

City of Alexandria, Virginia

Traffic and Parking Board

DATE: December 21, 2020

DOCKET ITEM: 7

ISSUE: Consideration of a request to make operational changes to the intersection of King Street, Callahan Drive, and Russell Road

REQUESTED BY: T&ES Staff

LOCATION: King Street, Callahan Drive and Russell Road intersection

STAFF RECOMMENDATION: That the Board makes a recommendation:

1. To the Director of T&ES to eliminate right turns from southbound Russell Road onto westbound King Street.
2. To the City Council to change the operation of the access road and entrance to the George Washington Memorial Masonic Temple (Masonic Temple) from King Street from two-way to one-way southbound.

BACKGROUND: The intersection of King Street, Callahan Drive and Russell Road has long been a focus for City staff and residents. The intersection is difficult to traverse on foot, by bike, and drivers experience delays due to congestion. Because of the proximity to the King Street Metro Station, Alexandria Union Station (served by both Amtrak and Virginia Railway Express), and multiple bus lines serving all these connections, there is substantial pedestrian activity at this location. By improving the design and function of the intersection, a safer and more multimodal environment will be created, while helping to reduce delays for drivers. These improvements will facilitate safer walking and biking access to transit.

Staff applied for grant funding from the Federal Transit Administration (FTA) to address pedestrian and bicycle safety and access improvements to corridors and intersections near transit stations. The City was awarded grants for this work, which included approximately \$1.5 million for a project at the King Street, Callahan Drive, and Russell Road intersection. In 2015, staff began the planning portion of the project to make pedestrian and bicycle improvements to the intersection. During the planning process, staff heard concerns related to walking and bicycling through the intersection as well as congestion issues from the neighborhood and other stakeholders. Five options for lane configurations were developed and traffic modeling was conducted for each to evaluate the performance. Staff preferred the option that showed the most time savings.

Because of community interest, in 2016-2017, staff conducted a more detailed traffic study using different modeling tools to show the community the results of a comparison of existing

conditions and the various options. Since late 2017, staff has been working to move forward on Option 1 and reintroduce the project to the community. In 2018, project management staff held a small walkabout to discuss the project with community leaders. More recent outreach for the current phase of the process is discussed in the sections below.

DISCUSSION:

The existing lane configuration on Callahan Drive has a shared left and through lane and a right turn only lane as seen in **Attachments 1 and 2**. With this configuration, the traffic signal must operate in a split phasing for the north-south movements which means that Callahan Drive will get green time, while all other approaches stop, and then Russell Road will then get its green time while all other approaches stop.

Given the feedback from residents and concerns of congestion, staff expanded the scope to include developing striping and signal change options. Staff developed five options for new lane and signal configurations and evaluated each with traffic modeling software. Through this analysis, staff found three of the five options were not feasible because they increased delays to unacceptable levels during peak periods and in some cases, did not allow for safe operations.

Staff asked the community for input on the two acceptable options, Option 1, and Option 4, to determine which tradeoffs were more acceptable to the community. Option 1 decreased delays by separating all northbound Callahan movements (left-turns, through, and right-turns) into their own lanes while adjusting the traffic signals and signal timing to match. This reduced delay by about one minute in the morning peak period and 50 seconds in the evening peak period.

Option 4 decreased delays by separating left turning traffic from through traffic and combining through traffic with right turning traffic while adjusting the signal operation to match. This option reduced delay by about 45 seconds in the morning peak period and about 48 seconds in the evening peak period. In both scenarios, the southbound right-turning movement was eliminated because it is rarely used even in peak hours and allowed for a conflict-free crosswalk on the eastbound approach of King Street.

No changes to the traffic configuration was also an option but would not provide improvements to vehicular traffic delay. Public input showed that more participants of the survey preferred Option 4 for the lane configuration.

Additionally, staff asked the community for input on options for the operation of the Masonic Memorial access street connecting to King Street. The options were to make no changes, close it off to only allow emergency vehicles, or to have it operate as a one-way southbound. Public input showed that more participants of the survey supported the one-way southbound operation of the access street.

