

City of Alexandria, Virginia

MEMORANDUM

DATE: FEBRUARY 6, 2020

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

THROUGH: MARK B. JINKS, CITY MANAGER

FROM: YON LAMBERT, DIRECTOR, T&ES
MICHAEL L. BROWN, CHIEF OF POLICE
COREY A. SMEDLEY, FIRE CHIEF

SUBJECT: SEMINARY ROAD COMPLETE STREETS PROJECT STAFF
RESPONSE TO COUNCILWOMAN AMY JACKSON QUESTIONS

This memo is in response to a request from Councilwoman Amy Jackson for responses to additional questions regarding the Seminary Road Complete Streets project.

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Councilwoman Amy B. Jackson - Questions regarding the Seminary Road Diet after the withdrawn/tabled motion to rescind (pause) the September 2019 City Council 4-3 Decision in favor of the Seminary Road Diet. Questions have been numbered for clarity. Staff responses are in *italics*.

1. Emergency Preparedness and Safety

Question 1A: For clarification, please explain why the medians are needed on this 0.9 mile stretch on Seminary Road between Quaker and Howard. I believe two medians are flat and two medians are elevated. Why the difference in size and structure? Please explain how these are safe for all vehicles and pedestrians. Were these improvements necessary? Why or why not?

Response 1A: *The original concept plan showed standard median islands at crossings. During the review of the plans, the Alexandria Fire Department (AFD) noted that the introduction of the temporary in-street, shared use space for people walking and biking in place of the sidewalk adjacent to the Seminary eliminated the space for traffic to yield to emergency vehicles. The medians on Seminary were designed cooperatively between the AFD and the Department of Transportation & Environmental Services (T&ES) to provide mountable medians where there is a temporary on-road path and where yielding is difficult for drivers who would not have the space to completely clear the lane if they had to stop for an emergency vehicle. Since the shared space and protective barrier ends before the Post Office, the remainder of the islands are a typical design because drivers*

would be able to pull into the bike lane to clear the lane for emergency vehicles to pass next to a median island.

Question 1B: Also please explain all reportable and non-reportable collision data from years since data collection commenced on this Seminary Road to 2019 and what has been collected now in 2020 on this stretch of Seminary Road between Quaker and Howard, Howard and Jordan, Jordan to 395 interchange, and the 395 interchange to west of Beauregard. Comparison before and after the implementation of this project is preferable. Have collisions happened more frequently on Seminary Road since the implementation of this project and the changes made to Seminary Road? If so, why?

Response 1B: *There has been one reportable crash since implementation. Only reportable crashes are reported – so this is the only data that can accurately be compared from year to year. Along Seminary Road where the configuration was changed, between Howard Street and Quaker Lane, there has been one reportable crash between November 2019 and January 10, 2020. Compared to the same period in previous years, reportable crashes were one, zero and two in 2016/17, 2017/18, and 2018/19, respectively. Reportable crashes do not include calls for service to the Alexandria Police Department, which can cover a wide range of response types.*

Question 1C: What departments were notified of this Seminary Road project implementation and when were they notified? What were emergency responders briefed upon when discussing Seminary Road implementation of these changes? What was the reaction from our emergency personnel on the implementation of these changes (the road diet, the sidewalk, the medians, the traffic)?

Response 1C: *AFD and Alexandria Police Department (APD) were notified of the Seminary Road project and the departments are satisfied that appropriate measures have been put in place for them to safely travel before, during and after an emergency call. For the final project design, the AFD was extensively involved in determining sufficient lane widths, appropriate types and sizes of medians for each intersection and turning radius for large emergency vehicles. Seminary Road, as built today, fully meets the Fire Department's needs.*

Emergency responders are trained in vehicle operations to protect public safety. Drivers can navigate through traffic and around raised pedestrian crosswalks when the roadway has space for traffic to yield for emergency vehicles. The changes to Seminary Road provide spaces for traffic to yield and mountable curbs in places where yielding is difficult. Neither the AFD nor the APD have received complaints from their drivers regarding emergency response issues. AFD and APD response time analysis capabilities are based on travel time to a location and is not designed for a specific street segment.

Question 1D: Are we able to remove the medians that appear cosmetic and impede traffic and still have safe pedestrian crosswalks? What data will be used to determine this?

