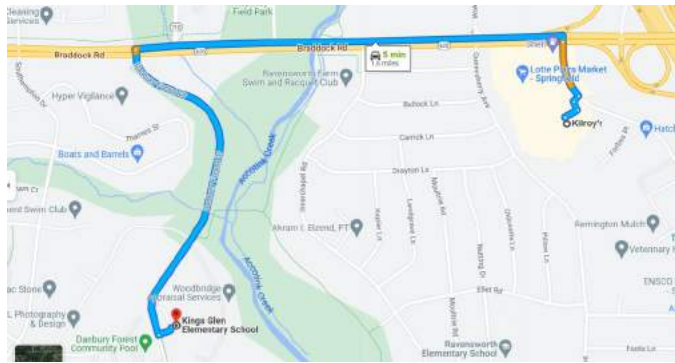
# Eliminating left turn from Westbound Braddock Rd onto Danbury Forest Rd

## Option 2



Drivers make left safely at Southampton traffic light and another left at Clydesdale to reach Danbury Forest.

# Using Google maps to compare drive time differences using alternative routes versus left at Danbury Forest at various times of day starting a hypothetical trip from Kilroys Restaurant in Ravensworth Shopping Center to Kings Glen elementary school on Danbury Forest Dr

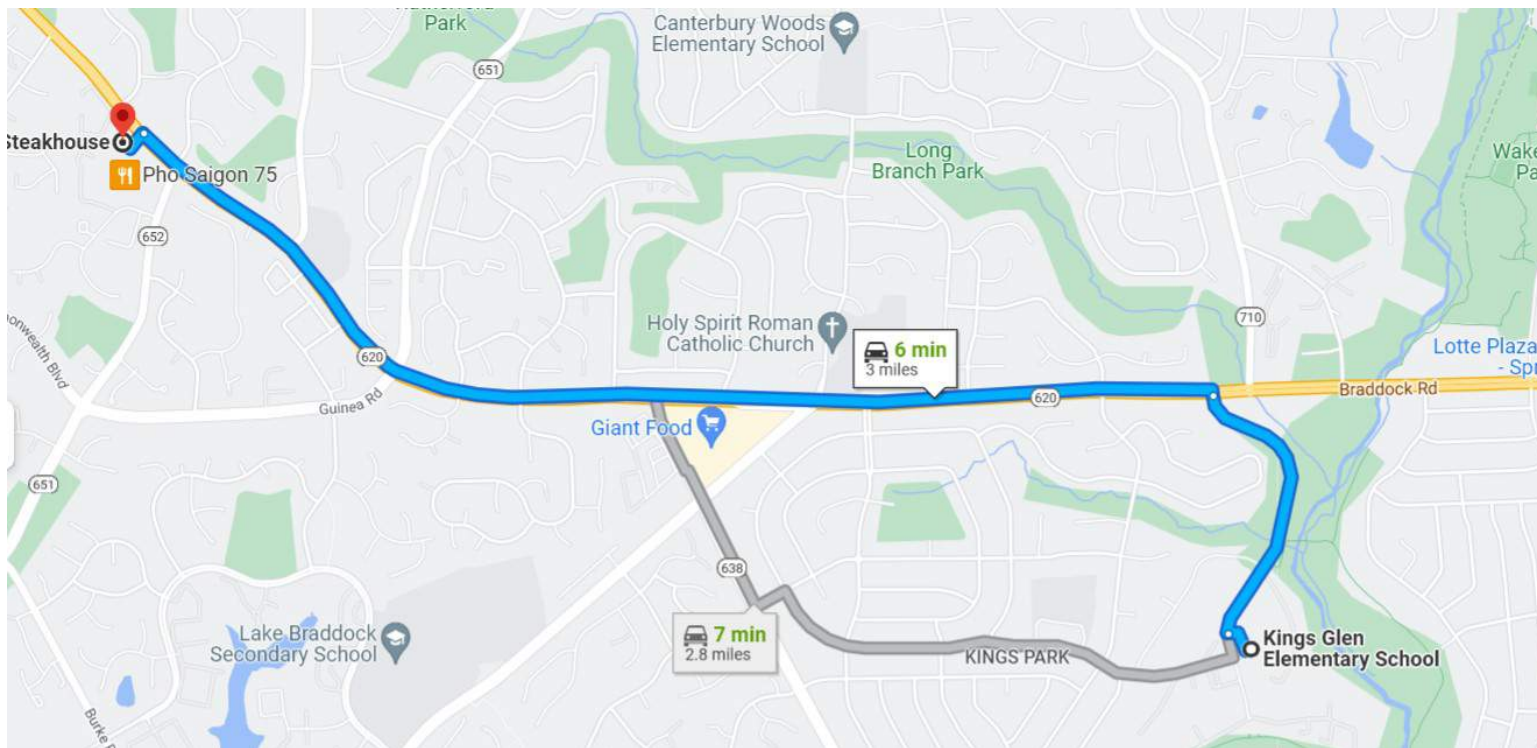


Time	Left at Danbury	U turn @ Southampton	Left @ Southampton
9:50am	5 min	5 min	6 min
12pm	5	5	6
4:00pm	5	6	7
6pm	5 min	5 min	6 min
7pm	5	6	6

Drive times using alternative routes to Left turn at Danbury Forest Dr are typically only 1-2 minutes greater

