CARDEROCK SPRINGS
National Register of Historic Places

October 5, 2020

Lisa B. Choplin, DBIA
Director, I-495 & I-270 P3 Office
Maryland Department of Transportation State Highway Administration
I-495 & I-270 P3 Office
707 North Calvert Street
Mail Stop P-601
Baltimore, MD 21201

RE: I-495/I-270 Managed Lane Study Draft Environmental Impact Statement, Draft Section 4(f) Evaluation, and Draft Section 106 Assessment of Effects Report

Dear Ms. Choplin:

I am President of the Carderock Springs Citizens Association, a community organization that represents Carderock Springs and Carderock Springs South, which together include approximately 600 homes. Carderock Springs is designated as a National Historic District as a notable example of "situated modernism," and Carderock Springs South is indicated in the *Cultural Resources Technical Report* (Appendix G) as an eligible historic district.

We have closely followed the I-495/I-270 Managed Lanes Study environmental process and have been pleased to participate as a Consulting Party in the Section 106 consultation process. This letter provides our comments regarding the Draft EIS, the Section 4(f) analysis, and the Section 106 analysis. A brief summary of our concerns is followed by a more detailed discussion of the policy issues raised by the study documents.

Based on our review of the materials provided at this juncture, we wish to highlight nine central concerns related to the impacts and effects of the Project on the Carderock Springs community.

1) **We are unable to support any of the retained Alternatives analyzed in the DEIS and, at this juncture, would recommend that the State Highway Administration (SHA) not proceed with the Project. Given the fundamental shifts in travel demand due to Covid 19 and work from home trends, SHA must re-evaluate the purpose and need, and alternatives in the light of these changed conditions. Further, we believe that SHA erred in its rejection of Alternative 5 earlier in the environmental process.**

Carderock Springs Citizens' Association
P.O. Box 237, Cabin John, MD 20818-0237

www.carderocksprings.net

2) **The noise analysis for the Draft EIS indicates that it is feasible and reasonable to construct a noise wall along both sides of I-495 between Persimmon Tree Lane and Seven Locks Road. The statement of likelihood provided in the Draft EIS does not address whether and how further analysis of the feasibility and reasonableness of the barrier extension would be conducted during the final design of the project given that it is expected to be procured using a public-private partnership (P3) project delivery. The construction of an appropriate noise wall in this location must be committed to as a mitigation in the Final EIS and Record of Decision and incorporated into the P3 Concessionaire's designs. The cost of the wall must be included within the construction budget at no cost to the community.**
3) **The noise analysis fails to adequately evaluate a potential noise wall on the I-495 entrance ramp off of MD 190 to address impacts for certain Carderock Springs residents along Seven Locks Road. The analysis must be augmented to consider the feasibility and reasonableness of noise abatement for these residents as planned and discussed at an SHA public meeting on April 13, 2019.**
4) **The design and the impacts of the noise walls must be further refined. The proposed 30-foot wall's size, location, and aesthetics must be further evaluated for compatibility with the neighborhood and historic setting, particularly for residents whose homes are located above the grade of the Beltway.**
5) **The LOD indicated on the Environmental Resource Mapping (Appendix D) appears to be overly optimistic with noise barriers being located essentially at the LOD limit. This may result in additional potential for property takings and additional tree loss in these areas.**
6) **Regarding the Section 106 analysis, the potential aesthetic and tree loss impacts from the construction of the noise wall is likely to have an adverse impact on the setting of the Carderock Springs Historic District.**
7) **The Section 4(f) analysis fails to consider potential use of Carderock Springs Elementary School, a public recreation site, or the constructive use of the Historic District due to noise.**
8) **The traffic analysis associated with construction and long-term impacts is inadequate and potential impacts are not addressed.**
9) **The DEIS failed to analyze the impacts of the "Elevated Option" as part of an alternative. Its potential for additional visual and noise impacts means that the option should be eliminated.**

Please find a more detailed discussion of these issues below.

Alternatives Analysis

Due to the impacts that the Project would have on our community, both during the operational and construction periods, Carderock Springs Citizens Association is unable to support any of the retained Alternatives. We encourage SHA to push pause on this Project.