Response 1D: *There are no cosmetic medians along Seminary Road. The pedestrian medians provide a safe space for pedestrians crossing the street at uncontrolled locations and are a recommended safety countermeasure by the FHWA.¹ The medians provide people crossing the street a safer and more comfortable place to wait for drivers to yield to them. On Seminary Road, the crossings and associated medians were placed to assist people using public transportation or wanting to access institutions and facilities on each side of the roadway, among other reasons. Pedestrian median islands have been shown to reduce pedestrian crashes by 32%.²*

2. Sidewalks

Question 2A: Is this considered the same project as Seminary Road Diet or a different project since it has not been implemented yet?

Response 2A: *A temporary in-street, shared use space for people walking and biking was installed as part of the Seminary Road Project. As directed by unanimous roll-call consent, City Council on September 24, 2019 directed staff to apply to the Virginia Department of Transportation for grant funding to install a full sidewalk as this location was a priority sidewalk location identified in the Transportation Master Plan.*

Question 2B: What is the total cost of the sidewalk implementation part of the project – labor and materials?

Response 2B: *The temporary path currently in place cost \$36,500 to install, including labor and materials.*

Question 2C: Please explain the Virginia Theological Seminary's stance for this project and the amount of money they contribute to the costs of the Seminary Road Diet, any paving fees, the pedestrian safety improvement measures (such as medians, HAWK lights and crosswalks) and the sidewalk project. Please include all money contributed, including for any feasibility studies done by the City which VTS contributed to.

Response 2C: *Virginia Theological Seminary has not contributed any funds toward this project. In multiple conversations, VTS leadership have expressed interest in increasing pedestrian access along their campus and have agreed to work with the City through the design and specifications of the sidewalk.*

Question 2D: Have HAWK lights been investigated as another avenue for safety? Which appears safer – HAWK lights or medians? Do we have data of both types of pedestrian safety measures from other places in Alexandria for this evaluation?

Response 2D: *HAWK ("High intensity Activated crosswalk") signals were considered for this project and were proposed in the staff recommendation presented to City*

¹

https://safety.fhwa.dot.gov/ped_bike/step/docs/STEP_Guide_for_Improving_Ped_Safety_at_Unsig_Loc_3-2018_07_17-508compliant.pdf

² https://safety.fhwa.dot.gov/ped_bike/step/docs/techSheet_PedRefugeIsland2018.pdf

Council. HAWK signals were proposed in a configuration that included an uncontrolled pedestrian crossing with a 46' (four lanes) crossing distance. When the lane configuration included only three lanes and bike lanes, the pedestrian crossing distance was shortened and there was available space for a pedestrian refuge island. For this configuration, a Rectangular Rapid Flashing Beacon (RRFB) would be recommended in Federal Highway Guidance. HAWK signals can cost up to \$100,000 each and staff would not recommend installing them when there are only two lanes of vehicle traffic to cross. Generally, RRFBs reduce pedestrian crashes by 47% and increase yielding rates for people crossing between 10-98% depending on the environment.³

While traffic signals and medians can be installed at the same crosswalk, they accomplish different purposes. Signals stop or slow traffic while medians provide safe places for pedestrians to wait.

3. Traffic

Question 3A: How has traffic congestion been mitigated using the implementation of the Seminary Road Diet on this .9 mile stretch of Seminary Road?

Response 3A: *Current (preliminary) travel times on Seminary Road, using automated traffic data, show the commuter travel times – even during peak periods – are generally the same as before. Some 15-minute periods in the day have average travel time increases of less than one minute, and some times of day are actually faster than before. For more information, check [here](#).*

Question 3B: How has traffic congestion been mitigated on N. Howard? N. Jordan? Janney's Lane? East Taylor Run? West Taylor Run? since the implementation of the Seminary Road Diet?

Response 3B: *A full traffic evaluation will be conducted 18 months after implementation by a licensed, professionally accredited engineering firm. The same firm that collected the BEFORE data will collect the AFTER data for consistency. The 18-month evaluation will include Seminary Road as well as neighborhood side streets. The plan for the evaluation, including which streets will have data collection, is listed in the [FAQs](#) on the [project website](#). The City has not collected AFTER data on any side streets at this time. The 18-month evaluation will include vehicle, pedestrian and bicycle volumes, speeds, travel times and crash history. If there are traffic impacts that need to be mitigated on Seminary Road or on neighborhood streets as a result of this project, staff will work to remediate the impacts.*

Question 3C: What is the data that is used to show this mitigation – dates? times? locations?