To address the congestion concerns voiced by the community, acknowledge community feedback, and help the intersection process traffic more efficiently, staff will implement Option 4. To support this lane configuration and signal change, staff request the Board recommend to the Director that the southbound right turn from Russell Road onto King Street be eliminated and that the access road to the Masonic Memorial be converted to a one-way southbound operation.

Attachments 4 and 5 illustrate these concepts. Since this project converts a two-way street to a one-way street, the Board is required to make a recommendation to the City Council for final approval.

Planned Pedestrian and Bicycle Improvements

The primary purpose of the grant funds is to provide pedestrian safety and access improvements to intersections and corridors near transit stations. Therefore, most of the construction funds are dedicated to these improvements. Most improvements will occur behind the curb, and no vehicle travel lanes at the intersection are to be removed to install pedestrian or bicycle improvements. All these improvements were discussed during the early outreach efforts and have been shown to the community since that time.

Pedestrian improvements include upgraded crosswalks and ramps, pedestrian signals, sidewalks, and curb extensions. These improvements will shorten crossing distances and slow turning vehicles. Enhancements for people bicycling through this intersection include more dedicated space and visible guidance that will help cyclist navigate more safely through the intersection. For full plan, see Attachment 5.

OUTREACH SUMMARY: Community engagement for this project began in early 2015. Staff held three public meetings that were mostly focused on the pedestrian and bicycle improvements with some traffic improvements to the intersections as those were the key elements of the grant. Discussions include design options for the intersection and a survey on the project proposals helped shaped staff's recommendation for pedestrian and bicycle improvements. It was clear that the community had an interest in spending more time on congestion management strategies as part of this project, so implementation was delayed while staff collected additional data and ran more detailed analysis of the traffic conditions to evaluate signal timing and lane configuration options.

While this project remained on staff's workplan and staff continued to have discussions with key stakeholders, the project was delayed due to several factors. These included added study of traffic conditions, other major construction projects in the project vicinity, staff capacity, and staff turnover as well as the effort to update the data upon which the traffic modeling was based. Of note for project delays were the King Street Metro project that broke ground in 2018 and the Metro Platform Improvement project that shut down Alexandria's Metro stations in 2019. These meant delays for this project as staff coordinated and responded to the immediate needs of these issues, adjacent to the project site. Other priority projects occurring in the City have also taken more staff time than was originally anticipated.

In late 2019, the Rosemont Civic Association President reached out to staff to get an update on efforts in the neighborhood both for the project and others in the area. In February of 2020, staff attended a Rosemont Civic Association meeting and provided these updates as well as answered questions from the attendees. In early March of 2020, staff met with neighbors at the intersection to talk about signal timing and the plans for the intersection project. Shortly after this meeting, the COVID-19 crisis hit, and public gatherings and meetings were put on hold as staff shifted focus to assist with citywide efforts to respond to the crisis.

The community continued to voice interest in restarting this project and working to more immediately reduce congestion. In late October, staff agreed to make some immediate signal timing changes to the intersection in response to community concerns about congestion that residents had brought to the Traffic and Parking Board. Given reduced congestion during the COVID-19 pandemic, staff was willing to test and evaluate these changes until a final plan was approved and implemented.

While in-person public meetings continue to be on hold, staff posted a narrated presentation on the project webpage on October 19, 2020 and began more in-depth engagement. Staff held virtual meetings with civic associations, the Masonic Memorial, and other neighborhood groups and sent emails to the project contact list notifying residents of this new phase of the project and the opportunity to provide input. Staff discussed the project with the Fire Department and Police Department to ensure public safety response could still be accommodated. Staff also met with residents virtually, to discuss the options in further detail and answer questions from the community.