If SHA does continue the process, we also note two fundamental issues with the analysis of the alternatives that must be addressed in a Supplemental Draft EIS and that should affect how SHA seeks to make a decision on this project. First, as SHA is well-aware and notes briefly and perfunctorily in the Executive Summary (ES-3), the COVID-19 pandemic has substantially altered the transportation landscape, with significant decreases in tripmaking. Not only has this shift in transportation demand affected the use of roadways generally, and therefore the need for potential expansion, the drop in demand has altered the financial context of privately-operated infrastructure. For example, Transurban has reported an 88% reduction in toll revenues in Q2 2020.[1] The type of P3 approach envisioned by SHA depends on a reliable stream of users to generate necessary revenues. The current conditions call into question the suitability of projections made earlier in this process. 40 CFR 1502.9(c)(ii) requires an agency to prepare a supplemental EIS if "there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or impact." These conditions merit such a re-analysis provided in a supplemental document.

As part of SHA's consideration of the significant new circumstances, SHA should consider whether the Purpose and Need for the Project is still appropriate. Changing travel patterns may fundamentally alter the current traffic baseline and the long-term traffic growth in the region. These changes, such as increased telecommuting, may fundamentally reduce the need for highway expansion to address roadway travel choices or trip reliability. SHA should evaluate this information consistent with the direction in 40 CFR 1502.22 regarding incomplete information. Above all, SHA should give this issue the "hard look" required by NEPA case law (for example, *Marsh v. Oregon Natural Resources Council*).

Second, we believe that SHA erred in excluding Alternative 5 from further consideration, particularly in light of changing conditions. While the DEIS indicates that any change in inputs would affect all Alternatives equally (Appendix B, Pg. 112), the economic impact to the current P3 market suggests that SHA should reconsider whether the financial viability metric for evaluation remains reliable. In a time of uncertain conditions, Alternative 5 achieves approximately half of the estimated travel time benefits (Appendix B, Table 6-7) and has substantially fewer negative impacts (Appendix B, Table 6-19). While Alternative 5 is 86% of the cost of Alternative 10, the most costly alternative, we are concerned that the cost numbers are insufficiently justified – it beggars belief that alternatives that double the lanes constructed, substantially increase the new impervious surface, and require additional grading and sitework would only be 10-14% more expensive than Alternative 5. However, even if Alternative 5's relative costs were correct, we believe that the social and economic costs of the avoided impacts of Alternative 5 would support its consideration on a cost-benefit analysis basis.

Should the Project move forward, we would see Alternative 5 as a viable compromise approach that could ease some of our concerns about the detrimental effects of this Project.

[1] Transurban. 2020. *FY20 Results.* https://www.transurban.com/content/dam/investor-centre/01/FY20-ResultsPresentation.pdf

Noise Analysis and Barriers

Our community is particularly concerned about noise impacts associated with the Project. Past promises to provide barriers along I-495 in our vicinity have not been kept. While we are pleased that the *Noise Analysis Technical Report* (Appendix J) indicates that it is feasible and reasonable to construct noise barriers along both sides of I-495 between Persimmon Tree Lane and Seven Locks Road, we have a number of concerns that the State Highway Administration (SHA) should address in the Final EIS, Record of Decision, and project implementation.

First, SHA should ensure that the noise barriers are constructed along I-495 between Persimmon Tree and Seven Locks Road, on both the north and south sides of the highway and at no direct cost to local residents. Construction of barriers in this location is a necessary mitigation for the adverse noise impacts that we would experience. We believe that, given the findings of the Noise Analysis Technical Report, failure to provide noise barriers under the P3 Project would violate SHA's noise policy, as indicated in Appendix I of the SHA *Highway Noise Abatement Planning and Engineering Guidelines*. The noise barrier design should be advanced to provide sufficient information to our community about the location, height, grading, tree takings, and acoustical effectiveness of the noise barrier. This information is necessary for our community build consensus around the noise barrier approach or, if necessary, to vote on said walls prior to the P3 procurement process. Additionally, the noise study must also include "barrier optimization guidance" based on this advanced noise barrier design and input from the community to provide adequate information to the P3 contractor to design and build an acceptable noise barrier.