³ https://safety.fhwa.dot.gov/ped_bike/step/docs/TechSheet_RRFB_508compliant.pdf

Response 3C: *As noted above, a full traffic evaluation will be conducted 18 months after implementation. The plan for the evaluation, including which streets will have data collection, is listed in the [FAQs](#) on the [project website](#).*

Question 3D: Explain how the City has monitored the six blocks surrounding the intersection of Quaker and Seminary prior to and after the implementation of the Seminary Road Diet?

Response 3D: *As noted above, the City uses automated traffic data that is collected by a third party that aggregates the data for privacy. A full traffic evaluation will be conducted 18 months after implementation. The plan for the evaluation, including which streets will have data collection, is listed in the [FAQs](#) on the [project website](#).*

Question 3E: Explain with the data the City has collected how many bicycles travel the .9 mile stretch of Seminary Road prior to the implementation of the Seminary Road Diet. And after?

Response 3E: *As noted above, the City uses automated traffic data that is collected by a third party that aggregates the data for privacy. The automated data does not include pedestrian or bicycle volumes. However, a full traffic evaluation will be conducted 18 months after implementation. The 18-month evaluation will include vehicle, pedestrian and bicycle volumes, speeds, travel times and crash history.*

Question 3F: Why were painted “sharrows” on the pavement for bicycles not an option on this stretch of Seminary Road instead of bike lanes prior to the implementation of the Seminary Road Diet?

Response 3F: *“Sharrows” were part of the conceptual recommendation on one portion of Seminary in the staff recommendation that was presented to City Council.*

Question 3G: How many reportable and non-reportable accidents have been incurred on these other roadways since the implementation of the Seminary Road Diet?

Response 3G: *As noted in the response to Question 1b, there has been one reportable crash since implementation. Only reportable crashes are reported – so this is the only data that can accurately be compared from year to year. A representative from the Alexandria Police Department will attend the City Council meeting on February 11, 2020 to answer any additional questions.*

Question 3H: How have Emergency Responders (police, fire, sheriff) reacted to this traffic congestion and new road structure and pattern? What are response times in emergency situations? Increased? Decreased? Non-peak hours? Peak hours? Have First Responders actively been seeking other routes/roads for faster travel times to ensure safety and security of emergency calls due to the implementation of the Seminary Road Diet? When? Why?

Response 3H: *Neither the Fire nor the Police departments have reported any difficulties in using Seminary Road since the implementation of the new design began in October 2019. Emergency responders are trained in vehicle operations to improve public safety. Drivers can navigate through traffic and around raised pedestrian crosswalks when the roadway has space for traffic to yield for emergency vehicles. The changes to Seminary Road provide spaces for traffic to yield and mountable curbs in places where yielding is difficult.*

Question 3I: Has the hospital weighed in concerning traffic congestion, new traffic patterns and their patients' safety and health concerns? How so?

Response 3I: *INOVA Alexandria hospital does not provide any patient transportation functions. They are not subject matter experts on emergency transportation issues. City staff did speak with INOVA about the project, but the hospital declined to take a formal position and instead deferred to the Alexandria Fire Department.*

Question 3J: Who is collecting this data? City employees? City contractors? Another entity?

Response 3J: *As noted above, the City's automated traffic data is collected by a third party that aggregates the data for privacy. A licensed, professionally accredited engineering firm will conduct the 18-month traffic evaluation. The same firm that collected the BEFORE data will collect the AFTER data for consistency.*

Question 3K: What is the plan to mitigate cut-thru traffic?

Response 3K: *As noted above, a full traffic evaluation will be conducted 18 months after implementation. The plan for the evaluation, including which streets will have data collection, is listed in the [FAQs](#) on the [project website](#). If there are traffic impacts that need to be mitigated on Seminary Road or on neighborhood streets as a result of this project, staff will work to remediate the impacts.*

Question 3L: If speed is the factor for implementing the Seminary Road Diet, then why not implement the engagement of more law enforcement on Seminary Road as was implemented on Quaker (and still is)? And/or speed bumps? Why were these not implemented prior to seeking the Seminary Road Diet?