An online feedback form was set up to collect comments about the project and proposals over three weeks. There were 117 responses with 70% of participants supporting the City making changes to the intersection and 30% (35 people) requesting no change. Of the 70% supporting changes, more supported Option 4 (43 people) over Option 1 (39 people). When asked about the options preferred for the Masonic Memorial access street from King Street, 51% preferred the one-way southbound option, while 38% preferred no changes, and approximately 11% preferred it to be open to emergency vehicles only. Other comments and questions often involved issues outside of the scope of this project, misunderstanding of the recommendations, support for staff adding the additional 8 seconds to southbound Russell Road, and criticisms of other projects or Council-adopted policies. Staff collected this and other feedback and have included the document as **Attachment 6**.

NEXT STEPS:

Following the December 2020 meeting of the Traffic and Parking Board, staff will continue to move forward on the project. During the winter of 2020 and through early 2021, staff will revise design plans to reflect the recommended lane configuration and begin procurement for construction of the project. In early 2021, staff will bring the Board's recommendation on the operation of the Masonic Memorial access street to City Council for approval. Staff will finalize design plans in early 2021, to award the construction contract by Spring of 2021. Construction is expected to begin in Spring 2021, following a pre-construction informational meeting with the community. Staff expects that the project will take approximately six months to construct, with the goal of reaching substantial completion of the project by the end of calendar year 2021.

ATTACHMENT 1: LOCATION (AERIAL)



ATTACHMENT 2: LOCATION (STREETVIEWS)