Second, SHA should evaluate whether noise barriers would be appropriate along the MD 190 entrance ramp onto the managed lanes from the west side of I-495. Impacted receptors R2-1-1, R2-1-2, and R2-1-3 would receive little insertion loss (1 dB) from the proposed barriers along I-495, yet their noise levels exceed the threshold for mitigation. These impacted receptors are important members of our community who deserve appropriate mitigation. Further, the change in the nature of that ramp to an elevated flyover of the roadway may alter the noise impacts to the detriment of those who live along Seven Locks Road. Representatives of SHA previously indicated at a meeting held on April 13, 2019 that these impacts would be evaluated. There is no evidence in the *Noise Analysis Technical Report* that noise abatement for these impacts has been appropriately considered. Based on the noise conditions, the flyover entrance ramps must include noise barriers that are committed to as mitigations in the Record of Decision and included in the P3 Concessionaire's design.

Third, flaws in the Draft EIS underestimate the benefits of noise barriers for Carderock Springs. We note that the noise study does not include Traffic Noise Model (TNM) modeling of the loudest-hour existing or design-year no-build noise conditions at receptors, which is inconsistent with best practice. Additionally, the noise study does not compare the noise reduction benefits of the replacement noise barrier against the noise barrier that exists near Seven Locks Road today. Further, the below data gaps and errors in the *Noise Analysis Technical Report* should be addressed:

- Neither the noise impact assessment results (Table D-1) nor the noise barrier analysis tables (Tables 4-9 & 4-10) indicate the number of residences that are assigned to each receptor

location. This information should be disclosed to allow the community to properly understand the impact of the proposed project and the feasibility and reasonableness of potential noise abatement. The noise study report does not disclose the number of impacted residences for each receptor, within each NSA, or within the overall project. The study also does not identify the Activity Category of the receptors.

- In NSA 2-01, there are generally minor differences (i.e., 1 dB) between the noise impact assessment results (Table D-1) and the noise barrier analyses table (Table 4-10) without the existing noise barrier. This is assumed to relate to zero-foot noise barriers rather than no noise barriers being used in the TNM model. True no-barrier sound levels should be used to evaluate the insertion loss to more accurately predict insertion loss and the potential benefit of proposed noise barriers.

- There is an inconsistency in the results for receptor R2-01-05 between the impact assessment results (67 dBA for Alts 8, 9, 10, 13B and 13C) and the noise barrier analysis results (55 dBA). The noise barrier analysis indicates there would be no impact and no noise reduction offered to this receptor by a noise barrier that raises the barrier area per benefitted receptor. The noise study should correct this inconsistency.

- In NSA 1-03, there are several receptors (i.e., M1-03-02, M1-03-03, R1-03-04, R1-03-07, R1-03-08, R1-03-09, and R1-03-10) with substantial differences (i.e., approximately 6 to 10 dBA) between results reported for the noise impact assessment (Table D-1) and the noise barrier analyses (Tables 4-9 and 4-10). It is possible that these differences relate to zero-foot noise barriers being modeled rather than no noise barriers in the barrier analysis runs. It is important to properly assess noise barrier insertion loss since it relates to two factors used to determine the reasonableness of a noise barrier; 1) whether noise levels exceed 75 dBA and 2) whether at least 50% or three (whichever is greater) impacted residences are benefited by the barrier.

- The results for R1-03-02 are not included in the noise impact assessment results (Table D-1) and should be reported.

These issues matter because we believe that the calculation of total barrier area per benefited resident is too low for the proposed noise walls. A higher calculation of benefit would improve likelihood of ultimate implementation and would provide opportunity for refinement of design while meeting noise reduction goals. Certain homes on Hamilton Spring Road and Stone Trail Drive are located above the existing grade of I-495, which exposes the residents in these homes to a high level of noise under existing conditions.

As suggested above, the design, placement, and aesthetics of the noise barriers must be considered as part of the mitigation process. The *Noise Analysis Technical Report* calls for 30’ walls on ground

and 22' walls on structure. The *Environmental Resources Mapping* document (Appendix D) indicates that the noise wall would be located along a relative high point that largely corresponds with the right-of-way line. The proximity of a large wall to existing homes, when combined with potential tree loss, could have a negative visual impact on properties and should be addressed through design refinements committed to in the Final EIS. Specifically, we recommend that the noise barriers be built in front of the existing tree line, where possible, to save trees and meet the noise reduction goals.