Response 3L: *As noted above, when the [speed limits were reduced to 25mph on Seminary Road in 2016](#), additional enforcement was added because the street was still designed for 35mph. Enforcement cannot always be on this one road and designing streets for the posted speed limit is a more sustainable approach to reducing speeds and therefore the severity of crashes. Enforcement is effective when police are present, but 24/7 police presence is not possible. The City's Vision Zero philosophy embraces enforcement as a complement to engineering, education and evaluation.*

Speed will be evaluated as part of the 18-month project evaluation. Speed cushions would not be constructed on Seminary Road because it does not meet the [criteria](#) for

these traffic calming devices due to street type, vehicle volume, emergency vehicle routes and bus routes. Speed cushions could be a mitigation option on neighborhood streets if AFTER data shows increases in speed that warrant this type of mitigation and the residents make the request. When the [speed limits were reduced to 25mph on Seminary Road in 2016](#), additional enforcement was added because the street was still designed for 35mph.

Question 3M: Please explain the WMATA, DASH bus and school bus stops that are affected due to this implementation of the Seminary Road Diet. How long are residents and students waiting at stops due to the traffic congestion since the implementation of the Seminary Road Diet? How has the travel time increased or decreased for students on school and DASH buses? How many students have been late to school due to traffic congestion due to the Seminary Road Diet?

***Response 3M:** DASH travel times have not been impacted by this project since there has not been a substantial change in travel times along the corridor. The ½ hour morning peak has added approximately 1 minute of travel time in the eastbound direction during that half hour. Travel times have improved during much of the day. The portion of Seminary Road that was the focus of the project is served only by the DASH AT2. DASH has reported that it did see some impacts while the project was under construction but on-time performance reports, during morning rush hours in December and January (excluding holidays), suggests that AT2 trips are running about 1 minute late on average. This is only about 15 seconds worse than the same period last year, before Seminary Road was repaved. DASH reports the AT2 continues to be one of its most reliable routes, especially during the AM peak. In December 2019, the route was on-time 90% of the time during the AM Peak. This was up by about 1 percent from the previous December, so DASH staff reports the route was more reliable following the road project.*

Questions 3N: Will traffic impacts be provided in the presentation to City Council?

***Response 3N:** The staff presentation includes a summary of preliminary travel and traffic conditions.*

4. MacArthur Elementary School

Question 4A: When were the Community Information sessions relating to Seminary Road Diet?

***Response 4A:** As noted above, the extensive community engagement plan, meeting information and materials for the Seminary Road project are listed on the [project website](#). The project used the following approach:*

- Phase 1- Information Gathering
 - Repaving Survey- Open March 2018
 - May 12, 2018 – Kickoff Walkabout with Residents
 - May 29, 2018 – Community Open House at Beth El Hebrew
- [Project Paused for Coordination with VDOT/Transurban]

- Phase 2- Project Resumed: Concept development and alternative options
 - March 25, 2019 - Public Meeting
 - Narrated presentation and online survey March 25 - April 10
 - Neighborhood stakeholder meetings following survey close
- Phase 3- Staff recommendation
 - Public Meeting May 30, 2019 (Facebook Live stream and video capture)
 - Online comment form- May 31 - June 10
- Traffic and Parking Board Meeting – Public hearing
 - Meeting- June 24, 2019
- City Council Public hearing
 - Meeting September 14, 2019

Question 4B: How many Seminary Road Diet Community Information Sessions happened? In what time frame? Where were they held? By whom?

***Response 4B:** As noted above, the extensive community engagement plan and meetings for the Seminary Road project are listed on the [project website](#) and are summarized in the response to Question 4a.*

Question 4C: How were these Community Sessions advertised? Were they advertised through ACPS – especially thru Patrick Henry, Polk, and MacArthur PTA and school info email blasts and website links?

***Response 4C:** The extensive community engagement plan and meetings for the Seminary Road project are listed on the [project website](#). Meeting information was disseminated widely and included, but was not limited to, eNews updates, emails to civic associations and through social media. Staff received hundreds of comments, as reflected in the various meeting summaries and in the project record.*

Question 4D: How many Alexandria residents attended these Community Sessions on Seminary Road Diet?

***Response 4D:** An exact number of meeting attendees is not available given that there was no controlled entry to meeting locations. However, as noted above, the project generated over 500 comments on City feedback forms and hundreds of comments from residents are included in the 424-page project record. Meeting information for the Seminary Road project is listed on the [project website](#).*

Question 4E: Was the MacArthur community specifically invited to the Seminary Road Diet Community Information Sessions? Why or why not?