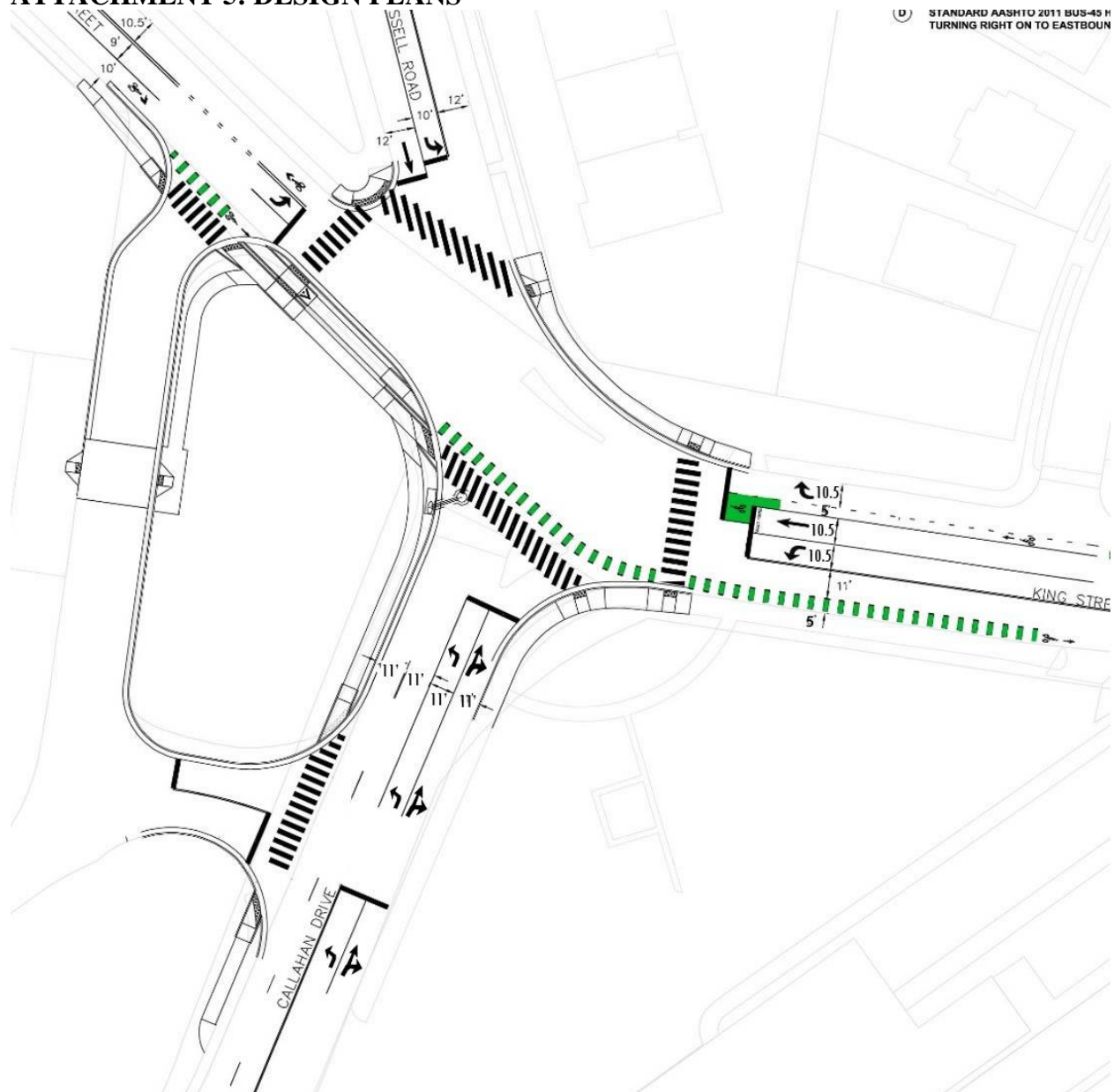
Eastbound King St



ATTACHMENT 4: CONCEPTUAL DIAGRAM



ATTACHMENT 5: DESIGN PLANS





King, Callahan, and Russell Road Intersection Project

Public Engagement Summary

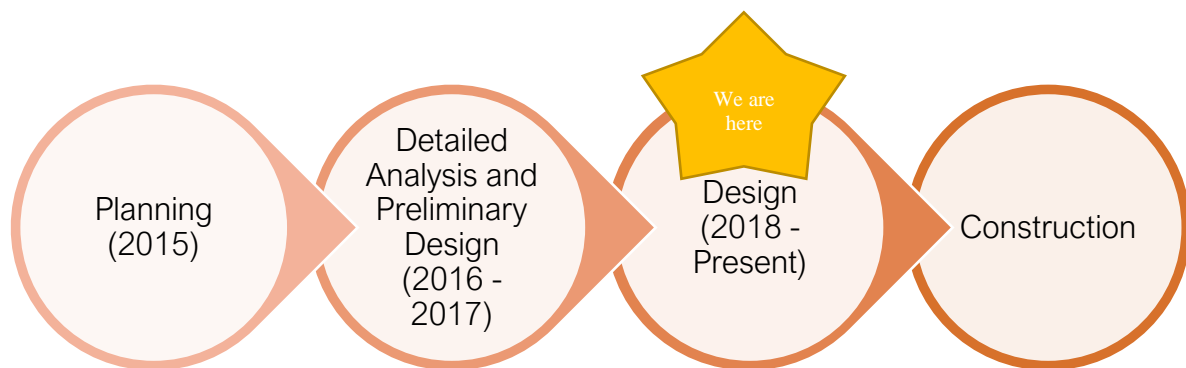
Overview

The City of Alexandria was awarded a grant from the Federal Transit Authority (FTA) to make pedestrian and bicycle safety improvements to improve access to transit. The intersection of King Street, Callahan Drive and Russell Road was identified as a priority location for these improvements.

As part of the City's Complete Streets Program, the City kicked off this project at a public meeting on January 15, 2015. At this meeting, staff presented the scope of work identified in the grant and solicited feedback from residents as to their main concerns and issues as pedestrians and cyclists at this location. A second public meeting was held on June 23, 2015 to review and discuss different options for the intersection.

Project Process

Staff is currently progressing through the design process as shown in the diagram below.



Outreach Efforts 2015-Spring 2020

In 2015, three community meetings were held to discuss design ideas and community concerns. Presentations and comment summaries from those meetings are posted on [the project webpage](#). The community reached consensus on the pedestrian and bicycle safety and access improvements, but the travel lane configuration needed more analysis and outreach. Through 2016-2017, staff evaluated five different options to determine the impacts of each.