Limit of Disturbance and Property Impacts

As shown in the *Environmental Resource Mapping* (Appendix D, Maps 59 and 126), the limits of disturbance (LOD) for the Project appear to be overly optimistic at the current level of design. For areas of I-495 adjacent to properties along Hamilton Spring Road and Stone Trail Drive, the LOD appears to be nearly overlapping with the location of the noise barrier. At the current level of planning, at least 10-15 feet of LOD should be assumed, in order to capture potential slope and grading issues. Our concern about the LOD is analogous to a similar LOD concern expressed by the staff of the Maryland-National Capital Park and Planning Commission (M-NCPPC) in their July 15 memorandum.

The result of this LOD approach is that property impacts and potential tree loss from noise barrier construction may be understated. We request SHA review the appropriate LOD in this corridor and provide further documentation of why the LOD is located where it is. Where property impacts are shown, particularly along Thornley Court, Stone Trail Drive, Hamilton Spring Road and on the Carderock Springs Elementary School property, the Final EIS should include, as mitigation, the direction that SHA take practicable steps to eliminate the need for property acquisition in this section of the Project.

Section 106 Analysis

The *Cultural Resources Technical Report* (Appendix G) identifies that the potential adverse effects to Carderock Springs Historic District cannot be fully determined (Table 3-2), while acknowledging that the Project "may result in loss of tree and landscape buffer that could create a diminishment of the design and setting of contributing elements of the district" (Pg. 27). We believe that this loss *would* have an adverse effect on the Historic District. Trees are a character-defining feature of the Historic District. Their substantial removal would alter the visual character of the community, in addition to its bucolic setting. Avoidance measures must be taken to reduce the number of trees affected by the Project and these measures should be documented in detail in the Programmatic Agreement.

However, this analysis fails to identify the adverse effect that noise would have on the Historic District. This effect could be minimized through the proposed noise barriers. However, if not appropriately designed, the noise barriers may be incompatible with the design character of the neighborhood. In conjunction with an effective, "right-sized" barrier, as a neighborhood we would like to see avoidance measures that maintain as many trees as possible since these play such an

important role not only as character-defining features of the neighborhood, but also as an effect means of reducing noise and pollution impacts.

We look forward to continuing to participate in the Section 106 consultation process to resolve the Programmatic Agreement and address these issues. However, we have concerns about the current level of information regarding the Programmatic Agreement and the process ahead. The outline of the Programmatic Agreement is at an extremely high level. The opportunity for Consulting Parties to have meaningful input into the process is not explained, and the proposed processes to address to avoid and minimize impacts are similarly not described. Our community needs more clarity on the proposed next steps to address these, and other issues, in the Programmatic Agreement.

Section 4(f) Evaluation: Historic District and Elementary School

The *Draft Section 4(f) Evaluation* (Appendix F) indicates that there is "No Use" of the Carderock Springs Historic District. This determination is premature due to the unresolved questions related to the appropriateness of the Limits of Disturbance (LOD) and inconsistent with the findings of the Draft Section 106 analysis. As noted above, more design work is needed to determine whether there are any adverse effects to the Historic District from the construction of the Project. Advancement of this design and resolution of the LOD is needed to confirm that there is no use of the Historic District.

In the absence of such resolution, there are potential Section 4(f) uses, including constructive use, to the Historic District:

- Incorporation of property in the Historic District for the construction of noise barriers and other Project elements.
- Constructive use of the Historic District due to the noise impacts associated with the Project. The National Register nomination form identifies the Historic District as a defining example of "situational modernism." This term denotes a style of modernist design that emphasized modern architecture in the context of a pastoral setting. Disruption to the pastoral setting from the noise impacts of the Project could result in a constructive use of the historic site if not appropriately mitigated through noise barriers.

Carderock Springs Elementary School provides publicly accessible playing fields, and therefore qualifies as a public recreation area for Section 4(f) review under 23 CFR 774.17. No analysis of the impacts of the Project on the Elementary School is provided in the Draft Section 4(f) Evaluation. However, there is potential for use of the Section 4(f) resource.

For the Action Alternatives under consideration, all envision some use of the southwest corner of the public school property, as shown in the maps in the *Environmental Resource Mapping* (Appendix D). At the scale of the drawings provided and due to the larger issue related to an appropriate LOD, it is difficult to determine whether any impacts to the parking lot would occur. The loss of spaces in the parking lot may diminish access to the public playing fields, which are regularly used for weekend recreational sports.