***Response 4E:** Community engagement included outreach to civic associations within the MacArthur school attendance zone. Meeting information for the Seminary Road project is listed on the [project website](#).*

Question 4F: Was the new MacArthur school building construction timeframe and the “swing space” at the Old Patrick Henry for MacArthur discussed at the community engagement sessions for the Seminary Road Diet?

Response 4F: *Yes. The Swing Space at Patrick Henry for Douglas MacArthur Modernization Project was a topic of discussion at public meetings and raised by multiple commenters. These concerns were reflected in the project record including the [Public Outreach Phase 2 Summary](#) (April 2019) and the [Phase 3 Public Outreach Summary](#) (June 2019).*

Staff had previously addressed resident questions in public meetings and responded to a formal question by Vice Mayor Elizabeth Bennett-Parker with an email to all of City Council on September 12, 2019. The question and staff response have been reproduced verbatim below:

Question: What will be the impact of all the MacArthur kids going to Patrick Henry on Seminary? Wouldn't this increase delay/congestion on the road under either alternative?

Answer: ACPS has completed a complete traffic study that details the traffic impacts for its use of the Patrick Henry swing space. By collecting existing traffic data, the study determined the anticipated number of students traveling by passenger vehicles or bus, which helps determine the added vehicle trips. Approximately 34% of new trips are in passenger vehicles. Existing traffic data also determines the direction to and from the additional students would likely travel. The data shows the existing trips to the swing space site split between Seminary Road and Duke Street. Based on the following data, it is concluded the additional students from the swing space results in minimal traffic increase on Seminary Road (60 vehicles in the AM peak hour). In addition, the proposed staggered start time for both schools would result in a peak travel time between 7:30 AM to 8:30 AM. The proposed staggered end time for both schools would result in off peak hour from 2:00 PM to 3:00 PM, as opposed to Seminary Road's PM peak period of 4:15 to 6:00 PM. In addition, existing data shows each school peak hour lasting approximately 20 minutes.

Question 4G: How is/has data about new traffic patterns on King/Janney's Lane/ Seminary/Quaker been collected to inform ACPS and the City of new traffic patterns related to the building of the new MacArthur school?

Response 4G: *The ACPS traffic study for the Patrick Henry Swing Space project used for Douglas MacArthur considered the projected travel patterns given the planned project as well as the additional buses necessary to transport MacArthur students. It also considered the geographic distribution of trips, including projected additional trips within the Seminary and North Jordan intersection. The study projected approximately 60 new trips in the AM peak hour and 20 trips in the PM peak hour, which allowed for continual acceptable levels of service at intersections in the peak hours.*

Question 4H: How have St. Stephens/St. Agnes and Bishop Ireton – its students, staff, community - been affected by the implementation of Seminary Road Diet?

Response 4H: *Staff cannot speak on behalf of the schools. However, as noted above, travel time impacts have been limited. It is important to note that the worst 15 minutes of the day is the time when students are dropped off in the morning, as it also was before construction.*

Question 4I: I now ask the same questions pertaining to community information sessions regarding MacArthur – were any of these other school communities (BI, SSSA, Episcopal, etc.) specifically invited the community information sessions regarding the Seminary Road Diet to hear how it may affect their quality of life?

Response 4I: *As noted above, extensive outreach was conducted for this project. Community engagement efforts included meeting notices that were publicly disseminated and, in fact, two of the community meetings took place on the St. Stephen's & St. Agnes Upper School. Meeting information for the Seminary Road project is listed on the [project website](#).*

5. City Organizational Structure

Question 5A: The City has restructured some departments in the City's staffing and organization chart recently. Is the City Manager giving consideration to creating smaller, more efficient, effective roles for the Transportation and Environmental Services Department by separating Transportation and Environment and making clear divisions within those separate departments that need more focus, such as traffic?

Response 5A: *The [Department of Transportation and Environmental Services](#) is organized into four branches. The [Transportation Branch](#) includes three divisions – Transportation Planning, Traffic Engineering and Mobility Services. All three divisions work closely with other T&ES branches and with other City agencies, particularly when discussing tradeoffs between traffic congestion and street design. There is no indication that a change to the current structure would improve efficiency or effectiveness. The City Manager is not considering separating T&ES into separate departments. Because a large element of the Environment functions relates to sanitary and storm sewers, which are often located in City streets, there is logic in keeping transportation and environmental functions in the same department. In many jurisdictions, the department with these functions is often named "Public Works".*