In 2018, staff began moving forward on a design option and had a community walkabout with neighborhood leadership. After this meeting and through staff changes, the project team recognized the need to reintroduce the project to the community and discuss travel lane configuration options and their performance before progressing further with the design.

In February of 2020, staff met with the community in a small meeting with the Rosemont Civic Association to discuss the project and other transportation issues in the neighborhood. With the [global COVID-19 pandemic](#), community meetings were put on pause to address the public health crisis. Staff began to reintroduce the project and talk with the community during 2020.

Fall 2020 Outreach Efforts

In early October 2020, staff engaged with neighborhood leadership to begin the outreach process for finalizing the project design including selecting a design option for the travel lanes at the intersection and the operation of the access street from King Street to the George Washington Masonic National Memorial or make no changes.

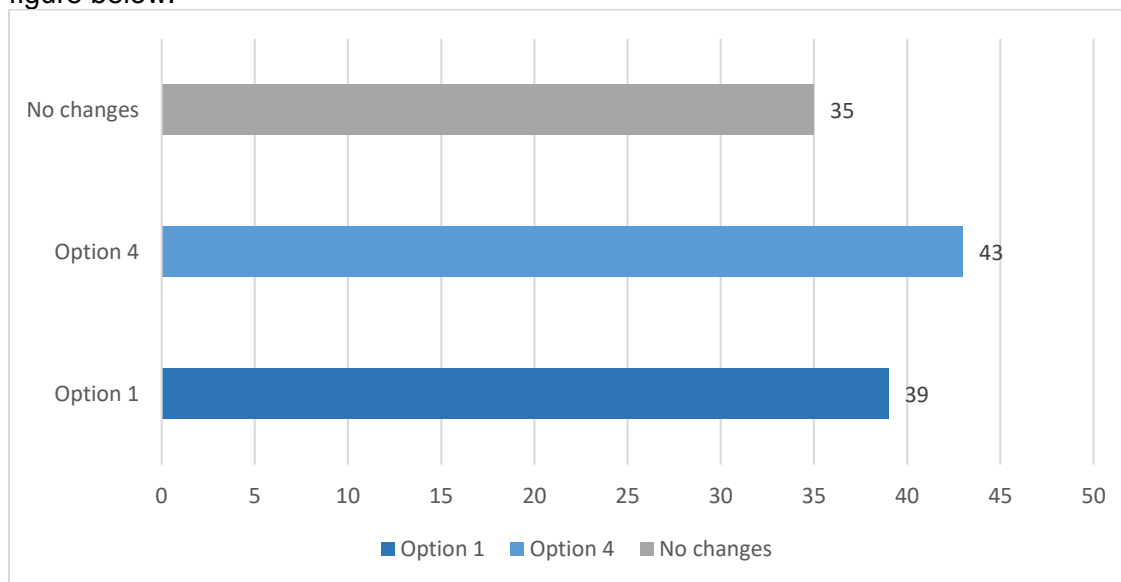
On October 19th, staff launched a narrated presentation to provide the project update and explain options for the project along with an online feedback form to collect targeted input from residents. The comment period closed on November 9th and the results are presented in the following section.

Public Feedback summary

Staff developed a feedback form that asked residents to consider the information posted in the narrated presentation and provide their preferences for the design or suggest no changes. The figures below summarize the feedback received.