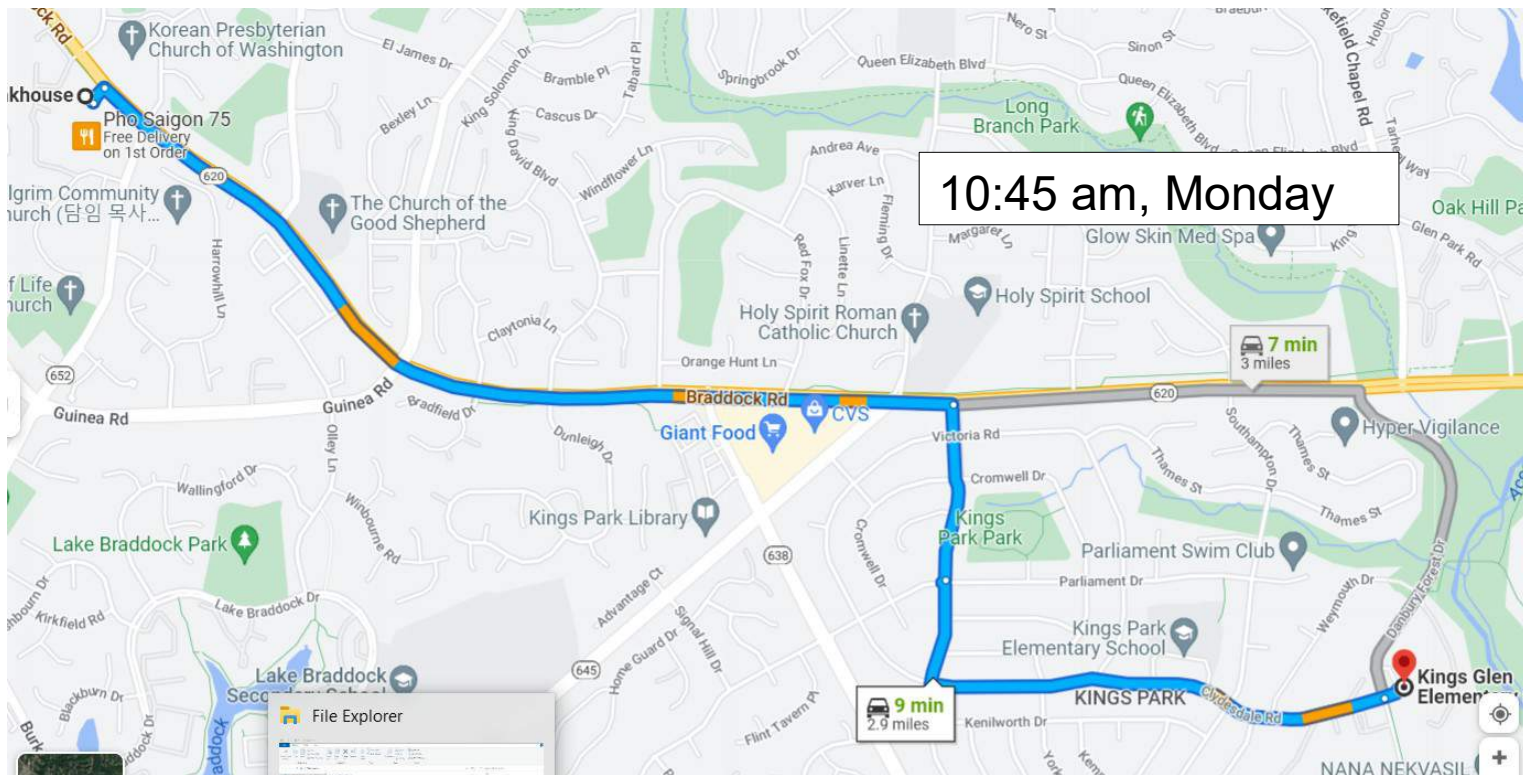
# Prohibit Left on Braddock from Danbury Forest

- Safer option to use Clydesdale and Southampton to make left at Braddock Rd traffic signal
- Or stay on Clydesdale to Rolling Rd to left at Braddock
- The Google driving time estimate was 1 minute longer via Clydesdale



# Alternative Routes to Westbound Braddock Rd

- There are several alternative routes West on Braddock Rd from Danbury Forest
- The one below is estimated to take 2 minutes longer than the route involving a left turn on Braddock from Danbury Forest Dr



# Additional Concerns

- VDOT proposal to allow 2 left turn lanes onto Wakefield Chapel Rd will cause back ups due to single lane merge, increased crash risk from lane merge conflicts, and increased crash risk for drivers trying to turn onto Wakefield Chapel Rd from side streets due to increased cut through traffic from Braddock Rd at peak times
- This project also includes bike and sidewalk construction on both sides of Braddock Rd. VDOT has not presented any data on the expected use of these facilities. Has VDOT determined that the future use of these bike/walk lanes are worth the expense and worth the loss of trees removed during construction. It may be reasonable to only build this sidewalk on one side of Braddock if useage is low. There is already a path on the North side of Braddock that goes from Wakefield Park to Kings Park Shopping Center. Is there data on how many people walk or bike that path that could justify the need for a new path?

# Summary of Recommendations

- VDOT should consider the option of Right turn only exit from Danbury Forest and No Left turn from Westbound Braddock onto Danbury Forest for its cost saving, safety, and environmental benefits
- VDOT should make all public comments about the Braddock Rd Project available online for all to see
- VDOT should post online its full analyses of all the Braddock Rd intersection options
- VDOT and Fairfax County should look for alternatives to reducing Braddock Rd congestion in addition to tinkering with intersection designs