Additionally, noise disturbances from the Project may create a constructive use of the property. As a public play area designed for younger children, users of the fields at Carderock Springs Elementary School are particularly sensitive to noise disturbance.

Further, the Environmental Protection Agency in its report entitled *Best Practices for Reducing Near-Road Pollution Exposure at Schools* has identified the inclusion of roadside barriers and vegetation along the right-of-way as means to reduce the adverse impact of air pollutants generated by traffic, which has been linked to a wide variety of short- and long-term health effects, including asthma, reduced lung function, impaired lung development in children and cardiovascular effects in adults.[2] While the macroscopic air quality analysis indicated corridor-wide air quality benefits, the microscopic impacts on schools like Carderock Springs Elementary School should be considered.

Section 4(f) analysis of Carderock Springs Elementary School should be provided in the Final EIS. A 4(f) use could be avoided through the installation of an appropriately sited noise barrier and preservation of trees and other vegetation protecting the Elementary School.

Traffic and Construction Impacts

The *Environmental Resource Mapping* (Appendix D) appears to indicate that the existing Persimmon Tree Road bridge over I-495, the I-495 bridge over Seven Locks Road, and the River Road (MD 190) bridge over I-495 would all need to be replaced. There would also be substantial reconstruction of the MD 190/I-495 interchange (Exit 39). The construction period information presented in the Draft EIS is insufficient to understand what impact these disruptions may have on Persimmon Tree Road, Seven Locks Road, and MD 190. In particular, the construction of the new entrance and exit ramps at elevated levels at the MD 190 interchange would likely impact traffic proceeding along the main line of MD 190, as well as access onto and off of I-495. The Final EIS should provide more information regarding these construction-period roadway impacts. As mitigation for the expected disruption, any impacts to these roadways should be mitigated through appropriate construction communication and coordination activities documented in a Construction Management Plan.

The *Traffic Analysis Technical Report* (Appendix C) indicates impacts to local roadways in the vicinity of Carderock Springs (Figure 5-73). According to the information provided, both River Road (MD 190) and Clara Barton Parkway would see a greater than 10% increase in delay due to the implementation of two managed lanes. This increase in delay represents a major adverse impact for Carderock Springs. These two routes represent the main arterials into the District of Columbia from the neighborhood. These impacts are not documented in the Draft EIS. Rather, the Draft EIS only notes the regional positive impacts to local road traffic (Pg. 4-17). The impacts to these local roads must be further discussed in the Final EIS and must be mitigated, either through improvements to these roadways or policies to reduce their levels of traffic congestion.

[2] EPA. 2015. *Best Practices for Reducing Near-Road Pollution Exposures at Schools.* Accessed at: https://www.epa.gov/sites/production/files/2015-10/documents/ochp_2015_near_road_pollution_booklet_v16_508.pdf.

Elevated Option

The *Alternatives Technical Report* (Appendix B) identifies that an elevated option for managed lanes is being considered as a "means and method" for implementing the managed lanes (Pg. 60). While Appendix B indicates that this option is not a standalone alternative, this option would have substantially different construction, noise, and visual impacts on Carderock Springs, were it to be pursued as part of a Preferred Alternative. These impacts are not specifically analyzed in the Draft EIS. However, because of the likely impacts from an elevated structure, Carderock Springs Citizens Association opposes an Elevated Option and recommends that it be eliminated in the Final EIS. If SHA retains this option the analysis of its impacts would qualify as "significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or impact,"

(40 CFR 1502.9) which would require a Supplemental DEIS under both the regulations and the standard articulated in *Marsh*.

Thank you for your consideration of our community's comments and concerns. In particular, we look forward to working with SHA on the installation of appropriate noise barriers to improve the livability of our highway-adjacent, historic community. We will continue to remain engaged through the NEPA and Section 106 processes.

Sincerely,

Jack Orrick
CSCA President

CC: Governor Lawrence J. Hogan
Comptroller Peter V.R. Franchot
Treasurer Nancy Kopp
County Executive Marc Elrich
Councilmembers Andrew Friedson, Gabe Albornoz, Evan Glass, Will Jawando, and Hans Riemer
Senator Susan Lee and Delegates Ariana Kelly, Marc Korman, and Sara Love

Carderock Springs Citizens' Association
P.O. Box 237, Cabin John, MD 20818-0237

www.carderocksprings.net