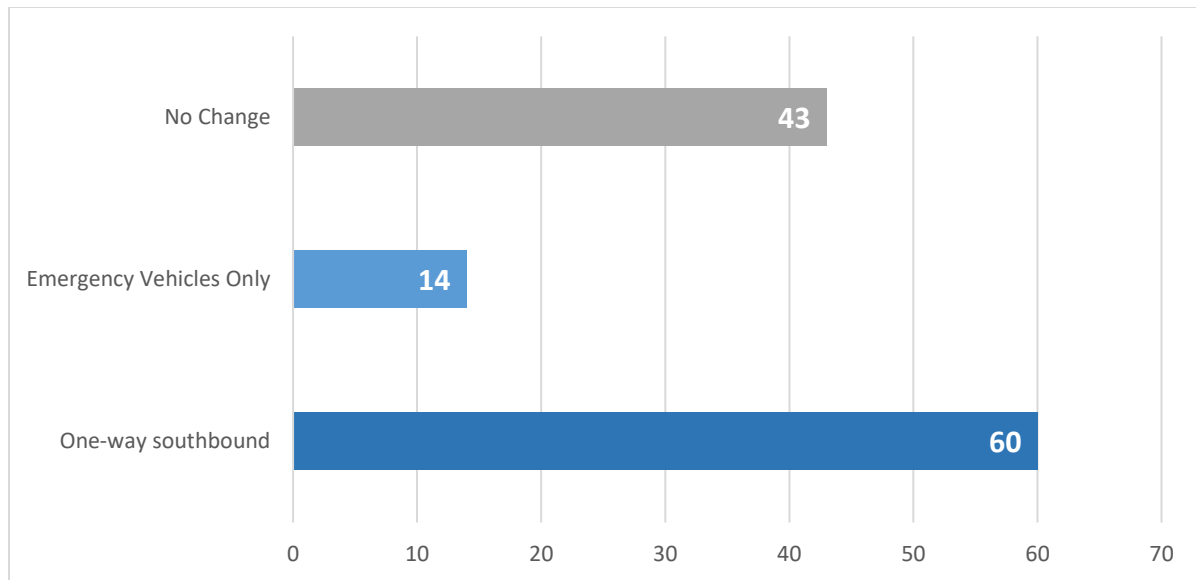
Which traffic configuration option best meets your needs?

70% of participants supported the city making changes to improve traffic conditions at the intersection. Of those desiring changes, more participants preferred Option 4 as shown in the figure below.



Which option do you prefer for the operation of the Masonic Memorial Access Street from King Street?

More participants wanted the operation of the access street from King Street to the Masonic Memorial to be changed to one-way southbound.



Other input

Residents were also given an opportunity to ask other questions or provide other comments to City staff about the project. Staff have addressed many issues raised in the existing [FAQs posted on the project webpage](#) but will respond to questions in a separate document. A list of all comments received through the community feedback form may be found in **Appendix A**.

Appendix A

The table below lists the raw comments as submitted through the feedback form.

Provide additional questions, comments, or other feedback in the text box below.
Reduce waiting time & traffic congestion on Russell Road ASAP!
Most urgent issue is improving safety and comfort for pedestrians and people on bikes.
Love the additional 8 seconds on the southbound green light at Russell. Life changer.
Thank you for adding the 8 seconds to the SB Russell Road intersection! It has made a huge improvement to our commute and allowing us to get into Old Town after 4pm. We would also appreciate it if the traffic board would consider removing the island at Russell and Cedar. Thank you!
Are pedestrian walk signals planned and will they be time with traffic signals and how?
Although I can see the oneway option for Callahan - It is primarily used by drivers and bicycle riders as a way to game the intersection with no stopping or braking, for tourists trekking up to the Masonic Memorial or local pedestrians
Increasing through time southbound on Russell Rd will shorten rush ad decrease traffic in neighboring streets
MAke bikes quing to go up kingstreet not get precedence over vehicles as then vehivles are waiting for bikes to go uphill.
(Prior attempt at response revised.) Option 1 cannot be implemented without creating bottlenecks on eastbound King St. and westbound King St turning onto the single lane at the intersection. **Please do not do that to us.** Option 4 also creates a bottleneck with no advantage. Moving straight/left turn traffic to the right lane is illogical (if that is considered a "left turn") and clearly will clog the right turn traffic with the straight traffic onto Russell.
Please improve signage at the beginning of Callahan drive as you enter from Duke. Cars who are not familiar with the turning lanes end up in the wrong lanes. Signs should be visible as soon as cars get onto Callahan from Duke.
For longer-term planning, this intersection seems ideally suited for a traffic circle. Has that ever been considered?
I support Option 4 because of: additional sidewalks and shorter crossing distances for pedestrians; Callahan and Russell traffic flow concurrently reducing overall wait time at the intersection; through traffic on NB Callahan is combined with right turn traffic, which will result in fewer cars cued up in the through lane (based on traffic count); SB Russell Rd will be green 30.4 seconds every light cycle
The project should focus on moving vehicles through faster. Doing so will alleviate driver stress thus making the entire intersection safer for all users.
This replaces my earlier submission in favor of option 1
The wait times for lights really add up, esp with small children in the car!
I have questions about eliminating the right slip lane from Callahan onto King. Another comment is that the right lane on northbound Callahan is difficult for buses to navigate because the street has some curves around the Amtrak parking lot making it tricky to get past cars waiting for the light.
As a family who lives on Russell, we sincerely appreciate your efforts to improve the intersection.
Agree with Option 1 as I observe far more cars need to go northbound on Russell or West on King, versus right into Old Town.
Please increase the time that the traffic light allows for southbound traffic on Russell Road. This is the cause of much of the congestion.
I support an additional 8 seconds of the southbound Russell light. I do not support adding a left turn only lane on northbound Callahan. Also, the left-hand lane, southbound on Russell should be allowed to turn right onto Callahan or left into Old Town.
An improvement is also needed to move southbound traffic on Russell Rd through the intersection. The light timing needs to be extended by at least 8 seconds. It is too short now and traffic backs up for many blocks all the way to Maury school. Also please no more bike lanes. They are underutilized.
Routine policing also needs to happen at this intersection.
Signage admonishing cellphone use at intersections as people talking on their cell phones slow the start up of traffic by 10 seconds.

Consider the intersection of Sunset, please. As many vehicles create a very unsafe situation turning left into the crowded left turn lane for Callahan. Most cars block all lanes and pedestrian ways. Disaster.
Leave our streets alone, fix the sewers instead! Yes, it is an either/or because you cannot seem to prioritize correctly.
The only issue is the back up on Russell Road which can be solved by adding additional green time. Other than that, leave it alone.
Stop taking away car lanes for bike lanes. Enough!
Stop fixing things that are not broken and fix things that are like the sewers!
No changes should be made.
Why weren't the waiting times for people walking given any screen time for the presentation? From the presentation, it appears that people turning right from King St onto Callahan Dr are not separated from people using the crosswalk or biking.
Improve traffic flow on east bound King St, often backed up half a mile or more. Pedestrian access would be helped by a one way on Memorial Access. Have Amtrak fix deplorable bridge underpass.
I prefer no changes to this intersection
I work at USPTO and creating these changes will increase traffic backlog in the area. It won't help. We don't see bikes around and if they are it is minimum and doesn't warrant these changes.
The intersection is fine the way it is. The only thing that needs changing is the timing of the light.
I oppose removal of the slip ramp to Russell, an important ingress to Rosemont & bike lane does not justify its removal. I oppose choking SB Callahan to 1 lane; it will cause further backups of non-city commuters using Russell to cut through to 495/MD.
Removing the slip ramp to NB Russell to enter Rosemont will entice traffic up Commonwealth & then to Russell via Linden/Maple/Walnut. This will be dangerous for the neighborhood & not worth a bike lane for the convenience of a few.
Sounds like a fantastic plan for the difficult intersection you have to work with.
Has any thought been given to disallowing left turns from Westbound traffic on any of the connecting streets leading to the intersection such as Cedar, Rosemont, Linden, Maple and Walnut? With Waze directing traffic that way it adds significantly to the back up.
Second choice for Masonic Temple Access Rd is one-way.
Look forward to this, particularly having better pedestrian crossing of Russell.
Considering how inaccurate the modeling was for the unwanted Seminary Road diet, any modeling projections are suspect. Hence no changes should be made to the intersection.
I walk through this area all the time. You are addressing problems that don't exist on Masonic access road.
Vision Zero is a horrible way to manage the city's traffic!!
I hope the green light time from Russell going southbound will be longer in any case. I also hope the new light hardware can take more into account the actual # of cars.

**CITY OF ALEXANDRIA
TRAFFIC AND PARKING BOARD PUBLIC HEARING
MONDAY, DECEMBER 21, 2020, 7 P.M.
VIRTUAL MEETING**

M I N U T E S

BOARD MEMBERS PRESENT: Chairman, William Schuyler, Vice Chair, James Lewis, Jason Osborne, Annie Ebbers, Ann Tucker, Lavonda Bonnard and Casey Kane

BOARD MEMBERS ABSENT: None

STAFF MEMBERS PRESENT: Hillary Orr, Deputy Director, Bob Garbacz, Division Chief of Traffic Engineering, Ryan Knight, Civil Engineering IV, Cuong Nguyen, Civil Engineering II, Vicky Caudullo, Urban Planner II, and Christine Mayeur, Principal Planner.

1. Announcement of deferrals and withdrawals: None
2. Approval of the November 16, 2020 Traffic and Parking Board meeting minutes:

BOARD ACTION: Mr. Lewis made a motion, seconded by Ms. Bonnard to approve the minutes of the November 16, 2020 Traffic and Parking Board meeting. The motion carried unanimously.

3. **WRITTEN STAFF UPDATES:**
 - a. None

4. **PUBLIC DISCUSSION PERIOD**

Mr. Blatt and Ms. Tomai raised concerns about cut-through traffic on Cedar Street. Mr. Lawhorne thanked the Board and staff for adding green time to the Russell Road approach to King Street.

BOARD ACTION:

Mr. Lewis made a motion, seconded by Ms. Tucker, asking staff to bring a request for No Left Turn restrictions on Cedar Street at Russell Road to the Board for review at the February Traffic and Parking Board meeting. The motion carried unanimously.

5. **PUBLIC HEARING FOLLOW-UP:** None

CONSENT ITEMS

6. **ISSUE:** Consideration of a request to remove up to three, 2-hour, 8 a.m. to 9 p.m., Monday – Saturday, parking spaces on the west side of the 900 block of North Pitt Street.

DISCUSSION: The Board expressed concern that because the topic had been deferred

and the City was asked to take additional action, the topic should have come back to the Board as a regular item and not as a Consent item. This would allow Board members who had concerns the opportunity to ask questions about how the issues leading to deferral were addressed.

PUBLIC TESTIMONY: No one from the public spoke about these items.

BOARD ACTION: Mr. Lewis made a motion, seconded by Ms. Ebbers to approve the Consent item. The motion carried unanimously.

PUBLIC HEARING

7. **ISSUE:** Consideration of a request to make congestion mitigation changes to the intersection of King Street, Callahan Drive, and Russell Road

DISCUSSION: Ms. Mayeur presented this item to the Board. The Board inquired if additional safety improvements could be incorporated into this project, such as, Leading Pedestrian Intervals and addressing the eastbound King Street right turn onto Callahan Drive. The Board thanked staff for incorporating both pedestrian and traffic flow improvements into this project.

PUBLIC TESTIMONY: Mr. Hartt, Mr. Krall, Mr. DesJardins and Mr. Lawhorne spoke in favor of the project, stressing the importance of pedestrian and bicycle safety.

BOARD ACTION: Mr. Kane made a motion, seconded by Ms. Ebbers to recommend:

1. To the Director of T&ES to eliminate right turns from southbound Russell Road onto westbound King Street.
2. To the City Council to change the operation of the access road and entrance to the George Washington Memorial Masonic Temple (Masonic Temple) from King Street from two-way to one-way southbound. The motion carried unanimously.

8. STAFF UPDATES:

Mr. Kane provided a Transportation Commission update.